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**Report:** 2022 Coal Mountain Mine Local Aquatic Effects Monitoring Program (LAEMP) Report

**Overview:** This report summarizes the results of the Coal Mountain mine Local Aquatic Effects Monitoring Program (CMm LAEMP), a study that was initiated after benthic invertebrate community diversity and abundance was found to be lower than expected downstream of Coal Mountain.

This report was prepared for Teck by WSP Canada Inc.

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Future studies will be made available at [teck.com/elkvalley](http://teck.com/elkvalley).



**REPORT**

**2022 Coal Mountain Mine Local Aquatic Effects  
Monitoring Program (LAEMP) Report  
(EVP S8-3-3 and 9-5)**

Submitted to:

**Teck Coal Limited**

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## Distribution List

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## Executive Summary

Teck Coal Limited (Teck) conducts several programs to monitor and evaluate potential effects of mining operations in the Elk Valley on aquatic receptors. Some of these programs, such as the water quality monitoring and regional aquatic effects monitoring program (RAEMP), provide spatially and temporally comprehensive monitoring and assessment of potential effects, whereas many other programs are designed with targeted spatial and/or temporal coverage. Teck conducts local aquatic effects monitoring programs (LAEMPs) to address local scale uncertainties associated with potential mine related aquatic effects. The study questions addressed by the LAEMPs are unique to each program and distinct from those of the regional programs, such as the RAEMP. The overarching objective of all LAEMPs is to reduce uncertainty and thereby support effective environmental management decisions. Therefore, as study questions are answered and uncertainty is reduced, LAEMPs are intended to eventually be discontinued.

A LAEMP was initiated for Teck's Coal Mountain Mine (CMm; currently in care and maintenance) in 2018 "to assess the magnitude and extent of influence from CMm on water quality, calcite, and benthic invertebrate communities downstream of CMm, and to assess what factors are contributing to the observed effects" (per 25 August 2018 and 4 April 2019 amendments to Permit 107517). Sediment and benthic invertebrate tissue selenium (BIT Se) are also monitored under the CMm LAEMP to support the interpretation of potential effects to the benthic invertebrate community (BIC). Sampling began at the CMm study sites in September 2018 and was repeated annually in September between 2019 and 2022.

There are two study questions considered for the CMm LAEMP.

### Study Question 1

***Study Question 1. What are the magnitude and spatial extent of influence from CMm on water quality, calcite, sediment quality, and benthic invertebrate communities in Michel Creek downstream of CMm, how are these conditions changing over time, and are the conditions expected?***

The highest concentrations of mine-influenced water quality constituents were observed at the station closest to CMm on Corbin Creek (CORCK), followed by the first station downstream of CMm on Michel Creek (0.94 kilometres [km] downstream of the Corbin Creek confluence; MIDCO). A declining gradient of concentrations with distance downstream was observed for most mine-influenced water quality constituents; for nickel in particular, concentrations returned to reference conditions after MIDAG (5.27 km downstream of the Corbin Creek confluence). Dissolved nickel concentrations increased between 2012 and 2018, and then decreased between 2018 and 2022 as expected based on changes in mine water management with the transition to Care and Maintenance. In 2022, nickel was the only constituent identified as having the potential to cause effects to the BIC in Michel Creek. Peak nickel concentrations exceeded the proposed level 3 nickel benchmark at CORCK and MIDCO, and exceeded the proposed level 2 nickel benchmark at MIDAG. At other reference and mine-influenced stations, nickel concentrations were below the proposed level 1 nickel benchmark.

Calcite presence in 2022 in Corbin Creek was higher than in Michel Creek, where it remained consistently low in 2022 compared to previous years and was within the regional normal range.

Sediment metal and polycyclic aromatic hydrocarbon (PAH) concentrations in 2022 were generally within the range measured in previous years. Both metal and PAH concentrations were above the lower British Columbia



working sediment quality guidelines (BC WSQG) at both reference and mine influenced stations in 2022, and a subset of these were above the upper BC WSQG at CORCK and at stations downstream of CORCK on Michel Creek (MIDCO, MIDAG and MIULE). As with water quality, the highest concentrations in sediment generally occurred at CORCK and then decreased downstream. Sediment quality is considered unlikely to affect BIC due to the predominantly erosional habitat and limited potential for exposure to sediment-associated constituents.

In 2022, organoselenium was below detection at the CM\_MC2, with the exception of samples collected in the third quarter of 2022, where MeSe IV was detected above the Level 1 screening value but below the Level 2 screening value. At concentrations below 0.025 µg/L, organoselenium is unlikely to cause a discernable shift in benthic invertebrate selenium concentrations (ADEPT et al. 2023). Concentrations of BIT Se were within the regional normal range at reference and almost all mine influenced stations in 2022 and did not exhibit a spatial pattern consistent with observed effect to the BIC. BIT Se concentrations were less than the lowest level 1 benchmark at all stations, below the biological trigger thresholds, and lower than expected based on water quality data from stations on Corbin and Michel creeks. Based on these results, selenium concentrations are not expected to negatively impact the BIC or fish communities in Michel Creek; therefore, BIT Se does not need to be tracked under the Adaptive Management Plan framework at stations on Michel Creek within the CMm LAEMP study area.

Richness and abundance of BIC were similar among reference and mine-influenced stations and were generally within or above the site-specific and/or regional normal ranges in Michel Creek in 2022. The proportion of Ephemeroptera, Plecoptera and Trichoptera taxa (% EPT) and proportion of Ephemeroptera taxa (% E) were lower at CORCK and MIDCO compared to the downstream and reference stations and below the regional and site-specific normal ranges in 2022. All other stations on Michel Creek had % EPT and % E values within the normal ranges. Benthic invertebrate endpoint values in 2022 were not significantly lower compared to previous years at mine-influenced stations. Ephemeroptera dominated the communities at mine-influenced stations in Michel Creek and at the reference stations, except at MIDCO and CORCK, where Diptera dominated. At MIDCO, the reduction in % E (but not E abundance) appears related to increases in more tolerant taxa (e.g., increase in Diptera abundance) rather than a decline in more sensitive taxa (i.e., no observed change in Ephemeroptera abundance). These patterns in BIC endpoints indicate that the mine-related influence on EPT taxa is localized to the area immediately downstream of CMm. BIC endpoints were all within the regional and site-specific normal ranges by MIDAG, which is 5.27 km downstream of the Corbin Creek confluence.

Overall, in Michel Creek, water quality (as indicated by reductions in nickel concentrations) is improving, as expected based on the SRK modelled data. Calcite is within the regional normal range. Sediment quality data were generally within the range measured in previous years and declined in a downstream gradient from the Corbin Creek confluence in Michel Creek. In general, BIC endpoints and BIT Se concentrations were within or above the regional and/or site-specific normal ranges in 2022, except for % EPT and % E, which were below normal ranges at the station closest to the Corbin Creek confluence, indicating the effects on the BIC are localized to the area around CMm.

## Study Question 2

***Study Question 2. How do spatial and temporal patterns in the benthic invertebrate communities correspond to water quality, calcite, sediment quality, and other potential stressors, and what does this tell us about what factors are causing observed effects?***

Habitat variables (e.g., water depth, velocity, sediment particle size, and TOC) were similar between reference and mine-influenced stations and were unlikely to have caused the differences observed in % EPT and % E at the stations downstream of CMm in Michel Creek. It is also unlikely that calcite presence and concretion in Michel

Creek was a factor in the lower % EPT and % E at MIDCO, because calcite index values were low between 2012 and 2022 and within the reference normal range in Michel Creek. However, calcite presence may have been a factor in effects observed in BIC endpoints in Corbin Creek because the presence of calcite in Corbin Creek may reduce habitat availability for benthic invertebrates.

Spatial and temporal patterns in BIC endpoints corresponded more closely with mine-influenced water quality than with sediment quality or calcite, supporting the interpretation that observed patterns in the BIC are linked to water quality. Spatial comparisons indicated correlations of % EPT and % E with aqueous concentrations of nickel across stations and nickel was the only water quality constituent with concentrations in Michel Creek above invertebrate benchmarks. In 2022, peak nickel concentrations were above the proposed level 3 nickel benchmark for invertebrates in Corbin Creek (CORCK) and at the first Michel Creek station downstream of CMm (MIDCO; 0.94 km downstream of the Corbin Creek confluence), and above the proposed level 2 nickel benchmark for invertebrates at Michel Creek downstream of Andy Good Creek (MIDAG; 5.27 km downstream of the Corbin Creek confluence). Stations downstream of MIDAG had nickel concentrations below the proposed level 1 nickel benchmark for invertebrates. Patterns of % E relative to nickel concentrations were consistent with those described in the nickel benchmark derivation (WSP Golder 2022c).

Early studies in the area further support the interpretation that nickel is responsible for observed BIC changes. The findings of the 2019 to 2022 CMm LAEMPs and the chronic toxicity testing program support findings that nickel is likely responsible for the BIC changes. Results of the 2022 LAEMP suggest that BIC effects from nickel in Michel Creek are localized near CMm on Michel Creek and do not extend farther on Michel Creek than 5.27 km downstream.

## Conclusions and Recommendations

The study questions for the CMm LAEMP have been adequately addressed and it is considered unlikely that further investigation will provide any new insights or change the interpretation outlined in this LAEMP report. Confidence in this conclusion is strengthened by the incorporation of results from the comprehensive analysis used to derive site-specific benchmarks for nickel (WSP Golder 2022c), the reproducibility of results across multiple study years (Golder 2019; 2020a; 2021a; WSP Golder 2022a), and the corroboration of data across multiple lines of evidence (e.g., water quality, toxicity testing, BIC monitoring). Further, the results of the 2022 CMm LAEMP are supported by findings from other monitoring conducted by Teck such as the routine water quality and chronic toxicity monitoring programs.

It is recommended that monitoring of the aquatic environment at CMm continue, to provide a basis for tracking expected improvement over time related to mine water management and other factors, and to allow detection of potential unexpected changes. However, the study questions for ongoing monitoring align with those of the regional monitoring programs, and it is therefore recommended that further monitoring, interpretation, and reporting be conducted under the RAEMP, calcite, surface water quality, and chronic toxicity monitoring programs. Because the CMm LAEMP study questions have been answered, it is recommended that reporting under the CMm LAEMP be discontinued.

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## Abbreviations and Units of Measure

Abbreviation	Definition
%	percent
<	less than
≤	equal to or less than
>	greater than
µS/cm	microsiemens per centimetre
cm	centimetre
°C	degree Celsius
km	kilometre
m	metre
mm	millimetre
m/s	metres per second
min	minute
no.	number
min	minute
mg/L	milligrams per litre
mg-N/L	milligrams nitrogen per litre
mg/kg dw	milligram per kilogram dry weight
µg/L	micrograms per litre
µm	micrometre
ADIT	Aquatic Data Integration Tool
ALS	ALS Environmental
AMP	Adaptive Management Plan
ANOVA	Analysis of Variance
BC	British Columbia
BC WQGs	British Columbia Water Quality Guidelines
BIC	Benthic Invertebrate Community
BIT	Benthic Invertebrate Tissue Chemistry
BIT Se	Benthic Invertebrate Tissue selenium
CABIN	Canadian Aquatic Biomonitoring Network
CCME	Canadian Council of Ministers of the Environment
CMm	Coal Mountain mine
CMO	Coal Mountain Operations
CP'	calcite presence prime
DO	dissolved oxygen
DQO	data quality objective
dw	dry weight
d/s	downstream
E	Ephemeroptera
EA	Environmental Assessment
ECCC	Environment and Climate Change Canada

Abbreviation	Definition
e.g.	for example
EFN	Environmental Flow Needs
EMC	Environmental Monitoring Committee
ENV	British Columbia Ministry of Environment and Climate Change Strategy
EPT	Ephemeroptera, Plecoptera, and Trichoptera
ETMF	exposure and toxicity-modifying factors
et al.	and others
EVO	Elkview Operations
EVWQP	Elk Valley Water Quality Plan
FEQGs	Federal Environmental Quality Guidelines
FRO	Fording River Operations
GHO	Greenhills Operations
Golder	Golder Associates Ltd.
GPS	Global Positioning System
i.e.,	that is
KUs	key uncertainties
LA-ICPMS	Laser Ablation with Inductively Coupled Plasma Mass Spectrometry
LAEMP	local aquatic effects monitoring program
LCO	Line Creek Operations
LMW	low molecular weight
Minnow	Minnow Environmental Inc.
MQ	Management Question
n/a	not applicable
PAH	polycyclic aromatic hydrocarbon
P	probability
QA	quality assurance
QC	quality control
RAEMP	regional aquatic effects monitoring program
RNR	regional normal range
SD	standard deviation
SPO	Site Performance Objective
SS NR	site-specific normal range
SRK	SRK Consulting Inc.
TDS	total dissolved solids
Teck	Teck Coal Limited
TIE	toxicity identification evaluation
Trich	TrichAnalytics Inc.
TOC	total organic carbon
UTM	Universal Transverse Mercator
u/s	upstream
WCT Se	Westslope Cutthroat Trout muscle tissue selenium
WSP	WSP Canada Inc.
WSQG	Working Sediment Quality Guidelines

## 1.0 INTRODUCTION

WSP Canada Inc. (WSP) is pleased to provide Teck Coal Limited (Teck) with the following report on the 2022 local aquatic effects monitoring program (LAEMP) for Teck's Coal Mountain mine (CMm, formerly Coal Mountain Operations [CMO]) in the Elk Valley. This study represents the fourth year of monitoring under the approved study design (Golder 2019, 2020, 2021a; WSP Golder 2022a) to satisfy requirements of Permit 107517.

### 1.1 Background

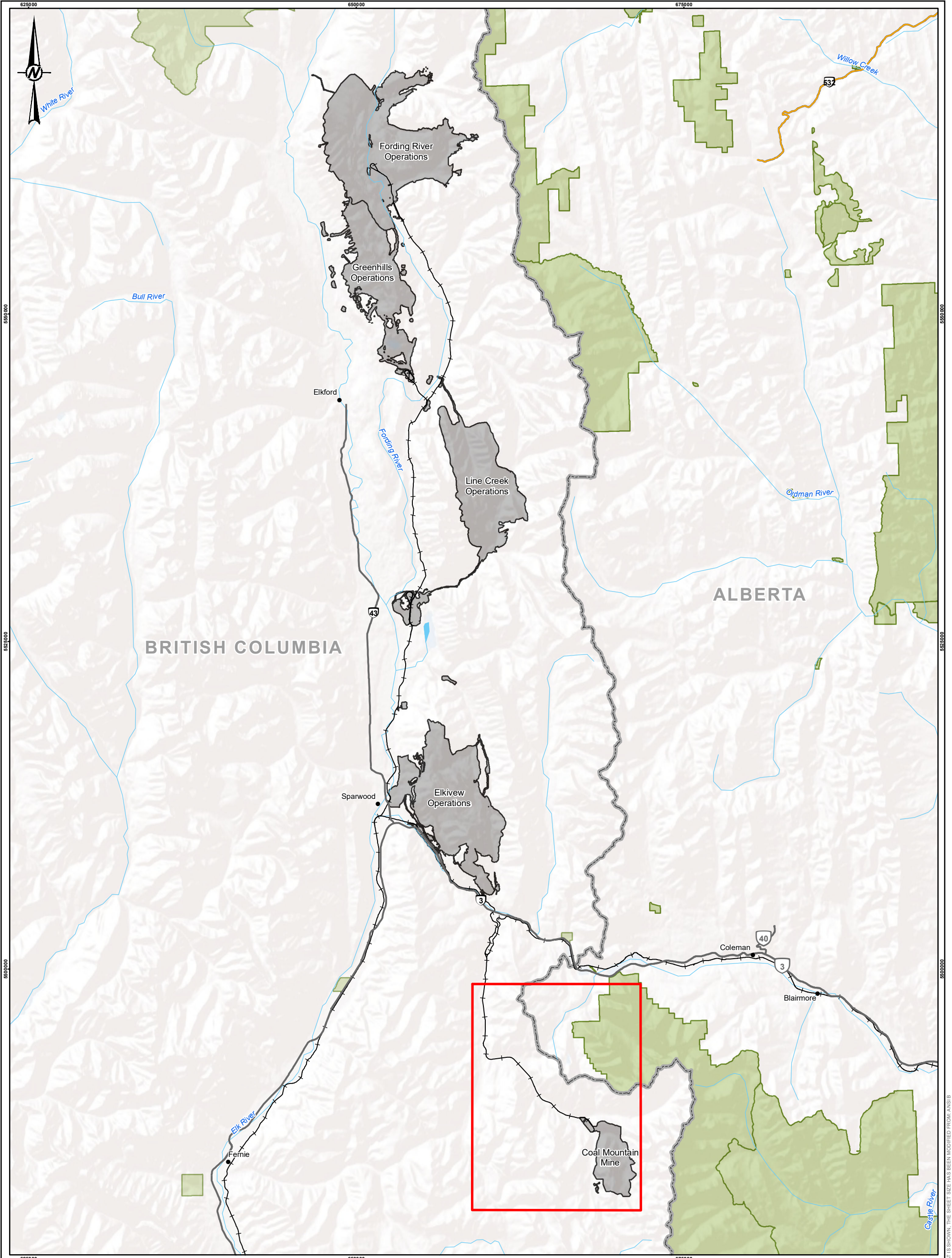
Teck maintains and operates five steelmaking coal mines in the Elk River watershed: Fording River Operation (FRO), Greenhills Operation (GHO), Line Creek Operation (LCO), Elkview Operation (EVO), and CMm (Figure 1.1-1). Discharges from the mines are authorized by the British Columbia Ministry of Environment and Climate Change Strategy (ENV) through Permit 107517, issued under the provisions of the *Environmental Management Act*.

Permit 107517 requires that Teck evaluate potential effects on aquatic life associated with the mines in the Elk River watershed via a regional aquatic effects monitoring program (RAEMP). The RAEMP (Minnow 2015, 2018a,b, 2020a,b) and its predecessor programs (Minnow et al. 2007, 2011, 2012; Minnow 2014) provide comprehensive routine annual monitoring and assessment of potential mine-related effects on the aquatic environment downstream from Teck's coal mines in the Elk Valley, every three years. Teck also conducts a variety of other programs that are spatially and temporally comprehensive to monitor, evaluate, and/or manage the aquatic effects of mining operations within the Elk Valley, including the water quality monitoring program, regional and site-specific groundwater monitoring programs, flow monitoring plan, regional calcite monitoring program, chronic toxicity testing program, fish and fish habitat management program, tributary evaluation and management plan, and supporting studies to the RAEMP (Minnow 2020a).

In addition to the regional monitoring, Teck conducts LAEMPs to address local-scale, sometimes transient, uncertainties associated with potential mine-related aquatic effects. The study questions addressed by the LAEMPs are unique to each program and distinct from those of the RAEMP. The ultimate objective of all LAEMPs is to reduce uncertainty in a localized area and thereby support effective environmental management decisions. Investigations undertaken in the LAEMPs can also inform refinement of the RAEMP (e.g., by developing refined interpretive tools or identifying locations of interest for ongoing inclusion in RAEMP monitoring). As the LAEMP's study questions are answered and uncertainty is reduced, the intent is that the scope of the LAEMP will be progressively reduced. All LAEMPs are intended to eventually be discontinued.

The CMm LAEMP was initiated by Teck in response to findings from the RAEMP between 2015 and 2017 (Minnow 2018 a,b), the routine chronic toxicity testing program (Golder 2018a), and an aquatic health assessment conducted to support planning for care and maintenance at CMm (Golder 2017) and was permitted via Permit 107517 in 2018. Specifically, the results of RAEMP monitoring between 2015 and 2017 indicated alteration of the benthic invertebrate community (BIC) in Corbin Creek and in Michel Creek immediately downstream of Corbin Creek relative to stations upstream in Michel Creek, local reference areas, and the regional normal range. Concurrently, the chronic toxicity testing program reported effects to the invertebrate test species *Hyalella azteca* and *Ceriodaphnia dubia* exposed to water collected from the compliance monitoring point in Michel Creek downstream of Corbin Creek. Follow-up testing attributed the observed chronic toxicity test responses to nickel (Nautilus Environmental 2018) and an evaluation of published toxicity data for nickel supported the interpretation that nickel could be the cause of observed changes to the BIC (Golder 2017).

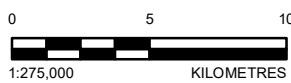




- LEGEND**
- CITY / TOWN / COMMUNITY
  - PRIMARY HIGHWAY
  - SECONDARY HIGHWAY
  - RAILROAD
  - WATERCOURSE
  - BRITISH COLUMBIA-ALBERTA BOUNDARY
  - COAL MINING OPERATION
  - PARK / PROTECTED AREA
  - PROJECT LOCATION
  - WATERBODY

**REFERENCE(S)**

BASE DATA OBTAINED FROM TECK COAL LIMITED AND FROM GEOGRATIS, © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED. DATUM: NAD 83 PROJECTION: UTM ZONE 11



CLIENT  
**TECK COAL LIMITED**

PROJECT  
**COAL MOUNTAIN MINE (CMM) LOCAL AQUATIC EFFECTS MONITORING PROGRAM (LAEMP)**

TITLE  
**Location of Coal Mountain Mine and Coal Mountain Mine Local Aquatic Effects Monitoring Program Study Area**

CONSULTANT	YYYY-MM-DD	2022-06-30
DESIGNED	KH	
PREPARED	DR	
REVIEWED	KH	
APPROVED	RS	



PROJECT NO.  
**22574542**

CONTROL  
**M\_WQ\_001**

REV.  
**0**

FIGURE  
**1.1-1**

The objective of the CMm LAEMP was specified in amendments to Permit 107517 that were issued by ENV on 25 August 2018 and 4 April 2019. Specifically, the CMm LAEMP was required to “assess the magnitude and extent of influence from CMm on water quality, calcite, and benthic invertebrate communities downstream of CMm, and to assess what factors are contributing to the observed effects”. The 2019 CMm LAEMP study design (Golder 2019) was developed to address this permit requirement. Sampling began in September 2018 under a preliminary study design. Finalization of the study design was completed in 2019, with updates in 2020, 2021, and 2022 (Golder 2020a; 2021a; WSP Golder 2022a). Sampling was conducted under the approved study design between September 2019 and September 2022.

As discussed at the May 2023 Environmental Monitoring Committee (EMC) meeting and presented herein, consistent results have been observed throughout the CMm LAEMP cycle (i.e., 2018 to 2022) and the LAEMP’s study questions can now be answered with a high degree of confidence (as presented in the next section). Therefore, per the original intent of LAEMP to address local-scale uncertainties, the 2022 results presented herein support the recommendation to discontinue the CMm LAEMP. It is proposed that monitoring and assessment for the CMm study area return to regional programs such as the RAEMP, calcite, surface water quality, and toxicity monitoring programs.

## 1.2 Study Questions and Scope

The CMm LAEMP study questions were developed in consultation with the EMC to meet the objectives specified in the 25 August 2018 and 4 April 2019 amendments to Permit 107517. The study questions define the scope of the CMm LAEMP by explicitly defining the intended use of the data. The CMm LAEMP study questions are:

- 1) *What are the magnitude and spatial extent of influence from CMm on water quality, calcite, sediment quality, and benthic invertebrate communities in Michel Creek downstream of CMm, how are these conditions changing over time, and are the conditions expected?*
- 2) *How do spatial and temporal patterns in the benthic invertebrate communities correspond to water quality, calcite, sediment quality, and other potential stressors, and what does this tell us about what factors are causing observed effects?*

The study questions are intended to address uncertainties and information gaps identified by the EMC and the CMm care and maintenance aquatic health assessment (Golder 2017). The study questions address the nature, extent, and cause(s) of observed effects on biota in Michel Creek and are intended to inform decisions regarding water quality management at CMm. In addition to addressing the study questions, this report integrates information from other relevant monitoring studies in the Michel Creek watershed to help characterize and understand potential effects of activities at CMm on fish and aquatic-dependent wildlife.

## 1.3 Linkages to Adaptive Management

As required in Permit 107517 Section 10, Teck developed an Adaptive Management Plan (AMP) to support implementation of the Elk Valley Water Quality Plan (EVWQP) to achieve water quality targets (including calcite targets), ensure that human health and the environment are protected, and where necessary, restored, and to facilitate continuous improvement of water quality in the Elk Valley. The AMP was most recently updated in December 2021 (Teck 2021a). Adaptive management is a systematic, rigorous approach to environmental management that maximises learning about uncertainties while simultaneously striving to meet multiple management objectives and adapt management actions based on what is learned. The adaptive management cycle comprises six stages: assess, design, implement, monitor, evaluate and adjust. The AMP identifies six



Management Questions (MQ) that are re-evaluated at regular intervals. Evaluating these MQs collectively articulates whether Teck is on track to meet the environmental objectives of the EVWQP.

The CMm LAEMP was designed to monitor conditions in Michel Creek to assess the magnitude and extent of influence from CMm on water quality, calcite, and benthic invertebrate communities downstream of CMm, and to assess what factors are contributing to the observed effects. The annual LAEMP is used to track issues for which a potential need for an adjustment has been identified. The LAEMP uses the AMP, which includes an assessment of biological triggers, to identify these issues. Biological triggers are intended as a simple and consistent way to flag potential unexpected monitoring results that may require additional investigation and adjustment. Annual LAEMP results are reported on June 30 of each year for the preceding calendar year.

In addition to addressing questions specific to the CMm LAEMP on an annual basis, aquatic monitoring data from the LAEMP will contribute to the broader dataset assessed every three years within the RAEMP. The RAEMP is designed to evaluate MQ 5: *“Does monitoring indicate that mine-related changes in aquatic ecosystem conditions are consistent with expectations?”* Data from the LAEMP and RAEMP also contribute to answering MQ 2: *“Will aquatic ecosystem health be protected by meeting the long-term Site Performance Objectives (SPO)?”*

Biological triggers were finalized in 2021 (Teck 2021a) under Management Question 5. Assessment of the biological triggers is provided in Appendix A; in brief, biological triggers were developed for three measurement endpoints:

- 1) percent Ephemeroptera, Plecoptera, and Trichoptera (% EPT)
- 2) benthic invertebrate tissue selenium (BIT Se)
- 3) Westslope Cutthroat Trout muscle tissue selenium (WCT Se)

The third trigger does not apply directly to the CMm LAEMP, because fish tissue selenium is not included in the CMm LAEMP, but is considered as supporting information.

The 2022 CMm LAEMP represents the third time that biological triggers will be evaluated and reported for CMm. Results from this report will be used to determine whether a biological trigger has been reached. Reaching a trigger may lead to an adjustment (Stage 6: Adjust) using the response framework. This is the main report for conveying biological trigger results under the AMP. Implementation of management actions is not constrained to the AMP or LAEMP annual reporting cycles but may be (and have been) triggered at any time during the monitoring and reporting cycle.

Identifying and reducing environmental management uncertainty is a foundational aspect of adaptive management. Therefore, the AMP identifies key uncertainties (KUs) that, as reduced, fill gaps in current understanding to support the achievement of the EVWQP objectives. Aquatic monitoring data assist in reducing KU 5.1: *“How will monitoring data be used to identify potentially important mine-related effects on the aquatic ecosystem?”* and KU 2.1 *“How will the science-based benchmarks be validated and updated?”* Progress on reducing these KUs, and associated learnings, are described in annual AMP reports (Teck 2021a). Please refer to the 2021 AMP Update (Teck 2021a) for more information on the adaptive management framework, including Management Questions, key uncertainties and continuous improvement. Linkages between the AMP and other EVWQP programs, and details about AMP reporting are also discussed in the 2021 AMP Update (Teck 2021a). Progress on gaining new knowledge and reducing KUs is described in annual AMP reports (submitted July 31) and evaluating the answers to MQs are reported in MQ evaluation reports (various submission dates).

## 1.4 Site Activities and Water Management at CMm

During operations at CMm, the mine consisted of four pits: 6 Pit, 14 Pit, 34 Pit, and 37 Pit, with mining of 14 Pit ceasing in 2006, 34 Pit in 2013, and 37 Pit and 6 Pit in 2018 (Figure 1.4-1; Teck 2017). Coal Mountain concluded active mining and processing operations on 30 April 2019 and made the transition into care and maintenance on 1 May 2019. Since ceasing operations and moving into care and maintenance the mine has been working on dewatering of the pits (see Appendix B for details). Current water management practices direct water to backfilled and dormant pits or to established and permitted mining contact water collection systems, which eventually discharge to Corbin Creek. Water levels in dormant or inactive pits are managed for controlled release in accordance with approved pumping plans.

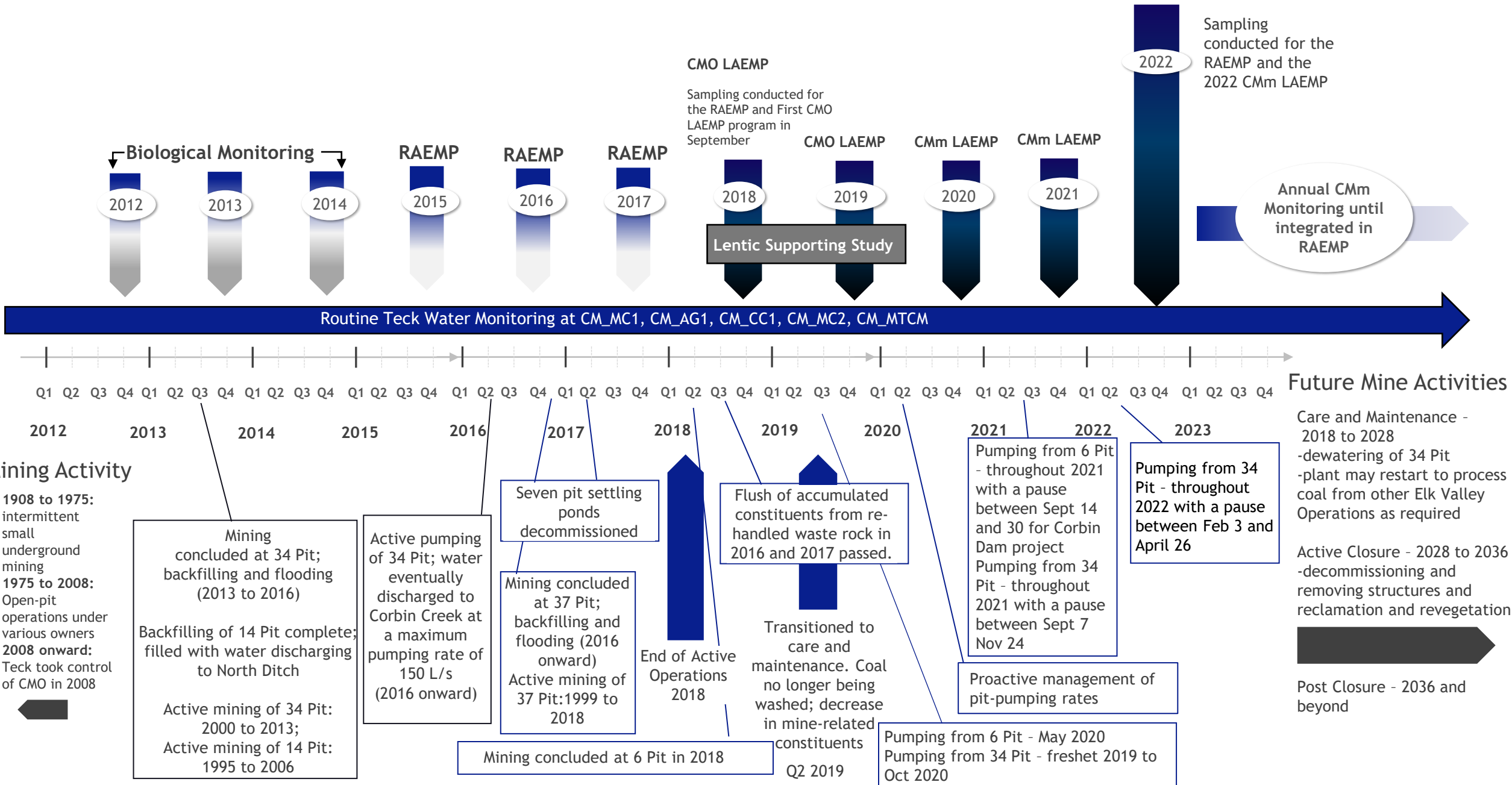
Between 2016 and 2018, concentrations of several constituents (see Appendix B for details) were identified as increasing in water discharged from Corbin Dam at monitoring station CM\_CCPD (or CM\_CCOFF<sup>1</sup>) and at the Main Interceptor Sedimentation Ponds (CM\_SPD; Teck 2019). These constituents were associated with the flush of blasting residues and with metal leaching. Between 2018 and 2019, a decrease in some of these constituents was measured at CM\_CCPD and at CM\_SPD resulted in an improvement to water quality downstream of CMm in Corbin Creek and Michel Creek (Teck 2019). The decrease was in part attributed to completion of the flush of accumulated constituents that resulted from the re-handling of waste rock in 2016 and 2017.

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<sup>1</sup> CM\_CCOFF is the alternate sampling location for CM\_CCPD because CM\_CCPD is no longer safe to access. Teck has amended the monitoring location to CM\_CCOFF.

**Figure 1.4-1: Timeline of Mining, Water Management, and Monitoring in the CMm Area**

**Current Study: CMm LAEMP**





Consistent with the chronic toxicity testing program (WSP 2023a), nickel has been identified as a causal factor for adverse responses in Michel Creek immediately downstream of Corbin Creek. The main loading sources of nickel are from 34 Pit and the Corbin Creek Rock Drain. Proactive water management and pit-pumping of 34 Pit in recent years has resulted in an improvement in water quality and nickel concentrations downstream of CMm since 2017.

In addition to the influence of past and current activities at CMm on Michel Creek, there are other anthropogenic influences that cannot clearly be accounted for, including logging. These potential influences have been taken into consideration when interpreting the 2022 CMm LAEMP data; however, they are believed to represent minor uncertainties in the interpretation of CMm results. Despite these uncertainties, results to date suggest that the greatest influence on water quality in Michel Creek has been mining activities.

## 1.5 Conceptual Site Model

A conceptual site model for the CMm LAEMP is shown in Figure 1.5-1, which illustrates the relationships between activities at CMm and the ways in which those activities might alter the environment and affect biological receptors. The conceptual model identifies potential stressors, pathways, and receptors for potential effects of CMm on water quality and aquatic biota in Michel Creek. Figure 1.5-1 also summarizes monitoring conducted under the CMm LAEMP and the RAEMP to evaluate potential effects to aquatic biota.

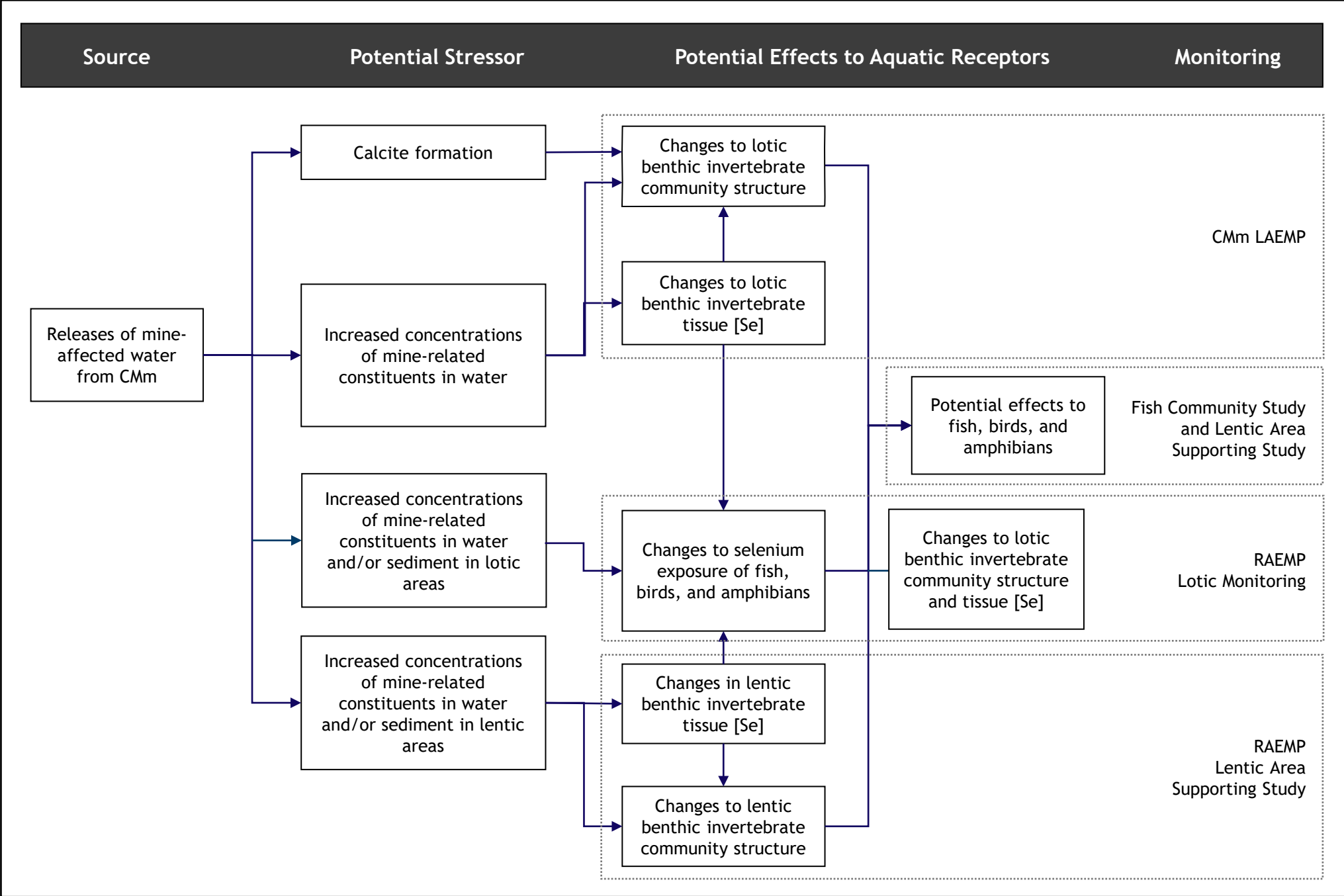
The CMm LAEMP evaluates pathways related to the study questions by monitoring the following:

- 1) **Supporting Environmental Variables:** to provide information on water quality, calcite, sediment quality, and physical habitat characteristics to aid in the interpretation of biological data.
- 2) **Benthic Invertebrate Community (BIC):** to characterize potential effects of CMm on the BIC resulting from changes in water and sediment quality or other mine-related stressors.
- 3) **Benthic Invertebrate Tissue (BIT) Chemistry:** to provide a measure of selenium exposure to aquatic biota over time, relative to historical conditions, relative to reference areas, and relative to benchmarks for potential effects.

Although the conceptual model depicted in Figure 1.5-1 includes pathways for exposure of benthic invertebrates to both water and sediment, the interpretation of data for the CMm LAEMP focuses on the aqueous exposure pathway. Work completed under the RAEMP (Minnow 2020a) and the lotic sediment toxicity program (Golder 2020b) has highlighted uncertainty around the relevance of lotic sediment quality to the BIC. Importantly, BIC samples are collected from riffle habitats that are highly erosional and contain very little to no surficial fines. The dominant taxa in these areas (i.e., Ephemeroptera, Plecoptera, Trichoptera) tend to be associated with the hard gravel and cobble substrates that predominate in erosional areas. Depositional areas are small and uncommon on Michel Creek, and sediment samples for sediment quality analysis, although collected within the same general reaches as the BIC samples, are located in low-energy areas along the margins of the creek, or in small side channels that do not represent the habitat where the BIC samples are collected. Further, in habitats where sediment is an exposure pathway, aqueous nickel exposure has been demonstrated to be the dominant pathway for BIC effects (Brix et al. 2017). Thus, there is no significant operable pathway for exposure of the sampled BIC to the measured sediment quality.

The conceptual model depicted in Figure 1.5-1 includes a pathway for potential effects of tissue selenium on the BIC because selenium is widely understood to be a bioaccumulative substance and the most reliable basis for evaluating potential effects is via bioaccumulated concentrations.

Figure 1.5-1: Conceptual Site Model for the Cmm LAEMP



## 1.6 Incorporating Feedback from the Environmental Monitoring Committee

Technical advice was provided by EMC via written advice (24 May 2023) and through input offered at the 3 May 2023 EMC meeting. Key changes made in response to the EMC advice and input were:

- Adjusted plots for aqueous nickel to evaluate monthly nickel concentrations in 2022 and assess timing of peak nickel concentrations (i.e., magnitude and duration) relative to recently proposed nickel benchmarks, including an assessment of toxic units compared to proposed nickel benchmarks (Section 3.1.4 and Section 5.0).
- Discussed shifts in BIC composition associated with lower proportions (but not abundance) of Ephemeroptera (Section 3.6.4).
- Provided recommendation and rationale to discontinue the CMm LAEMP (Section 6.0). The recommendation to transition ongoing monitoring from the CMm LAEMP to regional programs received verbal support from the EMC at the May 2023 EMC meetings. In the event the LAEMP continues, recommendations and rationale to remove sediment quality (Section 3.3.3) and station MI5 (Section 2.0) have also been provided herein; these recommendations also received verbal support from the EMC.

## 1.7 Report Organization

The remaining sections of this report present the methods (Section 2.0) and results (Section 3.0) of the 2022 CMm LAEMP monitoring. The study questions are answered in Section 4.0, and a discussion of nickel in Michel Creek is presented in Section 5.0. The discussion section provides a brief history of nickel at CMm, including an overview of earlier studies that identified nickel as a constituent of concern for invertebrates and the resulting actions initiated by Teck under the AMP response framework to better understand and assess potential nickel effects at CMm. The purpose of the section is to highlight the investigative efforts undertaken since 2017 that corroborate nickel as a likely cause of invertebrate responses at CMm. Conclusions and recommendations are provided in Section 6.0.

## 2.0 METHODS

Biological monitoring areas included in the CMm LAEMP and corresponding water quality monitoring stations are listed in Table 2.1-1 and shown on Figure 2.1-1.<sup>2</sup> Integrated monitoring locations for other programs (e.g., RAEMP stations, lentic supporting study stations) in and around the CMm area are shown on Figure 2.1-2. Monitoring areas were selected to delineate the spatial extent of observed effects to physical and biological conditions and to provide a basis for evaluating potential future changes, including those related to water quality mitigation.

Sampling was conducted by Minnow Environmental Inc. (Minnow), with support from WSP staff, in September 2022 following the 2023 CMm LAEMP Study Design (WSP Golder 2022a). Sample collection, laboratory analysis, and data analysis methods for each component are consistent with methods developed for the RAEMP (Minnow

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<sup>2</sup> In 2020, samples were collected from supplemental stations CM\_CM2, MIDAG S1, and MIDAG S2 between MIDCO and MIDAG (Golder 2020a) to improve characterization and delineation of nickel concentrations and BIC effects in Michel Creek as part of the Nickel Benchmark Study (Appendix C). Sampling was conducted in coordination with the CMm LAEMP field program for efficiency, but sampling at these stations was not intended to be a permanent change to the CMm LAEMP; sampling at the supplemental stations did not occur in 2021 or 2022.

2018b, 2020b) and are presented in Sections 2.1 to 2.6. To be consistent with previous monitoring and RAEMP methods, the BIC sampling was conducted in September.

Components monitored under the CMm LAEMP in 2022 were:

- 1) water quality
- 2) calcite index
- 3) sediment quality
- 4) BIT Se
- 5) BIC

These components, along with supporting physical habitat variables, were used to answer the two CMm LAEMP study questions (Section 1.2). The spatial distribution of the stations along Michel Creek supported the estimation of spatial extent of downstream influence from CMm on the monitoring components (Study Question #1). Reference stations enabled the characterization of local reference conditions and the magnitude of mine-related changes to monitoring components (Study Question #1). Historical data from the RAEMP and previous studies within the CMm area were used to assess how conditions have changed over time (Study Question #1). The CMm water and load balance report (SRK 2016) and updates (SRK 2019; 2022; 2023) were used to assess whether water quality conditions were as expected (Study Question #1).

Supporting environmental information (i.e., water quality, calcite, sediment quality, and physical habitat characteristics) gathered for Study Question #1 was considered alongside the BIC data to answer how spatial and temporal patterns correspond to the BIC data and to suggest which factors may be causing observed effects in the BIC (Study Question #2).

The discontinuation of the CMm LAEMP is recommended (Section 6). Monitoring that was completed under the LAEMP would transition to regional programs; however, should the LAEMP continue, discontinuation of sampling at station MI5 (18 km downstream of the Corbin Creek confluence) is recommended. LAEMP results have shown that effects to BIC are spatially restricted to the first few kilometres of Michel Creek downstream of the Corbin Creek confluence, do not persist past MIDCO, and are not observed at MIDAG, located 5.27 km downstream of the confluence. Therefore, the Michel Creek station located 13.84 km downstream of the confluence with Corbin Creek (i.e., MIULE) would adequately characterize the spatial extent of potential effects in Michel Creek. This recommendation received support at the May 2023 EMC meeting and was endorsed by ENV via written advice and input received 24 May 2023.



**Table 2.1-1: Monitoring Locations and Replication of Sampling Components for the 2022 CMm LAEMP**

Watercourse	Biological Monitoring Stations	Teck Water Monitoring Code <sup>(a)</sup>	Location Description	Distance Downstream of Corbin Creek Confluence (km)	UTM Coordinates <sup>(b)</sup>		Replication of Sampling Components				
					Easting	Northing	Water Chemistry	Calcite Index	Sediment Chemistry	Benthic Invertebrates	
										Community	Tissue Chemistry
Michel Creek	RG_MI25	CM_MC1	reference location, u/s of CMm	-6.3	668226	5482795	1	3	3	3	3
Andy Good Creek	RG_AGCK	CM_AG1	reference location, outside of CMm influence	-	667551	5488669	1	3	1	3	3
Leach Creek	RG_LE1	-	reference location, u/s of Michel Creek confluence	-	659512	5493527	1	3	3	3	3
Michel Creek	RG_MIUCO	-	u/s of Corbin Creek confluence	-0.82	668203	5486653	1	3	4 <sup>(c)</sup>	3	3
Corbin Creek	RG_CORCK	CM_CC1	Corbin Creek u/s of Michel Creek confluence	-	668563	5487395	1	2 <sup>(d)</sup>	5	3	3
Michel Creek	RG_MIDCO	-	d/s of Corbin Creek confluence	+0.94	667757	5487611	1	5	5	5	5
Michel Creek	RG_MIDAG	-	d/s of Corbin Creek and Andy Good Creek confluences	+5.27	665212	5489264	1	3	5	3	3
Michel Creek	RG_MIULE	-	d/s of Corbin Creek and Andy Good Creek confluences but u/s of Leach Creek confluence	+13.84	660503	5493048	1	3	5	3	3
Michel Creek	RG_MI5	-	d/s of Leach Creek confluence	+18.25	659497	5496573	1	3	5	3	3

Note: RG designation, which refers to monitoring locations in the Elk Valley is used in table but dropped from figures and text in the remainder of the document for ease of presentation.

(a) Teck Water Monitoring stations that are in the proximity of the biological monitoring stations are listed.

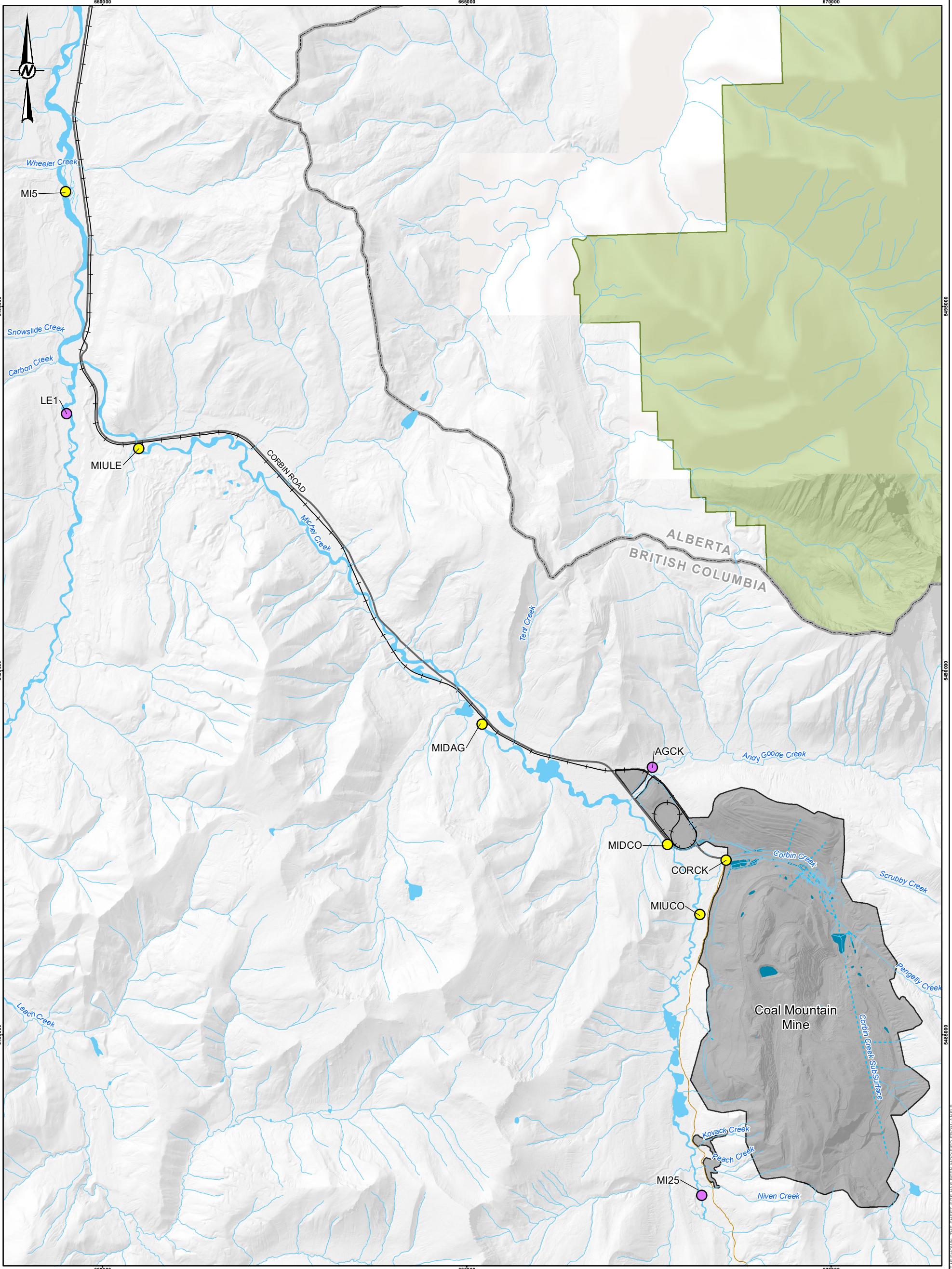
(b) UTM coordinates (NAD83, Zone 11U) represent coordinates for the biological monitoring stations (not the water monitoring stations).

(c) Five replicates were collected during sampling; however, the sample jar for replicate 2 broke during shipment to the laboratory. An additional sampling event occurred in October when four replicates were collected. Samples from the September event were used for the results and discussion, but all samples are included in Appendix I.

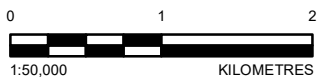
(d) Two out of three 100 pebble counts were performed at RG\_CORCK in 2022.

- = not applicable; u/s = upstream; d/s = downstream; CMm = Coal Mountain Mine, NAD = North American datum.





- LEGEND**
- MINE-EXPOSED STATION
  - REFERENCE STATION
  - RAILWAY
  - ROAD - PAVED
  - SURFACE FLOW WATERCOURSE
  - SUBSURFACE FLOW WATERCOURSE
  - BRITISH COLUMBIA-ALBERTA BOUNDARY
  - CMM C-84 PERMIT BOUNDARY
  - PARK / PROTECTED AREA
  - WASTE WATER/SEDIMENT POND
  - WATERBODY



**REFERENCE(S)**

BASE DATA OBTAINED TECK COAL LIMITED AND FROM GEOGRATIS, © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED. DATUM: NAD 83 PROJECTION: UTM ZONE 11

CLIENT  
**TECK COAL LIMITED**

PROJECT  
**COAL MOUNTAIN MINE LOCAL AQUATIC EFFECTS MONITORING PROGRAM**

TITLE  
**MONITORING LOCATIONS FOR THE COAL MOUNTAIN MINE LOCAL AQUATIC EFFECTS MONITORING PROGRAM**

CONSULTANT	YYYY-MM-DD	2022-06-30
DESIGNED	KH	
PREPARED	DR	
REVIEWED	KH	
APPROVED	RS	

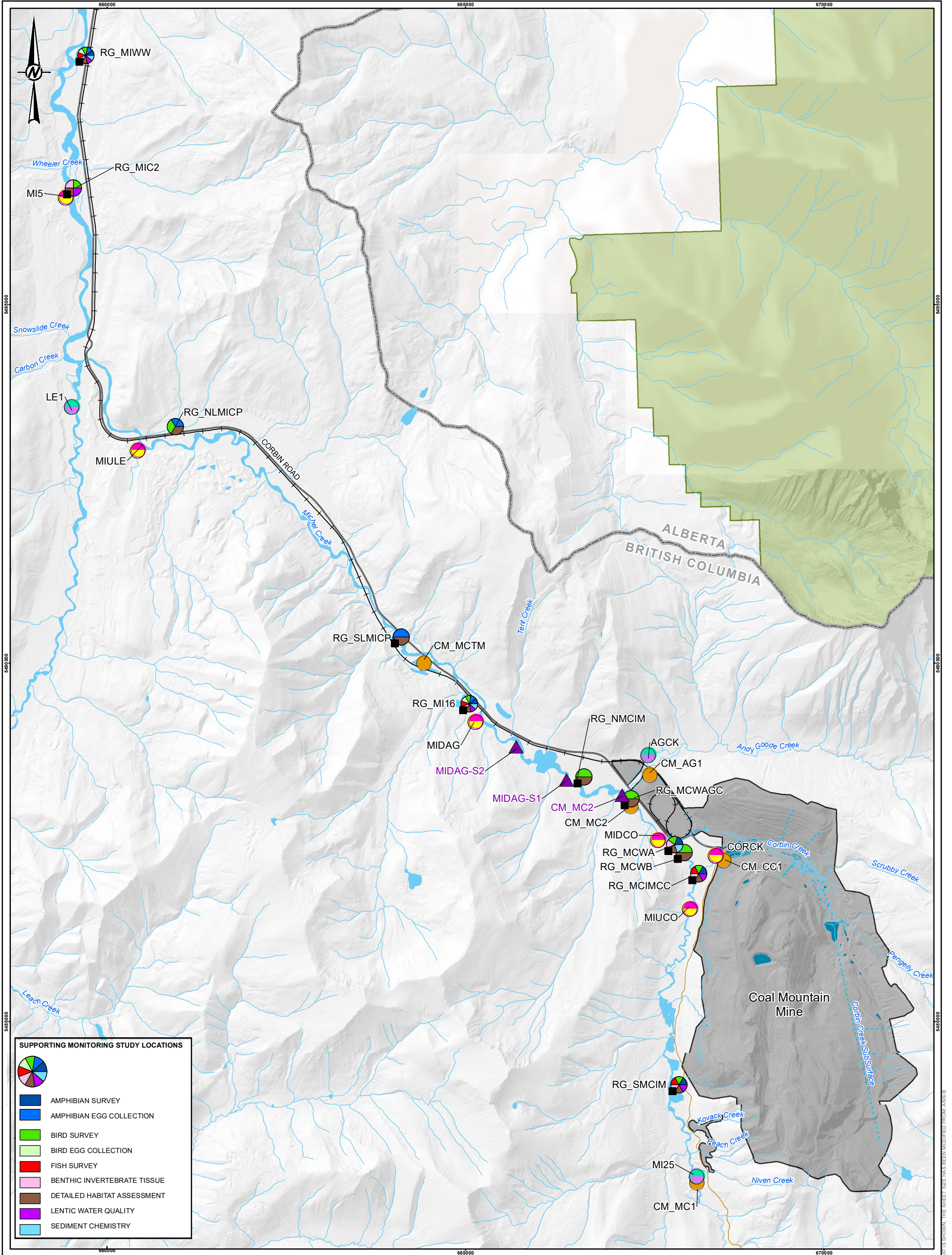


PROJECT NO.	CONTROL	REV.	FIGURE
22574542	M_WQ_002	0	2.1-1

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25mm



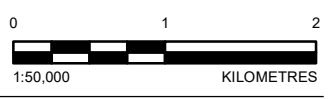


**SUPPORTING MONITORING STUDY LOCATIONS**

- AMPHIBIAN SURVEY
- AMPHIBIAN EGG COLLECTION
- BIRD SURVEY
- BIRD EGG COLLECTION
- FISH SURVEY
- BENTHIC INVERTEBRATE TISSUE
- DETAILED HABITAT ASSESSMENT
- LENTIC WATER QUALITY
- SEDIMENT CHEMISTRY

**LEGEND**

- LENTIC SAMPLING STATION
- 2020 NICKEL BENCHMARKS STUDY STATION
- WATER QUALITY STATION
- CMM LAEMP STATIONS**
- MINE-EXPOSED
- REFERENCE
- RAEMP**
- MINE-EXPOSED
- REFERENCE
- RAILWAY
- ROAD - PAVED
- ROAD - UNPAVED
- SURFACE FLOW WATERCOURSE
- SUBSURFACE FLOW WATERCOURSE
- BRITISH COLUMBIA-ALBERTA BOUNDARY
- CMM C-84 PERMIT BOUNDARY
- PARK / PROTECTED AREA
- WASTE WATER/SEDIMENT POND
- WATERBODY



REFERENCE(S)  
 BASE DATA OBTAINED TECK COAL LIMITED AND FROM GEOGRATIS, © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED.  
 DATUM: NAD 83 PROJECTION: UTM ZONE 11

CLIENT  
**TECK COAL LIMITED**

PROJECT  
**COAL MOUNTAIN MINE LOCAL AQUATIC EFFECTS MONITORING PROGRAM**

TITLE  
**Integrated Monitoring Locations for Historical and Recent Sampling Programs Coal Mountain Mine**

CONSULTANT

YYYY-MM-DD	2022-06-30
DESIGNED	KH
PREPARED	DR
REVIEWED	KH
APPROVED	RS

PROJECT NO. 22574542 CONTROL M\_WQ\_003 REV. 0

FIGURE 2.1-2

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## 2.1 Water Quality

Water quality is routinely monitored by Teck at stations within the CMm LAEMP as required by Permit 107517 to support management decisions (Table 2.1-1; Figure 2.1-1). Data are reported annually in the Permit 107517 Annual Water Quality Monitoring Report (Teck 2019, 2020, 2021b, 2022, 2023) and incorporated into the annual CMm LAEMP where appropriate. Water quality samples are also collected in lentic areas as part of the RAEMP and at lotic benthic invertebrate sampling stations to support the biological data as part of the CMm LAEMP. Detailed methods for sampling and laboratory analysis of water quality samples collected to support the biological data are described in Section 3.0 of the RAEMP study design (Minnow 2020b) and are provided in brief below.

### 2.1.1 Sample Collection

In 2022, water quality samples were collected from mine-influenced and reference areas during biological monitoring, following the 2023 CMm LAEMP study design (WSP Golder 2022a). One sample was collected from each station in September 2022.

Temperature, pH, dissolved oxygen (DO), and specific conductivity were measured at each sampling station using a calibrated water quality meter. Water chemistry samples were collected by wading into a mid-channel area, moving from downstream to upstream to avoid disturbing the substrate. Clean sample bottles provided by the laboratory were filled to minimize the amount of air in the container, consistent with the *British Columbia Field Sampling Manual* (BC ENV 2013). Water samples for analysis of dissolved organic carbon and dissolved metals were field filtered with a 0.45 µm membrane and preserved according to laboratory specifications. Samples were kept cool until being shipped to a qualified laboratory for analysis.

### 2.1.2 Laboratory Analysis

Samples were shipped to ALS Environmental (ALS; Calgary, Alberta) for analysis of the analytes listed in Permit 107517. Analytical methods were consistent with the *British Columbia Environmental Laboratory Manual* (BC ENV 2020).

### 2.1.3 Data Analysis

Water quality data collected in 2022 were screened against the EVWQP benchmark for cadmium (Teck 2014), the updated effect concentrations for nitrate and sulphate (WSP Golder 2022b), and recently proposed benchmarks for nickel (WSP Golder 2022c; Table 2.2-1 and Appendix D). For other constituents, concentrations were screened against generic WQGs for the protection of freshwater aquatic life. WQGs derived by BC ENV (2021a,b) were used preferentially because BC ENV develops guidelines to be specifically protective of aquatic life in BC (BC ENV 2021a,b). In the absence of BC WQGs, guidelines were adopted from Canadian Council of Ministers of the Environment (CCME) Canadian Environmental Quality Guidelines (CCME 1999), Environment and Climate Change Canada (ECCC) Predicted No-effect Concentrations (PNECs; ECCC 2018), or ECCC draft Federal Environmental Quality Guidelines (FEQGs; ECCC 2017).

**Table 2.2-1: Elk Valley Benchmarks and Updated Effect Concentrations for Invertebrates**

Receptor and Constituent	Unit	Benchmark, Proposed Benchmark or Effect Concentration <sup>(a)</sup>		
		Level 1	Level 2	Level 3
<b>Invertebrates</b>				
Sulphate	mg/L	892	1057	1413
Nitrate	mg-N/L	$effect\ concentration = 10^{\left(\frac{\log\left(\frac{1}{x}-1\right)}{-2.64}\right) - (1.45 - 1.18 \times \log(Hardness))}$		
		x = 0.1	x = 0.2	x = 0.5
Dissolved Cadmium	µg/L	$= 10^{(0.83 \times \log(hardness) - b)}$		
		b = 2.53	-	-
Dissolved Nickel	µg/L	$\log(benchmark) = 0.547 \times (\log DOC) + 0.411 \times (\log Hardness) - 0.520 \times (\log Bicarbonate) + \alpha$		
		α = 0.856	α = 1.011	α = 2.551

(a) Value for cadmium is the EVWQP benchmark, values for nitrate and sulphate are updated effect concentrations and values for nickel are proposed benchmarks. Rationale for each value is provided in Appendix D.

“-“ = not derived; EVWQP = Elk Valley Water Quality Plan.

Water quality data collected under Permit 107517 from 2018 to 2022, data collected from 2012 to 2022 for the RAEMP and its predecessor programs (Minnow et al. 2007, 2011, 2012, Minnow 2014, 2015, 2018a, 2020b, 2023), and samples collected from the Nickel Benchmark Study stations (CM\_MC2, MIDAG-S1, and MIDAG-S2) in 2020 were plotted for comparison between reference and mine-influenced sites and to visualize spatial patterns. Additional water quality data collected by Teck during monthly or weekly routine monitoring at water quality monitoring locations CM\_CC1, CM\_CM1 and CM\_MC2 were plotted for visual assessment of temporal trends and comparison to the 2013 to 2023 SRK modelled data (SRK 2023). Data from the closest monitoring stations CM\_CC1, CM\_MC1, and the compliance station CM\_MC2 were used to represent potential temporal trends at LAEMP stations CORCK, MI25, and MIDCO, respectively. These SRK modelled data were used to determine if the water quality conditions in 2022 were expected.

To further evaluate the trends in aqueous nickel concentrations, and following EMC feedback, water quality data collected by Teck in 2022 were used to prepare two seasonal plots. The first plot presents dissolved nickel concentrations from January to December 2022 at each station, and the second plot presents toxic units (TU) for the proposed level 1 nickel benchmark for invertebrates (i.e., dissolved nickel concentration divided by the sample-specific proposed level 1 nickel benchmark). The second plot expresses the nickel exposure in each sample in terms of what fraction of the sample-specific level 1 benchmark was present in that sample (i.e., by definition, a value of 1 equals the proposed level 1 nickel benchmark; this is illustrated on the figure with a horizontal line of 1). The level 2 and level 3 nickel benchmarks are also shown as horizontal lines, corresponding to the level 1 TU associated with the level 2 benchmark (1.43) and level 3 benchmark (2.81)<sup>3</sup>.

## 2.2 Calcite Index

Teck initiated a regional calcite monitoring program in 2013 to document calcite conditions in tributary and mainstem areas of the Elk River watershed (Robinson and Atherton 2016). In 2022, the regional calcite program

<sup>3</sup> The proposed level 2 and level 3 nickel benchmarks were calculated in relation to the proposed level 1 nickel benchmark. The proposed level 2 benchmark is always 1.43 times the level 1 benchmark and the level 3 benchmark is 2.81 times the level 1 benchmark.

sampled 122 reaches and 317 sites. Of these, 26 reaches in mine-influenced streams had concretion scores above the 2024 Site Performance Objective of 0.5 (Smith and Robinson 2023). These calcite results are not co-located with biological monitoring under the RAEMP or LAEMPs and are not specific to the habitats sampled under those programs; calcite monitoring under the RAEMP and LAEMPs is conducted in riffle habitats within approximately 10 m of where each BIC replicate sample is collected, whereas the regional calcite monitoring program involves calcite measurements in 100 m long reaches that include multiple habitat units. Therefore, the calcite monitoring program results cannot be directly related to biological conditions to evaluate potential effects of calcite on biota. Rather, the regional calcite monitoring program focuses on evaluating broad stream reaches, integrating across habitat types to provide a regional overview of calcite conditions.

To evaluate potential effects of calcite on biota, site-specific calcite monitoring is also conducted as part of the RAEMP and other biological monitoring programs, including the CMm LAEMP. Because this monitoring is targeted to the riffle habitats that are sampled for biota, results of this monitoring are not directly comparable to the regional program. However, the methods for characterizing calcite are consistent with those used to monitor calcite as part of the regional calcite monitoring program (Lotic and Teck 2016; 2021a,b). Where the two programs give different results in the same watercourse, the calcite measurements taken under the biological monitoring programs are considered to be more directly relevant to potential effects of calcite on the BIC.

### 2.2.1 Sample Collection

Calcite was measured at areas where benthic invertebrate samples were collected in 2022. The calcite index was developed to provide a quantitative method of measuring and tracking calcite levels in a stream. The calcite index is determined by examining 100 pebbles at a station. For each of the 100 pebbles sampled the calcite index is a combined total of the calcite concretion score and the calcite presence score. The degree of concretion was assessed by determining if the pebble could be removed with negligible resistance (not concreted; score = 0), noticeable resistance but removable (partially concreted; score = 1), or immovable (fully concreted; score = 2). Calcite presence was assessed by determining the proportion of pebble that has visible calcite. Three measurements of calcite were collected from each mine-influenced and reference area, except at MIDCO where five measurements were collected and CORCK in 2022 where only two of the three measurements were performed.

Calcite presence has historically been assessed based on a binary collection method; as presence (score = 1) or absence (score = 0) of calcite for each of the 100 pebbles. An adapted method of assessing calcite presence was trialed by Teck in 2020 and 2021, and adopted fully in 2022; it is referred to as calcite presence prime (CP<sup>I</sup>; Lotic and Teck 2021a,b). Under CP<sup>I</sup>, the surficial coverage of each pebble is assessed in 10% increments (e.g., a rock with 50% surficial coverage of calcite on all surfaces would get a presence score of 0.5).

Calcite was measured in association with BIC sampling, in riffle habitats within approximately 10 m of where each BIC replicate sample was collected. For the regional calcite monitoring, calcite measurements were taken in 100 m long reaches that included multiple habitat units.

### 2.2.2 Data Analysis

Calcite data were evaluated for spatial trends using both the historical calcite index values (2015 to 2020) and the calcite index values calculated using the CP<sup>I</sup> method (2021 and 2022). Calcite presence in reference and mine-influenced areas was compared to the reference area normal range (i.e., 0 to 1) defined in the RAEMP study design (Minnow 2020b), which is based on calcite data collected as per the original calcite index method.

## 2.3 Sediment Quality

Methods for sampling and laboratory analysis of sediment samples are described in Section 4.0 of the RAEMP study design (Minnow 2020b) and are summarized in brief below.

### 2.3.1 Sample Collection

In 2022, sediment samples were collected from mine-influenced and reference areas where BIC samples were collected. Five samples were collected at CORCK, MIDCO, MIULE and MI5, four samples were collected at MIUCO<sup>4</sup> and three samples were collected from reference areas MI25 and LE1. A single sediment sample was collected from reference station AGCK because of a lack of sediment at the station.

Sediment samples were collected using a spoon to gather deposits of sand and/or fines amongst the cobbles. When no such deposits were found, but there was evidence of fine deposits on rock surfaces, then the sediments were gently brushed off the rocks into sample containers. Supporting information (Section 2.5) was also recorded. Sediment samples were stored in a cooler with ice or ice packs and then transferred to a refrigerator at the end of the day.

### 2.3.2 Laboratory Analysis

Sediment samples were shipped to ALS for analysis of moisture content, particle size, pH, total organic carbon (TOC), and metals (<2 millimetre [mm] fractions). The laboratory homogenized each sediment sample before analysis according to standard laboratory protocols. Analysis methods were consistent with the *British Columbia Environmental Laboratory Manual* (BC ENV 2016).

### 2.3.3 Data Analysis

Sediment quality data were compared to BC working sediment quality guidelines (WSQG) for the protection of freshwater aquatic life (BC ENV 2017), reference area concentrations, and sediment quality previously observed in the same areas. In addition, sediment quality data were plotted for visual examination of spatial and temporal variation. Data from 2018 to 2022 were plotted for all constituents for which a BC WSQG was available and visually assessed for temporal changes.

For stations with total PAH concentrations exceeding the BC lower SQG, equilibrium-partitioning sediment benchmark toxic unit (ESBTU) values were calculated. ESBTU values are calculated based on the sample-specific fraction of total organic carbon and PAH concentrations per the “Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: PAH Mixtures” (US EPA 2003).

## 2.4 Benthic Invertebrate Tissue

Methods for sampling and laboratory analysis of BIT are described in Section 7.3 of the RAEMP study design (Minnow 2020b) and summarized in brief below.

### 2.4.1 Sample Collection

BIT samples were collected as taxonomic composites from mine-influenced and reference areas where BIC samples were collected. Five samples were collected from MIDCO, while three samples were collected from all other stations.

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<sup>4</sup> Five sediment samples were planned at MIUCO, but only four samples were collected in 2022.

BIT samples were collected using a kick net as described for BIC samples (Section 2.6). Taxa were combined, excluding taxa from the phylum Annelida (annelids), and invertebrates were picked free of debris in the field until at least 2 grams of wet tissue was obtained. If annelids were observed in the sample, two separate samples were collected, one composite sample excluding annelids and one sample of only annelids, following methods outlined in the RAEMP study design (Minnow 2020b). BIT samples were kept cool until shipment to the analytical laboratory.

#### **2.4.2 Laboratory Analysis**

Samples were shipped to TrichAnalytics Inc. (Trich), Saanichton, BC for analysis of metals by laser ablation with inductively coupled plasma mass spectrometry (LA-ICP-MS). Trich is accredited by the Canadian Association for Laboratory Accreditation for metals analysis in biological samples. Results were reported on a dry weight (dw) basis along with moisture content.

#### **2.4.3 Data Analysis**

BIT Se concentrations were compared to available EVWQP benchmarks (Teck 2014) and BC tissue guidelines (BC ENV 2021a). BIT Se concentrations were also plotted relative to previous results and to the reference area normal range defined in the RAEMP (Minnow 2020a) to evaluate spatial and temporal variability.

### **2.5 Physical Habitat Characteristics**

Physical habitat characteristics can influence aquatic biota (Rosenberg and Resh 1992); therefore, supporting data were collected concurrent with sediment and benthic invertebrate sampling in each sampling area. The characteristics documented included physical water characteristics (i.e., water depth, temperature, velocity, pH, DO, and specific conductivity), substrate composition, colour, texture, and presence of aquatic vegetation and TOC content (obtained from the sediment quality dataset).

### **2.6 Benthic Invertebrate Community**

Potential mine-related effects on BIC were evaluated by comparing BIC endpoints at mine-influenced stations to reference stations and to the regional normal ranges. Methods for sampling and laboratory analysis of BIC samples are described in Section 7.0 of the RAEMP study design (Minnow 2020b) and are briefly summarized below.

#### **2.6.1 Sample Collection**

Three BIC samples were collected from each mine-influenced and reference station except for MIDCO, where five samples were collected. Each sample was collected from a separate riffle at each stream area or from 50 m apart if the sampling area was one long riffle. Supporting habitat information was collected concurrent with benthic sampling, including calcite presence and substrate concretion scores (Section 2.2), and stream habitat characteristics (Section 2.5).

Collection methods were consistent with the *CABIN Field Manual: Wadeable Streams* (ECCC 2012).

A 400 micrometre ( $\mu\text{m}$ ) mesh kick net was used to collect a time-integrated sample. The reach sampled was traversed from bank to bank in an upstream direction for a collection time of three minutes. The kick net was held downstream of the sampler while the top 5 to 10 centimetres (cm) of the substrate were disturbed and rocks were overturned to dislodge invertebrates clinging to interstitial spaces, and allow them to drift into the kick net. The collected material was transferred to labelled containers and preserved with 10% phosphate-buffered formalin.



## 2.6.2 Laboratory Analysis

BIC samples were sent to Cordillera Consulting, Summerland, BC for sorting and taxonomic identification. Organisms were identified to the lowest practical level of taxonomy (typically genus or species) using up-to-date taxonomic keys. Analysis methods were consistent with the *CABIN Laboratory Methods: Processing, Taxonomy, and Quality Control of Benthic Macroinvertebrate Samples* (ECCC 2014). Sorting efficiency and sub-sampling accuracy and precision were quantified using methods specified by Environment Canada (ECCC 2014).

## 2.6.3 Data Analysis

The BIC endpoints that were evaluated at reference and mine-influenced stations were consistent with those used in the RAEMP: abundance (i.e., the number of organisms per 3 minute [min] kick); richness; Ephemeroptera-Plecoptera-Trichoptera (EPT) abundance and proportion (% EPT); and Ephemeroptera abundance and proportion (% E).

EPT taxa are particularly sensitive to poor water quality conditions in rivers and streams (Rosenberg and Resh 1993) and active anthropogenic activities near rivers can affect the abundance and diversity of EPT (Dudgeon 1984). Often the presence of EPT taxa in a river or stream indicates that conditions are within the tolerance limit for a number of environmental factors (e.g., water temperature, DO, nutrients, toxic chemicals and metals, and can support a diverse BIC (Dudgeon 1984). Ephemeroptera (mayflies) are good bioindicators of freshwater quality because they are sensitive to elevated metal concentrations (Chapman 1996). Therefore, EPT taxa and Ephemeroptera taxa were used as biological indicators for evaluating water quality in Michel Creek.

BIC endpoints were plotted for visual examination of spatial and temporal variability. Mine-influenced stations were compared to reference stations, regional and site-specific normal ranges (Section 2.6.3.1), and to historical data presented in the RAEMP and its predecessor programs between 2012 to 2017 (Minnow et al. 2007, 2011, 2012, Minnow 2014, 2015, 2018a, 2020b). Statistical analyses were also conducted on the BIC endpoints to compare mine-influenced stations to reference stations and to delineate the spatial extent of effects (Section 2.6.3.2.1). Temporal changes were evaluated by comparing 2022 data to previous years' data (Section 2.6.3.2.2).

The relationship of % EPT and % E with aqueous nickel concentration was examined to further evaluate potential cause(s) of lower proportions of % EPT and % E. Nickel was chosen for follow-up comparisons because results from early chronic toxicity testing implicated nickel as the likely cause of BIC changes (Golder 2017). Because nickel toxicity is known to be influenced by other constituents (i.e., exposure and toxicity-modifying factors [ETMFs]), BIC endpoints were also plotted against dissolved nickel concentration as a proportion of the proposed level 1 nickel benchmark (i.e., proposed level 1 benchmark TU) for benthic invertebrates as described in Section 2.1.3. The proposed level 2 and level 3 nickel benchmarks were also plotted in relation to the proposed level 1 nickel benchmark to illustrate whether the sample also exceeded these benchmarks.

In addition, the relationships between % EPT, % E and, percent fines, sand, gravel, cobble, and boulder, which were used as a habitat indicators, was examined to evaluate whether habitat differences could be related to spatial differences in % EPT and % E downstream of CMm. As discussed in Section 1.5, there is no operable pathway for effects of sediment chemistry on EPT in the sampled erosional habitats of Michel Creek; therefore, the role of sediment chemistry was not assessed further herein.

### 2.6.3.1 Regional and Site-Specific Normal Ranges

The BIC data collected as part of the CMm LAEMP were compared to the regional and site-specific normal ranges for each community endpoint. Regional normal ranges were developed for the RAEMP using pooled reference area data from 2012 to 2019 (Table 2.5-1; Minnow 2020a). Updated regional normal ranges, based on data from 2012 to 2022, were not available at the time this report was prepared. Prediction intervals were calculated as 95<sup>th</sup> percentiles, and the upper and lower prediction intervals from each replicate sample were used, when applicable. Site-specific normal ranges are calculated annually and are specific to that year's data. The site-specific normal ranges were calculated using linear mixed-effects models to relate benthic invertebrate community endpoints to habitat variables, where applicable. Average lower and upper bounds were used to define the site-specific normal range as described in Appendix J of the RAEMP (Minnow 2020a).

**Table 2.6-1: Benthic Invertebrate Community Regional Normal Ranges**

Variable	Unit	Regional Normal Range	
		Lower Limit	Upper Limit
Benthic invertebrate taxonomic richness (lowest practical level)	no. of taxa per sample	25	48
Benthic invertebrate abundance	no. of organisms per sample (per 3 min kick)	1,812	26,922
Percent Ephemeroptera, Plecoptera, Trichoptera	%	50	98
Ephemeroptera, Plecoptera, Trichoptera abundance	no. of organisms per sample (per 3 min kick)	909	26,270
Percent Ephemeroptera	%	21	82
Ephemeroptera Abundance	no. of organisms per sample (per 3 min kick)	387	21,949

Source: 2017 to 2019 RAEMP (Minnow 2020a).

min = minute; no. = number; % = percent.

### 2.6.3.2 Univariate Statistical Analysis

Statistical analyses of BIC endpoints followed a similar approach to that described in the RAEMP study design (Minnow 2020b), with the exception that planned linear orthogonal contrasts were used to assess differences among stations and years in place of Tukey's Honestly Significant Difference test. Statistical analyses were conducted in R version 4.2.2 (R Core Team 2022).

#### 2.6.3.2.1 Spatial Evaluation

Spatial differences in BIC endpoints were evaluated among stations using an analysis of variance (ANOVA), with planned linear orthogonal contrasts to test whether effects exhibited linear spatial gradients; *P*-values ≤ 0.05 were considered significant.

For each endpoint, an overall ANOVA model was fit to the 2021 data as:

$$Y = \text{Station} + \epsilon \quad \text{Equation 2.6-1}$$

where: *Y* = response variable; *Station* = a fixed factor for area; and  $\epsilon$  = the error term.

Differences in BIC endpoints were then evaluated among stations using planned linear orthogonal contrasts per Hoke et al. (1990). Each mine-influenced station was compared to a combined group of downstream stations and

reference stations. For example, planned contrasts for MIDCO compared MIDCO to stations downstream and reference stations, but excluded MIUCO and CORCK from the comparisons because they are located upstream (Table 2.6-2). The best transformation for each endpoint (i.e., untransformed or  $\ln[x+1]$ ) was chosen as the transformation for which a Shapiro-Wilk test on the residuals gave the highest  $P$ -value. Contrasts were considered significant after applying the Dunn-Šidák correction for six planned comparisons, at  $P < 0.009$ . With these comparisons, significant differences for a variable for all or most comparisons, with consistently negative magnitudes of difference would be consistent with a potential adverse effect originating at the mine-influenced stations closest to the mine, and extending through the entire reach; significant contrasts for upstream stations, which are no longer significant in downstream contrasts would be indicative of effects upstream, followed by recovery with distance downstream<sup>5</sup>.

The magnitude of the difference was calculated for each planned linear orthogonal contrast as the number of standard deviations (SD) from the contrast mean using the following equation:

$$\text{Magnitude (SD)} = (\text{Station Mean} - \text{Contrast Mean}) / \text{Contrast SD} \quad \text{Equation 2.6-2}$$

where: SD = standard deviation; Contrast Mean = mean of the pooled replicates from downstream and reference stations included in the contrast; Contrast SD = standard deviation of the pooled replicates from downstream and reference stations included in the contrast.

The ecological significance of a statistical difference was assessed by determining if, for a particular endpoint, a station was within a magnitude of difference of 2 SD from downstream and reference stations (i.e., the contrast). This approach defines ecological significance in terms of the range of variability observed in the downstream and reference communities. If a statistical difference is observed between a station and its contrast group, but is within a magnitude of difference of 2 SDs, the statistical significance is not considered biologically meaningful or ecologically significant.

**Table 2.6-2: Spatial Planned Linear Orthogonal Contrasts for Benthic Invertebrate Community Endpoints**

Station	EXP/REF	MIUCO	CORCK	MIDCO	MIDAG	MIULE	MI5
MIUCO	EXP	8	0	0	0	0	0
CORCK	EXP	-1	7	0	0	0	0
MIDCO	EXP	-1	-1	6	0	0	0
MIDAG	EXP	-1	-1	-1	5	0	0
MIULE	EXP	-1	-1	-1	-1	4	0
MI5	EXP	-1	-1	-1	-1	-1	3
AGCK	REF	-1	-1	-1	-1	-1	-1
MI25	REF	-1	-1	-1	-1	-1	-1
LE1	REF	-1	-1	-1	-1	-1	-1

EXP = mine-influenced stations; REF = reference station.

<sup>5</sup> Caution should be used when interpreting statistical results for MIUCO because this station is located upstream of Corbin Creek and is not part of the main exposure gradient. The pooled stations used to compare MIUCO represent a wide range of exposures, from highly exposed Corbin Creek to unexposed reference stations, which influences the contrast mean and SD.

### 2.6.3.2.2 Temporal Evaluation

Temporal changes in BIC endpoints were evaluated for data collected between 2012 and 2022. For each station, BIC endpoints were compared among years using ANOVA with planned linear orthogonal contrasts to test whether effects exhibited linear gradients over time;  $P$ -values  $\leq 0.05$  were considered significant.

For each endpoint, an overall ANOVA model was fit to the data as:

$$Y = \text{Year} + \epsilon \quad \text{Equation 2.6-3}$$

where:  $Y$  = response variable;  $\text{Year}$  = a fixed factor for year; and  $\epsilon$  = the error term.

Differences in BIC endpoints were evaluated among years separately for each station using planned linear orthogonal contrasts per Hoke et al. (1990). To evaluate the presence of a gradient response over time, BIC endpoints for each of the stations were compared to all previous years combined. For example, planned contrasts compared 2021 to 2012 to 2022, but did not compare 2022 data to itself (Table 2.6-3). The best transformation for each endpoint (i.e., untransformed or  $\ln[x+1]$ ) was chosen as the transformation for which a Shapiro-Wilk test on the residuals gave the highest  $P$ -value. The magnitude of the difference was calculated for each planned linear orthogonal contrast as the number of SD from the contrast mean following Equation 2.6-2, except Station Mean was replaced by the Year Mean in the equation.

Contrasts were considered significant after applying the Dunn-Šidák correction for four to nine planned comparisons, at  $P < 0.013$  to  $P < 0.006$ . With these comparisons, significant differences for a variable for all or most comparisons, with consistent negative magnitudes of difference would be consistent with a potential adverse effect persisting throughout most of the sampling period; significant contrasts for later years, which are no longer significant in recent year contrasts would be indicative of effects in the past, followed by recovery since then.

The ecological significance of a statistical difference was assessed by determining if, for a particular endpoint, a year was within a magnitude of difference of 2 SD from previous years (i.e., the contrast). This approach defines ecological significance in terms of the range of variability observed in each year. If a statistical significance is observed between a year and its contrast group, but is within a magnitude of difference of 2 SDs, the statistical significance is not considered biologically meaningful or ecologically significant because the results for that endpoint are still within the typical range of variability.

**Table 2.6-3: Temporal Planned Linear Orthogonal Contrasts for Benthic Invertebrate Community Endpoint**

Year	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
2022	10	0	0	0	0	0	0	0	0	0
2021	-1	9	0	0	0	0	0	0	0	0
2020	-1	-1	8	0	0	0	0	0	0	0
2019	-1	-1	-1	7	0	0	0	0	0	0
2018	-1	-1	-1	-1	6	0	0	0	0	0
2017	-1	-1	-1	-1	-1	5	0	0	0	0
2016	-1	-1	-1	-1	-1	-1	4	0	0	0
2015	-1	-1	-1	-1	-1	-1	-1	3	0	0
2014	-1	-1	-1	-1	-1	-1	-1	-1	2	0
2013	-1	-1	-1	-1	-1	-1	-1	-1	-1	1
2012	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1

## 2.7 Quality Assurance and Quality Control

Quality assurance (QA) and quality control (QC) methods were consistent with methods developed for the RAEMP study design (Minnow 2020b, Section 10.0). Because CMm LAEMP data were collected by Minnow as part of data collection for the RAEMP, QA/QC procedures and samples for the RAEMP relate to the CMm LAEMP as well. Detailed QA/QC procedures and results are presented in the RAEMP on a three-year cycle (i.e., 2020 to 2022 RAEMP report). A summary of the QA/QC results relevant to the 2022 CMm LAEMP are provided in Appendix E and analytical reports are provided in Appendix F. Review of the QA/QC results for 2022 indicated that the data quality objectives were met, and that the data are appropriate for the purposes of this assessment (Appendix E).

## 2.8 Related Aquatic Programs

Teck conducts several additional programs to monitor, evaluate, and/or manage the aquatic effects of mining operations within the CMm area. The CMm LAEMP integrates information from these relevant studies (e.g., RAEMP, chronic toxicity testing program) and other supporting studies (i.e., environmental flow needs [EFN] Study) to better characterize and understand potential effects of CMm on aquatic receptors in the Michel Creek watershed. Summaries of relevant results from these reports are provided in Appendix C, while methods are presented within the specific monitoring reports.

Section 5.0 provides a brief history of the aquatic programs that initially identified adverse responses to sensitive invertebrates, investigations undertaken to identify potential causal factors, and the resulting actions initiated by Teck under the AMP response framework to better understand and assess potential effects at CMm. The purpose of this review is to highlight the investigative efforts undertaken since 2017 that corroborate nickel as a likely cause of invertebrate responses at CMm. The integration of these studies strengthens the characterization of potential effects of CMm on the aquatic environment.

## 3.0 RESULTS

### 3.1 Water Quality

Water quality screening and spatial and temporal trends (including comparisons to projections [SRK 2023]) are summarized in Sections 3.1.1 to 3.1.3. Supplementary plots and tabulated data are provided in Appendix D and Appendix G.

#### 3.1.1 Data Screening

The water quality data collected concurrently with the benthic invertebrate samples (i.e., in September) were compared to site-specific benchmarks and generic WQGs in Appendix D, Table D-1. Constituents with concentrations greater than one or more of these values are summarized in Table 3.1-1 and described in brief below:

- Dissolved nickel concentrations were above the proposed level 3 nickel benchmark for invertebrates at CORCK and MIDCO. MIDCO is 0.94 km downstream of the Corbin Creek confluence on Michel Creek. Dissolved nickel concentrations at MIDAG, which is 5.27 km downstream of the Corbin Creek confluence, were above the proposed level 2 nickel benchmark. Concentrations at stations downstream of MIDAG were below the proposed nickel benchmark values. Dissolved nickel concentrations were lower than proposed benchmarks for fish and amphibians at all stations.

- Total cobalt concentration was above the long-term chronic BC WQG at CORCK. All stations in the CMm LAEMP study area (including CORCK) were below the short-term acute BC WQG. Cobalt at CORCK was below chronic effect concentrations summarized by ECCC (2017) and unbounded effect concentrations from site-specific testing conducted with *C. dubia* and *H. azteca* in Michel Creek water (WSP Golder 2022c).<sup>6</sup> Therefore, it is unlikely that cobalt represents a source of mine-influence that may negatively impact the BIC and cobalt is not included further in the evaluation of mine-related effects on the BIC in Michel Creek.
- Fluoride concentration was above the interim CCME WQG at CORCK and all stations downstream of CORCK on Michel Creek; however, at all stations in the CMm LAEMP study area, fluoride was below the chronic effects benchmark of 1.9 mg/L that was derived by MacPherson et al. (2014) to be protective of aquatic life. Fluoride concentrations above the interim CCME WQG are unlikely to be mine-related because there is a lack of a spatial pattern indicative of mine-influence (i.e., a decrease in fluoride with increasing distance) and the highest fluoride concentration was reported at the reference station on Andy Good Creek. Therefore, fluoride was not included further in the evaluation.
- Sulphate concentrations were below the level 1 updated effect concentrations for benthic invertebrates at all stations. However, sulphate concentrations in Corbin Creek were between the level 1 and 2 updated effect concentrations for early life stages of fish, indicating a potential for low-level effects of sulphate to embryos and alevins of fish that spawn in this creek. Sulphate concentrations were below the level 1 interim screening value for post-alevin life stages of fish of 1,225 mg/L, indicating that effects to older life stages of fish would not be expected (WSP 2023b). Because the focus of the CMm LAEMP is to evaluate potential effects to BIC, the sulphate screening results for fish are not discussed further herein. Rather, water quality screening results for fish will be evaluated as part of ongoing RAEMP investigations.

Based on the results presented above, nickel was the only constituent identified as having the potential to cause effects to the BIC in the CMm area. Therefore, nickel was carried forward herein for further evaluation of spatial and temporal trends. Plots for other constituents are provided in Appendix G.

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<sup>6</sup> The single exception was that the cobalt concentration at CORCK (5.3 µg/L) was above the chronic effect concentration reported by ECCC (2017a) for *H. azteca* growth (2.2 µg/L at hardness of 100 mg/L CaCO<sub>3</sub>). However, the CORCK concentration was below the unbounded no effect concentration for *H. azteca* growth in Michel Creek water (>7.9 µg/L at hardness of 550 mg/L CaCO<sub>3</sub>; WSP Golder 2022c).



**Table 3.1-1: Summary of Water Quality Screening Exceedances at Stations Downstream of CMm, September 2022**

Constituent	Water Quality Guideline <sup>(a)</sup>	Proposed Nickel Benchmarks <sup>(b,c)</sup>			Concentrations									
		Invertebrates			MI25	AGCK	LE1	MIUCO	CORCK	MIDCO	MIDAG	MIULE	MI5	
		Level 1	Level 2	Level 3										
Dissolved Nickel (µg/L)	-	2.6 to 4.4	3.7 to 6.3	7.3 to 12	<0.5	<0.5	<0.5	<0.5	59	22	5.0	2.0	1.2	
Total Cobalt (µg/L)	4.0	-	-	-	<0.1	<0.1	<0.1	<0.1	<b>5.3</b>	0.81	0.1	<0.1	<0.1	
Fluoride (mg/L)	0.12 <sup>(d,e)</sup>	-	-	-	0.07	<b>0.30</b>	0.06	0.08	<b>0.19</b>	<b>0.15</b>	<b>0.19</b>	<b>0.16</b>	<b>0.13</b>	

Notes: Stations are ordered from upstream to downstream. This table summarizes constituents and stations that have concentrations greater than a guideline, effect concentration, benchmark or proposed benchmark. Appendix D presents the remaining constituents, stations, guidelines, effect concentrations, benchmarks or proposed benchmarks, including the sulphate and nitrate effect concentrations, which are not presented here because concentrations were not exceeded in 2022.

(a) Data were screened against BC Working and Approved Water Quality Guidelines (BC ENV 2021a,b).

(b) Nickel concentrations were screened against the proposed nickel benchmarks (WSP Golder 2022c).

(c) Proposed benchmark is hardness, pH, alkalinity, and dissolved organic carbon dependent (WSP Golder 2022c).

(d) Guideline is hardness dependent.

(e) In lieu of a BC WQG, the guideline was adopted from Canadian Council of Ministers of the Environment (CCME) Canadian Environmental Quality Guidelines (CCME 1999).

**Bolded** values exceed the BC Long-term WQG (BC ENV 2021a,b).

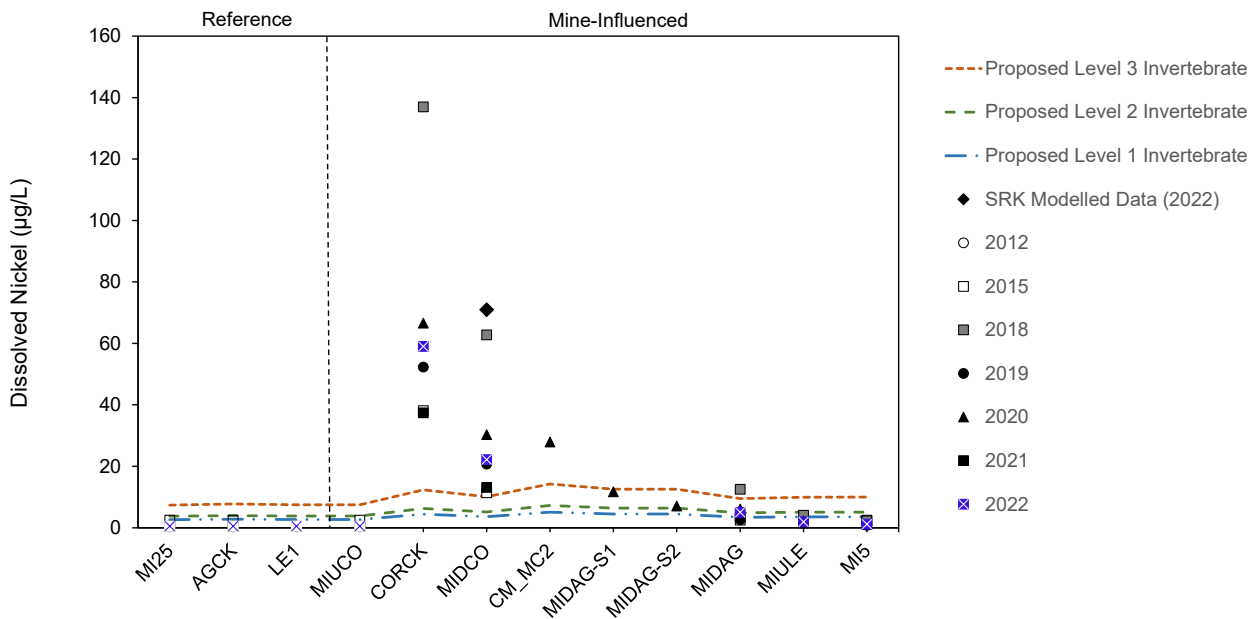
**Shaded** values exceed an EVWQP benchmark, proposed benchmark, or effect concentration.

- = no data available or benchmark was not exceeded

### 3.1.2 Spatial Trends

The highest concentrations of mine-influenced water quality constituents in the September samples, collected concurrently with the BIC samples, were observed at the station closest to CMm on Corbin Creek (CORCK), followed by the first station downstream of CMm on Michel Creek (MIDCO) (nickel is shown in Figure 3.1-1; other constituents in Appendix G). A declining gradient of concentrations with distance downstream was observed for most mine-influenced water quality constituents, including metals (e.g., nickel) and major ions comprising total dissolved solids (e.g., calcium, sulphate). For nickel in particular, concentrations in September 2022 returned to concentrations similar to the reference areas by MIDAG, 5.27 km downstream of the Corbin Creek confluence. Dissolved nickel concentrations at MIUCO, the station upstream of CMm on Michel Creek, were similar to those observed at the reference stations MI25, AGCK, and LE1.

**Figure 3.1-1: Spatial Variation in Total Nickel Concentrations Collected in the CMm LAEMP Study Area, September 2012 to 2022**



Notes: The proposed nickel benchmarks are pH, dissolved organic carbon, hardness, and alkalinity dependent and calculated based on 2022 values.  
 CMm= Coal Mountain Mine; µg/L = micrograms per litre; BC WQG = British Columbia water quality guideline.

### 3.1.3 Projections and Temporal Trends

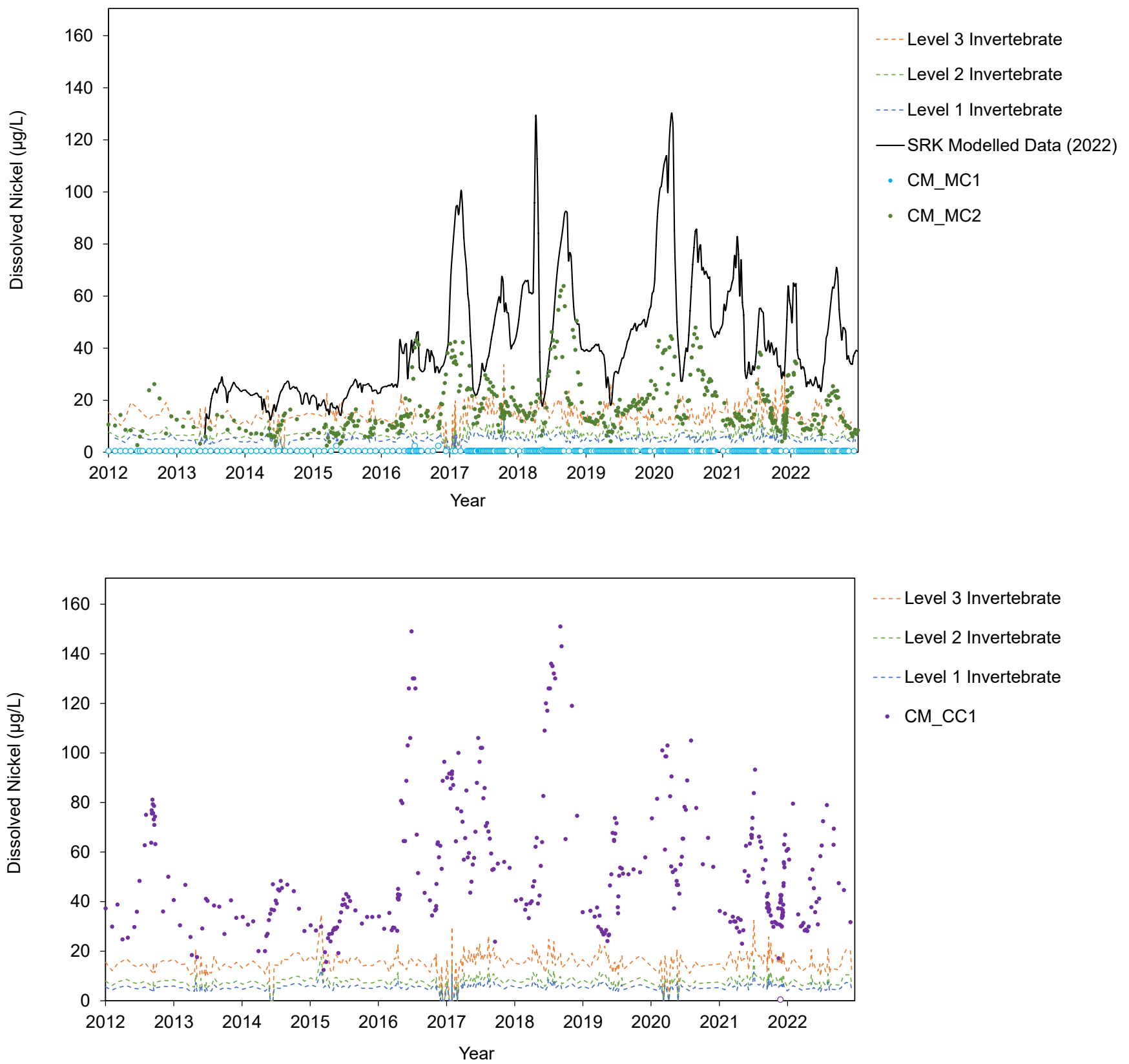
Temporal trends in dissolved nickel concentrations are presented in Figure 3.1-2 and discussed herein, while plots for all other monitored constituents are provided in Appendix G.

A common trend was observed for nickel and several other constituents in Michel Creek downstream of CORCK, in which concentrations increased between 2012 and 2018, and then decreased or remained consistent from 2018 to 2022. For nickel, this pattern was expected based on the concentrations modelled by SRK based on changes in mine water management with the transition to Care and Maintenance. In 2022, dissolved nickel was lower than projected based on the modelled data (SRK 2023). Concentrations of nickel were consistently above the proposed level 2 or level 3 nickel benchmark for invertebrates at CM\_MC2 between 2012 and 2022 (Figure 3.1-2). At CM\_CC1 in Corbin Creek, nickel concentrations between 2012 and 2022 were consistently above the proposed level 3 nickel benchmark.

Temporal trends and comparisons to projections for all other constituents are provided in Appendix G. Key trends for other constituents are:

- Concentrations of total selenium at CM\_MC2 were lower than projected based on the modelled concentrations for dissolved selenium. Concentrations in 2022 were within the ranges observed between 2012 and 2021.
- Organoselenium concentrations in the Elk River and Michel Creek are generally below detection and below the Level 2 screening value of 0.025 µg/L (ADEPT et al. 2023). In 2022, organoselenium was below detection at CM\_MC2 in Michel Creek downstream of CMm, with the exception of samples collected in the third quarter of 2022, where methylseleninic acid (MeSe IV) was detected at 0.011 µg/L, which is above the Level 1 screening value but below the Level 2 screening value. At concentrations below 0.025 µg/L, organoselenium is unlikely to cause a discernable shift in benthic invertebrate selenium concentrations (ADEPT et al. 2023).
- Concentrations of sulphate at CM\_MC2 were similar to the modelled concentrations. Concentrations peaked in 2018 and remained similar between 2018 and 2022. Data were consistently below the level 1 effect concentrations for invertebrates at CM\_MC1 and CM\_CC1 between 2012 and 2022.
- Concentrations of nitrite at CM\_MC2 were lower than the modelled concentrations. Concentrations of nitrate peaked in 2017 and have consistently declined from 2018 to 2022. Concentrations remained below the level 1 effect concentrations for invertebrates at CM\_MC1 and CM\_CC1 between 2012 and 2022.
- Similar trends were observed for total antimony, cobalt, molybdenum, manganese, uranium and nitrite. Concentrations peaked in 2017 or 2018, followed by a consistent decrease between 2018 and 2022.
- Total boron increased in 2020, and then returned to concentrations similar to those observed in 2018 and remained below relevant guidelines. The remaining constituents appeared consistent across years or were at concentrations below detection.

Figure 3.1-2: Weekly Dissolved Nickel Concentrations at CM\_MC2 and CM\_MC1 (top panel) and CM\_CC1 (bottom panel), 2012 to 2022



Notes: SRK modelled projections for dissolved nickel (SRK 2023). These projections were included for comparisons to total nickel. Measured concentrations for CM\_MC1, CM\_MC2 and CM\_CC1 are shown as blue, green, and purple circles, respectively, and SRK modelled data are represented by the solid black line in the upper panel. Open symbols indicate values below the detection limit.

BC WQG = British Columbia water quality guideline; µg/L = micrograms per litre.

### 3.1.4 Seasonal Variation in Nickel Concentrations in 2022

Dissolved nickel concentrations were greatest in January (approximately 80 µg/L at CM\_CC1 [CORCK] and 40 µg/L at CM\_MC2 [MIDCO]) August (approximately 80 µg/L at CORCK and 25 µg/L at MIDCO; Figure 3.1-3a). Dissolved nickel concentrations at MIDAG also peaked in August but remained below 10 µg/L throughout 2022. Concentrations at the reference stations and at mine-influenced stations downstream of MIDAG were almost always below the detection limit throughout 2022.

Dissolved nickel concentrations were also examined against the proposed level 1 nickel benchmark TU<sup>7</sup> (Figure 3.1-3b), thereby accounting for ETMFs<sup>8</sup> that vary across stations and samples. As discussed at the 3 May 2023 EMC meeting, peak nickel concentrations are used to evaluate potential effects to sensitive invertebrates (i.e., related to maximum exposure conditions in months preceding biological collection). Peak nickel concentrations in 2022 exceeded the proposed level 3 nickel benchmark at CORCK and MIDCO. Nickel concentrations at MIDAG occasionally exceeded the proposed level 2 nickel benchmark, whereas concentrations at reference and mine-influenced stations downstream of MIDAG were well below the proposed level 1 nickel benchmark (i.e., TU<1).

Based on the peak nickel concentrations described above and the narrative interpretation of chronic nickel benchmarks for invertebrates (WSP Golder 2022c), the following potential effects to BIC would be expected:

- Nickel concentrations were below the proposed level 1 benchmark at reference stations and mine-influenced stations downstream of MIDAG. At these stations, nickel would not be expected to cause measurable changes or ecologically meaningful effects to sensitive invertebrate species or the broader invertebrate community in BIC monitoring.
- Nickel concentrations were close to the proposed level 2 nickel benchmark at MIDAG. These results indicate a potential for low-level changes in the upper-bound of proportion of Ephemeroptera (i.e., % E) that would not likely be detectable and not expected change other community metrics.
- Nickel concentrations were above the proposed level 3 nickel benchmark immediately downstream of CMm at CORCK and MIDCO. These results indicate a potential for more than a 50% reduction in the upper-bound % E in the BIC, but effects to total abundance and richness of the BIC would not be expected. Nickel concentrations at the proposed level 3 nickel benchmark indicate a potential for measurable and ecologically-meaningful population-level changes in sensitive benthic invertebrates that could result in shifts in community structure (e.g., a shift in the dominant group from Ephemeroptera to Diptera).

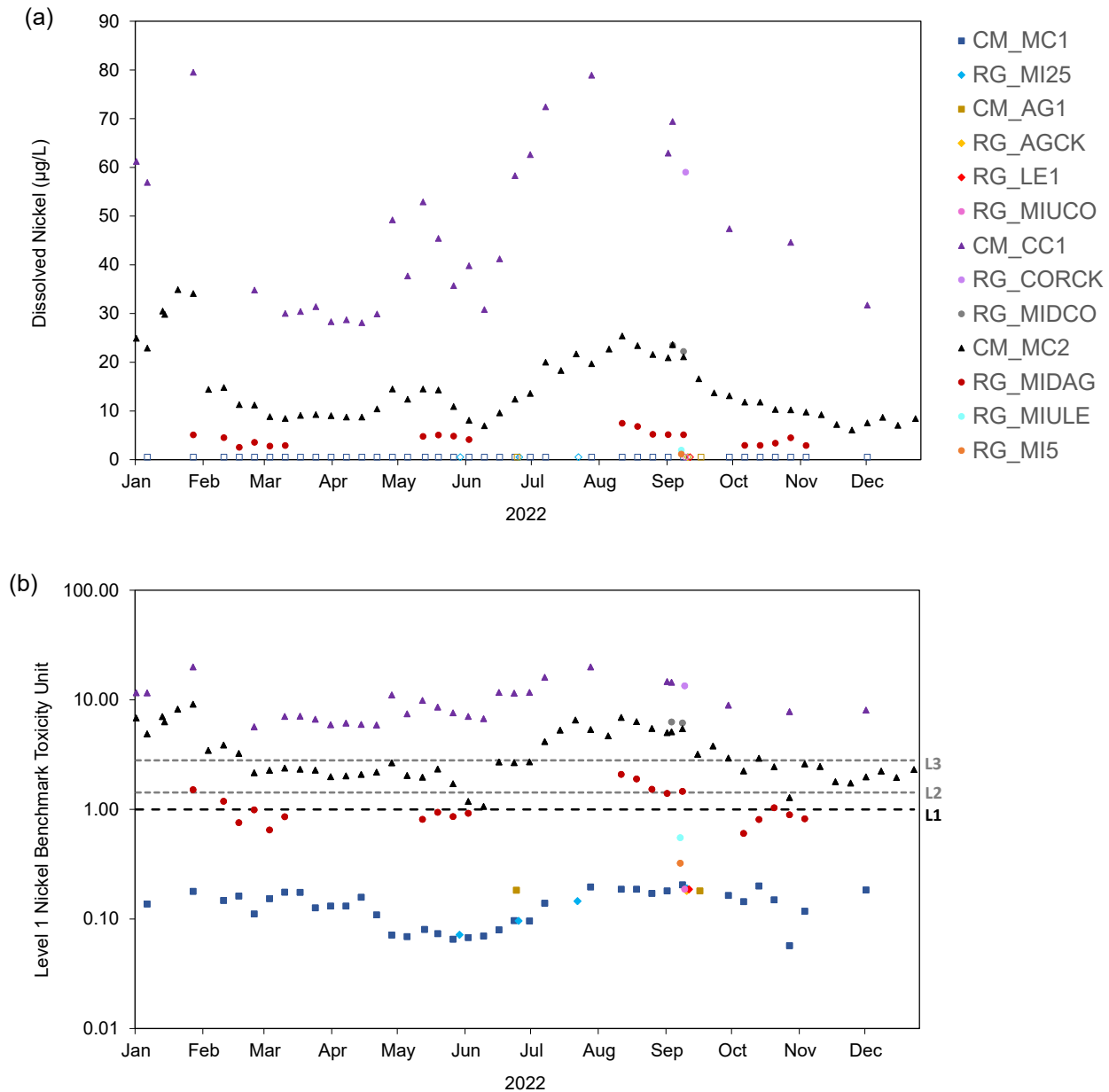
Section 3.6 evaluates the extent to which expected nickel-related effects to invertebrates (based on 2022 water quality screening) aligns with measured BIC responses (based on 2022 BIC sampling).

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<sup>7</sup> TU was calculated using EC10 rather than EC50.

<sup>8</sup> *Exposure* modifying factors may include organism life stage, diet, and route of exposure. *Toxicity* modifying factors may include other water quality parameters (i.e., hardness, pH, bicarbonate, and dissolved organic carbon for nickel) that influence the speciation and concentration of available nickel to exhibit toxicity to the organism. Santore et al. 2021 provides a recent review of variation in nickel toxicity to aquatic organisms based on chemistry of the exposure conditions.

**Figure 3.1-3: Dissolved Nickel Concentrations (top panel) and the Proportion of the Proposed Level 1 Nickel Benchmark (bottom panel) in the CMm LAEMP Study Area, 2022**



Note: Open symbols represent values below the detection limit. Values below the detection limit were substituted with the detection limit. The dissolved nickel concentrations as a proportion of the proposed level 1 nickel benchmark (L1) are shown and a value of 1 represents the calculated benchmark (black dashed vertical line). The sample-specific proposed level 2 (L2) and level 3 (L3) nickel benchmarks relative to the proposed level 1 nickel benchmarks are illustrated with the grey dashed horizontal lines. Reference stations from the CMm biological monitoring program are represented with diamond symbols, reference stations from the routine water quality monitoring program are represented by square symbols, mine-influenced station from CMm biological monitoring program are represented by circles, and mine-influenced stations from the routine water quality monitoring program are represented by triangles.

CMm = Coal Mountain Mine; µg/L = micrograms per litre.



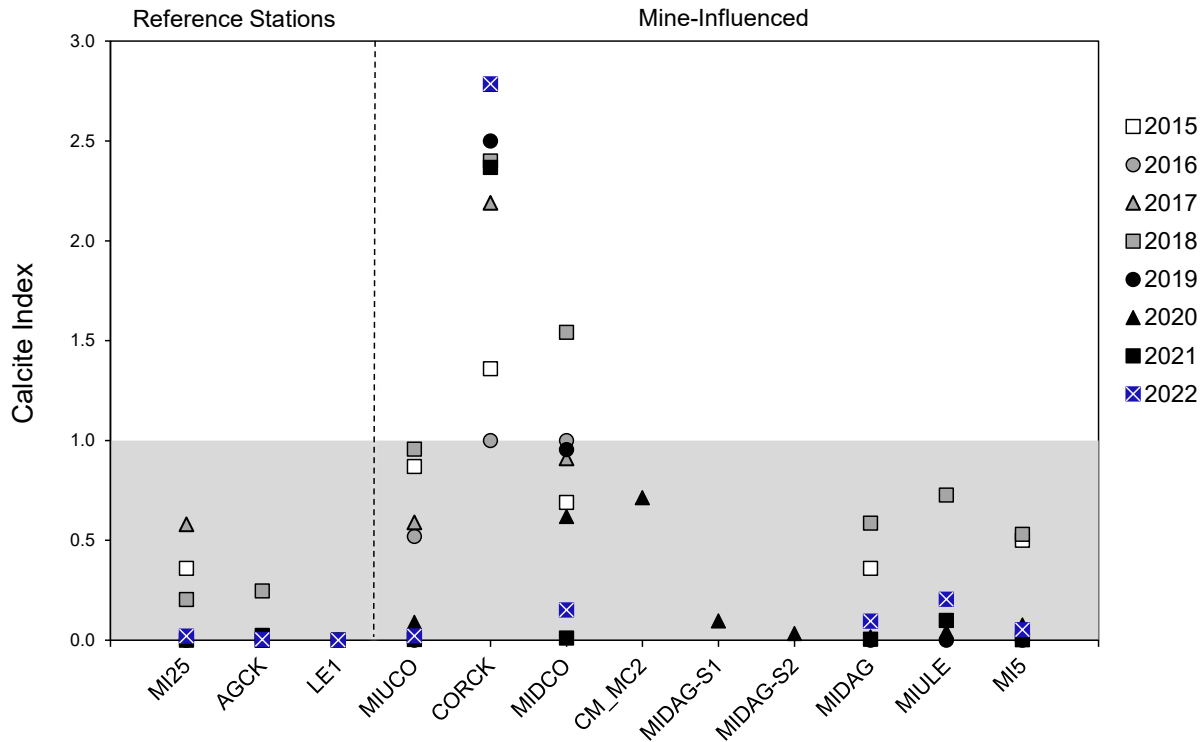
### 3.1.5 Water Quality Summary

The highest concentrations of mine-influenced water quality constituents were observed at the station closest to CMm on Corbin Creek (CORCK), followed by the first station downstream of CMm on Michel Creek (0.94 km downstream of the Corbin Creek confluence; MIDCO). A declining gradient of concentrations with distance downstream was observed for most mine-influenced water quality constituents; for nickel in particular, concentrations returned to concentrations similar to the reference areas after MIDAG (5.27 km downstream of the Corbin Creek confluence). Dissolved nickel concentrations increased between 2012 and 2018, and then decreased between 2018 and 2022; this was expected based on the concentrations modelled by SRK which were based on changes in mine water management with the transition to Care and Maintenance. In 2022, nickel was the only constituent identified as having the potential to cause effects to BIC in Michel Creek. Peak nickel concentrations exceeded the proposed level 3 nickel benchmark for invertebrates in Corbin Creek at CORCK and the first station downstream on Michel Creek (MIDCO) and exceeded the proposed level 2 nickel benchmark at MIDAG. At other reference and mine-influenced stations, nickel concentrations were below the proposed level 1 nickel benchmark. This pattern indicates that the mine-related influence from nickel is likely localized to the area near the Corbin Creek confluence, immediately downstream of CMm (i.e., MIDCO and MIDAG). The potential impact of these dissolved nickel concentrations on the BIC is discussed further in Sections 3.6, 4.0, and 5.0.

### 3.2 Calcite Index

Calcite index values in 2022 were within the reference normal range of 0 to 1 at all reference stations and at all mine-influenced stations in Michel Creek; maximum calcite index among replicates was 0.24 (Figure 3.2-1; Appendix H). Calcite index values above the reference normal range were observed at CORCK in 2022 and all previous monitoring years except 2016. In Michel Creek, the average calcite index value was above the reference normal range only at MIDCO in 2018; calcite index values at MIDCO have been near the upper end of the reference normal range from 2016 to 2020, decreased in 2021 and 2022 to values below 0.1. Calcite index values have been greater in Corbin Creek (CORCK) relative to stations in Michel Creek; average calcite index values have been greater than 2.0 since 2017 and approached the maximum value of 3.0 (i.e., calcite present on all particles and fully concreted) in 2022.

**Figure 3.2-1: Spatial Variation in Calcite Index in the CMm LAEMP Study Area, 2012 to 2022**



Notes: Grey shading represents the normal range defined as the 2.5<sup>th</sup> and 97.5<sup>th</sup> percentiles of the 2015 reference area data from the RAEMP (Minnow 2018b).

### 3.3 Sediment Quality

Sediment quality results are screened against the BC WSQG for the protection of aquatic life (BC ENV 2021a,b) in Appendix I. A summary of metal and polycyclic aromatic hydrocarbon (PAH) constituents with concentrations greater than BC WSQGs is provided in Tables 3.3-1 and 3.3-2. Plots showing spatial trends of metal constituents with concentrations higher than BC WSQGs are provided in Figure 3.3-1 and plots for the remaining constituents are provided in Appendix G. Substrate composition, sediment texture, grain size and sediment TOC content are provided in Section 3.5.

#### 3.3.1 Spatial Trends

- Metal concentrations<sup>9</sup> above lower BC WSQGs were observed at both reference and mine-influenced stations in 2022 (Table 3.3-1; Figure 3.3-1). Metals above the lower BC WSQGs at mine-influenced stations were arsenic, cadmium, iron, manganese, nickel, selenium, and zinc; these metals were also above BC WSQGs at one or more reference stations. Metal concentrations that were above the upper BC WSQGs were cadmium, manganese, nickel and zinc at CORCK, and nickel concentrations at MIDCO and MIULE in Michel Creek downstream of

<sup>9</sup> Metal concentrations used in data screening are the maximum of the replicate samples at each mine-influenced and reference station.

CORCK. Key spatial patterns in sediment quality results for metals in 2022 were:

- Concentrations of 15 constituents (i.e., aluminum, arsenic, beryllium, boron, chromium, copper, iron, lead, lithium, molybdenum, phosphorus, potassium, thallium, titanium, and vanadium) were lower at CORCK relative to stations in Michel Creek (Figure 3.3-1; Appendix G).
- Concentrations of 10 constituents (i.e., cadmium, calcium, cobalt, manganese, nickel, sodium, strontium, sulfur, uranium, and zinc) were highest at CORCK and declined downstream of the Corbin Creek confluence in Michel Creek (Figure 3.3-1; Appendix G). Of the 10 constituents showing a downstream gradient, metal concentrations were similar to or lower than concentrations at reference stations downstream of MIDCO, with the exceptions of cobalt, nickel, sodium, and sulfur, which had higher concentrations at one or more downstream stations compared to the reference stations (Figure 3.3-1; Appendix G).
- Concentrations of three sediment constituents (i.e., antimony, barium, and titanium) were highest at the two most downstream stations in Michel Creek (MIULE and MI5) (Appendix G).
- Concentrations of selenium were above the lower BC WSQG at CORCK and stations downstream of CORCK on Michel Creek (Figure 3.3-1). No spatial pattern in selenium was evident, and the highest concentrations were observed at MIDAG in Michel Creek, followed by CORCK and MIDCO.
- At CORCK, cadmium, manganese, and zinc concentrations were higher than at mine-influenced stations farther downstream on Michel Creek and were above the upper BC WSQG (Table 3.3-1).
- Concentrations of nickel were above the lower BC WSQG at all stations and above the upper BC WSQG at CORCK, MIDCO, and MIULE in 2022 (Figure 3.3-1). Nickel concentrations were highest at CORCK and declined in a downstream gradient, with the exception of one replicate observed at MIULE which had high nickel concentrations.
- Calcium, cobalt, sodium, sulphur, and strontium concentrations were all highest at CORCK and declined in a downstream gradient.

PAH concentrations were above the lower BC WSQGs at both reference and mine-influenced stations in 2022 (Table 3.3-2; Appendix G). PAH concentrations above the upper BC WSQG occurred at CORCK and at stations downstream of CORCK on Michel Creek (MIDCO, MIDAG and MIULE). Total PAH ESBTU values were less than 1.0 for stations with total PAH concentrations exceeding the BC lower WQG, indicating low bioavailability of PAHs and low potential for effects.

Concentrations of PAHs were generally highest at CORCK and declined in a downstream gradient in Michel Creek. These compounds are slow to degrade and tend to accumulate in habitats where they are found in association with fine sediments, and high TOC and detritus content (Newman and Unger 2003). However, substrates at reference and mine-influenced stations were mostly composed of cobble and gravel (>50%) or boulders, and TOC content in the small depositional areas near the erosional BIC habitat was <11% (Section 3.5). Considering these habitat variables, the PAH accumulation pattern observed does not align with the habitat variables in the study area.

### 3.3.2 Temporal Trends

Sediment constituent concentrations in 2022 were generally similar to or lower than those measured in previous years, indicating a lack of temporal trends (Figure 3.3-1; Appendix G).

**Table 3.3-1: Summary of Sediment Quality Screening Exceedances for Metals at CMm, September 2022**

Constituent	BC Lower WSQG (mg/kg dw)	BC Upper WSQG (mg/kg dw)	Maximum Concentration (mg/kg dw) <sup>(a)</sup>								
			Reference Stations			Mine-influenced Stations					
			MI25	AGCK	LE1	MIUCO <sup>(b)</sup>	CORCK	MIDC O	MIDA G	MIUL E	MI5
Arsenic	5.9	17	<b>12.1</b>	<b>6.97</b>	<b>8.97</b>	<b>9.45</b>	-	<b>6.78</b>	-	<b>5.98</b>	-
Cadmium	0.6	3.5	<b>1.46</b>	<b>1.26</b>	<b>2.07</b>	<b>0.90</b>	<b>10.70</b>	<b>2.24</b>	<b>1.72</b>	<b>1.41</b>	<b>2.38</b>
Iron	21,200	43,766	<b>27,400</b>	-	-	<b>31,300</b>	-	-	-	-	-
Manganese	460	1,100	<b>708</b>	-	-	<b>700</b>	<b>2,200</b>	<b>751</b>	-	-	-
Nickel	16	75	<b>36.1</b>	<b>24.6</b>	<b>31.4</b>	<b>26.9</b>	<b>284</b>	<b>134</b>	<b>64.4</b>	<b>427</b>	<b>35.1</b>
Selenium	2.0	-	-	<b>2.14</b>	-	-	<b>4.55</b>	<b>4.20</b>	<b>6.19</b>	<b>3.88</b>	<b>2.75</b>
Zinc	123	315	<b>156</b>	<b>147</b>	<b>133</b>	-	<b>831</b>	<b>176</b>	<b>125</b>	-	-

Note: Stations are ordered upstream to downstream.

(a) Concentrations shown are the maximum of the replicate samples at each station.

(b) MIUCO maximum concentrations are exclusive to the September sampling event. Additional October samples were not included.

**Bolded** values exceed the lower BC WSQG for the protection of aquatic life (BC ENV 2021a,b).

**Shaded** values exceed the upper BC WSQG for the protection of aquatic life (BC ENV 2021a,b).

- = no data available or values below detection limit; mg/kg dw = milligrams per kilogram dry weight; WSQG = working sediment quality guideline; CMm = Coal Mountain Mine.

**Table 3.3-2: Summary of Sediment Quality Screening Exceedances for Polycyclic Aromatic Hydrocarbons at CMm, September 2022**

Constituent	BC Lower WSQG (mg/kg dw)	BC Upper WSQG (mg/kg dw)	Maximum Concentration (mg/kg dw) <sup>(a)</sup>								
			Reference Stations			Mine-influenced Stations					
			MI25	AGCK	LE1	MIUCO <sup>(b)</sup>	CORCK	MIDCO	MIDAG	MIULE	MI5
Total Organic Carbon (%)	-	-	2.6	9.8	2.4	6.8	6.7	7.3	12.5	7.5	6.9
Acenaphthene	0.0067	0.089	-	-	-	-	<b>0.058</b>	-	-	-	-
Anthracene	0.047	0.25	-	-	-	-	-	-	-	<b>0.357</b>	<b>0.204</b>
Benz(a)anthracene	0.032	0.39	-	-	-	-	<b>0.076</b>	-	-	-	-
Benzo(a)pyrene	0.032	0.78	-	-	-	-	<b>0.056</b>	<b>0.050</b>	-	-	-
Chrysene	0.057	0.86	-	-	<b>0.082</b>	<b>0.060</b>	<b>0.421</b>	<b>0.325</b>	<b>0.243</b>	<b>0.150</b>	<b>0.084</b>
Fluorene	0.021	0.14	-	-	-	-	<b>0.167</b>	<b>0.124</b>	-	-	-
2-Methylnaphthalene	0.020	0.2	-	<b>0.086</b>	<b>0.140</b>	<b>0.103</b>	<b>2.370</b>	<b>1.380</b>	<b>0.676</b>	<b>0.394</b>	<b>0.184</b>
Naphthalene	0.035	0.39	-	<b>0.040</b>	<b>0.068</b>	<b>0.044</b>	<b>0.881</b>	<b>0.594</b>	<b>0.333</b>	<b>0.192</b>	<b>0.096</b>
Phenanthrene	0.042	0.52	-	<b>0.099</b>	<b>0.262</b>	<b>0.132</b>	<b>1.130</b>	<b>0.782</b>	<b>0.544</b>	<b>0.358</b>	<b>0.203</b>
Pyrene	0.053	0.88	-	-	-	-	<b>0.134</b>	<b>0.095</b>	<b>0.079</b>	-	-
LMW PAH <sup>(c)</sup>	0.10	-	<b>0.420</b>	<b>0.702</b>	<b>0.910</b>	<b>0.642</b>	<b>6.188</b>	<b>4.044</b>	<b>2.666</b>	<b>1.909</b>	<b>1.157</b>
HMW PAH <sup>(d)</sup>	1.00	-	-	-	-	-	<b>1.589</b>	<b>1.297</b>	<b>1.787</b>	-	-
Total PAH	4.0	35	-	-	-	-	<b>7.777</b>	<b>5.341</b>	<b>4.453</b>	-	-
PAHs, total (BC Sched 3.4)	4.0	35	-	-	-	-	<b>5.300</b>	-	-	-	-
Total PAH (mg/kg OC)	-	-	-	-	-	-	119.8	90.8	45.9	-	-
Total PAH ESBTU	-	-	-	-	-	-	0.22	0.16	0.08	-	-

Note: Stations are ordered upstream to downstream. Concentrations in mg/kg, except total organic carbon which is presented in percent and ESBTU which is unitless.

(a) Concentrations shown are the maximum of the replicate samples at each station.

(b) MIUCO maximum concentrations are inclusive of both September and October samples as PAHs could not be analyzed by the lab for the majority of the September samples.

(c) Low molecular weight PAHs are comprised of acenaphthene, acenaphthylene, acridine, anthracene, fluorene, 1-methylnaphthalene, 2-methylnaphthalene, naphthalene, phenanthrene, and quinoline.

(d) High molecular weight PAHs are comprised of benz(a)anthracene, benzo(a)pyrene, benzo(b&j)fluoranthene, benzo(b+j+k)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-c,d)pyrene, and pyrene.

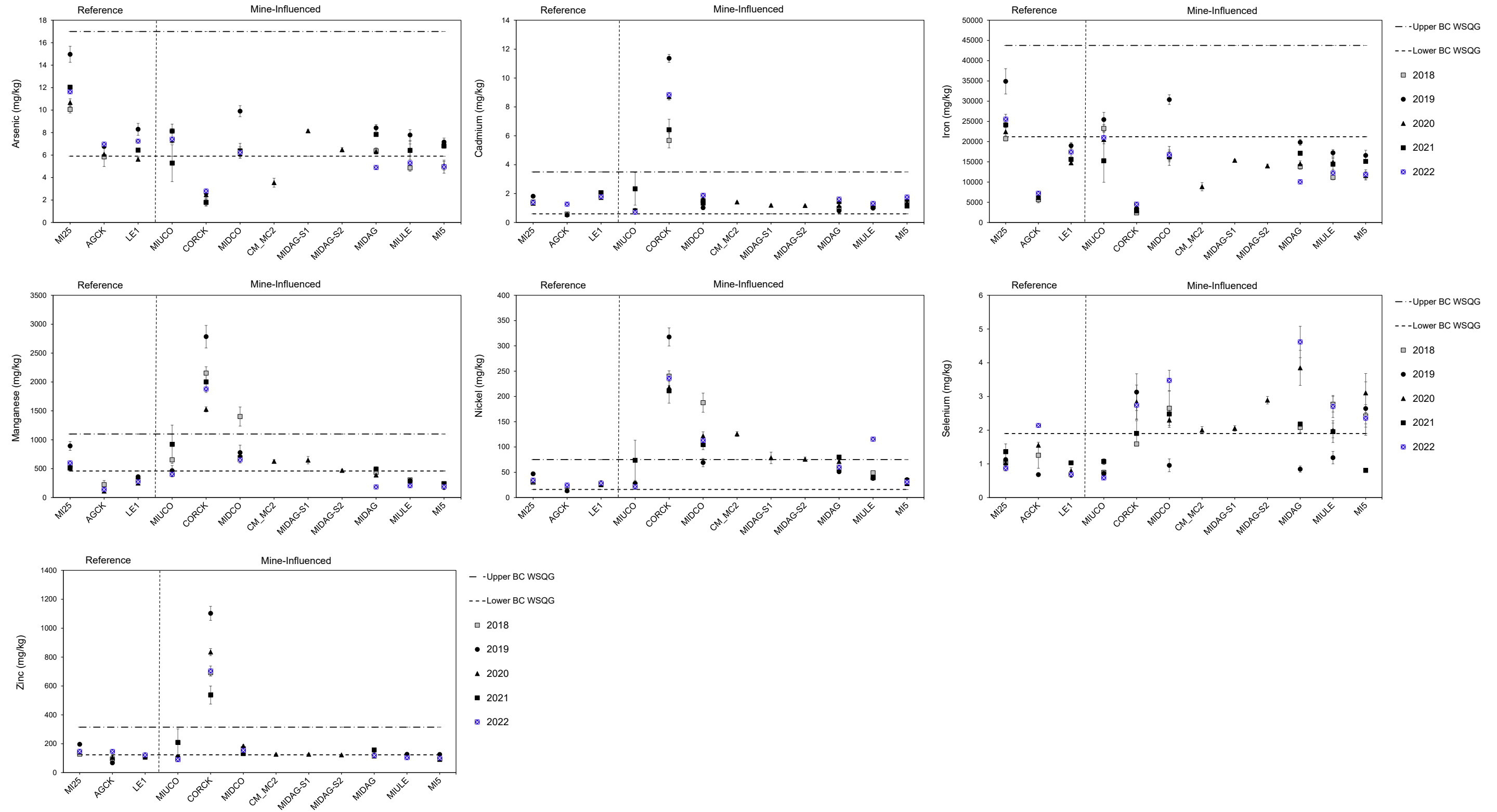
Bolded values exceed the lower BC WSQG for the protection of aquatic life (BC ENV 2021a,b).

Shaded values exceed the upper BC WSQG for the protection of aquatic life (BC ENV 2021a,b).

- = values below WSQG or detection limit; mg/kg dw = milligrams per kilogram dry weight; HMW = high molecular weight; LMW = low molecular weight; PAH = polycyclic aromatic hydrocarbon; OC = organic carbon; ESBTU = equilibrium-partitioning sediment benchmark toxic unit; BC = British Columbia; WSQG = working sediment quality guidelines; CMm = Coal Mountain Mine.



Figure 3.3-1: Spatial Variation in Sediment Metal Concentrations in the CMm LAEMP Study Area, September 2018 to 2022



Notes: WSQG = working sediment quality guideline; mg/kg = milligrams per kilogram dry weight; CMm = Coal Mountain Mine.

### 3.3.3 Sediment Quality Summary

Sediment constituent concentrations in 2022 were generally within the ranges measured in previous years. Metal and PAH concentrations were above the lower BC WSQG at both reference and mine-influenced stations in 2022, and a subset of these were above the upper BC WSQG at CORCK and at stations downstream of CORCK on Michel Creek (MIDCO, MIDAG and MIULE). As with water quality, the highest concentrations generally occurred at CORCK and then decreased downstream.

As discussed in Section 1.5, sediment is unlikely to be a relevant exposure pathway for BIC in the CMm area, because the BIC are collected from riffle habitats that are highly erosional and contain very little to no surficial fines. The dominant taxa in these areas (i.e., Ephemeroptera, Plecoptera, Trichoptera) tend to be associated with the hard gravel and cobble substrates that predominate in erosional areas. Depositional areas are small and uncommon on Michel Creek, and sediment samples for the sediment quality analysis, although collected within the same general reaches as the BIC samples, are located in low-energy areas along the margins of the creek, or in small side channels that do not represent the habitat where the BIC samples are collected. Therefore, there is no significant operable pathway for exposure of the sampled BIC to the measured sediment quality and even in habitats where sediment is an exposure pathway, aqueous nickel exposure is the dominant pathway for BIC effects rather than sediment exposure (Brix et al. 2017). Despite the lack of exposure pathway, sediment quality has been collected as a supporting measurement endpoint in the CMm LAEMP. The sediment quality results have continued to be broadly consistent among years for the CMm LAEMP with negligible spatiotemporal patterns.

A concern raised during the 3 May 2023 EMC meeting was the potential for sediments to be a source of nickel to Michel Creek through resuspension. It is unlikely that resuspension of nickel from the sediment is occurring in the erosional habitat of Michel Creek due to a number of factors. Mainly, given the pH conditions required for nickel resuspension from sediment are at a range below 4 (Swennen and Devivier 2006) and pH in Michel Creek ranges between 8.0 to 8.4, nickel is not expected to mobilize. Also, the minimal sediment in Michel Creek is located in low-energy areas along the margins of the creeks that do not represent areas that are prone to resuspension; therefore, it is unlikely that nickel resuspension from the sediment is occurring.

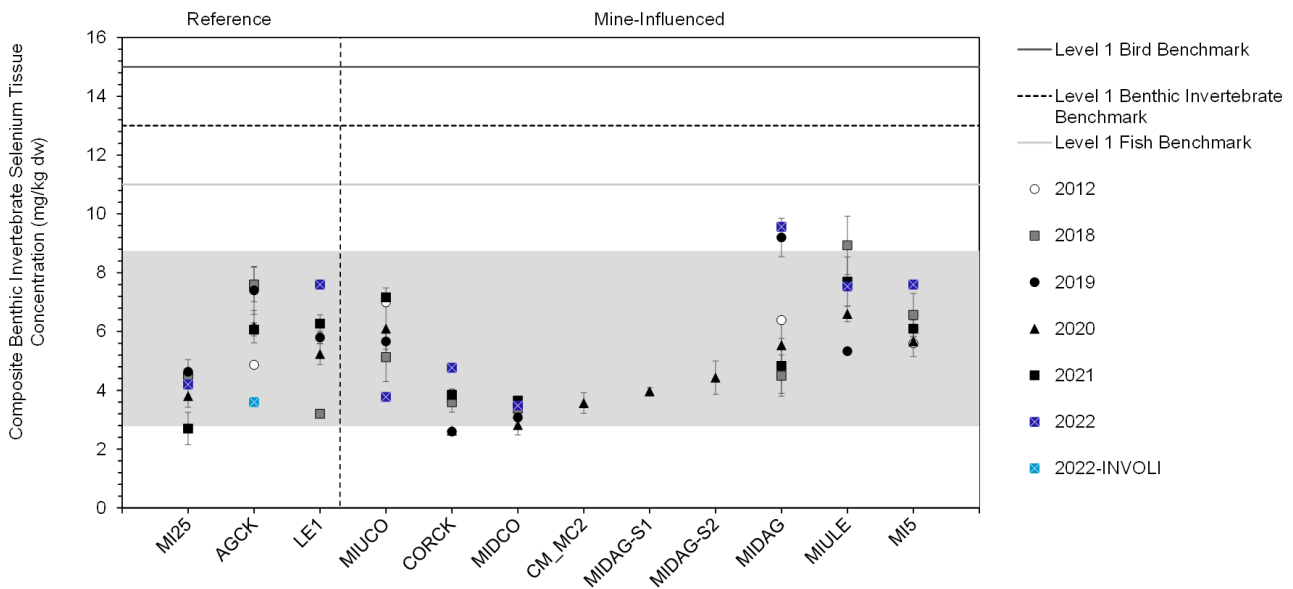
Consistent with the discussions that occurred at the 3 May 2023 EMC meeting, it is recommended that sediment quality monitoring be discontinued, if the CMm LAEMP continues. Sediment chemistry will continue to be monitored under the RAEMP.

### 3.4 Benthic Invertebrate Tissue Chemistry

BIT Se concentrations were plotted relative to historical data and relative to the reference normal range (Golder 2019) to help interpret results of water quality and BIC monitoring. BIT Se concentrations provide a direct indication of the bioaccumulative potential of aqueous selenium and a direct, tissue-based measure of exposure to evaluate potential effects of selenium to other biota (i.e., fish). Results for other constituents in BIT are provided in Appendix L.

Between 2012 and 2022, BIT Se concentrations were within or below the regional normal range at reference and mine-influenced stations, with the exception of MIULE in 2018 and MIDAG in 2019 and 2022, which were slightly above the regional normal range (Figure 3.4-1). In 2022, with the exception of MIDAG, BIT Se concentrations at mine-influenced stations was within the range measured at CMm reference stations. The higher BIT Se concentrations observed at MIDAG in 2019 and 2022 and MIULE in 2018, are unlikely to be ecologically relevant because they were just slightly above the regional normal range. These results will be compared against the updated regional normal range in the 2020 to 2022 RAEMP (Minnow 2023) to confirm whether they are outside the range of natural variation. BIT Se concentrations were less than the lowest level 1 benchmark at all stations, in all years. Overall, none of the BIT Se replicates in 2022 had selenium concentrations above the biological trigger thresholds or above the level 1 benchmarks for juvenile fish. These findings do not indicate a need to track BIT Se under the AMP framework.

**Figure 3.4-1: Composite Benthic Invertebrate Tissue Selenium Concentrations from the CMm LAEMP Study Area, 2012 to 2022**



Notes: Grey shading represents the normal range defined as the 2.5th and 97.5th percentiles of the 2012 and 2019 reference area data from the RAEMP (Minnow 2020a).

CMm = Coal Mountain Mine; mg/kg dw = milligrams per kilogram dry weight; INVOLI = taxon-specific tissue sample that includes only annelid tissue.

### 3.5 Physical Habitat Characteristics

Variation in physical habitat characteristics such as water depth, velocity, sediment particle size, and TOC can influence BIC structure in streams (Rosenberg and Resh 1992). Water depth ranged between 11 cm and 27 cm among sampling stations in 2022, and stream velocity ranged from 0.25 to 0.48 m/s (Table 3.5-1).

Field water quality measurements taken at the BIC sampling stations in Michel Creek in 2022 indicated that pH was neutral to slightly basic (i.e., 8.0 to 8.5), the water was well oxygenated (i.e., 9.6 to 10.6 mg/L of DO), and these constituents were similar among stations (Table 3.5-1). Specific conductivity was lower at the reference stations and at MIUCO upstream of CMm (i.e., 196 to 300  $\mu\text{S}/\text{cm}$ ), and was higher at CORCK and MIDCO (i.e., 1,183 to 1,652  $\mu\text{S}/\text{cm}$ ), consistent with previous years. Water temperature was relatively similar among stations, with slightly higher temperatures at CORCK and MIDCO, temperature ranged from 7.0°C to 12.3°C.

Based on visual examination of the area, substrates at both reference and mine-influenced stations were mostly composed of cobble and gravel (>50%), with the exception of CORCK and MIDAG, where substrates were primarily composed of boulder (Table 3.5-1; Figure 3.5-1; Appendix J). Sediment particle size distribution, based on samples collected near BIC stations (but not within the erosional habitat where BIC samples were collected) was generally dominated by sand and silt, with low proportions of gravel and clay (Table 3.5-1; Figure 3.5-1; Appendix J). Sediment TOC content was similar among stations and was generally below 7% between 2018 and 2022, with the exception of AGCK (2018, 2020, and 2022), CORCK (2019 and 2020), MIDAG (2022), MIDAG-S1 (2020), and MIDAG-S2 (2020), which had higher sediment TOC content, ranging from 7.1% to 10.1%.

Overall, physical habitat characteristics were similar between reference and mine-influenced stations (Table 3.5-1; Figure 3.5-1; Appendix J).

**Table 3.5-1: Habitat Characteristics at Benthic Invertebrate Sampling Stations in the CMm LAEMP Study Area, September 2022**

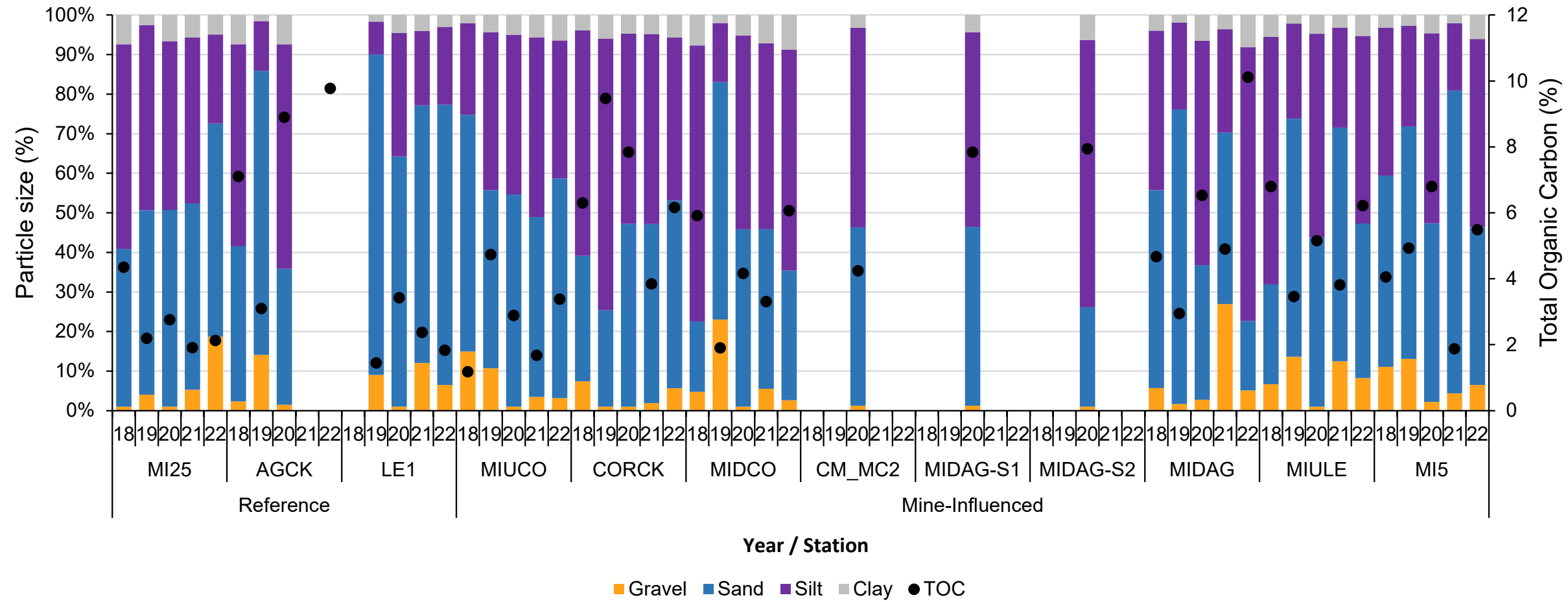
Variable		Units	Reference Stations			Mine-Influenced Stations					
			MI25	AGCK	LE1	MIUCO	CORCK	MIDCO	MIDAG	MIULE	MI5
Physical Variables	Sample water depth	cm	10.6	17.3	15.1	15.2	13.5	18.6	26.5	26.3	21.6
	Velocity	m/s	0.28	0.48	0.39	0.25	0.30	0.31	0.37	0.42	0.40
	Water temperature	°C	7.7	9.2	8.4	7.0	11.5	12.3	9.8	10.9	9.5
	Dissolved oxygen	mg/L	9.7	10.2	10.2	10.6	9.8	9.6	9.8	9.7	10.0
	Specific conductivity	µS/cm	290	252	196	300	1,652	1,183	734	622	511
	pH	-	8.2	8.5	8.0	8.4	8.1	8.1	8.2	8.4	8.3
Organic Carbon (in depositional samples)	Total organic carbon	%	2.1	9.8	1.8	3.5	6.2	6.1	10.1	6.2	5.5
Sediment Particle Size distribution (in depositional samples)	Clay (<0.004 mm)	%	5	-	3	6	6	9	8	5	6
	Silt (0.004 to 0.06 mm)	%	23	-	20	42	41	56	70	47	48
	Fine sand (0.06 to 0.25 mm)	%	21	-	36	29	31	11	13	17	21
	Coarse sand (0.25 to 2.0 mm)	%	33	-	35	19	17	22	11	22	21
	Gravel (>2.0 mm)	%	19	-	7	4	6	3	11	8	6
Substrate Composition	Bedrock	%	0	0	0	0	0	0	5	0	0
	Boulder	%	10	20	10	5	90 <sup>(a)</sup>	10	40	20	30
	Cobble	%	70	60	50	80	0	50	30	30	30
	Gravel	%	10	20	20	10	0	20	20	30	30
	Sand	%	5	0	10	0	5 <sup>(a)</sup>	10	0	10	0
	Finer	%	5	0	10	5	5 <sup>(a)</sup>	10	5	10	10

(a) Calcite covered majority of the substrate.

µS/cm = microsiemens per centimetre; - = no data.



Figure 3.5-1: Mean Particle Size and Total Organic Carbon in Sediment in the CMm LAEMP Study Area, September 2018 to 2022



CMm = Coal Mountain Mine.

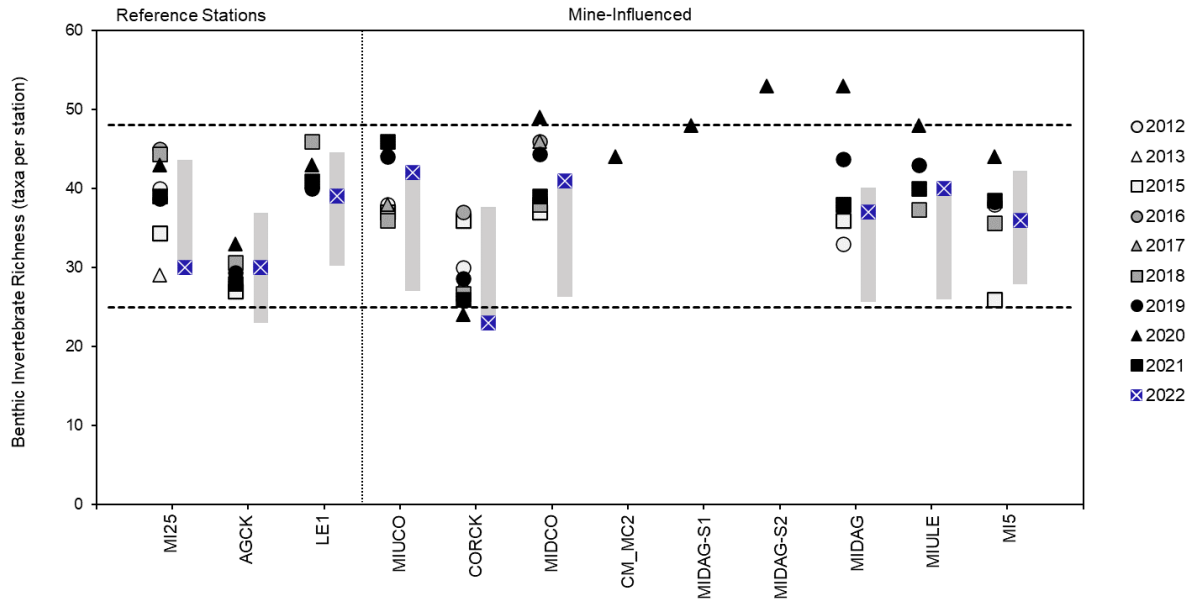
## 3.6 Benthic Invertebrate Community

### 3.6.1 Richness and Abundance

Benthic invertebrate richness was similar among stations between 2012 and 2022, with the highest richness observed in 2020 at most mine-influenced stations compared to other years. With one exception (i.e., reference station MI25), there were no significant differences in richness in 2022 relative to previous years (Appendix K, Table K-5). Richness was significantly greater at MIDCO in 2020 compared to previous years and although the overall ANOVA was not statistically significant, a similar trend (i.e., a significantly higher richness in 2020 compared to prior years) was also observed at MIDAG and MI5. At MI25, there was a significant decrease in richness in 2022 compared to previous years but richness remained within the regional and site-specific normal ranges (Figure 3.5-1). Richness was within or above the site-specific and regional normal ranges at mine-influenced stations and reference stations in 2022, including at CORCK where the average was at the lower end of the site-specific normal range (i.e., 23 taxa per station) (Figure 3.6-1; Appendix K). Richness at CORCK was significantly lower compared to downstream stations (i.e., MIDCO to MI5) and reference stations (Appendix K, Table K-4), and the magnitude of difference was -2.3 SD based on the contrast mean.

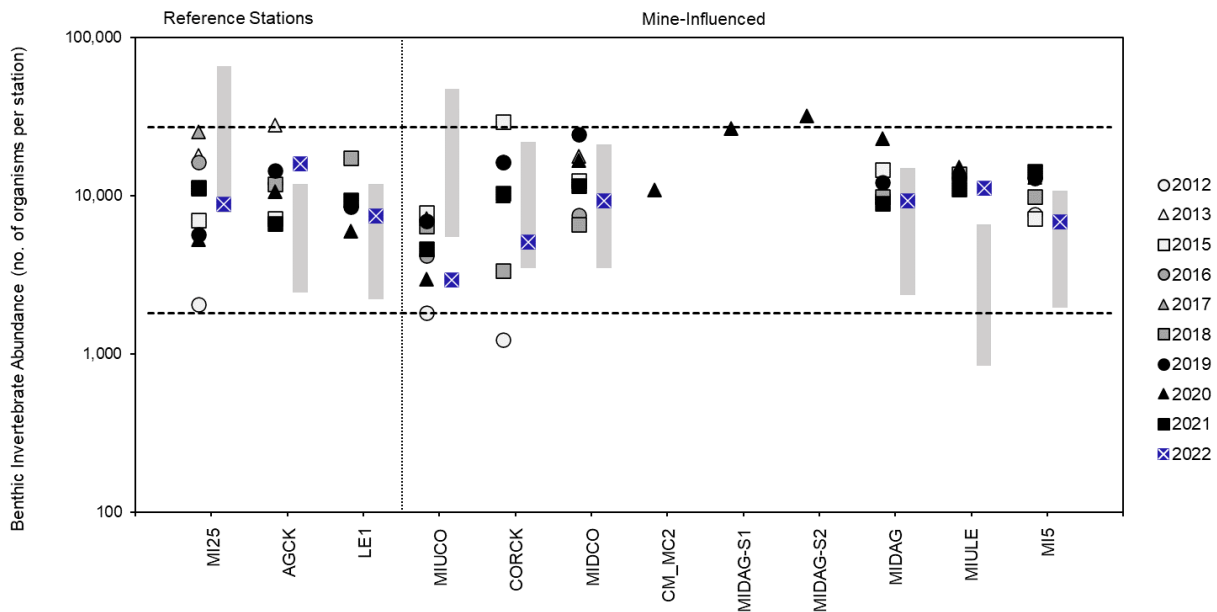
Benthic invertebrate abundance was similar among years between 2012 and 2022 (Figure 3.62), although occasional significant differences were detected between years at some stations. There were no significant differences in abundance in 2022 compared to previous years (Appendix K, Table K5). Benthic invertebrate abundance was within or above the upper bound of the site-specific and regional normal ranges at all stations in 2022, except at MIUCO, where it was below the lower bound of the site-specific normal range (Figure 3.62). Spatially, benthic invertebrate abundance was significantly lower at MIUCO and CORCK compared to downstream and reference stations, with a magnitude of difference of -1.8 and -1.4 SD, respectively (Appendix K, Table K4). Abundance at MIUCO has been historically lower compared to other stations in Michel Creek, which may be related to habitat (e.g., habitat parameters not included in Minnow's habitat model used to predict site-specific normal ranges), or other mine-related influences unrelated to inputs from Corbin Creek because this station is located 0.82 km upstream of the confluence with Corbin Creek and is adjacent to CMm.

**Figure 3.6-1: Benthic Invertebrate Taxonomic Richness in the CMm LAEMP Study Area, September 2012 to 2022**



Notes: Grey shading represents the 2022 site-specific normal ranges for comparisons to 2022 results only; data from 2012 to 2022 compared to each year's site-specific normal range are presented in Appendix K. The dotted line represents the regional normal range defined as the 2.5<sup>th</sup> and 97.5<sup>th</sup> percentiles of the 2012 to 2019 reference area data from the RAEMP (Minnow 2020a).

**Figure 3.6-2: Benthic Invertebrate Abundance in the CMm LAEMP Study Area, September 2012 to 2022**



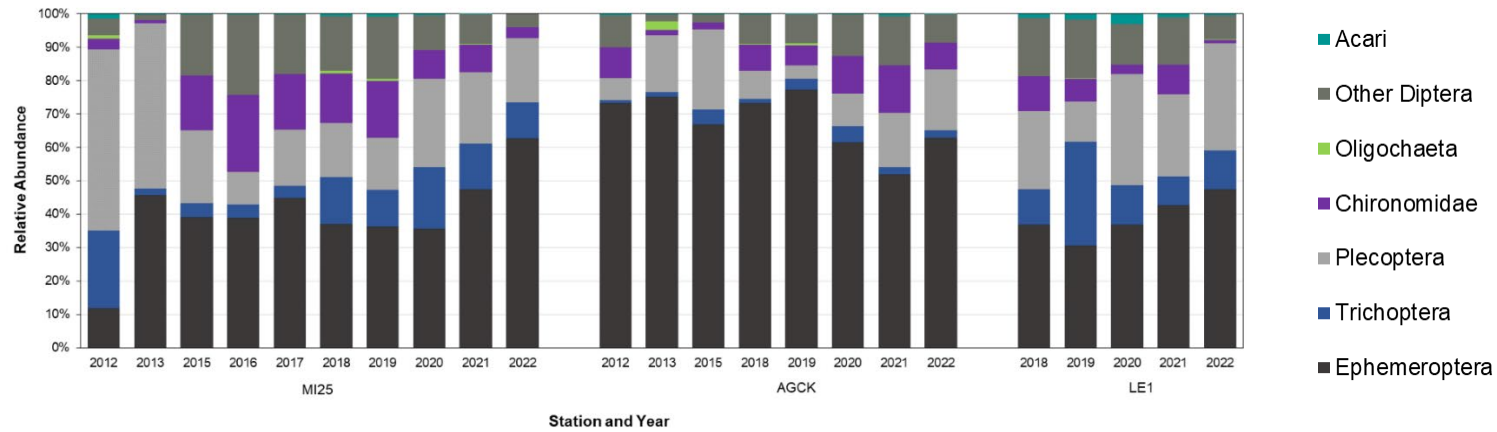
Notes: Grey shading represents the 2022 site-specific normal ranges for comparisons to 2022 results only; data from 2012 to 2022 compared to each year's site-specific normal range are presented in Appendix K. The dotted line represents the regional normal range defined as the 2.5<sup>th</sup> and 97.5<sup>th</sup> percentiles of the 2012 to 2019 reference area data from the RAEMP (Minnow 2020a).

### 3.6.2 Community Composition

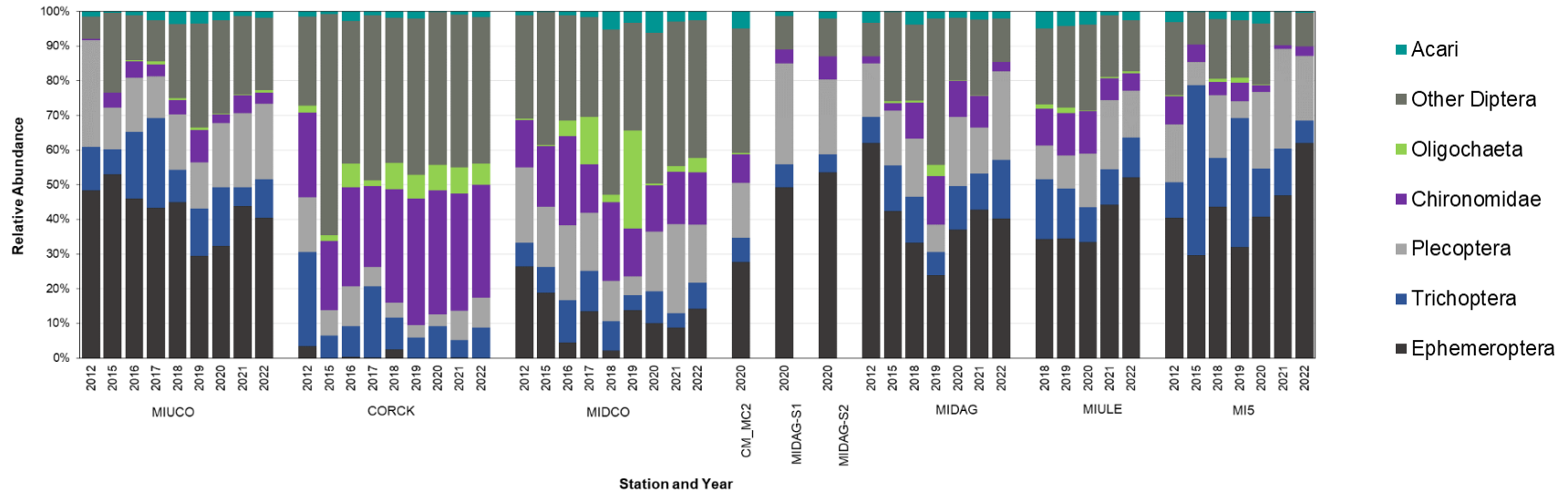
Ephemeroptera dominated the communities at all reference stations and most mine-influenced stations in Michel Creek between 2012 and 2022 (Figure 3.6-3). The communities in Corbin Creek and in Michel Creek at MIDCO were dominated by Diptera, with higher proportions of Chironomidae compared to reference stations and stations in Michel Creek farther downstream from CMm. Higher proportions of Oligochaeta compared to other stations were observed at CORCK from 2016 to 2022 and at MIDCO in 2019. Relative proportions of other major taxonomic groups have generally remained similar from 2012 to 2022, with greater variability among stations than years (Figure 3.6-4).

Acari (i.e., mites) have also been considered in the CMm LAEMP following review of the 2019 report and interest from the EMC (Golder 2020a). There were no clear spatial or temporal patterns in the proportion of Acari indicating mine-related effects between 2012 and 2022. Acari was a minor taxon in all years, and in 2022, average percent Acari was less than 3% at mine-influenced stations and less than 1% at reference stations.

**Figure 3.6-3: Benthic Invertebrate Community Composition at Reference Stations in the CMm LAEMP Study Area, September 2012 to 2022**



**Figure 3.6-4: Benthic Invertebrate Community Composition at Mine-influenced Stations in the CMm LAEMP Study Area, September 2012 to 2022**





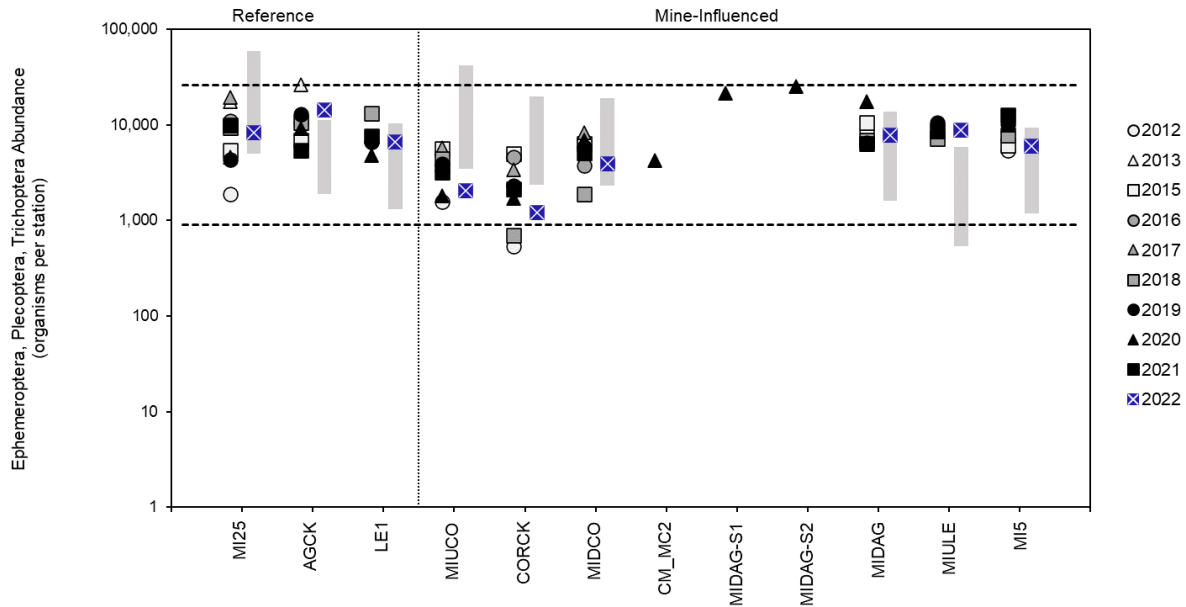
### 3.6.3 Ephemeroptera, Plecoptera, Trichoptera Abundance

Key spatial and temporal patterns in the abundance and proportion of EPT were as follows:

- EPT abundance was generally within or above the site-specific and regional normal ranges at reference and mine-influenced stations in Michel Creek between 2012 and 2022, except at MIUCO and CORCK where it was below the site-specific normal range in 2022 (Figure 3.6-5). At CORCK, EPT abundance was also below the lower boundary of the regional normal range in 2012 and 2018, and was significantly lower than the mean of the reference stations by a magnitude of difference greater than 2 SDs in 2022 (Appendix K, Table K-4).
- EPT abundance in 2022 was significantly lower at MIUCO, CORCK, and MIDCO compared to downstream and reference stations; however, the magnitude of difference at MIUCO (-1.3 SD) and MIDCO (1.9 SD) was less than 2 SD, indicating limited ecological significance.
- EPT abundance was significantly lower at various reference stations in 2015, 2016, 2020, and 2021 compared to previous years, with magnitudes of difference up to -1.3 SD (Appendix K, Table K-5), these differences at reference stations indicate changes were unrelated to the Mine.
- EPT abundance at mine-influenced stations did not significantly differ in recent years (i.e., 2019, 2020, 2021, and 2022) compared to previous years, except for a decrease in EPT abundance at MIUCO in 2020 compared to prior years (magnitude of difference of -1.6 SD; (Appendix K, Table K-5), indicating that EPT abundance has not changed considerably from previous years since 2019.
- At reference stations and at mine-influenced stations, % EPT was within or above the site-specific and regional normal ranges in 2022, except at CORCK and MIDCO (Figure 3.6-6; Appendix K). Throughout the time series, % EPT was below the regional normal range at CORCK (2012 to 2022), MIDCO (2017 to 2022), CM\_MC2 (2020) and MIDAG (2019).
- At CORCK, MIDCO, and MIULE, % EPT was significantly lower in 2022 compared to downstream and reference stations, with magnitudes of difference greater than 2 SD (Appendix K, Table K-4).
- No significant differences in % EPT between 2022 and previous years were observed (Appendix K, Table K-5). At stations, MIUCO, MIDCO, MIDAG, and MIULE, % EPT was significantly lower in some years between 2018 and 2021 compared to previous years, with magnitudes of difference ranging from -0.7 to -5.8 SD. At reference station AGCK, % EPT in 2021 was significantly lower compared to previous years (i.e., 2012 to 2020), but the magnitude of difference was within 2 SD, indicating this difference was not biologically meaningful (Section 2.6.3).

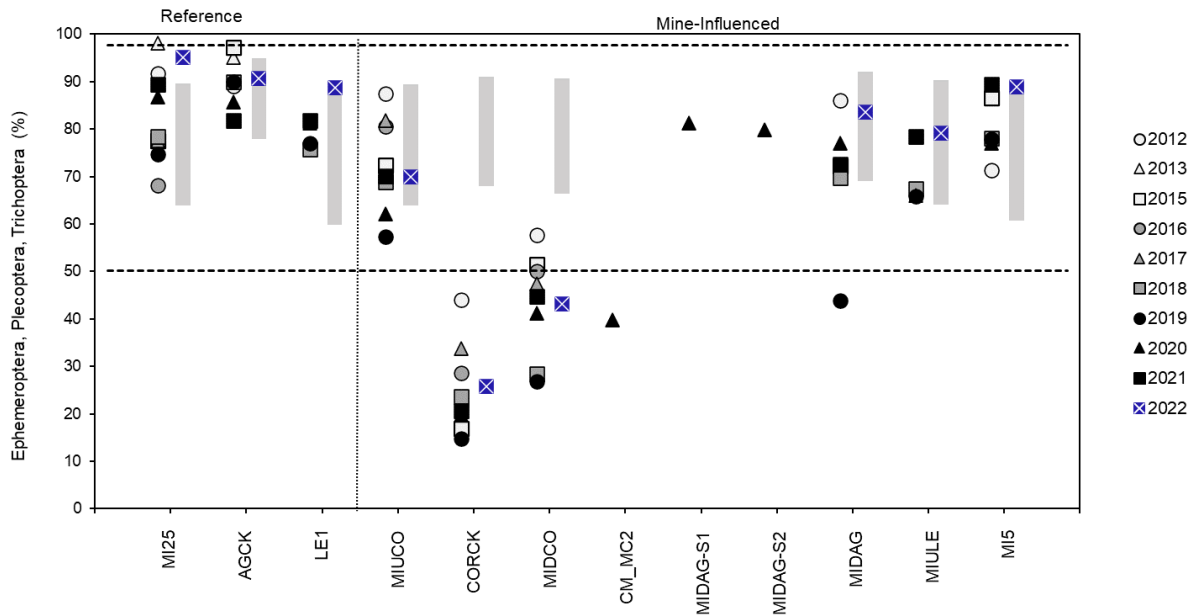
All replicates at CORCK and MIDCO had % EPT results that resulted in a biological trigger event (Appendix A). These findings are consistent with results of sampling and evaluation in previous years that prompted management action under the AMP response framework. Teck continues to evaluate nickel treatment options and proposed nickel benchmarks have been developed (WSP Golder 2022c). These activities are reported annually in AMP reporting.

**Figure 3.6-5: Ephemeroptera, Plecoptera, Trichoptera Abundance in the CMm LAEMP Study Area, September 2012 to 2022**



Notes: Grey shading represents the 2022 site-specific normal ranges for comparisons to 2022 results only; data from 2012 to 2022 compared to each year's site-specific normal range are presented in Appendix K. The dotted line represents the regional normal range defined as the 2.5<sup>th</sup> and 97.5<sup>th</sup> percentiles of the 2012 to 2019 reference area data from the RAEMP (Minnow 2020a).

**Figure 3.6-6: Ephemeroptera, Plecoptera, Trichoptera Proportion in the CMm LAEMP Study Area, September 2012 to 2022**



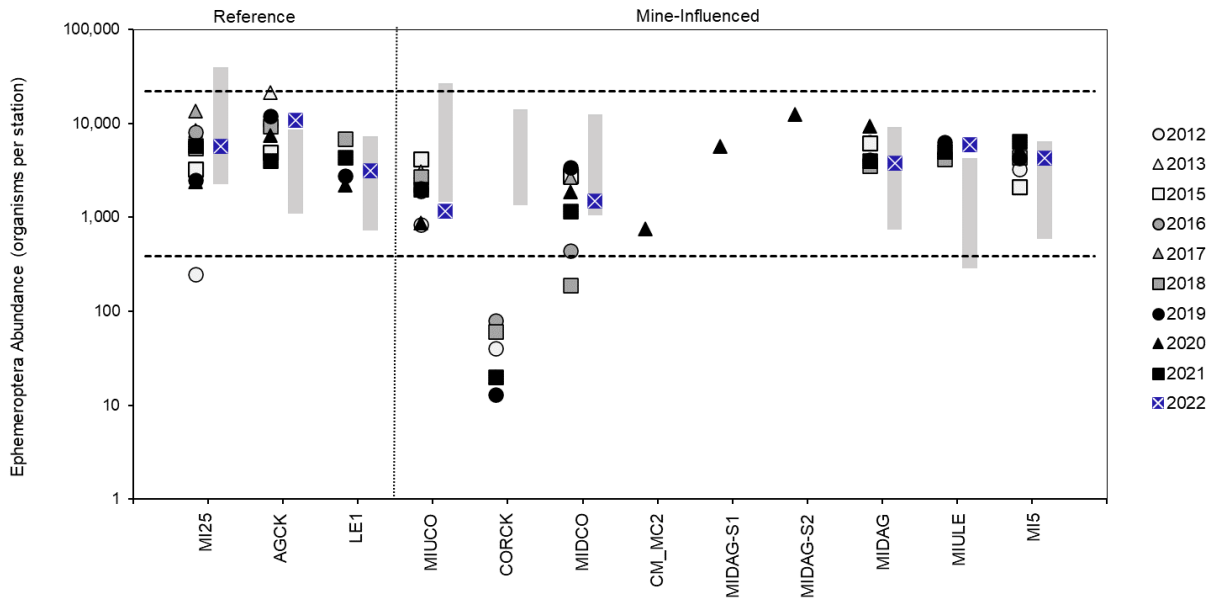
Notes: Grey shading represents the 2022 site-specific normal ranges for comparisons to 2022 results only; data from 2012 to 2022 compared to each year's site-specific normal range are presented in Appendix K. The dotted line represents the regional normal range defined as the 2.5<sup>th</sup> and 97.5<sup>th</sup> percentiles of the 2012 to 2019 reference area data from the RAEMP (Minnow 2020a).

### 3.6.4 Ephemeroptera Abundance

Key spatial and temporal patterns in the abundance and proportion of Ephemeroptera were:

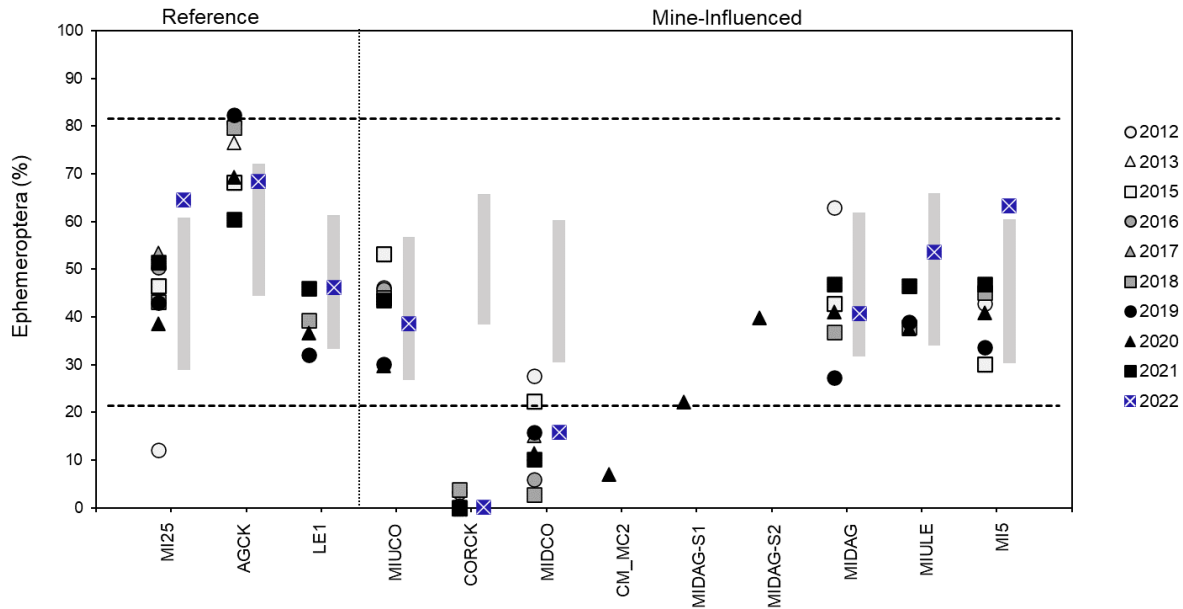
- Ephemeroptera abundance in 2022 was significantly lower immediately downstream of CMm compared to downstream and reference stations, with magnitudes of difference of -11.9 SD at CORCK and -2.8 SD at MIDCO (Appendix K, Table K-4).
- Ephemeroptera were not detected in samples collected at CORCK in 2015, 2020, and 2022 (Figure 3.6-7).
- Ephemeroptera abundance was within or above the site-specific and regional normal ranges in 2022 at reference and mine-influenced stations, except for MIUCO and CORCK which were below site-specific normal ranges. Samples below the regional normal range were observed at CORCK (2012 to 2022), MIDCO (2016 and 2018), and MI25 (2012) (Figure 3.6-7).
- No significant differences were observed in Ephemeroptera abundance between 2022 and previous years (Appendix K, Table K-5). Ephemeroptera abundance at MIDCO was significantly lower in 2016 and 2018, compared to previous years, with magnitudes of difference greater than 2 SD; there were no significant differences in recent years (i.e., 2020, 2021, and 2022; Appendix K, Table K-5).
- Percent E was within or above the site-specific and regional normal ranges in 2022 at reference and all mine-influenced stations, except CORCK and MIDCO. Throughout the time series, % E was below the regional normal range at CORCK (2012 to 2022), MIDCO (2016 to 2022), CM\_MC2 (2020), and MI25 (2012) (Figure 3.6-8).
- In 2022, % E was significantly lower at CORCK (-2.6 SD) and MIDCO (-3.7 SD; Appendix K, Table K-4).
- In 2022, % E was significantly greater in 2022 compared to previous years at MIULE and MI5, with magnitude of differences of 2.4 SD (MIULE) and 3.5 SD (MI5; Appendix K, Table K-5).
- At MIUCO, % E was significantly lower in 2019 and 2020 compared to previous years (2012 to 2018), at MIDCO in 2016 and 2018 compared to previous years, and at MIDAG in 2019 compared to 2012 to 2018, with magnitudes of difference between -1.3 and -5.5 SD.

**Figure 3.6-7: Ephemeroptera Abundance in the CMm LAEMP Study Area, September 2012 to 2022**



Notes: Grey shading represents the 2022 site-specific normal ranges for comparisons to 2022 results only; data from 2012 to 2022 compared to each year's site-specific normal range are presented in Appendix K. The dotted line represents the regional normal range defined as the 2.5<sup>th</sup> and 97.5<sup>th</sup> percentiles of the 2012 to 2019 reference area data from the RAEMP (Minnow 2020a). No Ephemeroptera were collected at CORCK in 2015, 2020, and 2022; therefore, these years are not shown on the plot for these locations.

**Figure 3.6-8: Ephemeroptera Proportion in the CMm LAEMP Study Area, September 2012 to 2022**



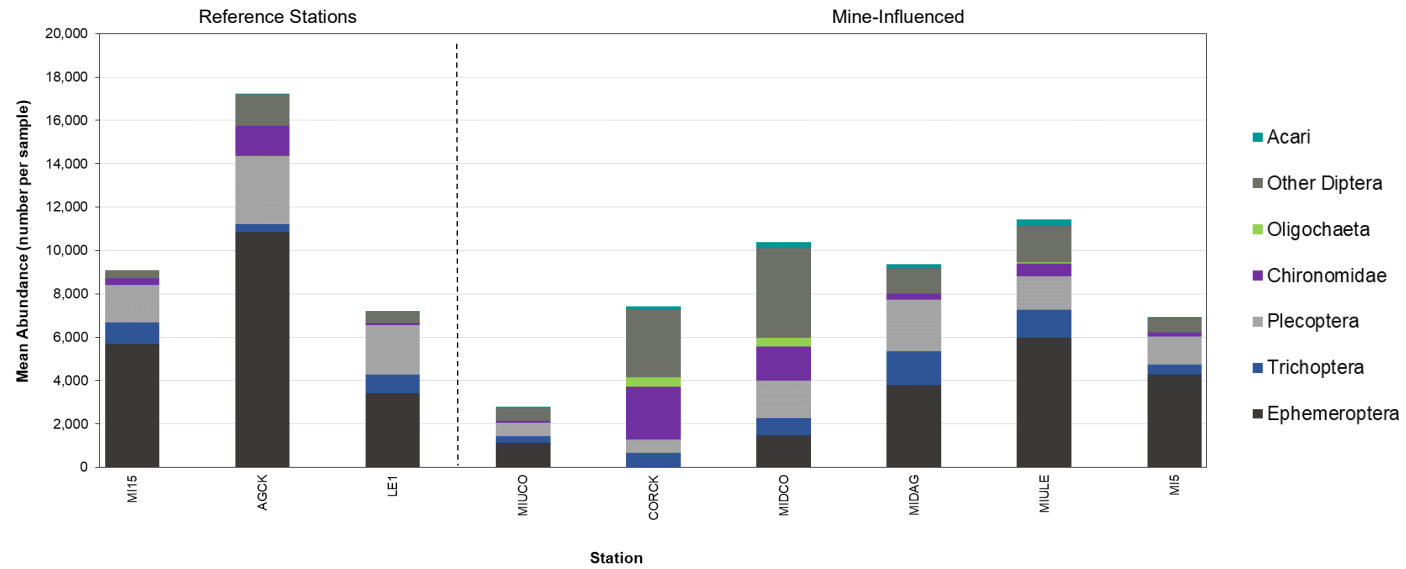
Notes: Grey shading represents the 2022 site-specific normal ranges for comparisons to 2022 results only; data from 2012 to 2022 compared to each year's site-specific normal range are presented in Appendix K. The dotted line represents the regional normal range defined as the 2.5<sup>th</sup> and 97.5<sup>th</sup> percentiles of the 2012 to 2019 reference area data from the RAEMP (Minnow 2020a).

Percent E, below the regional and site-specific normal ranges, has consistently been observed at CORCK and MIDCO between 2012 and 2022 (Figure 3.6-8). The effect on community structure at MIDCO did not result in Ephemeroptera abundance below the site-specific or regional normal ranges (Figure 3.6-7; Appendix K). As noted in Section 3.6.2, the BIC at reference stations and at MIUCO, MIDAG, MIULE, and MI5 was dominated by Ephemeroptera. In contrast, the community at MIDCO was dominated by Diptera (Chironomidae and other dipteran taxa), which were higher in proportion (Figure 3.6-4) and abundance relative to stations other than CORCK in 2022 (Figure 3.6-9). However, higher dipteran abundance was not associated with lower Ephemeroptera abundance. Ephemeroptera abundance at MIDCO remained within the range of natural variability expected in the Elk Valley and within the range expected based on habitat parameters, although near the lower limit (Figure 3.6-7). Notably, Ephemeroptera abundance at MIDCO was similar to MIUCO.

Within the Diptera, the dominant families were Psychodidae (moth flies; 58% of all dipterans) and Chironomidae (38% of all dipterans), specifically the subfamily Orthocladiinae (78% of Chironomidae) at MIDCO in 2022. Together, these two families contributed 43% of total abundance at MIDCO, whereas the proportions of these two families at the other stations on Michel Creek were < 25% of total abundance. Psychodidae is reported to be tolerant of metals and organic pollution (Cadmus et al. 2016; Klemm et al. 1990). A number of common genera within Orthocladiinae are also reported to be dominant in metal contaminated streams (Clements 1994; Mousavi et al. 2003). The dominance of these dipterans at MIDCO suggests an increase in abundances of metal-tolerant taxa that may have a competitive advantage under the water quality conditions immediately downstream of CMm. Although Ephemeroptera abundance was within the site-specific normal range and regional normal range at MIDCO, it was at the lower limit of the former, and lower compared to all three reference stations and all downstream stations.

Family-level changes within the order Ephemeroptera and functional feeding group data were also explored to evaluate the variation in community composition among stations. At the family-level, Baetidae or Heptageniidae dominated the Ephemeroptera assemblage at most stations other than MIDCO (noting that Ephemeroptera were not detected at CORCK). Ephemeroptera at MIDCO was dominated by Ephemerellidae with fewer Heptageniidae compared to reference and other mine-influenced stations, where fewer Heptageniidae were identified per sample in 2022 (Appendix K). These family level differences may reflect habitat variation among stations or potentially, varying levels of metal sensitivity among the families present. Functional feeding group data from 2022 did not provide useful insight into the differences in community composition among stations. Relative abundances of different functional feeding groups were highly variable, and did not show a clear difference between reference and the mine-influenced stations in Michel Creek. This is consistent with findings of Carlisle and Clements (1999), who reached similar conclusions in a study of a stream subject to metal contamination.

**Figure 3.6-9: Benthic Invertebrate Community Composition by Abundance of Major Groups at CMm LAEMP Stations, September 2022**





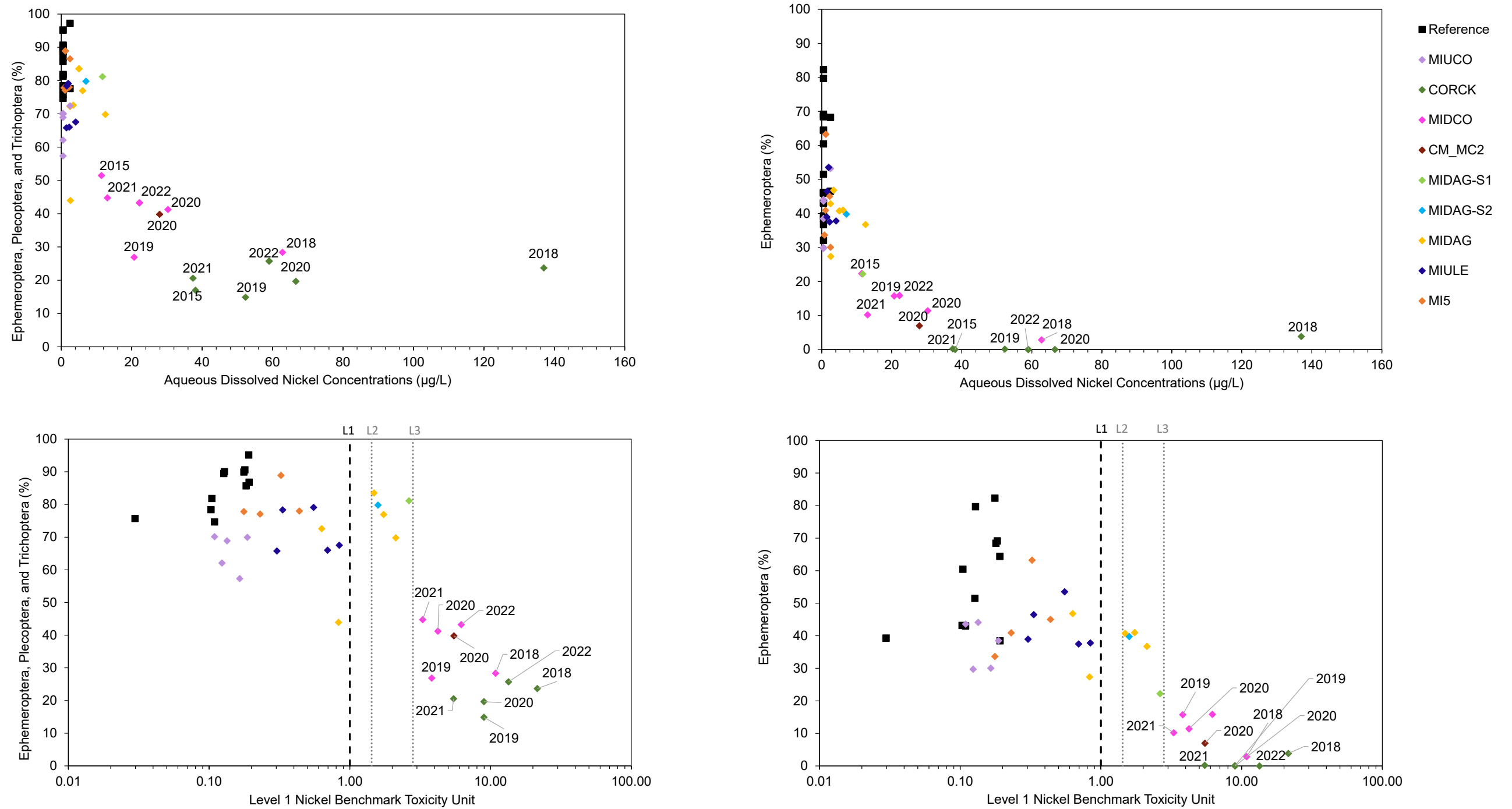
### 3.6.5 Benthic Invertebrate Community Relationships to Habitat Variables and Aqueous Nickel

Habitat variables were similar between reference and mine-influenced stations, as were substrate composition and sediment particle size distribution. The spatial relationships between percent fines, sand, gravel, cobble, and boulder and % EPT and % E indicate that it is unlikely, based on visual evaluation, that differences in habitat characteristics caused the differences observed in BIC downstream of CMm in Michel Creek (Appendix G). It is unlikely that calcite presence and concretion in Michel Creek was a factor in the lower % EPT and % E, because calcite index values were low between 2012 and 2022 and within the reference normal range in Michel Creek. However, calcite could be a habitat driver contributing to lower % EPT and % E in Corbin Creek (calcite index >1; concretion scores between 2 and 3).

An inverse relationship was observed between % EPT and % E and aqueous nickel concentrations, and constituents such as selenium and cobalt that are collinear with nickel (Figure 3.6-10). Nickel has been identified as the primary contributor to the spatial patterns observed in % EPT and % E in the CMm area based on comparison to site-specific nickel benchmarks (Section 3.1), a visual evaluation of the spatial patterns in BIC endpoints (Sections 3.6.1 to 3.6.3), and results of the chronic toxicity testing program that have implicated nickel (Appendix C). This interpretation is consistent with expected effects associated with the proposed nickel benchmarks. Specifically, at concentrations below the proposed level 1 nickel benchmark, even the most sensitive species are not expected to be affected, and at concentrations exceeding the proposed level 3 nickel benchmarks, measurable and ecologically meaningful changes to % E are expected.

The expected patterns outlined above are most clearly evident in Figure 3.6-10 in the bottom panels, where % EPT and % E are plotted as a function of level 1 TUs. Exposure levels less than 1 TU indicate that nickel concentrations, in the context of co-occurring ETMFs, were less than the proposed level 1 nickel benchmark. TUs associated with proposed level 2 and 3 nickel benchmarks are also shown on Figure 3.6-10 as vertical dashed lines. There is no indication of effects on % EPT or % E below the proposed level 1 nickel benchmark, a possible indication of effects on % E (but not % EPT) between the proposed level 2 and 3 nickel benchmarks, and clear indications of effects on both % EPT and % E above the proposed level 3 nickel benchmark. These patterns are consistent with those described in the Nickel Benchmark Derivation Report (WSP Golder 2022c).

**Figure 3.6-10: Proportion of Ephemeroptera, Plecoptera, and Trichoptera and Proportion of Ephemeroptera versus Nickel Concentrations (top panels) and versus the Level 1 Nickel Benchmark Toxicity Units (bottom panels) in the CMm LAEMP Study Area, September 2012 to 2022**



Note: Replicates were averaged prior to calculating the proposed benchmarks. Values below detection limit were substituted with the detection limit. Data prior to 2019 are not shown on the bottom plots due to missing constituents required for the calculations. The dissolved nickel concentrations as a proportion of the proposed level 1 nickel benchmark (L1) are shown and a value of 1 represents the calculated benchmark (black dashed vertical line), where the sample-specific proposed level 2 (L2) and level 3 (L3) nickel benchmarks relative to the level 1 benchmarks are illustrated with the gray dashed vertical lines. CMm = Coal Mountain Mine.

### 3.6.6 Benthic Invertebrate Community Summary

Benthic invertebrate abundance, richness, and overall community composition in Michel Creek were similar at most mine-influenced stations and reference stations in 2022, and followed similar spatial patterns among years, with the exception of MIDCO on Michel Creek and CORCK on Corbin Creek. All community variables analyzed were significantly lower at CORCK compared to downstream and reference stations with magnitudes of difference above 2 SD for five out of six of the endpoints assessed. Richness and abundance were generally within or above the site-specific and regional normal ranges in Michel Creek between 2012 and 2022. Percent EPT and % E were lower at CORCK and MIDCO compared to the downstream and reference stations and below the regional and site-specific normal ranges in 2022. All other stations on Michel Creek had % EPT and % E values within the normal ranges. Ephemeroptera dominated the community at reference and most mine-influenced stations, with the exceptions of CORCK and MIDCO, where Diptera dominated. These patterns indicate that the mine-related influence on EPT taxa is localized to the area immediately downstream of CMm.

## 4.0 Study QUESTIONS

The objective of the CMm LAEMP is to assess the magnitude and spatial extent of influence from CMm on water quality, calcite, sediment quality, and benthic invertebrate communities downstream of CMm, and to assess what factors are contributing to the observed effects. This objective is met through answering the two study questions presented in Section 1.2. A summary of the results is presented in Table 4.1-1 and an integrated evaluation of CMm LAEMP data is presented below to address each study question (Sections 4.1 and 4.2).

### 4.1 Study Question 1

***What are the magnitude and spatial extent of influence from CMm on water quality, calcite, sediment quality, and benthic invertebrate communities in Michel Creek downstream of CMm, how are these conditions changing over time, and are the conditions expected?***

The highest concentrations of mine-influenced water quality constituents were observed at the station closest to CMm on Corbin Creek (CORCK), followed by the first station downstream of CMm on Michel Creek (MIDCO; 0.94 km downstream of the Corbin Creek confluence). A declining gradient of concentrations with distance downstream was observed for most mine-influenced water quality constituents; for nickel in particular, concentrations returned to reference conditions after MIDAG (5.27 km downstream of the Corbin Creek confluence). Dissolved nickel concentrations increased between 2012 and 2018, and then decreased between 2018 and 2022 as expected based on changes in mine water management with the transition to Care and Maintenance. In 2022, nickel was the only constituent identified as having the potential to cause effects to BIC in Michel Creek. Peak nickel concentrations exceeded the proposed level 3 nickel benchmark for invertebrates at CORCK and MIDCO, and exceeded the proposed level 2 nickel benchmark at MIDAG. At other reference and mine-influenced stations, nickel concentrations were below the proposed level 1 nickel benchmark.

Calcite presence in 2022 in Corbin Creek was higher than in Michel Creek where it remained consistently low in 2022 compared to previous years and was within the regional normal range.

Sediment quality in 2022 was generally within the range measured in previous years. Metal and PAH concentrations were above the lower BC WSQG at both reference and mine-influenced stations in 2022, and a subset of these were above the upper BC WSQG at CORCK and at stations downstream of CORCK on Michel Creek (MIDCO, MIDAG and MIULE). As with water quality, the highest metal and PAH concentrations generally occurred at CORCK and then decreased downstream. Sediment quality is considered unlikely to affect BIC due to

the predominantly erosional habitat in Michel Creek and limited potential for exposure of the BIC to sediment-associated constituents.

In 2022, organoselenium was below detection at the CM\_MC2, with the exception of samples collected in the third quarter of 2022, where MeSe IV was detected above the Level 1 screening value but below the Level 2 screening value. At concentrations below 0.025 µg/L, organoselenium is unlikely to cause a discernable shift in benthic invertebrate selenium concentrations (ADEPT et al. 2023). Concentrations of BIT Se were within the regional normal range at reference and almost all mine-influenced stations in 2022, and did not exhibit a spatial pattern consistent with observed effects to the BIC. BIT Se concentrations were less than the lowest level 1 benchmark at all stations, below the biological trigger thresholds, and lower than expected based on water quality data from stations on Corbin and Michel creeks. Based on these results, selenium concentrations are not expected to negatively impact the benthic invertebrate or fish communities in Michel Creek; therefore, BIT Se does not need to be tracked under the AMP framework.

Richness and abundance of the BIC were generally similar among reference and mine-influenced stations and were generally within or above the site-specific and/or regional normal ranges in Michel Creek in 2022. Percent EPT and % E were lower at CORCK and MIDCO compared to the downstream and reference stations and below the regional and site-specific normal ranges in 2022. All other stations on Michel Creek had % EPT and % E values within the normal ranges. Benthic invertebrate endpoint values in 2022 were not significantly lower compared to previous years at mine-influenced stations. Ephemeroptera dominated the communities at mine-influenced stations in Michel Creek and at the reference stations, except at MIDCO and CORCK, where Diptera dominated. These patterns in BIC endpoints indicate that the mine-related influence on EPT taxa is localized to the area, immediately downstream of CMm. BIC endpoints were all within the regional and site-specific normal ranges by MIDAG, which is 5.27 km downstream of the Corbin Creek confluence.

Overall, in Michel Creek, water quality (as indicated by nickel) is improving, as expected based on the SRK modelled data. Calcite is within the regional normal range. Sediment quality data were generally within the range measured in previous years and declined in a downstream gradient from the Corbin Creek confluence in Michel Creek. Generally, BIC endpoints and BIT Se concentrations were within or above the regional and/or site-specific normal ranges in 2022, except for % EPT and % E, which were below normal ranges at the station closest to the Corbin Creek confluence, indicating the effects on the BIC are localized to the area around CMm.

**Table 4.1-1: Summary of 2021 CMm LAEMP Results**

<b>Study Questions</b>	<b>Water Quality<sup>(a)</sup></b>	<b>Calcite<sup>(b)</sup></b>	<b>Sediment Quality<sup>(c)</sup></b>	<b>BIC</b>	<b>BIT Se</b>
<b>Study Question 1: What are the magnitude and spatial extent of influence from CMm in 2021?</b>	Dissolved Ni > proposed level 3 nickel benchmark at MIDCO (0.94 km ds), and proposed level 2 nickel benchmark at MIDAG (5.27 km ds).  Dissolved Ni < proposed nickel benchmarks at all other stations on Michel Creek  No other constituents > benchmarks	Within the reference normal range (0 to 1) at all stations in Michel Creek.	Ni > upper BC WSQG at MIDCO (0.94 km ds) and MIULE (13.84 km ds)  Anthracene and 2-Methylnaphthalene > upper BC WSQG at MIULE (13.84 km ds)  2-Methylnaphthalene, Naphthalene, Phenanthrene > upper BC WSQG at MIDCO (0.94 km ds)  2-Methylnaphthalene, Phenanthrene > upper BC WSQG from MIDAG (5.27 km ds)	% EPT and % E were below habitat-adjusted normal range and significantly lower than downstream and reference stations at MIDCO (0.94 km ds), with magnitudes of difference of -7.2 and -3.7 SD, respectively.	BIT Se above normal range at MIDAG but lower than level 1 benchmark  BIT Se within normal range and lower than level 1 benchmark at over stations
<b>Study Question 1: Are the conditions changing over time?</b>	Aqueous Ni has decreased since 2018.	Calcite index was similar to previous years in 2022.	No clear temporal trend, generally consistent	% EPT and % E are variable across years at MIDCO, which appears to relate to variation in aqueous Ni.  There was no significant decrease in benthic invertebrate endpoints in 2022 compared to prior years at mine-influenced stations.	No
<b>Study Question 1: Are the 2021 results expected based on projections, historical conditions, or habitat conditions?</b>	Aqueous Ni consistent with SRK projections and previous RAEMP and LAEMP results.	Consistent with previous RAEMP and LAEMP results.	Consistent with previous RAEMP and LAEMP results.	% EPT and % E are consistent with expected effects of aqueous Ni evident in monitoring since 2015.	BIT Se spatial patterns are consistent with aqueous Se spatial patterns and historical conditions.
<b>Study Question 2: Are spatial and temporal patterns in exposure variables correlated with BIC?</b>	Yes, for Ni.	Not in Michel Creek.	Yes, because sediment quality is correlated with water quality <sup>(d)</sup> .	n/a	No
<b>Study Question 2: What factors may be causing effects?</b>	Water quality, calcite, and sediment quality in Michel Creek immediately downstream of CMm are related to historical mining and pit pumping.			Aqueous Ni is the most likely cause of observed BIC effects.	BIT Se reflects low aqueous Se at CMm.

(a) Only constituents with exceedances of a benchmark or effect concentration considered; BC WQG exceedances not shown when below the EVWQP benchmarks derived for the Elk Valley because they are not expected to negatively impact the benthic invertebrate community (Section 3.6).

(b) Calcite data collected during the RAEMP/CMm LAEMP do not apply to the Regional Calcite Monitoring Program data.

(c) Only constituents exceeding the upper BC WSQG shown; those constituents below the lower BC WSQG not shown.

(d) BIC collected in erosional habitat, not depositional habitat; therefore, unlikely pathway for mine-effects.

BIC = benthic invertebrate community; BIT = benthic invertebrate tissue; CMm = Coal Mountain Mine; Ni = nickel; ds = downstream; BC WSQG = British Columbia Working Sediment Quality Guideline; % EPT = percent Ephemeroptera, Plecoptera, Trichoptera; % E = percent Ephemeroptera; SS NR = site-specific normal range; RNR = regional normal range; SD = standard deviation; Se = selenium; n/a = not applicable; >= greater than; <= less than; µg/L = micrograms per litre; mg/kg = milligrams per kilogram; dw = dry weight; km = kilometers.

## 4.2 Study Question 2

***How do spatial and temporal patterns in the benthic invertebrate communities correspond to water quality, calcite, sediment quality, and other potential stressors, and what does this tell us about what factors are causing observed effects?***

Habitat variables (e.g., water depth, velocity, sediment particle size, and TOC) were similar between reference and mine-influenced stations and were unlikely to have caused the differences observed in % EPT and % E at the stations downstream of CMm in Michel Creek. It is also unlikely that calcite presence and concretion in Michel Creek was a factor in the lower % EPT and % E at MIDCO, because calcite index values were low between 2012 and 2022 and within the reference normal range in Michel Creek. However, calcite presence may have been a factor in effects observed in BIC endpoints in Corbin Creek because the presence of calcite in Corbin Creek may reduce habitat availability for benthic invertebrates.

Spatial and temporal patterns in BIC endpoints corresponded more closely with mine-influenced water quality than with sediment quality or calcite, supporting the interpretation that observed patterns in the BIC are linked to water quality. Sediment quality is unlikely to be a pathway for BIC effects, because as noted in Sections 1.5 and 3.3.3, Michel Creek is a highly erosional creek that contains very little to no surficial fines and the BIC found in Michel Creek are characteristic of erosional habitats. Spatial comparisons indicated correlations of % EPT and % E with aqueous concentrations of nickel across stations and nickel was the only water quality constituent with concentrations in Michel Creek above invertebrate benchmarks. In 2022, peak nickel concentrations were above the proposed level 3 nickel benchmark for invertebrates in Corbin Creek (CORCK) and at the first Michel Creek station downstream of CMm (MIDCO; 0.94 km downstream of the Corbin Creek confluence), and above the proposed level 2 nickel benchmark for invertebrates at Michel Creek downstream of Andy Good Creek (MIDAG; 5.27 km downstream of the Corbin Creek confluence). Stations downstream of MIDAG had nickel concentrations below the proposed level 1 nickel benchmark for invertebrates. Patterns of % E relative to nickel concentrations were consistent with those described in the Nickel Benchmark Derivation Report (WSP Golder 2022c).

Early studies in the area further support the interpretation that nickel is responsible for BIC changes. The findings of the 2019 to 2022 CMm LAEMPs and the chronic toxicity testing program support findings that nickel is likely responsible for the BIC changes. Results of the 2022 LAEMP suggest that BIC effects from nickel in Michel Creek are localized near CMm on Michel Creek, and do not extend farther on Michel Creek than 5.27 km downstream.

## 5.0 DISCUSSION

This section provides a brief history of nickel at CMm, including an overview of earlier studies that identified nickel as a constituent of concern for invertebrates, and the resulting actions initiated by Teck under the AMP response framework to better understand and assess potential nickel effects at CMm. The purpose of this review is to highlight the investigative efforts undertaken since 2017 that corroborate aqueous nickel as a likely cause of invertebrate responses at CMm. The culmination of these studies strengthens the characterization of potential effects of CMm on the aquatic environment.

Nickel was identified as a constituent of concern in mine-influenced waters of the Elk Valley through an investigation into unexpected results of routine chronic toxicity monitoring in 2017 at CMm compliance location CM\_MC2 on Michel Creek. Monitoring at CM\_MC2 had intermittently reported effects on reproduction of the water flea *C. dubia* since the program began in 2015, although at that time no cause could be identified, and effects had also sometimes been observed in testing with the amphipod *H. azteca* (Appendix C). The 2017 investigation



included a phased toxicity identification evaluation (TIE) study that identified a divalent cationic metal as the cause of toxicity, reviewed water chemistry to identify potential toxicants, and conducted spiking studies to confirm the cause of toxicity (Nautilus 2018). The TIE identified nickel as the likely cause of toxicity in the CM\_MC2 tests and demonstrated chronic nickel effects on *C. dubia* and *H. azteca* at concentrations reported for CM\_MC2 (Nautilus 2018). Attribution of effects to nickel was supported by published toxicity data that indicated effects on sensitive invertebrate test species at these concentrations (Golder 2017), and also by a correlation of chronic toxicity monitoring results for invertebrate test species with nickel concentrations at CM\_MC2 between 2015 and 2017 (Golder 2018a). Effects on invertebrate test species at CM\_MC2 were higher in magnitude in 2018, coinciding with higher nickel concentrations in 2018 compared to previous years (Golder 2019), and were less frequent and lower in magnitude in 2019 and 2020, coinciding with lower nickel concentrations (Golder 2021b; see Section 1.4 and Appendix B for discussion of site activities associated with changes in aqueous nickel, and Appendix C for summary of chronic toxicity monitoring results). TIEs and correlation analyses conducted in subsequent chronic toxicity programs have continued to identify nickel as the causal agent (e.g., WSP 2023a; Appendix C).

The interpretation of chronic toxicity monitoring results for CM\_MC2 informed an aquatic health assessment undertaken to support closure planning for Coal Mountain Operations (CMO), which additionally concluded that nickel concentrations at CM\_MC2 could potentially affect benthic invertebrates in Michel Creek immediately downstream of CMO (Golder 2017). A review of available toxicity information did not indicate a risk of effects on fish or amphibians, and this was consistent with the absence of effects in chronic toxicity tests with fish (WSP 2023a; Appendix C). The interpretation of nickel concentrations in 2017 was corroborated by biological monitoring results from 2015 and 2016 in portions of Michel Creek evaluated under the RAEMP (Minnow 2018b; Appendix C). Specifically, monitoring areas in Michel Creek immediately downstream of Corbin Creek (MIDCO, near CM\_MC2) exhibited lower abundance and proportion of Ephemeroptera relative to Michel Creek upstream of Corbin Creek (MIUCO), Michel Creek downstream of Andy Good Creek (MIDAG), or reference locations elsewhere in the Elk Valley. Low proportions of Ephemeroptera at MIDCO were confirmed in subsequent annual monitoring (Minnow 2018b; 2020a; Golder 2019; 2020; 2021a).

As an initial step towards understanding and assessing nickel effects, Golder (2017) established interim screening values for nickel. Teck further responded to the findings above via the AMP Response Framework (Teck 2018). Responses included reporting responses to the EMC, development of the CMm LAEMP, conducting a series of special investigations to refine understanding of nickel toxicity in Elk Valley water (Golder 2018a), initiation of a program to evaluate mitigation technologies for nickel (Golder 2018b, followed by an internal evaluation program on treatment technologies developed by Teck), and development of chronic nickel benchmarks for the Elk Valley nickel benchmark derivation report (WSP Golder 2022c).

The nickel benchmarks were developed to be applied in-stream, as scientific best estimates of dissolved nickel concentrations associated with no effect or defined levels of potential chronic effects on sensitive species and stages of aquatic life under Elk Valley water quality conditions (WSP Golder 2022c; Appendix C). The benchmarks incorporated current scientific approaches to modelling nickel effects, published and site-specific laboratory toxicity information on more than 50 aquatic species, and biological monitoring data collected over more than a decade at dozens of sites in the Elk Valley. For invertebrate benchmarks, the approach was to utilize a well-studied laboratory test species (*C. dubia*) to model effects of ETMFs on chronic, sublethal nickel toxicity, and then apply this model to study nickel effects on BIC in the field to derive benchmarks for sensitive benthic invertebrate taxa, with a focus on % E. The resulting nickel benchmarks, which were used herein, provide greater confidence in estimating potential effects of nickel to BIC in the field.

In 2022, monitoring areas in Corbin Creek and Michel Creek immediately downstream of Corbin Creek (MIDCO) had nickel concentrations that exceeded the proposed level 3 nickel benchmark for invertebrates year-round (CORCK) or seasonally (MIDCO) (Section 3.1.4). Analyses presented in the nickel benchmark report indicate that nickel concentrations above the proposed level 3 nickel benchmark are associated with reductions in % E and occasionally % EPT, but effects to richness or total abundance would not be expected. The 2022 BIC monitoring results aligned with these expectations, in that CORCK and MIDCO had reductions in % E and % EPT but richness and total abundance remained within site-specific and/or regional normal ranges. Taken together, these results support the interpretation of nickel-related effects to BIC. This finding aligns with the investigative efforts undertaken since 2017, which have implicated nickel as the likely cause of the observed effects to BIC in the CMm area. The confidence in this conclusion is strengthened by the incorporation of site-specific benchmarks for nickel, the reproducibility of results across multiple study years, and the corroboration of data across multiple lines of evidence (e.g., water quality, toxicity testing, BIC monitoring).

## 6.0 CONCLUSION AND RECOMMENDATIONS

The study questions for the CMm LAEMP have been adequately addressed and it is considered unlikely that further investigation will provide any new insights or change the interpretation outlined in this LAEMP report. Confidence in this conclusion is strengthened by the incorporation of results from the comprehensive analysis used to derive site-specific benchmarks for nickel (WSP Golder 2022c), the reproducibility of results across multiple study years (Golder 2019; 2020a; 2021a; WSP Golder 2022a), and the corroboration of data across multiple lines of evidence (e.g., water quality, toxicity testing, BIC monitoring). Further, the results of the 2022 CMm LAEMP are supported by findings from other monitoring conducted by Teck such as the routine water quality and chronic toxicity monitoring programs.

It is recommended that monitoring of the aquatic environment at CMm continue, to provide a basis for tracking expected improvement over time related to mine water management and other factors, and to allow detection of potential unexpected changes. However, the study questions for ongoing monitoring align with those of the regional monitoring programs, and it is therefore recommended that further monitoring, interpretation, and reporting be conducted under the RAEMP, calcite, surface water quality, and chronic toxicity monitoring programs. Because the CMm LAEMP study questions have been answered, it is recommended that reporting under the CMm LAEMP be discontinued.

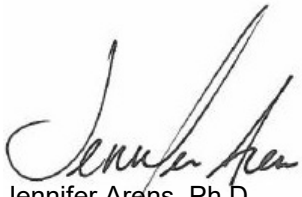
Should the LAEMP continue, it is recommended that sampling at station MI5 (18 km downstream of the Corbin Creek confluence) and sediment quality monitoring be removed from the CMm LAEMP. These recommendations received support at the May 2023 EMC meeting.

## 7.0 CLOSURE

The reader is referred to the Study Limitations, which follows the text and forms an integral part of this report.

We trust the above meets your present requirements. If you have any questions or comments, please contact the undersigned.

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## 9.0 STUDY LIMITATIONS

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**APPENDIX A**

**Adaptive Management Plan – Biotriggers**

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## Abbreviations and Units of Measure

Abbreviation	Definition
%	percent
>	greater than
≥	equal to or greater than
mg/kg dw	milligram per kilogram dry weight
µg/L	micrograms per litre
ADIT	Aquatic Data Integration Tool
AMP	Water Quality Adaptive Management Plan for Teck Coal in the Elk Valley
BIC	Benthic Invertebrate Community
BIT	Benthic Invertebrate Tissue
BIT Se	Benthic Invertebrate Tissue selenium
CABIN	Canadian Aquatic Biomonitoring Network
CMm	Coal Mountain mine
EPT	Ephemeroptera, Plecoptera, and Trichoptera
EVWQP	Elk Valley Water Quality Plan
Golder	Golder Associates Ltd.
i.e.	That is
KUs	key uncertainties
LAEMP	Local Aquatic Effects Monitoring Program
MQ	Management Question
RAEMP	Regional Aquatic Effects Monitoring Program
SPO	Site Performance Objective
WCT Se	Westslope Cutthroat Trout muscle tissue selenium
WSP	WSP Canada Inc.



## A ADAPTIVE MANAGEMENT – BIOLOGICAL TRIGGERS

### A1.0 INTRODUCTION

#### A1.1 Background

As required in Permit 107517 Section 10, Teck developed an Adaptive Management Plan (AMP) to support implementation of the Elk Valley Water Quality Plan (EVWQP) to achieve water quality targets including calcite targets, ensure that human health and the environment are protected, and where necessary, restored, and to facilitate continuous improvement of water quality in the Elk Valley. The AMP was most recently updated in December 2021 (Teck 2021). Adaptive management is a systematic, rigorous approach to environmental management that maximises learning about uncertainties while simultaneously striving to meet multiple management objectives and adapt management actions based on what is learned. The adaptive management cycle comprises six stages: assess, design, implement, monitor, evaluate and adjust. The AMP identifies six Management Questions (MQ) that are re-evaluated at regular intervals. Evaluating these MQs collectively articulates whether Teck is on track to meet the environmental objectives of the EVWQP.

The Coal Mountain mine (CMm) local aquatic effects monitoring program (LAEMP) was designed to monitor conditions in Michel Creek to assess the magnitude and extent of influence from CMm on water quality, calcite, and benthic invertebrate communities downstream of CMm, and to assess what factors are contributing to the observed effects. The annual LAEMP (results are reported on 30 June of each year for the preceding calendar year) is used to track issues for which a potential need for an adjustment, using the response framework, has been identified, including biological trigger assessments. Evaluation of biological triggers is intended as a simple and consistent way to flag unexpected monitoring results that may require additional investigation and adjustment.

In addition to addressing questions specific to the CMm LAEMP on an annual basis, aquatic monitoring data from the LAEMP will contribute to the broader data set assessed every three years within the RAEMP. The RAEMP is designed to evaluate MQ 5: *“Does monitoring indicate that mine-related changes in aquatic ecosystem conditions are consistent with expectations?”* Data from the LAEMP and regional aquatic effects monitoring program (RAEMP) also contribute to answering MQ 2: *“Will aquatic ecosystem health be protected by meeting the long-term Site Performance Objectives (SPO)?”*

Biological triggers were finalized in 2021 (Teck 2021) under Management Question 5. Biological triggers were developed for three measurement endpoints:

- Percent EPT (% EPT; Ephemeroptera, Plecoptera, and Trichoptera) – based on travelling kick samples (CABIN protocol), generally three replicates per location per sampling event
- Benthic invertebrate tissue selenium (BIT Se) – generally several replicates collected per location per sampling event, where each replicate is a composite sample of invertebrates
- Westslope Cutthroat Trout muscle tissue selenium (WCT Se) – generally eight replicates collected per location per sampling event, where each replicate corresponds to a sample from a single fish

The third trigger does not apply directly to the CMm LAEMP, because fish tissue selenium is not included in the CMm LAEMP, but is considered as supporting information.

Results from this report will also be used to determine whether a biological trigger has been reached. Reaching a trigger may lead to an adjustment (Stage 6: Adjust) using the response framework. This is the main report for conveying biological trigger results under the AMP. Implementation of management actions is not constrained to the AMP or LAEMP annual reporting cycles but may be (and has been) triggered at any time during the monitoring and reporting cycle.

Identifying and reducing environmental management uncertainty is a foundational aspect of adaptive management. Therefore, the AMP identifies key uncertainties (KUs) that, as reduced, fill gaps in current understanding to support the achievement of the EVWQP objectives. Aquatic monitoring data assist in reducing KU 5.1: “*How will monitoring data be used to identify potentially important mine-related effects on the aquatic ecosystem?*” and KU 2.1 “*How will the science-based benchmarks be validated and updated?*” Progress on reducing these KUs, and associated learnings, are described in annual AMP reports (Teck 2021). Please refer to the 2021 AMP Update (Teck 2021) for more information on the adaptive management framework, including Management Questions, key uncertainties, continuous improvement; linkages between the AMP and other EVWQP programs; and AMP reporting. Progress on gaining new knowledge and reducing KUs is described in annual AMP reports (submitted July 31), and evaluating the answers to MQs are reported in MQ evaluation reports (various submission dates).

The 2022 CMm LAEMP represents the third time that biological triggers are evaluated and reported for CMm. Through future iterative biological trigger evaluations, the process and/or biological triggers may be adjusted over time. Following the adaptive management framework, data collected as part of the CMm LAEMP will also be used to inform:

- 1) understanding of conditions in Michel Creek
- 2) interpretation of information collected under routine chronic toxicity testing and other programs
- 3) decisions on environmental management at CMm
- 4) potential adjustments to the CMm LAEMP study design

## A2.0 METHODS

### A2.1 Overview

Biological trigger analyses for the 2022 CMm LAEMP included two of the three measurement endpoints (i.e., % EPT and BIT Se) because fish tissue sampling is not conducted as part of the CMm LAEMP. Expected conditions for these endpoints were developed using projected water quality (rather than measured water quality) so that the triggers would detect biological results that were unexpected, regardless of whether those results relate to unexpected water quality or unexpected relationships between water quality and biological endpoints. Therefore, biological triggers were applied at locations where water quality projections were available<sup>1</sup>. Specifically, one mine-influenced station on Michel Creek (MIDCO) and one on Corbin Creek (CORCK; CM\_CC1) were evaluated for biological triggers within the CMm LAEMP.

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<sup>1</sup> Biological triggers have not been developed for lentic areas because the complex and site-specific hydrology of lentic areas precludes the development of useful water quality projections, and because the highly variable and site-specific habitat of lentic areas precludes the development of useful normal ranges for benthic invertebrate community metrics that would be appropriate for all lentic areas.

## A2.2 Percent EPT

Data for percent EPT were compared to:

- **Normal range:** the lower limit of habitat-adjusted normal range (2.5<sup>th</sup> percentile).
- **Expectations:** the % EPT corresponding to the predicted Aquatic Data Integration Tool (ADIT) score. Predicted ADIT scores correspond to modelled potential effects on benthic invertebrate community (BIC) endpoints, based on relationships between concentrations of nitrate, sulphate, and nickel<sup>2</sup> and sensitive toxicity test endpoints that are interpreted to be predictive of potential effects on BIC endpoints. A predicted ADIT score of 3 corresponds to >50% potential effects on the sensitive toxicity test endpoint, 2 corresponds to 20% to 50% potential effects, 1 corresponds to 10% to 20% potential effects, and 0 corresponds to potential effect levels of 10% or less.

Predicted ADIT scores were compared to measured ADIT scores, which are calculated in the ADIT as follows (Golder 2020):

- an ADIT score of 0 corresponds to measured % EPT greater than or equal to the 10<sup>th</sup> percentile of the habitat-adjusted normal range;
- an ADIT score of 1 corresponds to measured % EPT between the 10<sup>th</sup> percentile and the 2.5<sup>th</sup> percentile of the habitat-adjusted normal range;
- an ADIT score of 2 corresponds to measured % EPT between the 2.5<sup>th</sup> percentile and half of the 2.5<sup>th</sup> percentile of the habitat-adjusted normal range; and
- an ADIT score of 3 corresponds to measured % EPT less than or equal to half of the 2.5<sup>th</sup> percentile and  $\geq 0$ .

Habitat-adjusted normal ranges for individual replicates were used at each location for establishing the % EPT percentiles associated with each ADIT score.

In summary, this component of the biological trigger for % EPT asks whether the measured ADIT score, calculated based on measured % EPT relative to normal ranges, is greater than the ADIT score that was predicted based on water quality projections.

Benthic invertebrate community data for % EPT collected in September for the 2022 CMm LAEMP were included in the biological trigger analysis.

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<sup>2</sup> Projections were based on the highest maximum monthly mean across all flow scenarios (i.e., low, average, high). Selenium was not included because selenium effects on BIC endpoints are not expected under the range of conditions evaluated herein.

## A2.3 Benthic Invertebrate Tissue Selenium

Data for BIT Se were compared to:

- **Normal range:** The upper limit of regional normal range (97.5<sup>th</sup> percentile).
- **Expectations:** The upper limit of the 95% prediction interval based on the water to BIT bioaccumulation model. The model was originally developed in the EVWQP (Golder 2014) and was updated (Golder 2020). The updated best fit relationship is  $\log_{10}[Se]_{inv} = 0.720 + 0.071 \times \log_{10}[Se]_{aq}$ . Prediction intervals were calculated based on the *t*-distribution with *n*=2 degrees of freedom. Prediction intervals were estimated for BIT Se for individual replicates, taking into account that the data points for the original model were based on geometric means rather than individual replicates (Teck 2021).

Benthic invertebrate tissue selenium data collected during the September 2022 CMm LAEMP sampling program were included in the biological trigger analysis and compared to the normal range based on samples collected in September between 1996 and 2021.

Although effects benchmarks are not part of the trigger, they are relevant for interpreting potential significance and responses. Consequently, the level 1, 2 and 3 benchmarks (11, 18 and 26 mg/kg dw selenium in BIT, respectively) for the most sensitive receptor (i.e., juvenile fish growth via dietary exposure) are included in plots.

## A3.0 RESULTS

### A3.1 Percent EPT

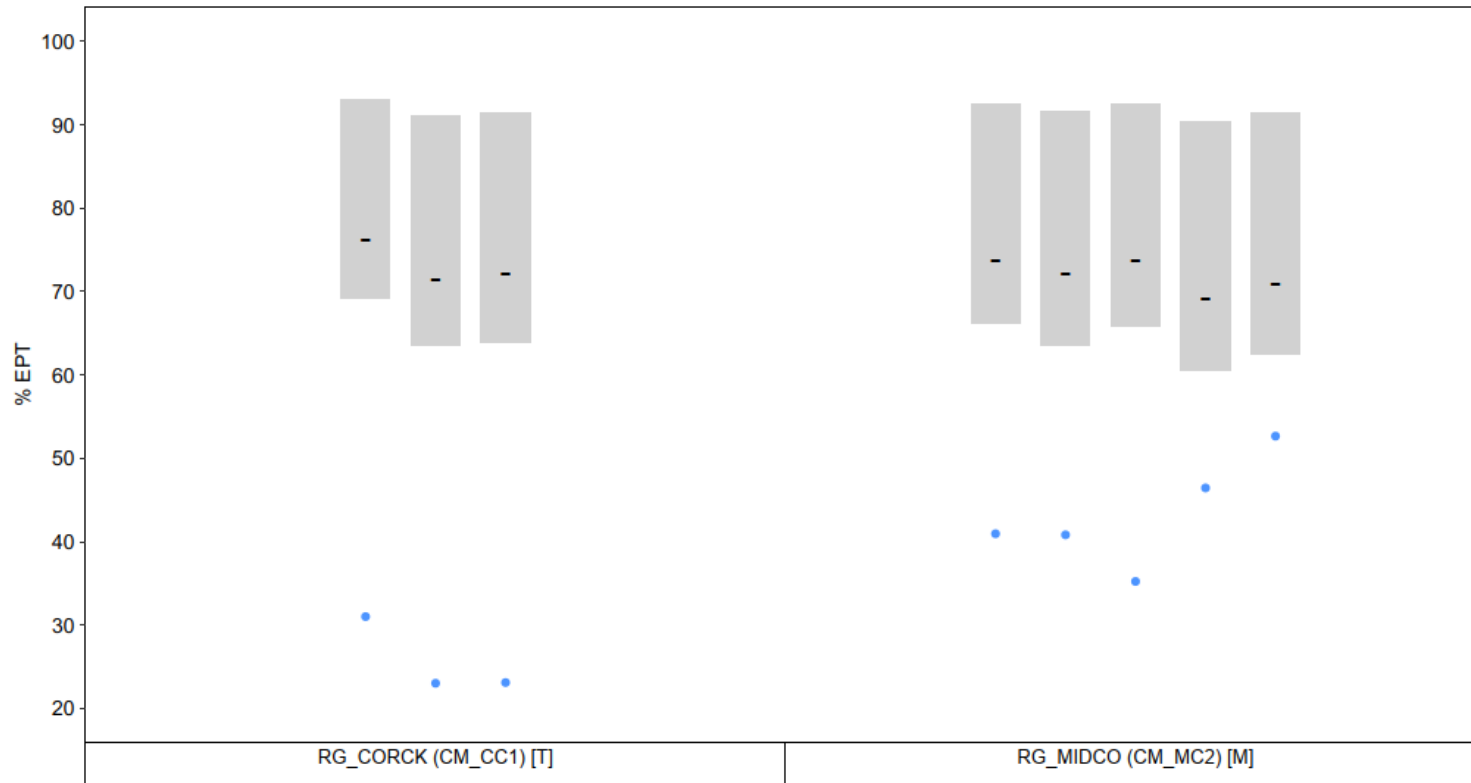
Percent EPT for each replicate from two mine-influenced stations was assessed against its respective biological trigger criterion (Table A-1 and Figure A-1). All replicates at CORCK and MIDCO had % EPT values lower than the 2.5<sup>th</sup> percentile of the habitat-adjusted normal range (i.e., indicating a change from the reference normal range), and measured ADIT scores greater than the predicted ADIT score based on projected water quality (i.e., indicating a greater than expected change from the reference normal range), resulting in biological triggers at each station.

**Table A-1: Biological Trigger Analysis for Percent Ephemeroptera, Plecoptera, and Trichoptera (EPT) at CMm LAEMP Sampling Stations, 2022**

Watercourse	Station	Type	Replicate	Date	Measured % EPT	Measured ADIT scores	Predicted ADIT Score	2.5 <sup>th</sup> Percentile of the Habitat Adjusted Normal Range	Biological Trigger Event?	
Mine Influenced Stations	Corbin Creek	CORCK	T	1	14-Sep-2022	31.0	3 (34.6)	0 (76.1)	69.1	Yes
		CORCK	T	2	14-Sep-2022	23.0	3 (31.8)	0 (71.5)	63.6	Yes
		CORCK	T	3	14-Sep-2022	23.1	3 (31.9)	0 (72.1)	63.8	Yes
	Michel Creek	MIDCO	M	1	13-Sep-2022	41.0	2 (66.2)	0 (73.6)	66.2	Yes
		MIDCO	M	2	13-Sep-2022	40.8	2 (63.5)	0 (72.1)	63.5	Yes
		MIDCO	M	3	13-Sep-2022	35.2	2 (65.8)	0 (73.7)	65.8	Yes
		MIDCO	M	4	13-Sep-2022	46.5	2 (60.6)	0 (69.0)	60.6	Yes
		MIDCO	M	5	13-Sep-2022	52.7	2 (62.5)	0 (70.9)	62.5	Yes

Note: The % EPT percentile value associated with each ADIT score are presented in parentheses.

M = mainstem; T = tributary; ADIT = Aquatic Data Integration Tool.

**Figure A-1: Percent Ephemeroptera, Plecoptera, and Trichoptera Compared to Predicted Values at CMm LAEMP Sampling Stations, 2022**

Note: Black bars indicate the lower limit of the predicted ADIT score for the location. Grey shading represents the habitat-adjusted site-specific normal range for each replicate. Grey dots for CORCK and blue dots for MIDCO represent values exceeding the trigger (below 2.5<sup>th</sup> percentile of the normal range and below the lower limit of the predicted ADIT score). The water quality projection for RG\_CM\_MC2 was used for biological trigger calculations for RG\_MIDCO.

M = mainstem; T = tributary; ADIT = Aquatic Data Integration Tool.



### **A3.2 Benthic Invertebrate Tissue Selenium**

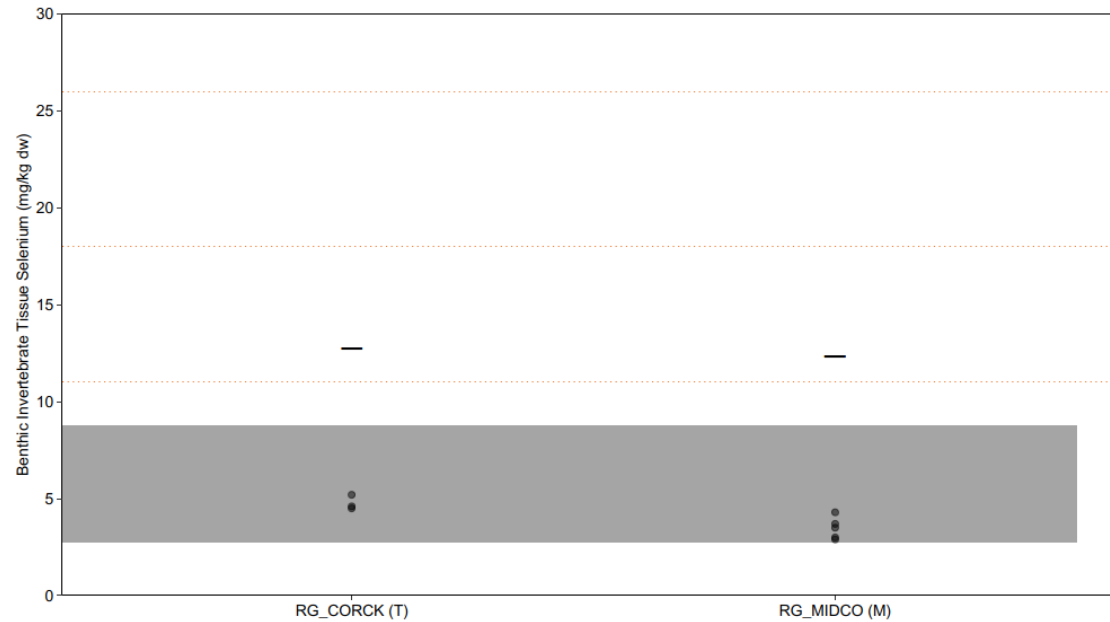
Concentrations of BIT Se for each mine-influenced replicate were assessed against their respective biological trigger criteria (Table A-2 and Figure A-2). None of the replicates in 2022 had concentrations of BIT Se above the biological trigger threshold (i.e., higher than both the upper 95% prediction limit based on predicted water quality, and the upper 97.5<sup>th</sup> percentile normal range), or above the level 1 benchmarks for juvenile fish (i.e., 11 mg/kg dw); resulting in no biological trigger for BIT Se.

**Table A-2: Biological Trigger Analysis for Selenium Concentration in Benthic Invertebrate Tissue at CMm LAEMP Sampling Stations, 2022**

Watercourse	Station	Watercourse Type	Replicate	Date	Predicted Aqueous Selenium Concentration (µg/L)	Benthic Invertebrate Tissue Selenium Concentration (mg/kg dw)			Biological Trigger Event?	
						Reported Concentration	Upper 95% Prediction Limit	97.5 <sup>th</sup> Percentile of Normal Range		
Mine Influenced Stations	Corbin Creek	CORCK	T	1	14-Sep-2022	13.2	4.6	12.7	9.1	No
		CORCK	T	2	14-Sep-2022	13.2	5.2	12.7	9.1	No
		CORCK	T	3	14-Sep-2022	13.2	4.5	12.7	9.1	No
	Michel Creek	MIDCO	M	1	13-Sep-2022	8.3	4.3	12.3	8.7	No
		MIDCO	M	2	13-Sep-2022	8.3	3.5	12.3	8.7	No
		MIDCO	M	3	13-Sep-2022	8.3	3.0	12.3	8.7	No
		MIDCO	M	4	13-Sep-2022	8.3	2.9	12.3	8.7	No
		MIDCO	M	5	13-Sep-2022	8.3	3.7	12.3	8.7	No

M = mainstem; T = tributary; mg/kg = milligrams per kilogram; mg/L = milligrams per litre; dw = dry weight.

**Figure A-2: Selenium Concentration in Benthic Invertebrate Composite Taxa Samples Compared to Predicted Values at CMm LAEMP Sampling Stations, 2022**



Note: Black bar indicates the upper 95<sup>th</sup> prediction interval of the bioaccumulation model. Dotted lines indicate level 1, 2, and 3 benchmarks for juvenile fish (11, 18, and 26 mg/kg, respectively). Grey shading represents the reference area normal range defined as the 2.5<sup>th</sup> and 97.5<sup>th</sup> percentiles of the distribution of the reference area data (pooled 1996 to 2019 data) reported in the RAEMP. The water quality projection for CM\_MC2 was used for biological trigger calculation at MIDCO.

M = mainstem; T = tributary; mg/kg = milligrams per kilogram; dw = dry weight; RAEMP = regional aquatic effects monitoring program.

## A4.0 SUMMARY

All replicates at CORCK and MIDCO had % EPT values that resulted in a biological trigger event. These findings are consistent with results of sampling and evaluation in previous years, including in the 2021 CMm LAEMP, that prompted management action under the AMP response framework. Teck first investigated localized effects on % EPT at CMm in 2017 as part of the Integrated Water Management Plan for Closure for CMO (Golder 2017). Analyses presented by Golder (2017) attributed the localized effects in large part to nickel, although effects in Corbin Creek are interpreted to also reflect calcite conditions there. Since 2017, Teck has conducted a series of laboratory and field investigations to better understand nickel toxicity and effects to % EPT, with the objective of deriving benchmarks to guide assessment and management of nickel in the Elk Valley. Teck also initiated the CMm LAEMP (of which this assessment of biological triggers is a part) and initiated ongoing evaluations of nickel treatment options. These activities are reported annually in AMP reporting.

None of the replicates in 2021 had concentrations of BIT Se above the biological trigger threshold or above the level 1 benchmarks for juvenile fish, similar to 2021 results. These findings do not indicate a need to track BIT Se under the AMP framework.

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**APPENDIX B**

# Site Conditions and Water Management

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## Abbreviations and Units of Measure

Abbreviation	Definition
%	percent
L/s	litres per second - delete
mg/L	milligrams per litre
hr	hour
BOD	Biochemical oxygen demand
C&M	Care and Maintenance
CMm	Coal Mountain mine
e.g.	For example
ENV	British Columbia Ministry of Environment and Climate Change Strategy
EPH	extractable petroleum hydrocarbons
EWT	early warning trigger
i.e.,	That is
SRK	SRK Consulting Inc.
TARP	Trigger Action Response Plan
TDS	Total Dissolved Solids
Teck	Teck Coal Limited
TSS	total suspended solids

## B1.0 SITE CONDITIONS AND WATER MANAGEMENT

Mining activity at Coal Mountain began around 1908 with small underground mines and has continued intermittently for over a century. Open pit operations began in 1975 and mining progressed under various owners until Teck Coal Ltd. (Teck) took ownership of Coal Mountain Mine (CMm) in 2008 (Teck 2017). Coal Mountain mine ceased active mining and processing operations on 30 April 2019 and made the transition to a care and maintenance (C&M) phase on 1 May 2019 (Figure B-1). Reclamation efforts will increase through C&M and will be guided by the plans outlined in Coal Mountain's 2022 Closure Plan (Teck 2023a). Following C&M, closure (2028 to 2036) and post closure (2036 and beyond) activities will be carried out at CMm, which will include decommissioning of infrastructure, remediation, and revegetation, as appropriate.

During operations between 2008 and 2019, CMm consisted of four pits: 6 Pit, 14 Pit, 34 Pit, and 37 Pit (Teck 2023a). Mining concluded in 14 Pit in 2006, 34 Pit in 2013, and in 37 Pit and 6 Pit in 2018. Backfilling has occurred since the pits closed; 14 Pit, 34 Pit, and 37 Pit have been fully (14 Pit) and partially (34 Pit and 37 Pit) backfilled with waste rock and refuse. Water storage capacity of the pits has been maximized and pit pumping is required for geotechnical safety. Current pit dewatering practices at CMm direct water to established and permitted mining contact water collection systems, which eventually discharge to Corbin Creek.

The surface water management system at CMm is designed to capture all mine contact surface water. The water management system includes:

- 1) a three pond system for settling out total suspended solids (Corbin Creek Dam and the west and east Main Interceptor Sedimentation Ponds)
- 2) clean water diversions to move clean water around mine disturbed areas
- 3) North and West ditches to convey contact water to the ponds
- 4) rock drains utilized in creeks where waste rock spoils are placed
- 5) infiltration sumps used to collect additional runoff from other structures

Runoff from the local waste rock spoils, pit wall runoff, groundwater inflow and direct precipitation is received by 6 Pit. Outflows include evaporation and pumping. Teck's preferred water management strategy is to maintain 6 Pit empty of water, if safe to do so. Teck intends to pump continuously to maintain water levels at or below the recommended target maximum volume; however, during some periods, such as during extremely low flows, pumping may pause temporarily. Though some periods of intermittent pumping may occur, pumping rates are planned to match rates of inflow into 6 Pit. Water is pumped from 6 Pit to the Corbin Creek rock drain and then flows to the Corbin Pond, Corbin Creek, and eventually Michel Creek. Water quality in 6 Pit has historically had higher concentrations of sodium and chloride than are observed in other water on site (SRK 2022a).

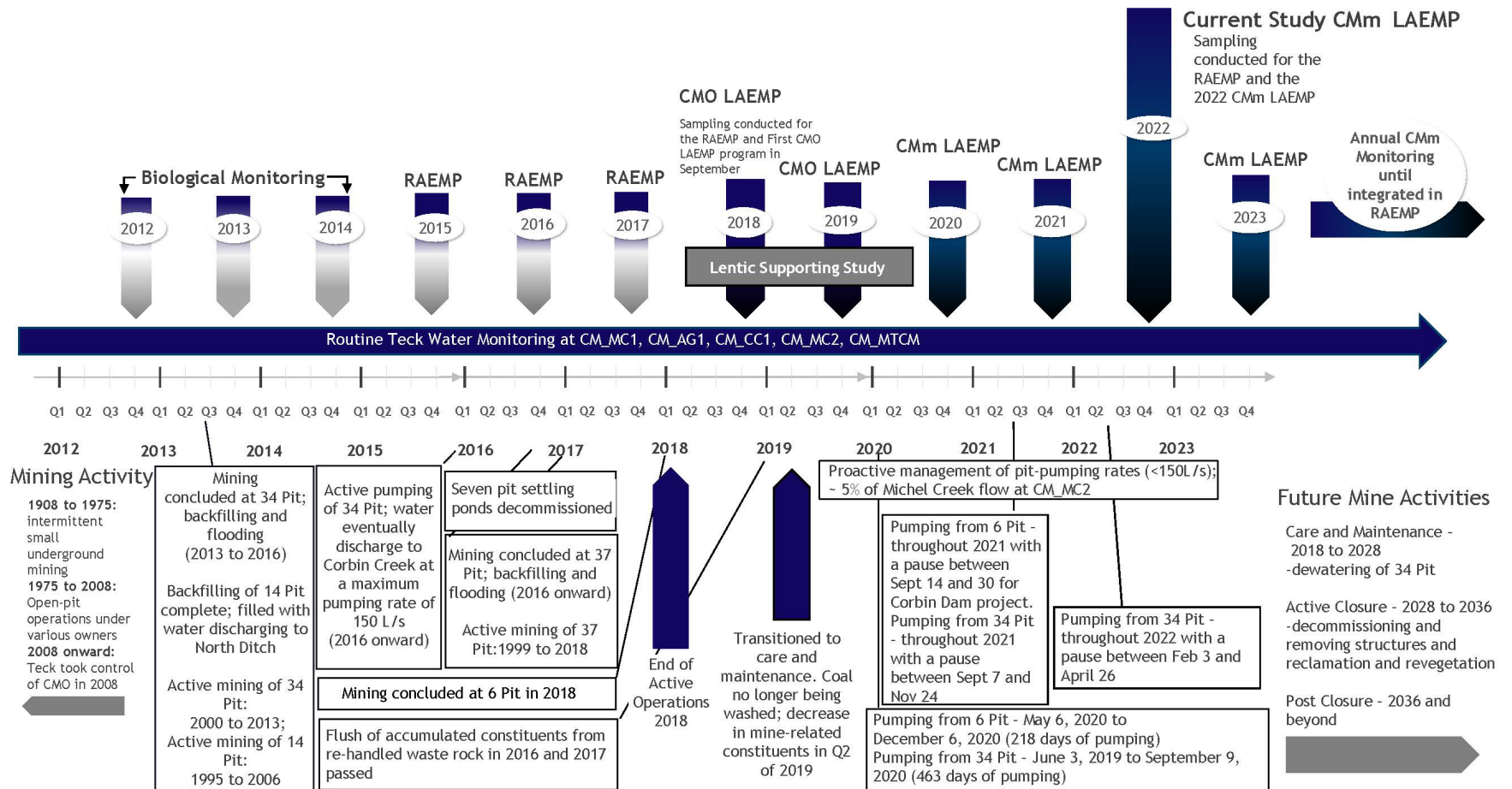
Excess water from 37 Pit and runoff from local waste rock spoils, pit wall runoff, runoff from waste rock backfill within 34 Pit, groundwater inflow, and direct precipitation are received by 34 Pit. Outflows from 34 Pit include evaporation and active pumping to maintain the water level below the passive decant level. Water from 34 Pit is pumped to a sump downstream of the 14 Pit horizontal drain discharge, eventually flowing to the North Ditch and reporting to Michel Creek. The volume of water that is dewatered annually is equal to the total inflows to the pit, because the pit water elevation is already near its maximum level. Pumping of 34 Pit occurs at a rate synchronized to seasonal flow in Michel Creek at monitoring location CM\_MC2, targeting a pump rate of 5% of

projected flow in Michel Creek at CM\_MC2 up to the current maximum pumping infrastructure capacity (approximately 150 L/s) to maintain target pit water levels for geotechnical stability. Following the 2021 update to the 34 Pit Pumping Plan (SRK 2022b), pumping limits were set as a percentage of flow at CM\_MC2, allowing pumping rates to exceed 150 L/s at high flow times of the year (e.g., freshet). Therefore, additional pumping infrastructure may be brought in if required to satisfy the Geotechnical Trigger Action Response Plan (TARP).

Pit dewatering occurred between 2019 and 2022. In 2019, pumping rates from 34 Pit were below the maximum authorized rate (i.e., 150 L/s) and no pumping from 6 Pit occurred; 6 Pit filled in naturally but did not decant. Active dewatering of 34 Pit and 6 Pit occurred between 2020 and 2022 at rates below the maximum authorized rates. Pumping from 6 Pit began in May 2020 when 6 Pit reached its storage capacity and continued into 2022. It was paused for a short period from 14 September to 30 September 2021 to support the Corbin Dam Dewatering Project associated with the Corbin Dam Spillway Upgrade Project. Pumping from 34 Pit began in June 2019 and continued until fall 2020. Pumping resumed in May 2021 and continued throughout 2021, with a short pause during the Corbin Dam Dewatering project, between September and November 2021. Pit pumping at 34 Pit was suspended between 3 February 2022 and 26 April 2022 following submission of the 34 Pit Pumping Plan update (SRK 2022b), and notification to the British Columbia Ministry of Environment (ENV). Pumping resumed on 26 April 2022 and continued throughout 2022 until 31 December 2022. Throughout 2021 and 2022, pit pumping at 34 Pit did not exceed the pumping limits set out in the 34 Pit Pumping Plan (SRK 2022b).

The main source of nickel to Michel Creek is 34 Pit and the Corbin Creek Rock Drain. Proactive water management and pit-pumping of 34 Pit in recent years has resulted in an improvement in water quality and nickel concentrations downstream of CMm since 2017 (Teck 2019). However, even under a no pumping scenario, Teck is projected to exceed the interim screening values for nickel. Pumping of 34 Pit is required to mitigate the geotechnical risk associated with water reporting to the west spoils passively. The pumping plan has been optimized to manage constituent loads to Corbin Creek and the competing need to manage geotechnical risk. The current proactive pit pumping management at CMm that has occurred since 2019 has given Teck the ability to actively manage the release of mining-related constituents to Corbin Creek and manage geotechnical risk. CMm is working towards re-sloping of the west spoils to support passive discharge over active pumping in the future.

**Figure B-1: Timeline of Mining, Water Management, and Monitoring in the CMm Area**



Water quality is monitored at CMm as required under Permits 4750 and 107517. Limits for total suspended solids (TSS), extractable petroleum hydrocarbons (EPH), and biochemical oxygen demand (BOD) are specified in Permit 4750 for specific discharge locations; limits for selenium, nitrate, and sulphate are specified in Permit 107517 for CM\_MC2. Acute toxicity is monitored at CM\_SPD, CM\_CCPD (or CCOFF)<sup>1</sup>, and CM\_PC2 (when it is flowing) as per Permit 107517. The collected water samples must not cause greater than 50% mortality in the 96-hour Rainbow Trout (*Oncorhynchus mykiss*) single concentration toxicity tests (EPS 1/RM/13 2nd edition, December 2000) or the 48-hour *Daphnia magna* single concentration toxicity tests (EPS 1/RM/14 2nd edition, December 2000), as per Section 6.2 in Permit 107517 (Ministry of Environment and Climate Change Strategy 2023).

Between 2016 and 2018, concentrations of several constituents were identified as increasing in water discharged from Corbin Dam at monitoring station CM\_CCPD and at the Main Interceptor Sedimentation Ponds (CM\_SPD; Teck 2019). The constituents were associated with the flush of blasting residues (i.e., nitrate, ammonia, and nitrite) and with metal leaching (i.e., sulphate, boron, calcium, cobalt, lithium, magnesium, manganese, molybdenum, nickel, potassium, selenium, sodium, and hardness). In addition, the onset of pumping from 6 Pit and 34 Pit started in 2016 because water started accumulating in these pits as they got deeper and narrower.

Between 2018 and 2019, a decrease in mining related constituents (i.e., nitrate, cobalt, sulphate, and total dissolved solids [TDS]) was measured at CM\_CCPD and at CM\_SPD, resulting in an improvement to water quality downstream of CMm in Corbin Creek and Michel Creek (Teck 2019). The decrease was in part attributed to the completion of the flush of accumulated constituents resulting from rehandled waste rock in 2016 and 2017. It was suspected that rehandling of waste rock disturbed constituents that had accumulated in the rock and caused a flush of constituents downstream of CMm when the waste rock was being disturbed. In addition, coal was no longer being washed as CMm transitioned to C&M in May 2019; therefore, plant washdown discharge to the North Ditch or Main Interceptor Sedimentation Ponds had ceased.

Between 2018 and 2022, there has only been one exceedance of compliance limits at CMm's compliance point, CM\_MC2 (nitrate monthly average in January 2017; Teck 2023b). The source discharge analysis revealed a long-term increasing trend for sulphate in Corbin Creek (CM\_CC1), but concentrations of most constituents were lower in 2020, 2021, and 2022 compared to previous years at CM\_MC2 (Teck 2023b).

Recent trends of increasing sulphate concentrations in 2019 and 2020 appear to have stabilized, with 2021 and 2022 concentrations similar to, or lower than, previous years. Sulphate typically fluctuates seasonally, with peaks occurring in winter and fall, coinciding with lower flows in Michel Creek, when relative loading of sulphate from pit pumping is higher. Sulphate concentrations were elevated in 6 Pit (400 to 600 mg/L) and 34 Pit (600 to 966 mg/L) in 2022, and individual samples occasionally exceeded the permit limit of 500 mg/L at CM\_MC2. However, the permit limit is based on the monthly average, which was not exceeded. The Corbin Creek Rock Drain (CCRD) is the main source of sulphate loading at CMm, which may partly be attributable to upstream East Spoils re-sloping works, as part of ongoing reclamation activities (Teck 2022a). There were no exceedances of compliance limits at CMm's compliance point, CM\_MC2 in 2022 (Teck 2021; 2022a).

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<sup>1</sup> CM\_CCPD could not be safely accessed during and after the Corbin Dam Spillway Project (October 2021); therefore, monitoring of the Corbin Sediment Pond decant was conducted at CM\_CCOFF. In permit amendments dated 27 January 2023 (for Permits 4650 and 107517), ENV changed the permitted location from CM\_CCPD (E206438) to CM\_CCOFF (E330652).

The 2022 monitoring data from CM\_MC2 were compared to early warning trigger (EWT) values to identify constituents that reached one or both of the EWT test criteria. Cobalt, sulphate, and TDS reached both EWT test criteria, similar to previous years. Examination of trends at discharge locations of CM\_MC2 revealed significant increasing trends in cobalt, sulphate, and TDS at CM\_CCPD/CM\_CCOFF; sulphate, TDS, and cobalt (to a lesser extent) at CM\_SPD; and a marginally significant trend in TDS at CM\_PC2 (Teck 2023b).

Consistent with the Chronic Toxicity Testing Program and Adaptive Management Plan response framework, Teck has taken steps to manage the release of mining-related constituents to Michel Creek. Teck updated the Coal Mountain Operations Water and Load Balance Model (Teck 2022b) and conducted a detailed evaluation of data from 2016 to 2018 to optimize the pumping plans for 34 Pit and 6 Pit. The thresholds set out in these optimized plans were designed to help Teck meet permit limits at CM\_MC2 and meet the aquatic effects benchmarks in Michel and Corbin creeks. Proactive pit pumping management since 2019 has had an overall positive effect on Teck's ability to manage the release of mining-related constituents to Corbin Creek.

In addition to the influence of past and current activities at CMm on Michel Creek, there are other anthropogenic influences such as logging and other industry in the watershed that may also impact water quality in Michel Creek. However, these influences are considered minor contributors and the greatest influence on water quality in Michel Creek has been mining activities.



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**APPENDIX C**

# Integrated Aquatic Programs

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## Abbreviations and Units of Measure

Abbreviation	Definition
%	percent
<	less than
µS/cm	microsiemens per centimetre
km	kilometre
m <sup>3</sup> /s	cubic metres per second
#	number
n	
mg/L	milligrams per litre
mg/kg dw	milligram per kilogram dry weight
µg/kg dw	microgram per kilogram dry weight -delete
ADIT	Aquatic Data Integration Tool
AEMP	Aquatic Effects Monitoring Program
AMP	Water Quality Adaptive Management Plan for Teck Coal in the Elk Valley
BC WQGs	British Columbia Water Quality Guidelines
BIC	Benthic Invertebrate Community
CMm	Coal Mountain mine
DO	dissolved oxygen
E	Ephemeroptera
EA	Environmental Assessment
Ecofish	Ecofish Research Ltd.
EFN	Environmental Flow Needs
ENV	British Columbia Ministry of Environment and Climate Change Strategy
EPT	Ephemeroptera, Plecoptera, and Trichoptera
EVO	Elkview Operations
EVWQP	Elk Valley Water Quality Plan
IFN	Instream Flow Study
i.e.,	that is
LAEMP	Local Aquatic Effects Monitoring Program
Minnow	Minnow Environmental Inc.
MU	Management Unit
Q	quarter
QC	Quality Control
RAEMP	Regional Aquatic Effects Monitoring Program
TDS	Total Dissolved Solids
Teck	Teck Coal Limited
TIE	toxicity identification evaluation
TN	Total Nitrogen

Abbreviation	Definition
TP	Total Phosphorus
UTM	Universal Transverse Mercator
YOY	Young-of-the-Year

## **C INTEGRATED AQUATIC PROGRAMS**

### **C1.0 INTRODUCTION**

Teck Coal Ltd. (Teck) conducts several programs to monitor, evaluate, and/or manage the aquatic effects of mining operations within the Coal Mountain Mine (CMm) area (Figure C-1). The CMm Local Aquatic Effects Monitoring Program (LAEMP) integrates information from the Regional Aquatic Effects Monitoring Program (RAEMP), chronic toxicity testing program, environmental flow needs [EFN] Study, and nickel benchmark study to better characterize and understand potential effects of CMm on the aquatic environment in Michel Creek. Summaries of relevant results from these reports are provided herein, while methods are presented within the specific monitoring reports.

### **C2.0 REGIONAL AQUATIC EFFECTS MONITORING PROGRAM (RAEMP)**

#### **C2.1 Overview**

Teck's RAEMP provides spatially comprehensive monitoring and assessment of potential mine-related effects on the aquatic environment downstream from Teck's coal mines in the Elk Valley. The RAEMP reporting encompasses monitoring data for the six management units associated with Teck's five coal mines (Minnow 2018a). Management Unit (MU) 4 applies to the CMm and Elkview Operations (EVO) areas.

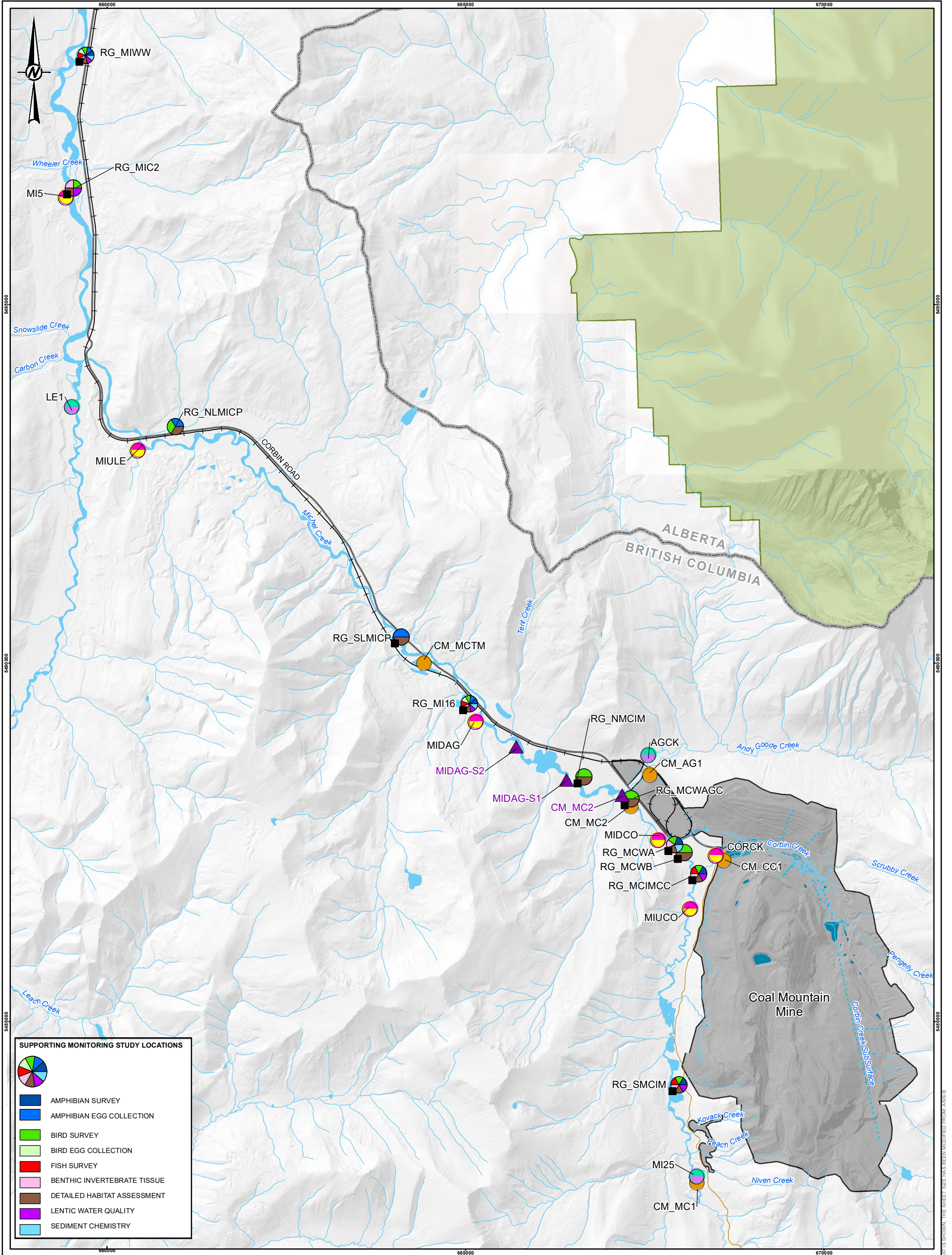
The objective of the RAEMP is to monitor, assess, and interpret indicators of aquatic ecosystem condition related to mine operations, and to inform adaptive management relative to expectations established in approved plans for mine development and in Permit 107517 (Minnow 2020a). Another objective of the RAEMP is to determine if conditions in the aquatic environment are consistent with expectations outlined in Environmental Assessments (EAs) supporting approved mine development applications.

The 2017 to 2019 RAEMP represents the second comprehensive RAEMP cycle (Minnow 2020a) and follows the 2015 to 2018 and the 2018 to 2020 RAEMP Study Designs (Minnow 2018a,b). The 2020 to 2022 RAEMP is currently in preparation and will be submitted in late fall 2023 (Minnow 2023); where possible, data from the 2020 to 2022 RAEMP cycle have been incorporated herein.

The RAEMP collects monitoring data to answer the following study questions:

- 1) Has there been a change in condition since previous monitoring cycles with respect to fish and benthic invertebrate population/community indicators, water quality, sediment quality, calcite, and/or tissue selenium concentrations?
- 2) Were any identified changes unexpected (i.e., inconsistent with model predictions or general expectations)?
- 3) Does the weight of evidence indicate the unexpected changes are mine-related?
- 4) What does the weight of evidence indicate about current or future ecosystem conditions in each management unit and regionally, considering the observed type, magnitude, spatial extent, and/or rate of change?



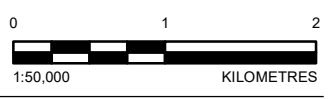


**SUPPORTING MONITORING STUDY LOCATIONS**

- AMPHIBIAN SURVEY
- AMPHIBIAN EGG COLLECTION
- BIRD SURVEY
- BIRD EGG COLLECTION
- FISH SURVEY
- BENTHIC INVERTEBRATE TISSUE
- DETAILED HABITAT ASSESSMENT
- LENTIC WATER QUALITY
- SEDIMENT CHEMISTRY

**LEGEND**

- LENTIC SAMPLING STATION
- 2020 NICKEL BENCHMARKS STUDY STATION
- WATER QUALITY STATION
- CMM LAEMP STATIONS - MINE-EXPOSED
- CMM LAEMP STATIONS - REFERENCE
- RAEMP - MINE-EXPOSED
- RAEMP - REFERENCE
- RAILWAY
- ROAD - PAVED
- ROAD - UNPAVED
- SURFACE FLOW WATERCOURSE
- SUBSURFACE FLOW WATERCOURSE
- BRITISH COLUMBIA-ALBERTA BOUNDARY
- CMM C-84 PERMIT BOUNDARY
- PARK / PROTECTED AREA
- WASTE WATER/SEDIMENT POND
- WATERBODY



REFERENCE(S)  
 BASE DATA OBTAINED TECK COAL LIMITED AND FROM GEOGRATIS, © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED.  
 DATUM: NAD 83 PROJECTION: UTM ZONE 11

CLIENT  
**TECK COAL LIMITED**

PROJECT  
**COAL MOUNTAIN MINE LOCAL AQUATIC EFFECTS MONITORING PROGRAM**

TITLE  
**Integrated Monitoring Locations for Historical and Recent Sampling Programs Coal Mountain Mine**

CONSULTANT

YYYY-MM-DD	2022-06-30
DESIGNED	KH
PREPARED	DR
REVIEWED	KH
APPROVED	RS

PROJECT NO. 22574542 CONTROL M\_WQ\_003 REV. 0

FIGURE C-1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM A4/ANSI B



The RAEMP data evaluation incorporates data from all lines of evidence applicable to each assessment endpoint. The data are interpreted relative to the RAEMP study questions, and in support of the Adaptive Management Plan (AMP; Appendix A). An Aquatic Data Integration Tool (ADIT) was also developed to integrate applicable lines of evidence and help Teck use their monitoring data to inform environmental management decisions (Section C2.2; Golder 2020); the ADIT is updated annually.

The 2022 ADIT results applicable to the CMm are presented in Section C2.2, Westslope Cutthroat Trout (*Oncorhynchus clarkii lewisi*) selenium tissue concentrations are discussed in Section C2.3, and chronic toxicity testing program results are summarized in Section C2.4.

## C2.2 Aquatic Data Integration Tool (ADIT)

The RAEMP data evaluation incorporates data from all lines of evidence applicable to each assessment endpoint. The ADIT was developed to integrate the applicable lines of evidence and help Teck use their monitoring data to inform environmental management decisions (Golder 2020). The ADIT summarizes data in a consistent format for all parts of the Elk Valley. Multiple types of monitoring information are presented side-by-side to allow comparisons and to support an integrated interpretation of what types of effects might be occurring and what might be causing those effects. Potential stressors are assigned ADIT scores by comparing monitoring data to a series of applicable benchmarks, toxicity screening values, or critical effect sizes. Biological response involved comparing monitoring data to a “normal range” of conditions based on monitoring in the reference areas (i.e., habitat-adjusted normal ranges, or regional normal ranges if habitat-adjusted normal ranges are not available, that are based on a linear mixed-effects model that uses reference data with individual samples). The interpretation for each score and the associated colour used to shade cells in the ADIT are described in Table C-1.

**Table C-1: Interpretation of Aquatic Data Integration Tool (ADIT) Scores**

ADIT Score	Indication of Change	Indication of Potential Effect
0	No apparent change; well within normal range	No effect; less than lowest benchmark
1	Possible change, still consistent with reference; within normal range but near edge	Possible low-level effect on chronic, sublethal endpoint for most sensitive species; not expected to be measurable or ecologically meaningful
2	Probable change, possibly different from reference; sometimes outside the normal range or often near the edge, in the direction of adverse effects	Probable effect, potentially measurable and ecologically meaningful; potential for changes to populations of sensitive species
3	Likely change, likely different from reference; often or always outside the normal range in the direction of adverse effects	Likely effect, expected to be measurable and ecologically meaningful; potential for changes to benthic invertebrate communities and fish populations

Source: Golder 2020.

A subset of the supporting monitoring data used in the ADIT and ADIT scores are provided in Table C-2. The key biological receptors included in the ADIT are BIC and fish. In 2022, biological monitoring under the RAEMP and CMm LAEMP focused on BIC (Table C-3); monitoring of fish did not occur in 2022. Overall, the ADIT also provides a current snapshot of conditions and is updated annually as new data become available from the RAEMP, LAEMPs or other monitoring programs.

Overall, the greatest effects on the BIC (i.e., ADIT scores of three) were observed in Corbin Creek (CORCK) and Michel Creek downstream of Corbin Creek (MIDCO). Specifically, low % EPT, % E, and EPT and Ephemeroptera

abundances were observed at CORCK (Table C-3). Lower % EPT and % E than normal ranges were also observed at MIDCO, located downstream of Corbin Creek, and lower total abundance, and EPT and Ephemeroptera abundances were observed at MIUCO, upstream of Corbin Creek.

**Table C-2: Subset of Supporting Variables used in Aquatic Data Integration Tool (ADIT) Scores for the CMm LAEMP Stations, 2022**

Exposure	Station Name	Peak Nickel (mg/L)			BIT Selenium (mg/kg dw)	<i>C. dubia</i> Reproduction (%)		<i>H. azteca</i> Growth (%)		<i>P. subcapitata</i> Growth (%)		Calcite Index <sup>(c)</sup>
		Winter	Spring	Summer-Fall		Mean <sup>(a)</sup>	Min <sup>(b)</sup>	Mean <sup>(a)</sup>	Min <sup>(b)</sup>	Mean <sup>(a)</sup>	Min <sup>(b)</sup>	
Reference	RG_AGCK	-	0.07	0.12	7.4	-	-	-	-	-	-	0.003
	RG_LE1	-	-	0.01	8.9	-	-	-	-	-	-	0.000
	RG_MI25	0.11	0.03	0.03	9.2	105	99	94	93	98	90	0.020
Mine-Influenced	RG_MIUCO	-	-	0.01	4.7	-	-	-	-	-	-	0.021
	RG_CORCK	4.8	4.0	3.3	5.2	-	-	-	-	-	-	2.80
	RG_MIDCO	2.7	1.7	1.9	4.3	83	46	92	74	78	31	0.150
	RG_MIDAG	1.2	0.62	0.84	8.8	97	78	-	84	-	-	0.096
	RG_MIULE	-	-	0.43	8.9	-	-	-	-	-	-	0.210
	RG_MI5	-	-	0.28	9.3	-	-	-	-	-	-	0.053

Source: Minnow 2023

(a) Mean response relative to reference stations.

(b) Minimum response relative to references stations.

(c) Based on proportional data.

BI = benthic invertebrate; *C. dubia* = *Ceriodaphnia dubia*; *H. azteca* = *Hyalella azteca*; *P. subcapitata* = *Pseudokirchneriella subcapitata*; - = not available; mg/L = milligrams per litre; mg/kg dw = milligrams per kilogram dry weight; min = minimum.

**Table C-3: Aquatic Data Integration Tool (ADIT) Scores for Benthic Invertebrate Community Endpoints at CMm LAEMP Stations, 2022**

Exposure	Station Name	Abundance (Total no. of org/station)	Richness (LPL taxa/station)	EPT		Ephemeroptera	
				Total no. of org/station	%	Total no. of org/station	%
Reference	RG_AGCK	15,835	30	14,345	91	10,839	69
	RG_LE1	6,793	38	6,023	89	3,067	45
	RG_MI25	8,485	30	8,071	95	5,427	64
Mine- Influenced	RG_MIUCO	2,913	42	2,036	70	1,121	39
	RG_CORCK	4,905	27	1,313	27	0	0
	RG_MIDCO	9,157	41	3,922	43	1,401	15
	RG_MIDAG	9,235	37	7,714	84	3,742	41
	RG_MIULE	10,903	40	8,606	79	5,824	53
	RG_MI5	6,793	35	14,345	89	4,262	63

Source: Minnow 2023

Note: Biological response metrics compare the geometric mean of a given station's replicates to habitat-adjusted normal ranges (or regional normal ranges when not available), which are based on a linear mixed-effects model that uses reference data with individual samples.

no. = number; org/station = organisms per station; LPL = lowest practical level; % = percent; EPT = Ephemeroptera, Plecoptera and Trichoptera.

The ADIT also calculates area-weighted summary metrics, which spatially integrate effects for each MU by estimating potential effects in each subunit of the MU and then calculating an average across the MU, weighted for the habitat area of each subunit. All MUs are described in the ADIT but the MU applicable to the CMm LAEMP is MU4, which includes EVO. Area-weighted summaries for MU4 are provided in Table C-4. These area-weighted summary metrics are used to assess regional protection goals established in the Elk Valley Water Quality Plan (EVWQP; Teck 2014), which include attainment of a spatially integrated potential effects of less than 20% for BIC on the most sensitive species and life-stage.

Within MU4, on average 6% of the assessed habitat area had an ADIT score of 3 for %E (i.e., the most sensitive species) and an ADIT score of 1 or 2 was observed for <1% of the assessed habitat area (Table C-4). An ADIT score of 0 for %E, indicating no effects and no apparent change in condition from the normal reference ranges, was observed for 94% of the assessed habitat area in the lotic portion of the watershed evaluated.

**Table C-4: Area-weighted Summaries for Measurement Unit 4 from the Aquatic Data Integration Tool (ADIT)**

%Rating	Abundance (Total no.)	Richness (LPL taxa)	EPT		Ephemeroptera	
			Total no.	%	Total no.	%
0	94%	98%	93%	96%	91%	94%
1	0%	0%	0%	<1%	5%	0%
2	0%	1%	5%	0%	0%	0%
3	6%	1%	2%	4%	4%	6%

Source: Minnow 2023.

Note: Biological response metrics compare the geometric mean of a given station's replicates to habitat-adjusted normal ranges (or regional normal ranges when not available), which are based on a linear mixed-effects model that uses reference data with individual samples.

no. = number; LPL = lowest practical level; % = percent; EPT = Ephemeroptera, Plecoptera and Trichoptera.

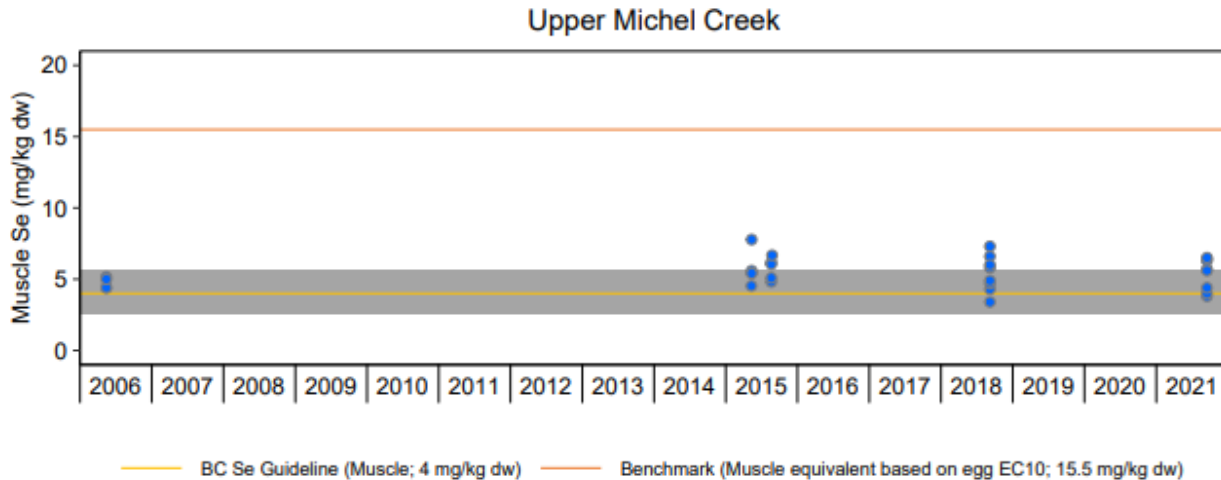
### C2.3 Westslope Cutthroat Trout Tissue Selenium Concentrations

Westslope Cutthroat Trout muscle samples were collected using non-lethal methods under the RAEMP at MIDCO in 2018 and 2021 to evaluate tissue selenium concentrations and compare them to normal ranges, EVWQP benchmarks, and predictions (Minnow 2020a). In 2018, selenium concentrations in four out of the eight samples collected were at or above the upper limit of the normal range, and concentrations in all samples were less than the site-specific benchmark of 15.5 mg/kg dw (Nautilus Environmental and Interior Reforestation 2011; Figure C-2). In 2021, selenium concentrations in five out of the eight samples collected were at or above the upper limit of the normal range, and concentrations in all samples were less than the site-specific benchmark of 15.5 mg/kg dw. Westslope Cutthroat Trout muscle selenium concentrations have been similar over time in the upper Michel Creek area near CMm, with no significant differences detected among years (Minnow 2020a).

Non-lethal opportunistic fish tissue sampling was also carried out in 2019 in Corbin Creek at CM\_CC1 (CORCK) and CM\_CC2 (upstream of CORCK). Two Westslope Cutthroat Trout were captured and muscle plug samples were collected, during the September EFN electrofishing survey by Ecofish Research Ltd. (Ecofish).

Tissue selenium concentrations were 4.2 mg/kg dw in both samples, and were below the lowest level 1 benchmark for fish (i.e., 11 mg/kg dw).

**Figure C-2: Westslope Cutthroat Trout Muscle Selenium Concentrations in Upper Michel Creek, 2006 to 2021**



Source: 2020 to 2022 RAEMP report (Minnow 2023).

Notes: Gray shading represents the reference area normal range defined as the 2.5<sup>th</sup> and 97.5<sup>th</sup> percentiles of the distribution of reference area data (pooled 1996 to 2019 data) reported in the RAEMP. Fish were collected from lotic areas only.

## C2.4 Chronic Toxicity Testing Program

The chronic toxicity testing program supports AMP Management Questions #2 and #5 (WSP 2023a).

The program reviews data quality to confirm that results meet acceptability criteria and standardizes the data to help discern toxicological responses from other sources of variability in data. The program also interprets chronic toxicity test results by comparing site water to reference water, and evaluates correspondence between water chemistry and toxicological responses. It considers the size of response in each test and how that compares to responses in tests of reference waters (not influenced by mining) to categorize each result as a “no”, “possible”, or “likely” adverse response, and evaluates the correspondence between test responses and indicators of mine-related water quality. This evaluation includes statistical assessment of patterns and specialized laboratory tests (i.e., toxicity identification evaluations [TIEs]) designed to identify causes of toxicity.

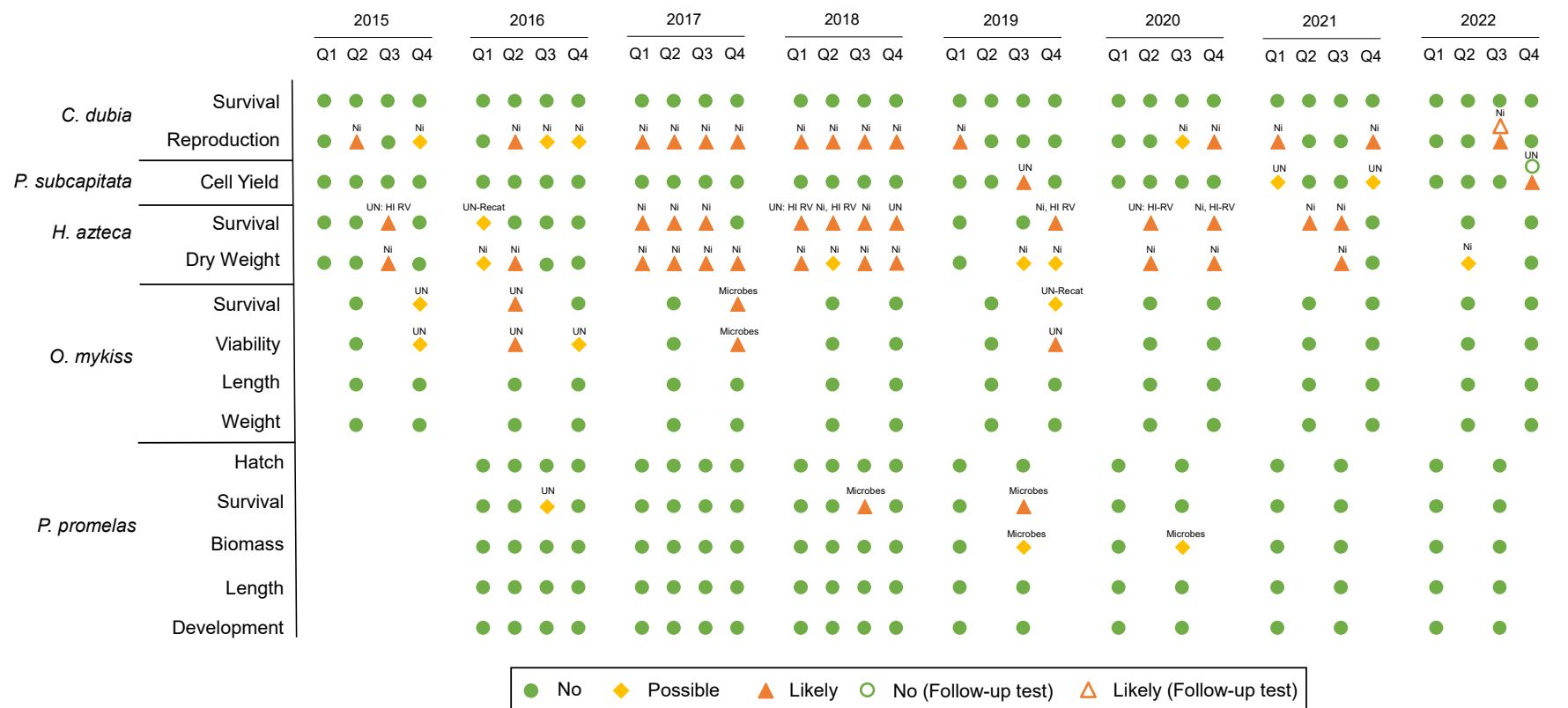
Chronic toxicity tests were performed quarterly using a water flea (*Ceriodaphnia dubia*) and an alga (*Pseudokirchneriella subcapitata*), and semi-annually using an amphipod (*Hyalella azteca*), early-life stage Rainbow Trout (*Oncorhynchus mykiss*) and early-life stage Fathead Minnow (*Pimephales promelas*). Tests were conducted using reference and mine-influenced water that was collected from two stations on Michel Creek near CMm between 2015 and 2022: one station was located 1.80 km downstream of CMm (CM\_MC2), and the second station was located 5.27 km downstream (MIDAG), which was originally sampled at CM\_MC3 (2018). Test results for CM\_MC2 from 2015 to 2022 are summarized in Figure C-3. Test results for CM\_MC3 (2018) and MIDAG (2019 to 2022) are summarized in Figure C-4. Chronic toxicity results for CM\_MC2 have shown consistent patterns of response over time for *C. dubia* reproduction and *H. azteca* survival and dry weight. A likely adverse response was observed for *C. dubia* in Q4 of 2022, and a possible response for *H. azteca* dry weight was observed in Q2 of 2022 (WSP 2023a). These two crustacean species are known to be sensitive to dissolved



nickel exposure, and multiple lines of evidence have implicated nickel as contributing to adverse responses at this sampling location.

For other test species, CM\_MC2 has shown few adverse responses, with no apparent consistent pattern of responses over time and no clear evidence of causal factors (WSP 2023a). Likely adverse responses were observed for *P. subcapitata* in Q4; however, no adverse response was observed in follow-up testing with water collected two weeks after the original test date. Possible adverse responses were observed at MIDAG in 2022 for *P. promelas* biomass (Q1) and *C. dubia* reproduction (Q3) and a likely adverse response was observed for *P. promelas* survival (Q1); there was high inter-replicate variability in the Q1 *P. promelas* test. Chronic toxicity results at MIDAG have shown few adverse responses since 2018, with no apparent consistent pattern of responses over time, a high inter-replicate variability, and no clear evidence of causal factors other than nickel. Observations at these stations align with the interpretation that the influence of nickel in Michel Creek is limited spatially, as the testing with sensitive crustaceans at RG\_MIDAG (possible adverse response) showed improvement relative to CM\_MC2 (likely adverse response).

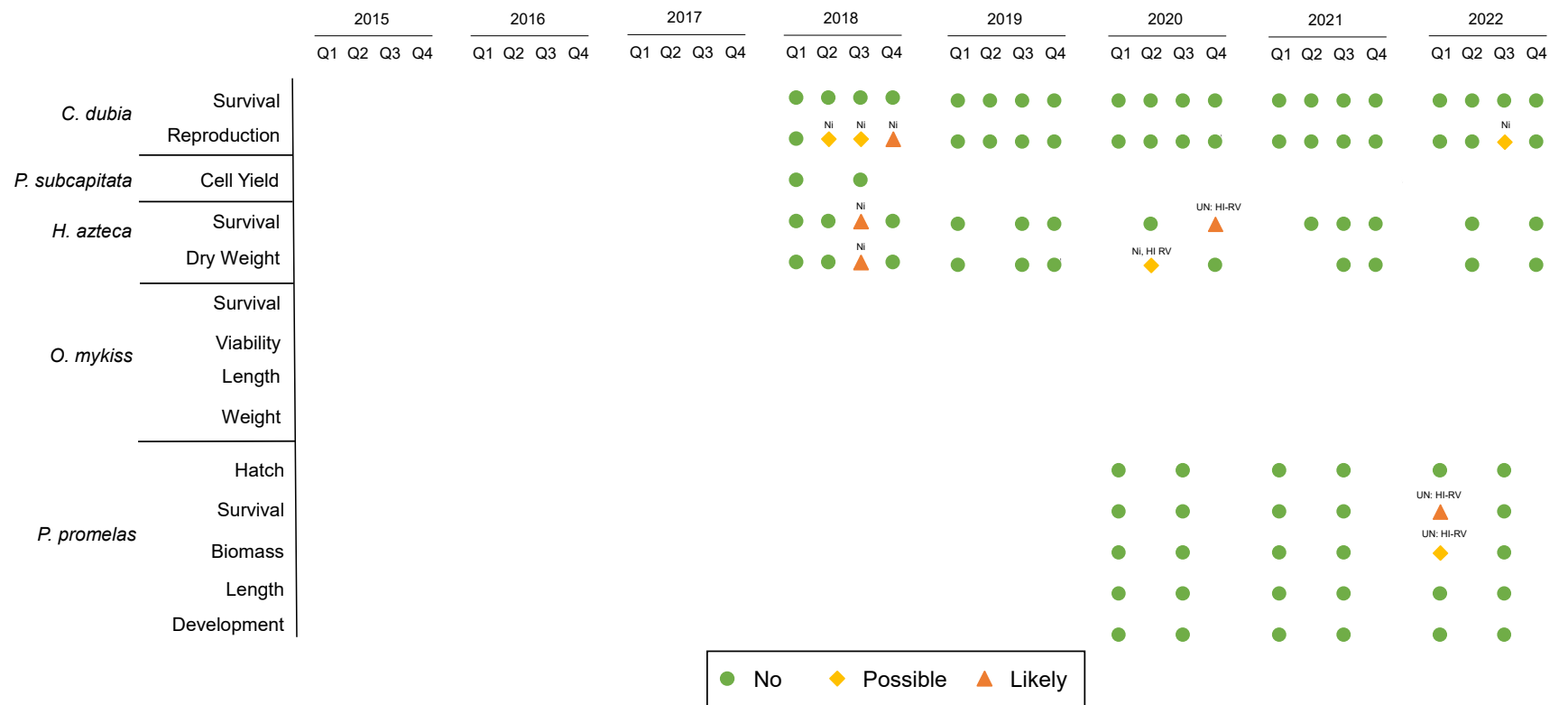
**Figure C-3: Summary of Test Results by Category at CM\_MC2, 2015 to 2022**



Source: 2022 Chronic Toxicity Report (WSP 2023a).

Note: Possible and likely symbols are annotated with constituent(s) identified as potentially contributing to observed response. HI-RV = high inter-replicate variability; Ni = nickel; UN = unknown: no water quality constituent was identified; Recat = category was previously assigned as “no adverse response”; Microbes = test had evidence of microbes in one or more replicates. Toxicity Identification Evaluations were conducted to support the causation assessment for *C. dubia* tests in 2017 (Q3 and Q4), 2018 (Q1 to Q4), 2019 (Q1 to Q4), 2020 (Q1 to Q4), 2021 (Q1 to Q4), and 2022 (Q1 and Q3); *P. subcapitata* tests in 2019 (Q3), 2021 (Q1 and Q4), and 2022 (Q4); and *H. azteca* tests in 2018 (Q1 to Q4), 2019 (Q1, Q3, and Q4), 2020 (Q2 and Q4), and 2021 (Q2 and Q4).

**Figure C-4: Summary of Test Results by Category at CM\_MC3 and RG\_MIDAG, 2018 to 2022**



Source: 2022 Chronic Toxicity Report (WSP 2023a).

Note: 2018 test results are for CM\_MC3. In 2019, CM\_MC3 was replaced by RG\_MIDAG. Possible and likely symbols are annotated with constituent(s) identified as potentially contributing to observed response. Toxicity Identification Evaluations were conducted to support the causation assessment for *C. dubia* tests in 2022 (Q1). HI-RV = high inter-replicate variability; Ni = nickel; UN = unknown: no water quality constituent was identified.

### **C3.0 CHRONIC NICKEL BENCHMARK STUDIES**

Teck undertook a series of investigations to refine their understanding of nickel toxicity in Elk Valley water and to derive chronic nickel benchmarks. The reader is referred to the Chronic Nickel Benchmarks for the Elk Valley – Nickel Benchmark Derivation Report (WSP Golder 2022) for detailed background information on nickel toxicity and the approach for benchmark development and for guidance on the nickel benchmark calculation method the reader is referred to the Guidance on calculation of chronic nickel benchmarks for the Elk Valley technical memorandum (WSP 2023b).

The proposed nickel benchmarks were derived following the overall approach to benchmark development (WSP Golder 2022; Teck 2014) to derive scientific best estimates of dissolved nickel concentrations associated with no effect or defined levels of potential chronic effects on sensitive species and stage of aquatic life under Elk Valley water quality conditions. Technical studies were undertaken to reduce uncertainties in species sensitivity, the influence of exposure and toxicity modifying factors, and the use of laboratory toxicity data to model potential effects on biota in the field. Benchmarks were developed separately for benthic invertebrates, fish, and amphibians to account for differences in sensitivity to nickel and to align with receptor-specific approaches to water quality assessment developed for the EVWQP (Teck 2014).

Benchmark equations are provided in Table C-5, with calculated values for compliance station CM\_MC2 as a representative example of Elk Valley conditions. The proposed nickel benchmarks were used in the assessment of dissolved nickel concentrations at CMm in the 2022 CMm LAEMP. Additional context for interpreting benchmarks is provided in Table C-6 and was consulted when interpreting the proposed nickel benchmark exceedances in the CMm LAEMP.

**Table C-5: Summary of Nickel Benchmarks with Example Values for Average CM-MC2 Water Quality**

Receptor Group	Representative Species and Test Type Used to Derive Benchmark	Equation	Dissolved Nickel Concentration (µg/L)		
			Level 1 (~10% effect)	Level 2 (~30% effect)	Level 3 (~50% effect)
Benthic Invertebrates	Water flea ( <i>C. dubia</i> ) three brood reproduction from site-specific and literature studies Critical effects sizes for effects on %E are 22% (level 1), 37% (level 2), and 70% (level 3) effects on <i>C. dubia</i> reproduction	Equation 3: $\log(\text{benchmark}) = 0.547 \times (\log\text{DOC}) + 0.411 \times (\log\text{Hardness}) - 0.520 \times (\log\text{Bicarbonate}) + \alpha$	5.8	8.3	16.2
			$\alpha = 0.856$	$\alpha = 1.011$	$\alpha = 1.304$
Fish	Fathead minnow ( <i>Pimephales promelas</i> ) 32-day survival to early life stages (calculated from Birge et al. 1984 data)	Equation 4: $\log(\text{benchmark}) = 0.278 \times (\log\text{DOC}) + 0.498 \times (\log\text{Hardness}) - 0.139 \times (\text{pH}) + \alpha$	196	298	618
			$\alpha = 2.052$	$\alpha = 2.234$	$\alpha = 2.551$
Amphibians	African clawed frog ( <i>Xenopus laevis</i> ) 96-hour embryo malformation (Hopfer et al. 1991)		157	185	271
			$\alpha = 1.956$	$\alpha = 2.027$	$\alpha = 2.193$

Source: WSP Golder 2022

Benchmark values shown are for average Michel Creek conditions at CM\_MC2 between January 2019 and March 2022 (hardness = 500 mg/L as CaCO<sub>3</sub>; DOC = 1.2 mg/L; bicarbonate = 249 mg/L as HCO<sub>3</sub>; pH = 8.1). Benchmarks for other water quality conditions can be calculated using the receptor-specific equations and intercepts. ETMFs are DOC (mg/L), hardness (mg/L as CaCO<sub>3</sub>), and bicarbonate (mg/L as HCO<sub>3</sub>) or pH. Equation 3 applies across the following ETMF ranges: hardness = 15 to 1,020 mg/L as CaCO<sub>3</sub>; DOC = 0.4 to 40 mg/L; pH = 6.6 to 8.7; and bicarbonate = 8 to 366 mg/L as HCO<sub>3</sub>. Equation 4 was based on the Croteau et al. (2021) pooled species chronic MLR model calibrated data with the following ETMF ranges: hardness = 14 to 848 mg/L as CaCO<sub>3</sub>; DOC = 0.2 to 18 mg/L; and pH = 5.5 to 8.7.

µg/L = micrograms per litre; mg/L = milligrams per litre; ~ = approximately; % = percent; %E = percent Ephemeroptera; *C. dubia* = *Ceriodaphnia dubia*; ETMF = exposure and toxicity modifying factors; MLR = multiple linear regression.

**Table C-6: Interpretation of Nickel Benchmarks for Benthic Invertebrates – Potential Effects on the Benthic Invertebrate Community**

Level	Benthic Invertebrate Community Monitoring	
	Effect to Upper Bound of Mayflies	Interpretation
Level 1	10%	No expected changes to abundances of Ephemeroptera, other taxa, or community endpoints. Nickel concentrations at or below the level 1 benchmark would not be expected to cause measurable changes at any site or ecologically meaningful effects to sensitive benthic invertebrates or the broader BIC.
Level 2	20%	Potentially detectable change to the upper-bound %E, but no expected change in abundances of Ephemeroptera or other taxa at most sites and no change to other community metrics. Nickel concentrations at the level 2 benchmark indicate a potential for low-level effects on sensitive invertebrate species, but population changes are unlikely and community-level effects would not be expected.
Level 3	50%	Measurable and ecologically meaningful change to the upper-bound %E, and potential to affect less sensitive taxa such as Plecoptera and Trichoptera. No indication of effects on total benthic invertebrate abundance or taxonomic richness. Nickel concentrations at the level 3 benchmark indicate potential for measurable and ecologically meaningful population-level changes in sensitive benthic invertebrates that could translate to community-level effects.

Source: adapted from WSP Golder 2022.

%E = percent Ephemeroptera; BIC = benthic invertebrate community; %= percent.

## C4.0 ENVIRONMENTAL FLOW NEEDS STUDY

Teck retained Ecofish to develop and evaluate alternative EFN thresholds for Corbin Creek. To support this work, Ecofish completed three background studies between 2019 and 2020:

- Fish Community Survey (Regehr et al. 2020a)
- Fisheries Habitat Assessment Procedure (Regehr et al. 2020b)
- Instream Flow Study (IFN; Healey and Hatfield 2020)

Existing information on fish species documented in Corbin Creek and the surrounding area was also reviewed.

Fish species documented in Corbin Creek were Brook Trout<sup>1</sup>, Mountain Whitefish, and Westslope Cutthroat Trout (BC ENV 2019a). Downstream in Michel Creek, Bull Trout<sup>2</sup>, Mountain Whitefish, Westslope Cutthroat Trout and Longnose Sucker (Golder 2015, BC ENV 2019b) were documented. Westslope Cutthroat Trout was the most common species observed in these two streams (Golder 2015, BC ENV 2019b). Tributaries such as Corbin Creek provide spawning, juvenile rearing, and high flow velocity refuge habitats that are limited in the frequently confined mainstem of Michel Creek (Golder 2015).

During the fish community survey, electrofishing captures were mostly Westslope Cutthroat Trout (81%, 96%, and 91% of captures for open-site electrofishing, closed-site electrofishing, and minnow trapping, respectively),

<sup>1</sup> Brook Trout is an introduced species, native to eastern North America.

<sup>2</sup> Numerous FIDQ records note the presence of Dolly Varden in Michel Creek; however, based on known provincial Dolly Varden distribution, Golder (2015) assumed that these records referred to incorrectly identified Bull Trout.

although a few Longnose Sucker and Brook Trout were also captured (Regehr et al. 2020a). Analysis of density and biomass by age class, as determined from closed-site electrofishing results, indicated that fry (0+ years), parr (1+ years), parr (2+ years), and sub-adult (3+ years) age classes were present in Corbin Creek; adults ( $\geq 4+$  years) were not captured. Mountain Whitefish, which were previously documented in Corbin Creek (BC ENV 2019b), were not detected during the fish community survey.

Fry, parr, and sub-adult age classes of Westslope Cutthroat Trout were captured in Corbin Creek; no adult fish were captured (Regehr et al. 2020a). Three redds were identified in June and July 2020 downstream of the Mine. The presence of fry during the growing season sampling program indicated that spawning had occurred in the vicinity of Corbin Creek despite spawners not being observed in 2020. Spawners and redds were not observed in Corbin Creek during spawning surveys in 2019.

Westslope Cutthroat Trout were present in Corbin Creek during the winter and accounted for 95% of the fish observed during the overwintering assessment (Regehr et al. 2020a). A comparison of numbers of fish observed and habitat characteristics by sub-site (defined as a section of stream that had similar habitat characteristics within an overwintering site) suggested that sub-sites with cover tended to have higher numbers of fish, and that fish presence was associated with the presence of cover (Regehr et al. 2020b).

Physical habitat parameters (i.e., wetted area, water depth, and water velocity) were identified as potentially limiting for fish, as well as water temperature (Regehr et al. 2020a,b). Because calcite concretion has been observed in Corbin Creek, overwintering cover in the substrate may be limiting; habitats with other cover sources (i.e., small woody debris, deep pool, undercut banks, overhanging vegetation, and organics) were identified as important for overwintering. Based on water temperature data, the growing season for Westslope Cutthroat Trout in Corbin Creek is estimated as April 16 to October 15 (Regehr et al. 2020a).

The IFN study (Healey and Hatfield 2020) provided an evaluation of prospective minimum flow thresholds for Corbin Creek, considering the quantity of water available for Teck Coal and the habitat available for fish. The proposed minimum flow thresholds were designed as the maximum instream flow rates that will provide 0.001 cubic metres per second ( $m^3/s$ ) for water use by Teck Coal.



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**APPENDIX D**

**Water Quality Screening Data**

Table D-1: Water Quality Data Screening, CMM LAEMP 2022

Parameter	Unit	BC Water Quality Guidelines for the Protection of Aquatic Life		Elk Valley Water Quality Plan Benchmarks and Effect Concentrations						Reference Stations			Mine-influenced Stations					
		Long-term Chronic	Short-term Acute	Invertebrate Level 1	Invertebrate Level 2	Invertebrate Level 3	Fish Level 1	Fish Level 2	Fish Level 3	Michel Creek MI25	Andy Goode Creek AGCK	Leech Creek LE1	Michel Creek MIUCO	Corbin Creek CORCK	Michel Creek MIDCO	Michel Creek MIDAG	Michel Creek MIULE	Michel Creek MI5
										RG_MI25_WS_LAEMP_CM O_2022-09_N_ALS	RG_AGCK_WS_LAEMP_C MO_2022-09_N_ALS	RG_LE1_WS_LAEMP_CMO _2022-09_N_ALS	RG_MIUCO_WS_LAEMP_C MO_2022-09_N_ALS	RG_CORCK_WS_LAEMP_CMO_2022-09_N_ALS	RG_MIDCO_WS_LAEMP_C MO_2022-09_N_ALS	RG_MIDAG_WS_LAEMP_C MO_2022-09_N_ALS	RG_MIULE_WS_LAEMP_C MP_2022-09_N_ALS	RG_MI5_WS_LAEMP_CM O_2022-09_N_ALS
<b>Field Measured</b>																		
pH	-	6.5 - 9.0	6.5 - 9.0	-	-	-	-	-	-	8.2	8.5	8.0	8.4	8.1	8.1	8.2	8.4	8.3
Specific conductivity	µS/cm	-	-	-	-	-	-	-	-	290	252	196	300	1,652	1,183	734	622	511
Temperature	°C	-	-	-	-	-	-	-	-	7.7	9.2	8.4	7.0	12	9.8	11	9.5	9.5
Dissolved oxygen	mg/L	8.0	5.0	-	-	-	-	-	-	9.7	10	10	11	9.8	9.6	9.8	9.7	10
Dissolved oxygen	%	-	-	-	-	-	-	-	-	81	89	87	88	90	92	86	88	88
Conductivity	µS/cm	-	-	-	-	-	-	-	-	193	176	134	197	1,226	894	521	454	359
<b>Conventional Parameters</b>																		
pH	-	6.5 - 9.0	6.5 - 9.0	-	-	-	-	-	-	8.3	8.3	8.2	8.3	8.1	8.3	8.3	8.4	8.4
Specific conductivity	µS/cm	-	-	-	-	-	-	-	-	282	245	193	287	1,540	1,140	732	607	508
Hardness, as CaCO <sub>3</sub>	mg/L	-	-	-	-	-	-	-	-	160	142	111	161	986	669	386	329	265
Total alkalinity, as CaCO <sub>3</sub>	mg/L	20 <sup>(a)</sup>	-	-	-	-	-	-	-	155	127	111	151	300	260	189	175	167
Total dissolved solids	mg/L	-	-	-	-	-	-	-	-	188	158	113	165	1,340	908	512	434	345
Total suspended solids	mg/L	-	-	-	-	-	-	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	1.6	<1.0	1.5	<1.0
Total organic carbon	mg/L	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	0.69	0.52	<0.5	0.89	0.56
Dissolved organic carbon	mg/L	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	0.62	<0.5	<0.5	0.56	0.64
Turbidity	NTU	-	-	-	-	-	-	-	-	0.12	0.13	0.53	0.31	0.30	0.42	0.37	0.20	0.48
Total acidity	mg/L	-	-	-	-	-	-	-	-	<2.0	<2.0	<2.0	<2.0	2.9	<2.0	<2.0	<2.0	<2.0
<b>Major Ions</b>																		
Bicarbonate	mg/L	-	-	-	-	-	-	-	-	190	155	136	176	366	311	230	198	191
Bicarbonate, as CaCO <sub>3</sub>	mg/L	-	-	-	-	-	-	-	-	155	127	111	144	300	255	189	163	157
Bromide	mg/L	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.25	<0.25	<0.05	<0.05	<0.05
Calcium	mg/L	-	-	-	-	-	-	-	-	43	41	29	43	210	139	91	80	66
Carbonate	mg/L	-	-	-	-	-	-	-	-	<1.0	<1.0	<1.0	4.1	<1.0	2.5	<1.0	7.2	6.0
Carbonate, as CaCO <sub>3</sub>	mg/L	-	-	-	-	-	-	-	-	<1.0	<1.0	<1.0	6.8	<1.0	4.2	<1.0	12	10
Chloride	mg/L	150	600	-	-	-	-	-	-	0.66	0.45	0.19	0.25	2.2	1.7	1.0	1.1	0.89
Fluoride	mg/L	0.12 <sup>(a)</sup>	1.4 - 2.3 <sup>(c)</sup>	-	-	-	-	-	-	0.070	0.30 <sup>(Mn)</sup>	0.062	0.080	0.19 <sup>(Mn)</sup>	0.15 <sup>(Mn)</sup>	0.19 <sup>(Mn)</sup>	0.16 <sup>(Mn)</sup>	0.13 <sup>(Mn)</sup>
Hydroxide	mg/L	-	-	-	-	-	-	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Hydroxide, as CaCO <sub>3</sub>	mg/L	-	-	-	-	-	-	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Magnesium	mg/L	-	-	-	-	-	-	-	-	13	9.4	9.3	13	112	78	39	32	25
Potassium	mg/L	-	-	-	-	-	-	-	-	0.53	0.23	0.57	0.47	3.7	2.6	1.3	1.00	0.86
Sodium	mg/L	-	-	-	-	-	-	-	-	3.3	0.66	0.92	2.6	32	22	11	8.0	5.9
Sulphate	mg/L	309 - 429 <sup>(c,d)</sup>	-	892	1,057	1,413	617	764	1,099	15	19	4	15	752 <sup>(Mn, FA)</sup>	470 <sup>(Mn)</sup>	230	168	120
<b>Nutrients</b>																		
Nitrate	mg-N/L	3.0	33	6.5 - 36 <sup>(c)</sup>	8.8 - 48 <sup>(c)</sup>	15 - 82 <sup>(c)</sup>	-	-	-	0.019	0.077	0.014	0.0088	3.1 <sup>(Mn)</sup>	1.7	0.73	0.43	0.28
Nitrite	mg-N/L	0.020 - 0.040 <sup>(b)</sup>	0.060 - 0.12 <sup>(b)</sup>	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	0.026	0.0068	0.0013	<0.001	0.0011
Total ammonia	mg-N/L	0.37 - 1.2 <sup>(b)</sup>	1.9 - 6.0 <sup>(b)</sup>	-	-	-	-	-	-	0.0060	<0.005	0.005	<0.005	0.026	<0.005	0.0058	<0.005	<0.005
Total Kjeldahl nitrogen	mg-N/L	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	0.30	0.10	<0.5	<0.5	0.61
Total phosphorus	mg-P/L	-	-	-	-	-	-	-	-	0.0051	0.0021	0.0128	0.0033	0.0022	0.0035	0.0050	0.0036	0.0065
<b>Total Metals</b>																		
Aluminum	µg/L	84.5-113 <sup>(a,b)</sup>	-	-	-	-	-	-	-	7.5	6.5	7.4	13	6.6	7.3	6.6	5.7	6.9
Antimony	µg/L	9.0	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	0.52	0.31	0.17	0.13	0.12
Arsenic	µg/L	5 <sup>(b)</sup>	5.0	-	-	-	-	-	-	0.26	0.54	0.24	0.18	0.28	0.28	0.30	0.36	0.27
Barium	µg/L	1,000	-	-	-	-	-	-	-	57	23	150	75	40	76	80	115	127
Beryllium	µg/L	0.13	-	-	-	-	-	-	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	0.5 <sup>(b)</sup>	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	1,200	29000 <sup>(b)</sup>	-	-	-	-	-	-	19	<10	12	<10	95	72	33	24	18
Cadmium	µg/L	-	-	-	-	-	-	-	-	0.014	0.017	0.033	0.0058	0.074	0.029	0.023	0.028	0.026
Calcium	µg/L	-	-	-	-	-	-	-	-	41,800	39,800	28,800	41,700	206,000	135,000	87,900	90,800	73,200
Chromium	µg/L	1.0 <sup>(a)</sup>	-	-	-	-	-	-	-	0.20	0.32	<0.10	0.19	0.13	0.15	0.18	0.17	0.15
Cobalt	µg/L	4.0	110	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	5.3 <sup>(Mn)</sup>	0.81	0.10	<0.1	<0.1
Copper	µg/L	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Iron	µg/L	658 - 669 <sup>(a, L1)</sup>	1,000	-	-	-	-	-	-	<10	<10	<10	15	13	<10	<10	<10	<10
Lead	µg/L	6.9 - 20 <sup>(c)</sup>	93 - 417 <sup>(c)</sup>	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Lithium	µg/L	121.6 <sup>(b)</sup>	-	-	-	-	-	-	-	6.1	2.4	1.9	4.0	47	32	16	11	8.5
Magnesium	µg/L	-	-	-	-	-	-	-	-	12,700	9,280	9,400	12,900	121,000	71,200	37,800	30,800	24,200
Manganese	µg/L	1,093 - 2,585 <sup>(c)</sup>	1,763 - 3,394 <sup>(c)</sup>	-	-	-	-	-	-	0.41	0.13	0.84	1.8	23	4.4	1.7	0.97	0.70
Mercury	µg/L	0.010	-	-	-	-	-	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Molybdenum	µg/L	7,600	46,000	-	-	-	-	-	-	0.94	0.77	0.67	0.71	1.5	1.2	0.90	0.88	0.87
Nickel	µg/L	103 - 150 <sup>(c)</sup>	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	63	21	5.1	2.0	1.3
Potassium	µg/L	-	-	-	-	-	-	-	-	545	247	576	450	3,840	2,280	1,180	1,040	898
Selenium	µg/L	-	-	-	-	-	-	-	-	0.18	1.5	0.5	0.25	17	11	5.1	3.2	2.2
Silicon	µg/L	-	-	-	-	-	-	-	-	2,390	1,470	2,340	2,380	2,550	1,760	1,720	2,380	2,330

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Parameter	Unit	BC Water Quality Guidelines for the Protection of Aquatic Life		Elk Valley Water Quality Plan Benchmarks and Effect Concentrations						Reference Stations			Mine-influenced Stations					
		Long-term Chronic	Short-term Acute	Invertebrate Level 1	Invertebrate Level 2	Invertebrate Level 3	Fish Level 1	Fish Level 2	Fish Level 3	Michel Creek MI25	Andy Goode Creek AGCK	Leech Creek LE1	Michel Creek MIUCO	Corbin Creek CORCK	Michel Creek MIDCO	Michel Creek MIDAG	Michel Creek MIULE	Michel Creek MI5
										RG_MI25_WS_LAEMP_CM	RG_AGCK_WS_LAEMP_C	RG_LE1_WS_LAEMP_CMO	RG_MIUCO_WS_LAEMP_C	RG_CORCK_WS_LAEMP_CMO	RG_MIDCO_WS_LAEMP_C	RG_MIDAG_WS_LAEMP_C	RG_MIULE_WS_LAEMP_C	RG_MI5_WS_LAEMP_CM
										O_2022-09_N_ALS	MO_2022-09_N_ALS	_2022-09_N_ALS	MO_2022-09_N_ALS	CMO_2022-09_N_ALS	MO_2022-09_N_ALS	MP_2022-09_N_ALS	O_2022-09_N_ALS	
Silver	µg/L	1.5 <sup>(c)</sup>	3.0 <sup>(c)</sup>	-	-	-	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	µg/L	-	-	-	-	-	-	-	-	3,270	651	851	2,490	32,800	20,600	10,300	8,340	5,950
Strontium	µg/L	-	-	-	-	-	-	-	-	175	148	69	140	849	574	352	284	225
Sulphur	µg/L	-	-	-	-	-	-	-	-	5,610	6,590	1,930	5,510	241,000	162,000	81,300	62,900	43,100
Thallium	µg/L	0.80	-	-	-	-	-	-	-	<0.01	0.043	<0.010	<0.01	0.045	0.022	<0.01	0.020	0.011
Tin	µg/L	300 <sup>(l)</sup>	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	850 <sup>(l)</sup>	-	-	-	-	-	-	-	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Uranium	µg/L	8.5	33 <sup>(b)</sup>	-	-	-	-	-	-	0.23	0.70	0.21	0.24	6.1	4.0	2.0	1.3	0.96
Vanadium	µg/L	120 <sup>(l)</sup>	-	-	-	-	-	-	-	<0.5	0.53	0.59	<0.5	<0.5	<2.5	<2.5	0.56	0.62
Zinc	µg/L	23 - 188	49 - 341	-	-	-	-	-	-	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
<b>Dissolved Metals</b>																		
Aluminum	µg/L	-	-	-	-	-	-	-	-	<1.0	1.2	1.3	1.6	1.1	1.2	1.2	<1.0	<1.0
Antimony	µg/L	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	0.53	0.29	0.17	0.11	0.12
Arsenic	µg/L	-	-	-	-	-	-	-	-	0.20	0.49	0.18	0.12	0.20	0.24	0.20	0.20	0.18
Barium	µg/L	-	-	-	-	-	-	-	-	57	23	159	78	40	87	88	114	128
Beryllium	µg/L	-	-	-	-	-	-	-	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	-	-	-	-	-	-	-	-	18	<10	88	11	88	29	21	21	15
Cadmium	µg/L	0.23 - 0.46 <sup>(c)</sup>	0.65 - 2.8 <sup>(c)</sup>	0.15 - 0.32 <sup>(c)</sup>	0.29 - 0.63 <sup>(c)</sup>	2.6 - 5.7 <sup>(c)</sup>	-	-	-	0.0088	0.0093	0.0263	<0.005	0.058	0.028	0.020	0.028	0.029
Chromium	µg/L	-	-	-	-	-	-	-	-	0.18	0.26	<0.10	0.18	<0.1	0.13	0.17	0.15	0.11
Cobalt	µg/L	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	4.7	0.86	0.10	<0.1	<0.1
Copper	µg/L	0.3 - 0.6 <sup>(m)</sup>	1.7 - 3.4 <sup>(m)</sup>	-	-	-	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Iron	µg/L	-	350	-	-	-	-	-	-	<10	<10	<10	<10	<10	<10	<10	<10	<10
Lead	µg/L	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Lithium	µg/L	-	-	-	-	-	-	-	-	5.3	1.8	1.4	4.7	54	31	15	11	8.5
Manganese	µg/L	-	-	-	-	-	-	-	-	0.12	<0.1	0.7	1.3	20	5.0	1.9	0.89	0.51
Mercury	µg/L	-	-	-	-	-	-	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Molybdenum	µg/L	-	-	-	-	-	-	-	-	1.0	0.78	0.68	1.0	0.77	1.7	1.3	0.95	0.78
Nickel	µg/L	-	-	2.6 - 4.4 <sup>(c, h, i)</sup>	3.7 - 6.3 <sup>(c, h, i)</sup>	7.3 - 12 <sup>(c, h, i)</sup>	-	-	-	<0.5	<0.5	<0.5	<0.5	59 <sup>(a, b, c)</sup>	22 <sup>(a, b, c)</sup>	5.0 <sup>(a, b)</sup>	2.0	1.2
Selenium	µg/L	-	-	-	-	-	-	-	-	0.25	2.0	0.6	0.29	19	11	5.0	3.5	2.4
Silicon	µg/L	-	-	-	-	-	-	-	-	2,540	1,530	2,380	2,550	2,640	2,380	2,110	2,220	2,240
Silver	µg/L	-	-	-	-	-	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Strontium	µg/L	2500 <sup>(l)</sup>	-	-	-	-	-	-	-	185	150	71	155	921	597	364	285	227
Sulphur	µg/L	-	-	-	-	-	-	-	-	4,710	6,110	<500	5,170	214,000	188,000	84,300	60,800	45,100
Thallium	µg/L	-	-	-	-	-	-	-	-	<0.01	0.045	<0.010	<0.01	0.048	0.021	0.021	0.011	<0.01
Tin	µg/L	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	-	-	-	-	-	-	-	-	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Uranium	µg/L	-	-	-	-	-	-	-	-	0.23	0.74	0.19	0.28	6.7	4.0	2.0	1.3	0.93
Vanadium	µg/L	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Zinc	µg/L	-	-	-	-	-	-	-	-	<1.0	1.0	<1.0	<1.0	2.4	<1.0	<1.0	<1.0	<1.0
Molybdenum	µg/L	-	-	-	-	-	-	-	-	1.0	0.78	0.68	0.77	1.7	1.3	0.95	0.83	0.78

Table D-1: Water Quality Data Screening, CMM LAEMP 2022

Parameter	Unit	BC Water Quality Guidelines for the Protection of Aquatic Life		Elk Valley Water Quality Plan Benchmarks and Effect Concentrations						Reference Stations									
		Long-term Chronic	Short-term Acute	Invertebrate Level 1	Invertebrate Level 2	Invertebrate Level 3	Fish Level 1	Fish Level 2	Fish Level 3	Michel Creek MI25	Andy Goode Creek AGCK	Leech Creek LE1	Michel Creek MIUCO	Corbin Creek CORCK	Michel Creek MIDCO	Michel Creek MIDAG	Michel Creek MIULE	Michel Creek MI5	
										RG_MI25_WS_LAEMP_CM O_2022-09_N_ALS	RG_AGCK_WS_LAEMP_C MO_2022-09_N_ALS	RG_LE1_WS_LAEMP_CMO _2022-09_N_ALS	RG_MIUCO_WS_LAEMP_C MO_2022-09_N_ALS	RG_CORCK_WS_LAEMP_CMO_2022-09_N_ALS	RG_MIDCO_WS_LAEMP_C MO_2022-09_N_ALS	RG_MIDAG_WS_LAEMP_C MO_2022-09_N_ALS	RG_MIULE_WS_LAEMP_C MP_2022-09_N_ALS	RG_M15_WS_LAEMP_CM O_2022-09_N_ALS	
<b>Major Ions</b>																			
Anion Sum	meq/L	-	-	-	-	-	-	-	-	3.4	3.0	2.3	3.3	22	15	8.7	7.1	5.9	
Cation Sum	meq/L	-	-	-	-	-	-	-	-	3.4	2.9	2.3	3.3	21	14	8.2	7.0	5.6	
Ion Balance	%	-	-	-	-	-	-	-	-	0.88	1.5	0.9	0.15	1.6	2.7	2.5	0.79	2.7	
Cation - Anion Balance	%	-	-	-	-	-	-	-	-	98	97	98	100	97	95	95	98	95	
<b>Conventional Parameters</b>																			
ORP	mV	-	-	-	-	-	-	-	-	336	306	341	268	274	320	315	297	292	
<b>Nutrients</b>																			
Dissolved Orthophosphate	mg-P/L	-	-	-	-	-	-	-	-	<0.001	<0.001	0.010	<0.001	<0.001	<0.001	<0.001	<0.001	0.0019	

**Note:** Data were screened against BC Working and Approved WQGs (BC ENV 2021a, b) where available, EVWQP benchmarks, proposed benchmarks, and effects concentrations. In the absence of BC WQGs, guidelines were adopted from CCME Canadian Environmental Quality Guidelines (CCME 1999), Environment and Climate Change Canada (ECCC) Predicted No Effect Concentration (PNECs; ECCC 2018), or ECCC draft Federal Environmental Quality Guideline (FEQG; ECCC 2017).

<sup>(a)</sup> = guideline is a minimum value, unless the background concentration or value is lower.

<sup>(b)</sup> = guideline is adopted from Canadian Council of Ministers of the Environment (CCME) Canadian Environmental Quality Guidelines (CCME 1999).

<sup>(c)</sup> = guideline is hardness dependent. The guideline range shown is based on the hardness range observed in the dataset (111 to 986 mg/L). The guideline is calculated based on the individual hardness value for each sample.

<sup>(d)</sup> = for some samples, water hardness was greater than 250 mg/L. At this hardness, no BC ENV water quality guideline has been established for sulphate; however, the observed data were screened against the guideline for very hard water (i.e., 429 mg/L) for comparative purposes.

<sup>(e)</sup> = guideline is chloride dependent. The guideline range shown is based on the chloride concentration range observed in the dataset (0.1900 to 2.1600 mg/L). The guideline is calculated based on the individual chloride concentration in each sample.

<sup>(f)</sup> = the ammonia guideline is pH and temperature dependent. The guideline that results in the minimum ammonia guideline (0.37 mg-N/L) is based on the combination of field pH (8.5) and water temperature (9.2°C). Guidelines calculated with temperature and pH values falling outside the defined range (i.e., pH 6.0 to 10.0 and temperature 0°C to 30°C) should be used with caution, as the WQG does not necessarily accurately reflect toxic effects at the low and high pH and temperature extremes. The guideline is calculated based on the individual field pH and temperature measurements for each sample.

<sup>(g)</sup> = the ammonia guideline is pH and temperature dependent. The guideline that results in the minimum ammonia guideline (1.94 mg-N/L) is based on the combination of field pH (8.5) and water temperature (9.2°C). Guidelines calculated with temperature and pH values falling outside the defined range (i.e., pH 6.0 to 10.0 and temperature 0°C to 30°C) should be used with caution, as the WQG does not necessarily accurately reflect toxic effects at the low and high pH and temperature extremes. The guideline is calculated based on the individual field pH and temperature measurements for each sample.

<sup>(h)</sup> = guideline is pH dependent. The guideline range shown is based on the pH range observed in the dataset (8.0 to 8.5). The guideline is calculated based on the individual pH for each sample.

<sup>(i)</sup> = guideline is DOC dependent. The guideline range shown is based on the DOC observed in the dataset (0.5 mg/L). The guideline is calculated based on the individual DOC value for each sample.

<sup>(j)</sup> = guideline is adopted from Environment and Climate Change Canada's (ECCC) PNEC (ECCC 2018).

<sup>(k)</sup> = guideline is for chromium VI.

<sup>(l)</sup> = guideline is adopted from Environment and Climate Change Canada's (ECCC) FEQG (ECCC 2017).

<sup>(m)</sup> = guideline was calculated using the Biotic Ligand Model for dissolved copper.

**Value <sup>(Mn)</sup>** = concentration is higher than the 30-day mean BC ENV guideline or outside the recommended pH, DO or total alkalinity range.

**Value <sup>(IA)</sup>** = concentration is higher than the invertebrate level 1 guideline.

**Value <sup>(IB)</sup>** = concentration is higher than the invertebrate level 1 guideline.

**Value <sup>(IC)</sup>** = concentration is higher than the invertebrate level 1 guideline.

**Value <sup>(FA)</sup>** = concentration is higher than the fish level 1 guideline.

**Bolded** concentrations are higher than water quality guidelines.

Water quality data and guidelines shown in this table were rounded to reflect laboratory or field instrument precision *after* comparisons to guidelines. Therefore, values slightly above guidelines may be displayed as being equal to the guidelines and identified as exceedances. Concentrations equal to the guideline values were not identified as exceedances.

- = no guideline or no data; °C = degree Celsius; µs/cm = microsiemens per centimetre; µg/L = micrograms per litre; BC WQGs = British Columbia water quality guidelines; CaCO<sub>3</sub> = calcium carbonate; mg/L = milligrams per litre; mV = millivolt; NTU = nephelometric turbidity unit; PNEC = Predicted No-effect Concentration; FEQG = Federal Environmental Quality Guideline.

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## Abbreviations and Units of Measure

Abbreviation	Definition
%	percent
mg/L	milligrams per litre
mg-N/L	milligrams nitrogen per litre
mg/kg dw	milligrams per kilogram dry weight
µg/L	micrograms per litre
BC	British Columbia
CaCO <sub>3</sub>	calcium carbonate
DOC	dissolved organic carbon
EC	effect concentration
EC <sub>10</sub>	concentration causing a 10% effect
EC <sub>16</sub>	concentration causing a 16% effect
EC <sub>20</sub>	concentration causing a 20% effect
EC <sub>50</sub>	concentration causing a 50% effect
ETMF	exposure and toxicity modifying factor
EVWQP	Elk Valley Water Quality Plan
HCO <sub>3</sub>	bicarbonate
i.e.,	that is
LOEC	lowest observed effect concentration
MLR	multiple linear regression
MQ	Management Question
SPO	Site Performance Objective

## D1.0 RATIONALE FOR BENCHMARKS, EFFECT CONCENTRATIONS AND PROPOSED BENCHMARKS

Table D-1 summarizes the rationale for site-specific benchmarks and updated effect concentrations used to evaluate water quality data collected in 2022. Values were obtained from the three sources summarized below, reflecting the most recent scientific and site-relevant data that have been evaluated for each receptor group and constituent.

- The cadmium benchmark was obtained from the Elk Valley Water Quality Plan (EVWQP; Teck 2014). Preparation of the EVWQP required derivation of a science-based benchmark for cadmium. Risks associated with some constituents (e.g., nitrate, sulphate, cadmium) depend on their concentrations, concentrations of other water chemistry parameters known as exposure and toxicity modifying factors (ETMFs), and the sensitivity of aquatic receptors that could be exposed. The EVWQP benchmark was derived, using a large body of published and site-specific information available at that time, to represent scientific best estimates of concentrations associated with no effects and defined levels of potential effect on chronic, sublethal endpoints for sensitive aquatic species. Margins of safety were incorporated in benchmark derivation to account for uncertainty and Teck committed to undertaking further study and periodic updates to progressively reduce that uncertainty and improve confidence in the EVWQP benchmarks.
- Updated effects concentrations for nitrate and sulphate were obtained from work undertaken to answer Management Question (MQ) 2 under Teck's Adaptive Management Plan. A key outcome of the MQ2 program was the development of an updated compilation of chronic toxicity information for nitrate, sulphate, and selenium, including information available at the time of the EVWQP and studies conducted after the EVWQP.<sup>1</sup> For nitrate and sulphate, the updated compilation represented a substantial increase in available toxicity information for key test species. This updated compilation was used to validate the EVWQP benchmarks and, where warranted, to derive updated effects concentrations that incorporate this new information (WSP Golder 2022a). As in the EVWQP, the objective was to derive scientific best estimates of concentrations associated with no effects or defined levels of potential chronic, sublethal effect to sensitive species and life stages relevant to the Elk Valley. The analysis in WSP Golder (2022a) concluded that the updated effects concentrations for nitrate and sulphate are supported by a larger dataset covering a wider range of conditions than was available at the time of the EVWQP, and therefore provide an improved basis for evaluating potential effects of these constituents.

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<sup>1</sup> Studies were not undertaken under the MQ2 program to update benchmarks for cadmium because work had already been conducted by the BC Ministry of Environment and Climate Change Strategy that supported the protectiveness of cadmium benchmarks and site performance objectives (SPOs). The British Columbia water quality guideline for cadmium, which was developed after the EVWQP, adopted a slightly higher concentration as protective of all species and stages of aquatic life across the province. Furthermore, Teck's water quality monitoring data have indicated that cadmium concentrations are consistently below both guidelines and SPOs, and cadmium has not been implicated in aquatic effects through chronic toxicity or biological monitoring programs in the Elk Valley.

- Proposed nickel benchmarks were obtained from the Nickel Benchmark Derivation Report (WSP Golder 2022b). Technical studies were undertaken to reduce uncertainties in species sensitivity, the influence ETMFs, and the use of laboratory toxicity data to model potential effects on biota in the field. Benchmarks were developed separately for invertebrates, fish, and amphibians to account for differences in sensitivity to nickel and to align with receptor-specific approaches to water quality assessment developed for the EVWQP (Teck 2014). The proposed nickel benchmarks incorporate current scientific approaches to modelling nickel effects, published and site-specific laboratory toxicity information on more than 50 aquatic species, and biological monitoring information collected over more than a decade at dozens of sites in the Elk Valley.

**Table D-1: Chronic Benchmarks and Updated Effect Concentrations for the Elk Valley**

Receptor and Parameter	Unit	Benchmark			Rationale
		Level 1	Level 2	Level 3	
<b>Invertebrates</b>					
Dissolved Cadmium	µg/L	$= 10^{(0.83 \cdot \text{Log}(\text{hardness}) - b)}$			The level 1 benchmark represents chronic, sublethal toxicity data for the most sensitive organism reviewed for the Elk Valley Water Quality Plan (EVWQP): the geometric mean of 7-day reproduction effect concentration (EC) <sub>10</sub> and 21-day reproduction EC <sub>16</sub> for <i>Daphnia magna</i> (Teck 2014). The equation applies to hardness of 285 mg/L as CaCO <sub>3</sub> .
		b = 2.53	-	-	
Nitrate	mg-N/L	$= 10^{\left(\frac{\log\left(\frac{1}{x}-1\right)}{-2.64}\right) - (1.45 - 1.18 \times \log(\text{Hardness}))}$			Updated effect concentrations for nitrate represent chronic, sublethal toxicity data for the most sensitive invertebrate species reviewed for Management Question (MQ) 2 Task 1. Values were derived under MQ2 Task 1 (WSP Golder 2022a) from a pooled analysis of 11 site-specific <i>Ceriodaphnia dubia</i> tests conducted at 11 hardness values. Level 1, 2, and 3 updated effect concentrations are associated with 10%, 20%, and 50% effect size to <i>C. dubia</i> reproduction, as generated from a pooled hardness-response model. The equation applies to hardness of 708 mg/L CaCO <sub>3</sub> .
		x = 0.1	x = 0.2	x = 0.5	
Sulphate	mg/L	892	1,057	1,413	Updated effect concentrations for sulphate represent chronic, sublethal toxicity data for the most sensitive invertebrate species reviewed for MQ2 Task 1. Values were derived under MQ2 Task 1 (WSP Golder 2022a) from a pooled analysis of one site-specific test and one site-relevant test with the mayfly <i>Neocloeon triangulifer</i> . Level 1, 2, and 3 updated effect concentrations are associated with 10%, 20%, and 50% effect size to <i>N. triangulifer</i> biomass.
Nickel	µg/L	$= 10^{0.547 \times \log(\text{DOC}) + 0.411 \times \log(\text{Hardness}) - 0.520 \times \log(\text{Bicarbonate, as HCO}_3^-) + a}$			Nickel benchmarks for invertebrates were set equal to an estimated 10% (level 1), 20% (level 2), or 50% (level 3) change in the upper bound of percent mayflies in the field, corresponding to laboratory effects of nickel to <i>C. dubia</i> reproduction of 22% (level 1), 37% (level 2), and 70% (level 3) (WSP Golder 2022b). Benchmarks can be calculated using the equation and intercept <i>a</i> . Exposure and toxicity modifying factors (ETMF)s are DOC (mg/L), hardness (mg/L as CaCO <sub>3</sub> ), and bicarbonate (mg/L as HCO <sub>3</sub> <sup>-</sup> ). The following ETMF ranges apply to this equation: DOC 0.4 to 40 mg/L; hardness 15 to 1,020 mg/L as CaCO <sub>3</sub> ; bicarbonate 8.0 to 366 mg/L HCO <sub>3</sub> <sup>-</sup> ; and pH 6.6 to 8.7.
		a = 0.856	a = 1.011	a = 1.304	
<b>Fish</b>					
Dissolved Cadmium	µg/L	$= 10^{(0.83 \cdot \text{Log}(\text{hardness}) - b)}$			Cadmium benchmarks were derived in the EVWQP (Teck 2014) as hardness-dependent values expressed as an equation. The level 1 benchmark was derived using the lowest effect concentration for fish reported in Annex G of the EVWQP (Teck 2014), which was a LOEC for Rainbow Trout ( <i>Oncorhynchus mykiss</i> ) growth from a 62-day test with early life stages (embryo-alevin-fry).
		b = 2.02	-	-	
Nitrate	mg-N/L	$= 10^{\left(\frac{\log\left(\frac{1}{x}-1\right)}{-1.92}\right) - (0.287 - 0.787 \times \log(\text{Hardness}))}$			Updated effect concentrations for nitrate represent chronic, sublethal toxicity data for the most sensitive fish species reviewed for MQ2 Task 1. Values were derived under MQ2 Task 1 (WSP Golder 2022a) from a pooled analysis of four site-specific <i>O. mykiss</i> tests conducted at four hardness values. Level 1, 2, and 3 updated effect concentrations are associated with 10%, 20%, and 50% effect size to embryo-alevin development of <i>O. mykiss</i> development, as generated from a pooled hardness-response model. The equation applies to hardness of 448 mg/L CaCO <sub>3</sub> .
		x = 0.1	x = 0.2	x = 0.5	
Sulphate	mg/L	617	764	1,099	Updated effect concentrations for sulphate represent chronic toxicity data for the most sensitive fish species reviewed for MQ2 Task 1. Values were derived under MQ2 Task 1 (WSP Golder 2022a) from a pooled analysis of four site-specific tests with <i>O. mykiss</i> . Level 1, 2, and 3 updated

**Table D-1: Chronic Benchmarks and Updated Effect Concentrations for the Elk Valley**

Receptor and Parameter	Unit	Benchmark			Rationale
		Level 1	Level 2	Level 3	
					effect concentrations are associated with 10%, 20%, and 50% effect size to embryo-alevin survival of <i>O. mykiss</i> .
Nickel	µg/L	$10^{(0.278 \times \log(\text{DOC}) + [0.498 \times \log(\text{Hardness})] - [0.139 \times \text{pH}] + a)}$			Values from the Nickel Benchmark Derivation Report (WSP Golder 2022b) are based on fathead minnow ( <i>Pimephales promelas</i> ) 32-day survival to early life stages (calculated from Birge et al. 1984 data). Benchmarks can be calculated for each water type using the equation and intercept <i>a</i> . The equation was based on the Croteau et al. (2021) pooled species chronic multiple linear regression (MLR) model calibrated to data with the following ETMF ranges: hardness 14 to 848 mg/L as CaCO <sub>3</sub> ; DOC 0.2 to 18 mg/L; and pH 5.5 to 8.7.
		<i>a</i> = 2.052	<i>a</i> = 2.234	<i>a</i> = 2.551	
<b>Amphibians</b>					
Dissolved Cadmium	µg/L	$=10^{(0.83 \times \text{Log}(\text{hardness}) - b)}$			The level 1 screening value was derived using the lowest effect concentration for amphibians reported in Annex G of the EVWQP (Teck 2014), which was a 24-day growth LOEC for Northwestern salamander ( <i>Ambystoma gracile</i> ).
		<i>b</i> = -0.914	-	-	
Nitrate	mg-N/L	$= x \times e^{(1.0003 \times (\ln(\text{Hardness}) - \ln(172)))}$			Updated effect concentrations for nitrate represent chronic toxicity data for the most sensitive amphibian species reviewed for MQ2 Task 1. Values were derived under MQ2 Task 1 (WSP Golder 2022a) from a site-specific test in simulated Fording River water (hardness of 172 mg/L CaCO <sub>3</sub> ). Level 1, 2, and 3 updated effect concentrations are associated with 10%, 20%, and 50% effect size to length of Northern Leopard Frog ( <i>Lithobates pipiens</i> ) after 49 days of exposure. The pooled hardness slope from the EVWQP (1.0003) can be used to adjust to site-specific hardness conditions up to 500 mg/L as CaCO <sub>3</sub> .
		<i>x</i> = 17	<i>x</i> = 37	<i>x</i> = 148	
Sulphate	mg/L	836	1,425 (>1,246)	3,548 (>1,246)	Updated effect concentrations for sulphate represent chronic toxicity data for the most sensitive amphibian species reviewed for MQ2 Task 1. Values were derived under MQ2 Task 1 (WSP Golder 2022a) from a site-specific test in simulated Fording River water. Level 1, 2, and 3 updated effect concentrations are associated with 10%, 20%, and 50% effect size to length of Northern Leopard Frog ( <i>L. pipiens</i> ) after 98 days of exposure. Updated level 2 and level 3 effect concentrations are shown as the estimated 20% and 50% effect concentrations, respectively from curve fitting with the maximum concentration tested in parentheses.
Nickel	µg/L	$=10^{(0.278 \times \log(\text{DOC}) + [0.498 \times \log(\text{Hardness})] - [0.139 \times \text{pH}] + a)}$			Values are from the Nickel Benchmark Derivation Report (WSP Golder 2022b) and are based on African clawed frog ( <i>Xenopus laevis</i> ) 96-hour embryo malformation (Hopfer et al. 1991). Values can be calculated using the equation and intercept <i>a</i> . The equation was based on the Croteau et al. (2021) pooled species chronic MLR model calibrated to data with the following ETMF ranges: hardness 14 to 848 mg/L as CaCO <sub>3</sub> ; DOC 0.2 to 18 mg/L; and pH 5.5 to 8.7.
		<i>a</i> = 1.956	<i>a</i> = 2.027	<i>a</i> = 2.193	

- = not derived; µg/L = micrograms per litre; mg/L = milligrams per litre; mg-N/L = milligrams nitrogen per litre; mg/kg dw = milligrams per kilogram dry weight; EC<sub>10</sub> = concentration causing a 10% effect; EC<sub>16</sub> = concentration causing a 16% effect; EC<sub>20</sub> = concentration causing a 20% effect; EC<sub>50</sub> = concentration causing a 50% effect; EVWQP = Elk Valley Water Quality Plan; LOEC = lowest observed effect concentration; MLR = multiple linear regression; CaCO<sub>3</sub> = calcium carbonate; HCO<sub>3</sub> = bicarbonate; DOC = dissolved organic carbon.

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**APPENDIX E**

**Quality Assurance and Quality Control**



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## Abbreviations and Units of Measure

Abbreviation	Definition
%	percent
<	less than
≤	equal to or less than
≥	equal to or greater than
±	plus or minus
μS/cm	microsiemens per centimetre
NA	not applicable
NTU	nephelometric turbidity unit
mm	millimetre
mg/L	milligrams per litre
mg-N/L	milligrams nitrogen per litre
mg-P/L	milligrams phosphorus per litre
mg/kg	milligram per kilogram
meg/L	milliequivalents per litre
mV	millivolts
μg/kg dw	microgram per kilogram dry weight -delete
μg/L	micrograms per litre
ALS	ALS Environmental
Ag	silver
Ba	barium
BC	British Columbia
BC MOE	British Columbia Ministry of Environment
BC WQGs	British Columbia Water Quality Guidelines
BIC	Benthic Invertebrate Community
BIT	Benthic Invertebrate Tissue
B	boron
CABIN	Canadian Aquatic Biomonitoring Network
CCME	Canadian Council of Ministers of the Environment
CMm	Coal Mountain mine
Ca	calcium
CaCO <sub>3</sub>	calcium carbonate
CO <sub>3</sub>	carbonate
CRM	Certified Reference Material
DQO	data Quality Objective
EVWQP	Elk Valley Water Quality Plan
HCO <sub>3</sub>	bicarbonate

Abbreviation	Definition
i.e.,	That is
LAEMP	Local Aquatic Effects Monitoring Program
LRL	Laboratory reporting limit
LOR	limit of reporting
Minnow	Minnow Environmental Inc.
Ni	nickel
OH	hydroxide
PAH	polycyclic aromatic hydrocarbon
QA	Quality Assurance
QC	Quality Control
RAEMP	Regional Aquatic Effects Monitoring Program
RPD	relative percent difference
Sb	antimony
Se	selenium
SOP	standard operating procedure
Sn	tin
Sr	strontium
Teck	Teck Coal Limited
TIR	total identification error rate
Ti	titanium
Trich	TrichAnalytics Inc.
WSQG	Working Sediment Quality Guidelines

## **E QUALITY ASSURANCE AND QUALITY CONTROL**

### **1.0 QUALITY ASSURANCE**

Quality assurance and quality control (QA/QC) practices were implemented to assure the quality and integrity of the data produced by both the Coal Mountain mine (CMm) local aquatic effects monitoring program (LAEMP) and the regional aquatic effects monitoring program (RAEMP; Minnow 2020). Detailed QA procedures are presented in the RAEMP study design (Minnow 2020). Study personnel were appropriately trained and experienced for their respective technical responsibilities, whether in the field, laboratory, or office. To minimize errors and to maintain comparability of data over time, standard operating procedures (SOPs) were developed and followed for sample collection, calibration and maintenance of field instruments, sample handling, and sample submission to laboratories. The routine procedures followed are presented in detail in each SOP (Minnow 2020).

### **2.0 QUALITY CONTROL**

Quality control samples were collected for the water quality, sediment quality and tissue chemistry components of the CMm LAEMP. Quality control procedures and results are discussed for each component in Sections E2.1 to E2.4. The data quality objectives (DQOs) for the water quality, sediment quality, and tissue chemistry data are presented in Table E-1

#### **2.1 Water Quality**

##### **Laboratory Reporting Limits**

The analytical reports from ALS Environmental (ALS) (Appendix F) were examined to provide an inventory of analytes for which the sample results were less than the laboratory reporting limit (LRL). The LRLs for water quality analytes were assessed relative to working (BC MOE 2021a) and approved (BC MOE 2021b) British Columbia Water Quality Guidelines (BC WQG) for the protection of freshwater aquatic life, Elk Valley Water Quality Plan (EVWQP) level 1 benchmarks for water quality (Teck 2014), and relevant site-specific benchmarks.

Constituents with reported concentrations less than the LRL in two or more samples in 2022 were total suspended solids, total and dissolved organic carbon, total acidity, bromide, carbonate, hydroxide, nitrite, total ammonia, total Kjeldahl nitrogen, dissolved aluminum, dissolved and total antimony, dissolved and total beryllium, dissolved and total bismuth, dissolved and total boron, dissolved chromium, dissolved and total cobalt, dissolved and total copper, dissolved and total iron, dissolved and total lead, dissolved and total mercury, dissolved and total nickel, dissolved and total silver, dissolved and total thallium, dissolved and total tin, dissolved and total titanium, dissolved and total vanadium, dissolved and total zinc. Total chromium, dissolved cadmium, dissolved manganese, and dissolved sulphur concentrations were detectable in all but one sample in 2022. The LRLs achieved for water samples were lower than the BC WQG and the lowest level 1 EVWQP benchmark for all analytes. In summary, the achieved LRLs were appropriate for this study.

**Table E-1: Data Quality Objectives for the Water Quality, Sediment Quality, and Tissue Chemistry Components of the CMm LAEMP, 2022**

Quality Control Measure	Sample Type	Component		
		Water Quality	Sediment Quality	Tissue Chemistry
		ALS	ALS	Trich
Analytical laboratory LRLs	Comparison of actual LRL to target LRL	LRL for each parameter should be at least as low as the applicable guidelines, benchmarks, and screening values	LRL for each parameter should be at least as low as the applicable guidelines and benchmarks	
Blank analysis	Laboratory and field blanks	Concentrations measured in blank samples should be <LRL		-
Laboratory precision	Laboratory duplicates	RPDs ≤ 20%, when at least one result is greater than five times the LRL		RPDs ≤ 40% for all elements except Ca and Sr for which the DQO is RPD ≤ 60%, when at least one result is greater than five times the LRL
Accuracy	Recovery of laboratory control samples	The result should lie within ± 1 times the LOR for the target concentration		-
	Recovery of method blank	Concentrations measured in method blank samples should be <LOR		-
	Recovery of matrix spike	Calculated recovery results of matrix spikes should lie within the DQO for the given sample		-
	Recovery of certified reference material	Calculated recovery results of CRMs should lie within the specified limits for the given test		DQO of 60% to 140% of the certified values for B, Ti, Ag, Sn, Sb, and Ba; 90% to 110% of the certified values for Se, and 70% to 130% of the certified values for all other elements including Ni

ALS = ALS Laboratories; Trich = TrichAnalytics Inc.; LRL = laboratory reporting limit; <= less than; LOR = limit of reporting; ≤ = less than or equal to; DQO = data quality objective; CRM = certified reference materials; Ca = calcium; Sr = strontium; B = boron; Ti = titanium; Ag = silver; Sn = tin; Sb = antimony; Ba = barium; Se = selenium; Ni = nickel.

## Laboratory and Field Blanks

A total of 72 laboratory method blank samples were analyzed by ALS (see Appendix F for applicable laboratory reports). Of the reported method blank results, no analyte concentrations were greater than the LRL.

One trip blank and one field blank sample were used to assess the potential for contamination during field sampling (Appendix F). The same DQOs that were used for the laboratory assessment were used for the trip, and field blanks (Table E-1).

In the trip blank, the concentration of total sulfur was the only analyte greater than the LRL. For the field blank, three analytes were greater than the LRL in one sample:

- total barium
- total sodium
- total tin

Of the reported concentrations that were detected, none of the analytes in the field blanks had concentrations greater than five-times the LRL. Detectable concentrations in the blank samples were not reported for selenium, sulphate, or cadmium, which have long-term water quality targets as part of the EVWQP (Teck 2014). Overall, these results are expected to have a negligible impact on data quality for this study.

## Data Precision

A total of 65 laboratory duplicate samples were used to evaluate analytical precision in 2022 (Appendix F). For all paired samples, comparisons were within the DQO set by the analytical laboratory (Table E-1), indicating that laboratory analytical precision was excellent.

One field duplicate sample was collected at MIDCO to assess field sampling precision. Field precision and reproducibility were considered good for all parameters, where the relative percent difference (RPD) between the concentration in the parent and duplicate samples were below 20% (Table E-2). All parameters had an RPD less than 20%, except for ion balance (cation-anion difference; RPD of 41%). The higher RPD is not considered impactful, as it does not extend to anion sum, cation sum, and ion balance as a ratio. Overall, field sampling precision was considered acceptable for the purposes of this study.

## Data Quality Statement

Water chemistry data collected for the CMm LAEMP in 2022 were of acceptable quality as characterized by good detectability, concentrations below LRLs in all laboratory blank samples, good laboratory precision and accuracy, and good field sampling precision. Therefore, the associated data are considered acceptable for this study.

Table E-2: Field Duplicate Water Quality Results, CMm LAEMP, 2022

Location		LOR	Mine-Influenced Sites			
Watercourse			Michel Creek			
Station			MIDCO			
Date			13-Sep-22			
Sample Identification			RG_MIDCO_WS_LAEMP_CMO_2022-09_N	RG_RIVER_WS_LAEMP_CMO_2022-09_N	Mean	RPD (%)
Parameter	Unit					
<b>Conventional Parameters</b>						
pH	-	0.1	8.30	8.30	8.30	0%
Conductivity	µS/cm	2	1140	1130	1135	1%
Acidity (as CaCO <sub>3</sub> )	mg/L	2	<2.0	<2.0	<2.0	NA
Alkalinity, bicarbonate (as CaCO <sub>3</sub> )	mg/L	1	255	261	258	2%
Alkalinity, bicarbonate (as HCO <sub>3</sub> )	mg/L	1	311	318	315	2%
Alkalinity, carbonate (as CO <sub>3</sub> )	mg/L	1	2.5	2.6	2.6	NA
Alkalinity, carbonate (as CaCO <sub>3</sub> )	mg/L	1	4.2	4.4	4.3	NA
Alkalinity, hydroxide (as CaCO <sub>3</sub> )	mg/L	1	<1.0	<1.0	<1.0	NA
Alkalinity, hydroxide (as OH)	mg/L	1	<1.0	<1.0	<1.0	NA
Total alkalinity (as CaCO <sub>3</sub> )	mg/L	1	260	265	263	2%
Dissolved hardness (as CaCO <sub>3</sub> )	mg/L	0.5	669	649	659	3%
Total dissolved solids	mg/L	20	908	892	900	2%
Total suspended solids	mg/L	1	1.6	1.70	1.65	NA
Turbidity	NTU	0.1	0.42	0.29	0.36	NA
Dissolved organic carbon	mg/L	0.5	<0.50	<0.50	<0.50	NA
Total organic carbon	mg/L	0.5	0.52	<0.50	0.52	NA
<b>Major Ions</b>						
Bromide	mg/L	0.05	<0.250	<0.250	<0.250	NA
Chloride	mg/L	0.1	1.74	1.78	1.76	2%
Fluoride	mg/L	0.02	0.15	0.15	0.146	1%
Sulfate (as SO <sub>4</sub> )	mg/L	0.3	470	469	470	0%
Anion sum	meq/L	0.1	15.2	15.2	15.2	0%
Cation sum	meq/L	0.1	14.4	14.0	14.2	3%
Oxidation-reduction potential	mV	0.1	320	320	320	0%
<b>Nutrients</b>						
Nitrate	mg-N/L	0.005	1.73	1.73	1.73	0%
Nitrite	mg-N/L	0.001	0.01	0.01	0.01	6%
Total ammonia	mg-N/L	0.005	<0.0050	0.01	0.01	NA
Total Kjeldahl nitrogen	mg-N/L	0.5	0.10	<0.500	0.1	NA
Orthophosphate	mg-P/L	0.001	<0.0010	<0.0010	<0.0010	NA
Total phosphorus	mg-P/L	0.002	0.0035	0.0029	0.0032	NA
<b>Total Metals</b>						
Aluminum	mg/L	0.003	0.0073	0.0064	0.0069	NA
Antimony	mg/L	0.0001	0.00031	0.00044	0.00038	NA
Arsenic	mg/L	0.0001	0.00028	0.00027	0.00028	NA
Barium	mg/L	0.0001	0.076	0.078	0.077	1%
Beryllium	µg/L	0.02	<0.020	<0.020	<0.020	NA
Bismuth	mg/L	0.00005	<0.000050	<0.000050	<0.000050	NA
Boron	mg/L	0.01	0.07	0.07	0.071	4%
Cadmium	µg/L	0.005	0.029	0.035	0.032	19%
Calcium	mg/L	0.05	135	131	133	3%
Chromium	mg/L	0.0001	0.00015	0.00014	0.00015	NA
Cobalt	µg/L	0.1	0.81	0.83	0.82	2%
Copper	mg/L	0.0005	<0.00050	<0.00050	<0.00050	NA
Iron	mg/L	0.01	<0.010	<0.010	<0.010	NA
Lead	mg/L	0.00005	<0.000050	<0.000050	<0.000050	NA
Lithium	mg/L	0.001	0.032	0.033	0.032	0%
Magnesium	mg/L	0.005	71.2	73.6	72.4	3%
Manganese	mg/L	0.0001	0.0044	0.0043	0.0044	1%
Mercury	mg/L	0.000005	<0.0000050	<0.0000050	<0.0000050	NA
Molybdenum	mg/L	0.00005	0.0012	0.0013	0.0012	1%
Nickel	mg/L	0.0005	0.0213	0.0213	0.0213	0%
Potassium	mg/L	0.05	2.28	2.36	2.3	3%
Selenium	µg/L	0.05	10.7	10.5	10.6	2%
Silicon	mg/L	0.1	1.76	1.87	1.80	6%
Silver	mg/L	0.00001	<0.000010	<0.000010	<0.000010	NA
Sodium	mg/L	0.05	20.6	21.0	20.8	2%
Strontium	mg/L	0.0002	0.574	0.580	0.577	1%
Sulfur	mg/L	0.5	162	167	165	3%
Thallium	mg/L	0.00001	0.000022	0.000025	0.000024	NA
Tin	mg/L	0.0001	<0.00010	<0.00010	<0.00010	NA
Titanium	mg/L	0.0003	<0.00030	<0.00030	<0.00030	NA
Uranium	mg/L	0.00001	0.004	0.004	0.004	1%
Vanadium	mg/L	0.0025	<0.00250	<0.00250	<0.00250	NA
Zinc	mg/L	0.003	<0.0030	<0.0030	<0.0030	NA
<b>Dissolved Metals</b>						
Aluminum	mg/L	0.001	0.0012	<0.0010	0.0012	NA
Antimony	mg/L	0.0001	0.00029	0.00029	0.00029	NA
Arsenic	mg/L	0.0001	0.00020	0.00019	0.00020	NA



**Table E-2: Field Duplicate Water Quality Results, CMm LAEMP, 2022**

Location		LOR	Mine-Influenced Sites			
Watercourse			Michel Creek			
Station			MIDCO			
Date			13-Sep-22			
Sample Identification			RG_MIDCO_WS_LAEMP_CMO_2022-09_N	RG_RIVER_WS_LAEMP_CMO_2022-09_N	Mean	RPD (%)
Parameter	Unit					
Barium	mg/L	0.0001	0.09	0.08	0.08	6%
Beryllium	µg/L	0.02	<0.020	<0.020	<0.020	NA
Bismuth	mg/L	0.00005	<0.000050	<0.000050	<0.000050	NA
Boron	mg/L	0.01	0.060	0.059	0.0595	2%
Cadmium	µg/L	0.005	0.0282	0.0244	0.0263	NA
Calcium	mg/L	0.05	139	136	138	2%
Chromium	mg/L	0.0001	0.00013	0.00010	0.00012	NA
Cobalt	µg/L	0.1	0.86	0.85	0.86	1%
Copper	mg/L	0.0002	<0.00020	<0.00020	<0.00020	NA
Iron	mg/L	0.01	<0.010	<0.010	<0.010	NA
Lead	mg/L	0.00005	<0.000050	<0.000050	<0.000050	NA
Lithium	mg/L	0.001	0.0309	0.0312	0.0311	1%
Magnesium	mg/L	0.005	78.1	75.1	76.6	4%
Manganese	mg/L	0.0001	0.00499	0.00502	0.00501	1%
Mercury	mg/L	0.000005	<0.0000050	<0.0000050	<0.0000050	NA
Molybdenum	mg/L	0.00005	0.00132	0.00132	0.00132	0%
Nickel	mg/L	0.0005	0.0222	0.0220	0.0221	1%
Potassium	mg/L	0.05	2.630	2.580	2.605	2%
Selenium	µg/L	0.05	11.4	11.1	11.3	3%
Silicon	mg/L	0.05	2.38	2.36	2.37	1%
Silver	mg/L	0.00001	<0.000010	<0.000010	<0.000010	NA
Sodium	mg/L	0.05	22.2	21.9	22.1	1%
Strontium	mg/L	0.0002	0.60	0.58	0.591	2%
Sulfur	mg/L	0.5	188	172	180	9%
Thallium	mg/L	0.00001	0.000021	0.000020	0.000021	NA
Tin	mg/L	0.0001	<0.00010	<0.00010	<0.00010	NA
Titanium	mg/L	0.0003	<0.00030	<0.00030	<0.00030	NA
Uranium	mg/L	0.00001	0.0040	0.0042	0.00409	3%
Vanadium	mg/L	0.0005	<0.00050	<0.00050	<0.00050	NA
Zinc	mg/L	0.001	<0.0010	<0.0010	<0.0010	NA

Notes: **Bolding** identifies RPDs greater than 20%.

- = no guideline or no data; µS/cm = microsiemens per centimetre; µg/L = micrograms per litre; CaCO<sub>3</sub> = calcium carbonate; CO<sub>3</sub> = carbonate; HCO<sub>3</sub> = bicarbonate; OH = hydroxide; meq/L = milliequivalents per litre; mg/L = milligrams per litre; mV = millivolts; NTU = nephelometric turbidity unit; < = less than; NA = not applicable; RPD = relative percent difference; CMm = Coal Mountain Mine; LAEMP = local aquatic effects monitoring program.

## 2.2 Sediment Quality

### Laboratory Reporting Limits

The analytical reports from ALS for sediment samples collected in 2022 were examined to provide an inventory of analytes for which sample results were less than the LRL (Appendix F). The LRLs for these analytes were assessed relative to existing British Columbia Working Sediment Quality Guidelines (BC WSQG) and the alert concentration for selenium (BC MOE 2021a).

Nine of the 35 metals and all the polycyclic aromatic hydrocarbons (PAHs) measured in sediment samples from 2022 had at least one reported value below the LRL. Tungsten, acenaphthylene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and quinoline were consistently less than the LRL in 2022 (i.e., no detectable concentrations). Additionally, tin, acenaphthene, anthracene, benz(a)anthracene, benzo(a)pyrene, and benzo(k)fluoranthene were generally less than the LRL in 2022 (i.e., concentrations were less than the LRL in 90% or more of the samples). All samples had detectable concentrations of selenium and nickel in 2022.

The LRLs for metal concentrations measured in sediment samples in 2022 were consistently less than applicable BC WSQG and the alert concentration for selenium. The LRLs for acenaphthene, acenaphthylene, anthracene, benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)anthracene, fluorene, 2-methylnaphthalene, and phenanthrene exceeded the lower BC WSQG for one or more samples collected in 2022 (BC MOE 2021a). The LRLs for these analytes were below the BC WSQG in more than 50% of the samples. None of the analytes had LRLs greater than the upper BC WSQG in 2022 (BC MOE 2021a). Overall, the LRLs for most analytes were considered appropriate for this study.

### Laboratory Blanks

A total of 24 laboratory method blank samples were analyzed by ALS (Appendix F). All reported method blank results were within the laboratory DQO (Table E-1). Thus, the method blank results for this study indicated no inadvertent contamination of sediment samples within the laboratory during analysis.

### Data Precision

A total of 29 laboratory duplicate samples were used to evaluate laboratory precision (Appendix F). The RPDs between all laboratory duplicate measurements were within the laboratory DQO (Table E-1), indicating that laboratory analytical precision was excellent.

Two duplicate samples were collected at MUICO on both 14 September 2022 and 22 October 2022 to assess the precision of field sampling (Table E-3). The samples were collected as split samples (i.e., a larger sample was homogenized and split into two duplicate subsamples). For the samples collected on 14 September 2022, twenty-five parameters had RPDs  $\geq 100\%$ , 2 parameters had an RPDs  $\geq 50\%$ , and 6 parameters had RPDs  $\geq 20\%$ . During transport of the samples for laboratory report CG2213078, including RG\_MIUCO\_SE-1\_2022-09-14\_N, RG\_RIVER\_SE-1\_2022-09-14\_N, RG\_MIUCO\_SE-4\_2022-09-14\_N, and RG\_RIVER\_SE-4\_2022-09-14\_N, multiple sample jars were broken, and PAH and moisture analysis could not be completed. The high RPDs observed for these samples could potentially be attributed to shipment issues. Anomalous concentrations were only observed in the RG\_RIVER split samples, and furthermore the original RG\_MIUCO samples collected on 14 September 2022 were within the range of the concentrations from RG\_MIUCO samples collected on 22 October 2022. Therefore, despite the anomalous split sample results, the RG\_MIUCO data collected on 14 September 2022 were considered acceptable for this study. For the samples collected on 22 October 2022, all

samples had RPDs  $\leq$  20%, except for total carbon (25%) and total organic carbon (27%). Overall, field precision and reproducibility were considered adequate for the sediment samples because sediment samples are inherently heterogeneous, and some sample variability is expected.

### **Data Quality Statement**

Sediment chemistry data collected for the CMm LAEMP in 2022 were of acceptable quality as characterized by good detectability, no analyte concentrations in method blanks, good laboratory precision and accuracy, and adequate field sampling precision. Overall, the associated data were considered acceptable for this study.

**Table E-3: Field Duplicate Sediment Quality Results, CMm LAEMP, 2022**

Location		LRL	Mine-Influenced Sites				Mine-Influenced Sites				Mine-Influenced Sites				Mine-Influenced Sites			
Watercourse			Michel Creek				Michel Creek				Michel Creek				Michel Creek			
Station			MUICO				MUICO				MUICO				MUICO			
Date			14-Sep-22				14-Sep-22				22-Oct-22				22-Oct-22			
Sample Identification		Unit	RG_MIUCO_SE-	RG_RIVER_SE-	Mean	RPD	RG_MIUCO_SE-	RG_RIVER_SE-	Mean	RPD	RG_MIUCO_SE-	RG_RIVER_SE-	Mean	RPD	RG_MIUCO_SE-	RG_RIVER_SE-	Mean	RPD
Parameter			1_2022-09-14_N	1_2022-09-14_N		(%)	4_2022-09-14_N	4_2022-09-14_N		(%)	1_2022-10-22_N	1_2022-10-22_N		(%)	2_2022-10-22_N	2_2022-10-22_N		(%)
Moisture	%	0.25	-	62.2	62.2	NA	-	72.2	72.2	NA	33.9	33.1	33.5	2%	41.6	42.1	41.9	1%
pH (1:2 soil:water)	pH	0.1	8.23	8.09	8.16	2%	8.02	7.32	7.67	9%	8.33	8.25	8.29	1%	8.23	8.1	8.17	2%
% Gravel (>2mm)	%	1.0	5	5.4	5	8%	2	13	8	147%	3	2.3	3	NA	2.2	1.8	2	NA
% Sand (0.125mm - 0.063mm)	%	1.0	19.3	14.6	17.0	28%	19.1	5.8	12.5	107%	16.2	15.8	16.0	2%	10.6	10	10.3	6%
% Sand (0.25mm - 0.125mm)	%	1.0	8.7	16.1	12.4	60%	18.5	4.5	11.5	NA	20.7	22.3	21.5	7%	14.8	15.3	15.1	3%
% Sand (0.5mm - 0.25mm)	%	1.0	3.7	11.4	7.6	102%	12.8	3.7	8.3	NA	14.1	15	14.6	6%	15.6	17.4	16.5	11%
% Sand (1.0mm - 0.50mm)	%	1.0	1.2	7.6	4.4	145%	6.1	9.6	7.9	45%	10.9	11.7	11.3	7%	16.4	19.1	17.8	15%
% Sand (2.0mm - 1.0mm)	%	1.0	1.4	2.5	2.0	NA	2.1	17.4	9.8	157%	7.7	7.6	7.7	1%	8.4	8.9	8.7	6%
% Silt (0.063mm - 0.0312mm)	%	1.0	25.5	16.1	20.8	45%	17.7	19.3	18.5	9%	10.3	9.3	9.8	10%	11	9.6	10.3	14%
% Silt (0.0312mm - 0.004mm)	%	1.0	28.8	21.0	25	31%	17.1	21.1	19	21%	11.2	10.4	11	7%	14.6	12.6	14	15%
% Clay (<4um)	%	1.0	6.4	5.3	5.9	19%	4.6	5.6	5.1	20%	5.9	5.6	5.8	5%	6.4	5.3	5.9	19%
Inorganic carbon	%	0.05	0.77	6.7	3.7	159%	0.36	1.81	1.1	134%	0.405	0.416	0.4	3%	0.357	0.385	0.4	8%
Total carbon	%	0.05	3.49	13.7	8.6	119%	2	8.47	5.2	124%	2.65	2.47	2.6	7%	6.74	5.25	6.0	25%
Total organic carbon	%	0.05	2.72	7.00	5	88%	1.64	6.66	4	121%	2.24	2.05	2	9%	6.38	4.86	6	27%
Inorganic carbon (as CaCO <sub>3</sub> equivalent)	%	0.4	6.42	55.9	31.2	159%	3	15.1	9.1	134%	3.38	3.47	3.4	3%	2.98	3.21	3.1	7%
<b>Metals</b>																		
Aluminum	mg/kg	50	9400	2210	5805	124%	10300	5700	8000	58%	12600	12200	12400	3%	11700	11400	11550	3%
Antimony	mg/kg	0.1	0.39	0.33	0.36	NA	0.4	0.59	0.50	38%	0.33	0.36	0.35	NA	0.35	0.37	0.36	NA
Arsenic	mg/kg	0.1	7.23	3.06	5.15	81%	7.72	6.15	6.94	23%	8.01	7.73	7.87	4%	6.41	6.58	6.50	3%
Barium	mg/kg	0.5	558	163	361	110%	209	179	194	15%	156	145	151	7%	148	153	151	3%
Beryllium	mg/kg	0.1	0.66	0.4	0.5	NA	0.75	0.38	0.6	NA	0.87	0.84	0.9	4%	0.84	0.84	0.8	0%
Bismuth	mg/kg	0.2	<0.20	<0.20	<0.20	NA	0.22	<0.20	0.22	NA	0.22	0.21	0.22	NA	0.21	0.21	0.21	NA
Boron	mg/kg	5	8.3	6.6	7.5	NA	6.1	6.8	6.5	NA	10.1	9.4	9.8	NA	8.7	10	9.4	NA
Cadmium	mg/kg	0.02	0.761	10	5	172%	0.673	1.5	1	76%	0.583	0.6	1	3%	0.695	0.69	1	1%
Calcium	mg/kg	50	25300	336000	180650	172%	13200	45200	29200	110%	14800	14200	14500	4%	13900	12600	13250	10%
Chromium	mg/kg	0.5	12.8	3.55	8.2	113%	14.1	10.4	12.3	30%	14.7	14.7	14.7	0%	14.1	13.9	14.0	1%
Cobalt	mg/kg	0.1	7.15	301	154	191%	8.83	6.01	7	38%	7.09	7.43	7	5%	6.97	7.19	7	3%
Copper	mg/kg	0.5	17.9	8	13.0	76%	18.3	11.7	15.0	44%	16.8	17.5	17.2	4%	18	17	17.5	6%
Iron	mg/kg	50	21000	4780	12890	126%	23200	11900	17550	64%	20200	20600	20400	2%	17600	17800	17700	1%
Lead	mg/kg	0.5	12.4	3.14	7.8	119%	14.6	6.71	10.7	74%	12.3	12.5	12.4	2%	12.5	12.3	12.4	2%
Lithium	mg/kg	2	19.4	3.0	11.2	NA	20.5	7.8	14.2	NA	24.6	24.1	24.4	2%	23.5	22.2	22.9	6%
Magnesium	mg/kg	20	6470	7110	6790	9%	6020	3930	4975	42%	6120	6050	6085	1%	5490	5100	5295	7%
Manganese	mg/kg	1	302	2250	1276	153%	576	147	362	119%	431	450	441	4%	298	298	298	0%
Mercury	mg/kg	0.005	0.0284	0.0261	0.0273	8%	0.0223	0.0319	0.0271	35%	0.0193	0.0191	0.0192	NA	0.0275	0.0275	0.0275	0%
Molybdenum	mg/kg	0.1	2.07	0.71	1.39	98%	2.32	1.35	1.84	53%	1.94	2	1.97	3%	1.72	1.51	1.62	13%
Nickel	mg/kg	0.5	21.3	277	149	171%	24.3	29.5	27	19%	19.7	20.1	20	2%	20.4	19.7	20	3%
Phosphorus	mg/kg	50	1320	313	817	123%	1370	1050	1210	26%	1260	1260	1260	0%	1140	1220	1180	7%
Potassium	mg/kg	100	1630	660	1145	85%	1620	1090	1355	39%	2260	2170	2215	4%	2030	2060	2045	1%
Selenium	mg/kg	0.2	0.72	2.9	1.8	120%	0.57	2.03	1.3	112%	0.48	0.54	0.5	NA	0.55	0.63	0.6	NA
Silver	mg/kg	0.1	0.12	<0.10	0.12	NA	<0.10	0.14	0.14	NA	<0.10	<0.10	<0.10	NA	<0.10	<0.10	<0.10	NA
Sodium	mg/kg	50	244	379	312	43%	81	127	104	NA	86	82	84	NA	74	74	74	NA
Strontium	mg/kg	0.5	98.5	406	252	122%	39.8	74.9	57	61%	37.9	37.4	38	1%	44.8	42.2	44	6%
Sulfur	mg/kg	1000	1000	4900	2950	NA	<1000	<1000	<1000	NA	<1000	<1000	<1000	NA	<1000	<1000	<1000	NA
Thallium	mg/kg	0.05	0.301	0.316	0.309	5%	0.322	0.195	0.259	NA	0.304	0.306	0.305	1%	0.283	0.29	0.287	2%
Tin	mg/kg	2	<2.0	<2.0	<2.0	NA	2.5	<2.0	2.50	NA	<2.0	<2.0	<2.0	NA	<2.0	<2.0	<2.0	NA

**Table E-3: Field Duplicate Sediment Quality Results, CMm LAEMP, 2022**

Location		LRL	Mine-Influenced Sites				Mine-Influenced Sites				Mine-Influenced Sites				Mine-Influenced Sites			
Watercourse			Michel Creek				Michel Creek				Michel Creek				Michel Creek			
Station			MUICO				MUICO				MUICO				MUICO			
Date			14-Sep-22				14-Sep-22				22-Oct-22				22-Oct-22			
Sample Identification			RG_MIUCO_SE-1_2022-09-14_N	RG_RIVER_SE-1_2022-09-14_N	Mean	RPD (%)	RG_MIUCO_SE-4_2022-09-14_N	RG_RIVER_SE-4_2022-09-14_N	Mean	RPD (%)	RG_MIUCO_SE-1_2022-10-22_N	RG_RIVER_SE-1_2022-10-22_N	Mean	RPD (%)	RG_MIUCO_SE-2_2022-10-22_N	RG_RIVER_SE-2_2022-10-22_N	Mean	RPD (%)
Parameter	Unit																	
Titanium	mg/kg	1	29.1	8.1	18.6	<u>113%</u>	28.5	18.3	23.4	<b>44%</b>	7.6	9.2	8.4	19%	7.8	7.8	7.8	0%
Tungsten	mg/kg	0.5	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	NA
Uranium	mg/kg	0.05	0.628	2.34	1.48	<u>115%</u>	0.604	0.862	0.73	<b>35%</b>	0.579	0.526	0.55	10%	0.534	0.625	0.58	16%
Vanadium	mg/kg	0.2	20.8	7.38	14.1	<u>95%</u>	21.9	26.7	24.3	20%	24.7	23.6	24.2	5%	22.4	23.1	22.8	3%
Zinc	mg/kg	2	88.4	777	433	<u>159%</u>	93.6	99.1	96	6%	88.4	89.4	89	1%	92.3	88.8	91	4%
Zirconium	mg/kg	1	1.7	<1.0	1.7	NA	1.3	<1.0	1.3	NA	1	<1.0	1.0	NA	1.2	1.3	1.3	NA
<b>Polycyclic Aromatic Hydrocarbons</b>																		
Acenaphthene	mg/kg	0.05	-	<0.050	-	NA	-	<0.050	-	NA	<0.050	<0.050	<0.050	NA	<0.050	<0.050	<0.050	NA
Acenaphthylene	mg/kg	0.05	-	<0.050	-	NA	-	<0.050	-	NA	<0.050	<0.050	<0.050	NA	<0.050	<0.050	<0.050	NA
Acridine	mg/kg	0.05	-	0.095	-	NA	-	<0.050	-	NA	<0.050	<0.050	<0.050	NA	<0.050	<0.050	<0.050	NA
Anthracene	mg/kg	0.05	-	<0.050	-	NA	-	<0.050	-	NA	<0.050	<0.050	<0.050	NA	<0.050	<0.050	<0.050	NA
Benz(a)anthracene	mg/kg	0.05	-	0.053	-	NA	-	<0.050	-	NA	<0.050	<0.050	<0.050	NA	<0.050	<0.050	<0.050	NA
Benzo(a)pyrene	mg/kg	0.05	-	0.056	-	NA	-	<0.050	-	NA	<0.050	<0.050	<0.050	NA	<0.050	<0.050	<0.050	NA
Benzo(b&j)fluoranthene	mg/kg	0.05	-	0.2	-	NA	-	<0.050	-	NA	<0.050	<0.050	<0.050	NA	<0.050	<0.050	<0.050	NA
Benzo(b+j+k)fluoranthene	mg/kg	0.075	-	0.2	-	NA	-	<0.075	-	NA	<0.075	<0.075	<0.075	NA	<0.075	<0.075	<0.075	NA
Benzo(g,h,i)perylene	mg/kg	0.05	-	0.11	-	NA	-	<0.050	-	NA	<0.050	<0.050	<0.050	NA	<0.050	<0.050	<0.050	NA
Benzo(k)fluoranthene	mg/kg	0.05	-	<0.050	-	NA	-	<0.050	-	NA	<0.050	<0.050	<0.050	NA	<0.050	<0.050	<0.050	NA
Chrysene	mg/kg	0.05	-	0.325	-	NA	-	0.054	-	NA	<0.050	<0.050	<0.050	NA	0.06	<0.050	0.060	NA
Dibenz(a,h)anthracene	mg/kg	0.05	-	<0.050	-	NA	-	<0.050	-	NA	<0.050	<0.050	<0.050	NA	<0.050	<0.050	<0.050	NA
Fluoranthene	mg/kg	0.05	-	0.065	-	NA	-	<0.050	-	NA	<0.050	<0.050	<0.050	NA	<0.050	<0.050	<0.050	NA
Fluorene	mg/kg	0.05	-	0.142	-	NA	-	<0.050	-	NA	<0.050	<0.050	<0.050	NA	<0.050	<0.050	<0.050	NA
Indeno(1,2,3-c,d)pyrene	mg/kg	0.05	-	<0.050	-	NA	-	<0.050	-	NA	<0.050	<0.050	<0.050	NA	<0.050	<0.050	<0.050	NA
1-Methylnaphthalene	mg/kg	0.03	-	1.02	-	NA	-	0.097	-	NA	<0.030	<0.030	<0.030	NA	0.078	0.07	0.07	NA
2-Methylnaphthalene	mg/kg	0.03	-	1.65	-	NA	-	0.132	-	NA	<0.030	<0.030	<0.030	NA	0.103	0.093	0.10	NA
Naphthalene	mg/kg	0.01	-	0.595	-	NA	-	0.064	-	NA	<0.010	<0.010	<0.010	NA	0.029	0.025	0.027	NA
Phenanthrene	mg/kg	0.05	-	0.886	-	NA	-	0.115	-	NA	<0.050	<0.050	<0.050	NA	0.132	0.112	0.122	NA
Pyrene	mg/kg	0.05	-	0.1	-	NA	-	<0.050	-	NA	<0.050	<0.050	<0.050	NA	<0.050	<0.050	<0.050	NA
Quinoline	mg/kg	0.05	-	<0.050	-	NA	-	<0.050	-	NA	<0.050	<0.050	<0.050	NA	<0.050	<0.050	<0.050	NA
d9-Acridine	%	0.1	-	108	-	NA	-	119	-	NA	97.4	88.6	93	9%	86.9	80.9	84	7%
d12-Chrysene	%	0.1	-	124	-	NA	-	122	-	NA	99.4	95.2	97	4%	90.4	89	90	2%
d8-Naphthalene	%	0.1	-	118	-	NA	-	128	-	NA	102	99.4	101	3%	94.3	93.5	94	1%
d10-Phenanthrene	%	0.1	-	117	-	NA	-	126	-	NA	111	104	108	7%	99.9	95.7	98	4%
IACR:Coarse	-	0.1	-	<0.10	-	NA	-	<0.10	-	NA	<0.10	<0.10	<0.10	NA	<0.10	<0.10	<0.10	NA
IACR:Fine	-	0.1	-	0.14	-	NA	-	<0.10	-	NA	<0.10	<0.10	<0.10	NA	<0.10	<0.10	<0.10	NA
B(a)P total potency equivalent	mg/kg	0.065	-	0.116	-	NA	-	<0.065	-	NA	<0.065	<0.065	<0.065	NA	<0.065	<0.065	<0.065	NA
IACR (CCME)	-	0.6	-	2.01	-	NA	-	0.6	-	NA	<0.60	<0.60	<0.60	NA	0.61	<0.60	0.61	NA
Total PAH (BC Sched 3.4)	mg/kg	0.2	-	3.87	-	NA	-	0.36	-	NA	<0.20	<0.20	<0.20	NA	0.32	0.23	0.28	NA
Total PAH (EPA 16)	mg/kg	0.2	-	2.53	-	NA	-	0.23	-	NA	<0.20	<0.20	<0.20	NA	0.22	<0.20	0.22	NA

Notes: **Bolding** identifies RPDs greater than 20%. Grey cells with underlined values represent values with RPDs greater than 50%.

- = no guideline or no data; % = percent; mg/kg = milligrams per kilogram; <= less than; >= greater than; mm = millimetres; MDL = method detection limit; RPD = relative percent difference; NA = not applicable; CCME = Canadian Council of the Ministers of Environment; CMm = Coal Mountain Mine; LAEMP = local aquatic effects monitoring program; PAH = polycyclic aromatic hydrocarbons.

## 2.3 Benthic Invertebrate Tissue Selenium

### Laboratory Reporting Limits

The analytical reports (Appendix F) were examined to provide an inventory of analytes for which the sample results were less than the LRL. Selenium concentrations were greater than the LRL in benthic invertebrate tissue (BIT) chemistry samples for all samples and selenium LRLs were below the BC MOE (2021b) interim selenium guideline for BIT of 4 µg/g dw. Therefore, the achieved LRLs were considered appropriate for the study.

### Data Precision

Laboratory precision was evaluated based on duplicate analysis of three BIT samples (Appendix F). The laboratory DQO (Table E-1) was met for all parameters. Furthermore, the RPD of four samples using certified reference material values met the laboratory DQO for all analytes. Laboratory precision and reproducibility were considered acceptable for the study.

### Data Accuracy

Data accuracy was evaluated based on results within the analytical reports from TrichAnalytics Inc. (Trich) associated with certified reference material values; the DQO was met for all analytes in the four samples. The accuracy achieved by the laboratory in this study was considered acceptable.

### Data Quality Statement

Benthic invertebrate tissue data collected for the CMm LAEMP in 2022 were of acceptable quality as characterized by good detectability, appropriate LRLs, and good laboratory precision and accuracy. Therefore, the associated data were considered acceptable for this study.

## 2.4 Benthic Invertebrate Community

The benthic invertebrate community (BIC) quality control reports are provided in Appendix F. Organism sorting efficiency was compared to the laboratory's DQO ( $\geq 90\%$ ). The average recovery was 98.9% with the lowest percent recovery for any given sample equal to 98.6%. Therefore, organism sorting efficiency was considered excellent.

All BIC samples collected in 2022 were subject to subsampling; the percentage of material sorted in each sample ranged from 5% to 20% of the total sample material. Both the precision and accuracy of the sub-samples randomly chosen for subsample error assessment met the DQO ( $\leq 20\%$ ; Appendix F). Thus, the precision and accuracy for subsampling of BIC samples were acceptable.

The laboratory performed an internal audit of taxonomic identification for roughly 10% of all samples. The analysts reported a total identification error rate (TIR) of 0.00% for all three QC samples; a percent difference in enumeration of 0.00 to 0.14%; percent taxonomic disagreement of 0.31 to 0.56%, and a Bray-Curtis dissimilarity index (a measure of the differences in identifications between different analysts) of 0.003 to 0.004 (Appendix F). The laboratory DQO was a TIR of <5%, per Canadian Aquatic Biomonitoring Network (CABIN) laboratory methods (Environment Canada 2014). Since TIR was zero for all samples in 2022, the taxonomic accuracy of the analysis was considered excellent.

## Data Quality Statement

Benthic community data collected in 2022 were of acceptable quality, as characterized by excellent sorting efficiency, subsampling precision and accuracy, and taxonomic identification accuracy. Therefore, the associated data can be used with a high level of confidence in the derivation of conclusions.

## 3.0 REFERENCES

- British Columbia Ministry of Environment (BC MOE). 2021a. British Columbia Working Water Quality Guidelines: Aquatic Life, Wildlife and Agriculture. Environmental Protection and Sustainability Branch, Ministry of Environment.
- BC MOE. 2021b. British Columbia Approved Water Quality Guidelines: Aquatic Life, Wildlife & Agriculture – Summary Report. Environmental Protection and Sustainability Branch, Ministry of Environment.
- Environment Canada. 2014. Canadian Aquatic Biomonitoring Network (CABIN) laboratory methods: processing, taxonomy, and quality control of benthic macroinvertebrate samples. May 2014.
- Minnow (Minnow Environmental Inc.). 2020. Study design for the Regional Aquatic Effects Monitoring Program (RAEMP), 2021 to 2023. Prepared for Teck Coal Limited and Environmental Monitoring Committee. December 2020.
- Teck (Teck Resources Limited). 2014. Elk Valley Water Quality Plan. Submitted to BC Ministry of Environment on 22 July 2014.



**APPENDIX F**

**Laboratory Reports**

## CERTIFICATE OF ANALYSIS

**Work Order** : **CG2212553**  
**Client** : **Teck Coal Limited**  
**Contact** : Cybele Heddle  
**Address** : 421 Pine Avenue  
                   Sparwood BC Canada V0B2G0  
**Telephone** : ----  
**Project** : REGIONAL EFFECTS PROGRAM  
**PO** : VPO00816101  
**C-O-C number** : REP\_LAEMP\_CMm\_2022-09\_ALS  
**Sampler** : Jennifer Ings  
**Site** : ----  
**Quote number** : Teck Coal Master Quote  
**No. of samples received** : 2  
**No. of samples analysed** : 2

**Page** : 1 of 6  
**Laboratory** : Calgary - Environmental  
**Account Manager** : Lyudmyla Shvets  
**Address** : 2559 29th Street NE  
                   Calgary AB Canada T1Y 7B5  
**Telephone** : +1 403 407 1800  
**Date Samples Received** : 15-Sep-2022 17:02  
**Date Analysis Commenced** : 15-Sep-2022  
**Issue Date** : 19-Sep-2022 13:25

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

### Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Anthony Calero	Supervisor - Inorganic	Inorganics, Calgary, Alberta
Anthony Calero	Supervisor - Inorganic	Metals, Calgary, Alberta
Elke Tabora		Inorganics, Calgary, Alberta
Harpreet Chawla	Team Leader - Inorganics	Inorganics, Calgary, Alberta
Harpreet Chawla	Team Leader - Inorganics	Metals, Calgary, Alberta
Mackenzie Lamoureux	Laboratory Analyst	Metals, Calgary, Alberta
Millicent Brentnall	Laboratory Analyst	Metals, Calgary, Alberta
Parker Sgarbossa	Laboratory Analyst	Inorganics, Calgary, Alberta
Sara Niroomand		Inorganics, Calgary, Alberta
Sara Niroomand		Metals, Calgary, Alberta
Vladka Stamenova	Analyst	Inorganics, Calgary, Alberta



## General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances  
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
-	No Unit
%	percent
µg/L	micrograms per litre
µS/cm	Microsiemens per centimetre
meq/L	milliequivalents per litre
mg/L	milligrams per litre
mV	millivolts
NTU	nephelometric turbidity units
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.



## Analytical Results

Sub-Matrix: Water					Client sample ID		RG_M15_WS_L	RG_MIULE_WS	---	---	---
(Matrix: Water)					AEMP_CMO_20	_LAEMP_CMP_	22-09_N	2022-09_N			
Client sampling date / time					12-Sep-2022	12-Sep-2022	---	---	---	---	---
					12:20	15:50	---	---	---	---	---
Analyte	CAS Number	Method	LOR	Unit	CG2212553-001	CG2212553-002	-----	-----	-----	-----	-----
					Result	Result	---	---	---	---	---
<b>Physical Tests</b>											
acidity (as CaCO3)	---	E283	2.0	mg/L	<2.0	<2.0	---	---	---	---	---
alkalinity, bicarbonate (as CaCO3)	---	E290	1.0	mg/L	157	163	---	---	---	---	---
alkalinity, bicarbonate (as HCO3)	71-52-3	E290	1.0	mg/L	191	198	---	---	---	---	---
alkalinity, carbonate (as CaCO3)	---	E290	1.0	mg/L	10.0	12.0	---	---	---	---	---
alkalinity, carbonate (as CO3)	3812-32-6	E290	1.0	mg/L	6.0	7.2	---	---	---	---	---
alkalinity, hydroxide (as CaCO3)	---	E290	1.0	mg/L	<1.0	<1.0	---	---	---	---	---
alkalinity, hydroxide (as OH)	14280-30-9	E290	1.0	mg/L	<1.0	<1.0	---	---	---	---	---
alkalinity, total (as CaCO3)	---	E290	1.0	mg/L	167	175	---	---	---	---	---
conductivity	---	E100	2.0	µS/cm	508	607	---	---	---	---	---
hardness (as CaCO3), dissolved	---	EC100	0.50	mg/L	265	329	---	---	---	---	---
oxidation-reduction potential [ORP]	---	E125	0.10	mV	292	297	---	---	---	---	---
pH	---	E108	0.10	pH units	8.36	8.42	---	---	---	---	---
solids, total dissolved [TDS]	---	E162	10	mg/L	345	434	---	---	---	---	---
solids, total suspended [TSS]	---	E160-L	1.0	mg/L	<1.0	1.5	---	---	---	---	---
turbidity	---	E121	0.10	NTU	0.48	0.20	---	---	---	---	---
<b>Anions and Nutrients</b>											
ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	<0.0050	<0.0050	---	---	---	---	---
bromide	24959-67-9	E235.Br-L	0.050	mg/L	<0.050	<0.050	---	---	---	---	---
chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.89	1.07	---	---	---	---	---
fluoride	16984-48-8	E235.F	0.020	mg/L	0.134	0.158	---	---	---	---	---
Kjeldahl nitrogen, total [TKN]	---	E318	0.050	mg/L	0.614	<0.500	---	---	---	---	---
nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.278	0.428	---	---	---	---	---
nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	0.0011	<0.0010	---	---	---	---	---
phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	0.0019	<0.0010	---	---	---	---	---
phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0065	0.0036	---	---	---	---	---
sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	120	168	---	---	---	---	---
<b>Organic / Inorganic Carbon</b>											
carbon, dissolved organic [DOC]	---	E358-L	0.50	mg/L	0.64	0.56	---	---	---	---	---
carbon, total organic [TOC]	---	E355-L	0.50	mg/L	0.56	0.89	---	---	---	---	---



## Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	RG_M15_WS_L AEMP_CMO_20 22-09_N	RG_MIULE_WS _LAEMP_CMP_ 2022-09_N	----	----	----
Client sampling date / time					12-Sep-2022 12:20	12-Sep-2022 15:50	----	----	----	
Analyte	CAS Number	Method	LOR	Unit	CG2212553-001 Result	CG2212553-002 Result	-----	-----	-----	
<b>Ion Balance</b>										
anion sum	----	EC101	0.10	meq/L	5.89	7.06	----	----	----	
cation sum	----	EC101	0.10	meq/L	5.58	6.95	----	----	----	
ion balance (cations/anions)	----	EC101	0.010	%	94.7	98.4	----	----	----	
ion balance (APHA)	----	EC101	0.010	%	2.70	0.785	----	----	----	
<b>Total Metals</b>										
aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0069	0.0057	----	----	----	
antimony, total	7440-36-0	E420	0.00010	mg/L	0.00012	0.00013	----	----	----	
arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00027	0.00036	----	----	----	
barium, total	7440-39-3	E420	0.00010	mg/L	0.127	0.115	----	----	----	
beryllium, total	7440-41-7	E420	0.020	µg/L	<0.020	<0.020	----	----	----	
bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	----	----	----	
boron, total	7440-42-8	E420	0.010	mg/L	0.018	0.024	----	----	----	
cadmium, total	7440-43-9	E420	0.0050	µg/L	0.0257	0.0276	----	----	----	
calcium, total	7440-70-2	E420	0.050	mg/L	73.2	90.8	----	----	----	
chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00015	0.00017	----	----	----	
cobalt, total	7440-48-4	E420	0.10	µg/L	<0.10	<0.10	----	----	----	
copper, total	7440-50-8	E420	0.00050	mg/L	<0.00050	<0.00050	----	----	----	
iron, total	7439-89-6	E420	0.010	mg/L	<0.010	<0.010	----	----	----	
lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	----	----	----	
lithium, total	7439-93-2	E420	0.0010	mg/L	0.0085	0.0114	----	----	----	
magnesium, total	7439-95-4	E420	0.0050	mg/L	24.2	30.8	----	----	----	
manganese, total	7439-96-5	E420	0.00010	mg/L	0.00070	0.00097	----	----	----	
mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	----	----	----	
molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000873	0.000877	----	----	----	
nickel, total	7440-02-0	E420	0.00050	mg/L	0.00130	0.00201	----	----	----	
potassium, total	7440-09-7	E420	0.050	mg/L	0.898	1.04	----	----	----	
selenium, total	7782-49-2	E420	0.050	µg/L	2.17	3.22	----	----	----	
silicon, total	7440-21-3	E420	0.10	mg/L	2.33	2.38	----	----	----	
silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	----	----	----	
sodium, total	7440-23-5	E420	0.050	mg/L	5.95	8.34	----	----	----	



## Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	RG_M15_WS_L AEMP_CMO_20 22-09_N	RG_MIULE_WS _LAEMP_CMP_ 2022-09_N	----	----	----
Client sampling date / time					12-Sep-2022 12:20	12-Sep-2022 15:50	----	----	----	
Analyte	CAS Number	Method	LOR	Unit	CG2212553-001 Result	CG2212553-002 Result	-----	-----	-----	
<b>Total Metals</b>										
strontium, total	7440-24-6	E420	0.00020	mg/L	0.225	0.284	----	----	----	
sulfur, total	7704-34-9	E420	0.50	mg/L	43.1	62.9	----	----	----	
thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	0.000011	----	----	----	
tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	----	----	----	
titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	----	----	----	
uranium, total	7440-61-1	E420	0.000010	mg/L	0.000958	0.00134	----	----	----	
vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00062	0.00056	----	----	----	
zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	----	----	----	
<b>Dissolved Metals</b>										
aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	<0.0010	<0.0010	----	----	----	
antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00012	0.00011	----	----	----	
arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00018	0.00020	----	----	----	
barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.128	0.114	----	----	----	
beryllium, dissolved	7440-41-7	E421	0.020	µg/L	<0.020	<0.020	----	----	----	
bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	----	----	----	
boron, dissolved	7440-42-8	E421	0.010	mg/L	0.015	0.021	----	----	----	
cadmium, dissolved	7440-43-9	E421	0.0050	µg/L	0.0294	0.0280	----	----	----	
calcium, dissolved	7440-70-2	E421	0.050	mg/L	65.5	79.6	----	----	----	
chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00011	0.00015	----	----	----	
cobalt, dissolved	7440-48-4	E421	0.10	µg/L	<0.10	<0.10	----	----	----	
copper, dissolved	7440-50-8	E421	0.00020	mg/L	<0.00020	<0.00020	----	----	----	
iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	----	----	----	
lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	----	----	----	
lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0085	0.0112	----	----	----	
magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	24.7	31.6	----	----	----	
manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00051	0.00089	----	----	----	
mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	----	----	----	
molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000784	0.000828	----	----	----	
nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00115	0.00195	----	----	----	
potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.859	0.999	----	----	----	



## Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	RG_M15_WS_L AEMP_CMO_20 22-09_N	RG_MIULE_WS _LAEMP_CMP_ 2022-09_N	----	----	----
Client sampling date / time					12-Sep-2022 12:20	12-Sep-2022 15:50	----	----	----	
Analyte	CAS Number	Method	LOR	Unit	CG2212553-001 Result	CG2212553-002 Result	-----	-----	-----	
<b>Dissolved Metals</b>										
selenium, dissolved	7782-49-2	E421	0.050	µg/L	2.37	3.51	----	----	----	
silicon, dissolved	7440-21-3	E421	0.050	mg/L	2.24	2.22	----	----	----	
silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	----	----	----	
sodium, dissolved	7440-23-5	E421	0.050	mg/L	5.89	8.04	----	----	----	
strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.227	0.285	----	----	----	
sulfur, dissolved	7704-34-9	E421	0.50	mg/L	45.1	60.8	----	----	----	
thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	0.000011	----	----	----	
tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	----	----	----	
titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	----	----	----	
uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000934	0.00127	----	----	----	
vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	----	----	----	
zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	----	----	----	
dissolved mercury filtration location	----	EP509	-	-	Field	Field	----	----	----	
dissolved metals filtration location	----	EP421	-	-	Field	Field	----	----	----	

Please refer to the General Comments section for an explanation of any qualifiers detected.



## QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: <b>CG2212553</b>	Page	: 1 of 15
Client	: <b>Teck Coal Limited</b>	Laboratory	: Calgary - Environmental
Contact	: Cybele Heddle	Account Manager	: Lyudmyla Shvets
Address	: 421 Pine Avenue Sparwood BC Canada V0B2G0	Address	: 2559 29th Street NE Calgary, Alberta Canada T1Y 7B5
Telephone	: ----	Telephone	: +1 403 407 1800
Project	: REGIONAL EFFECTS PROGRAM	Date Samples Received	: 15-Sep-2022 17:02
PO	: VPO00816101	Issue Date	: 19-Sep-2022 13:25
C-O-C number	: REP_LAEMP_CMm_2022-09_ALS		
Sampler	: Jennifer Ings		
Site	: ----		
Quote number	: Teck Coal Master Quote		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

### Key

**Anonymous:** Refers to samples which are not part of this work order, but which formed part of the QC process lot.

**CAS Number:** Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

**DQO:** Data Quality Objective.

**LOR:** Limit of Reporting (detection limit).

**RPD:** Relative Percent Difference.

### **Workorder Comments**

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

### **Summary of Outliers**

#### **Outliers : Quality Control Samples**

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

#### **Outliers: Reference Material (RM) Samples**

- No Reference Material (RM) Sample outliers occur.

#### **Outliers : Analysis Holding Time Compliance (Breaches)**

- Analysis Holding Time Outliers exist - please see following pages for full details.

#### **Outliers : Frequency of Quality Control Samples**

- No Quality Control Sample Frequency Outliers occur.





## Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Anions and Nutrients : Ammonia by Fluorescence</b>										
<b>Amber glass total (sulfuric acid)</b> RG_M15_WS_LAEMP_CMO_2022-09_N	E298	12-Sep-2022	15-Sep-2022	----	----		15-Sep-2022	28 days	3 days	✓
<b>Anions and Nutrients : Ammonia by Fluorescence</b>										
<b>Amber glass total (sulfuric acid)</b> RG_MIULE_WS_LAEMP_CMP_2022-09_N	E298	12-Sep-2022	15-Sep-2022	----	----		15-Sep-2022	28 days	3 days	✓
<b>Anions and Nutrients : Bromide in Water by IC (Low Level)</b>										
<b>HDPE</b> RG_M15_WS_LAEMP_CMO_2022-09_N	E235.Br-L	12-Sep-2022	15-Sep-2022	----	----		15-Sep-2022	28 days	3 days	✓
<b>Anions and Nutrients : Bromide in Water by IC (Low Level)</b>										
<b>HDPE</b> RG_MIULE_WS_LAEMP_CMP_2022-09_N	E235.Br-L	12-Sep-2022	15-Sep-2022	----	----		15-Sep-2022	28 days	3 days	✓
<b>Anions and Nutrients : Chloride in Water by IC (Low Level)</b>										
<b>HDPE</b> RG_M15_WS_LAEMP_CMO_2022-09_N	E235.Cl-L	12-Sep-2022	15-Sep-2022	----	----		15-Sep-2022	28 days	3 days	✓
<b>Anions and Nutrients : Chloride in Water by IC (Low Level)</b>										
<b>HDPE</b> RG_MIULE_WS_LAEMP_CMP_2022-09_N	E235.Cl-L	12-Sep-2022	15-Sep-2022	----	----		15-Sep-2022	28 days	3 days	✓
<b>Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001)</b>										
<b>HDPE</b> RG_M15_WS_LAEMP_CMO_2022-09_N	E378-U	12-Sep-2022	15-Sep-2022	----	----		15-Sep-2022	3 days	3 days	* EHTL



Matrix: **Water** Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001)</b>											
HDPE RG_MIULE_WS_LAEMP_CMP_2022-09_N	E378-U	12-Sep-2022	15-Sep-2022	----	----		15-Sep-2022	3 days	3 days	*	EHTL
<b>Anions and Nutrients : Fluoride in Water by IC</b>											
HDPE RG_M15_WS_LAEMP_CMO_2022-09_N	E235.F	12-Sep-2022	15-Sep-2022	----	----		15-Sep-2022	28 days	3 days	✓	
<b>Anions and Nutrients : Fluoride in Water by IC</b>											
HDPE RG_MIULE_WS_LAEMP_CMP_2022-09_N	E235.F	12-Sep-2022	15-Sep-2022	----	----		15-Sep-2022	28 days	3 days	✓	
<b>Anions and Nutrients : Nitrate in Water by IC (Low Level)</b>											
HDPE RG_M15_WS_LAEMP_CMO_2022-09_N	E235.NO3-L	12-Sep-2022	15-Sep-2022	3 days	3 days	✓	15-Sep-2022	3 days	0 days	✓	
<b>Anions and Nutrients : Nitrate in Water by IC (Low Level)</b>											
HDPE RG_MIULE_WS_LAEMP_CMP_2022-09_N	E235.NO3-L	12-Sep-2022	15-Sep-2022	3 days	3 days	✓	15-Sep-2022	3 days	0 days	✓	
<b>Anions and Nutrients : Nitrite in Water by IC (Low Level)</b>											
HDPE RG_M15_WS_LAEMP_CMO_2022-09_N	E235.NO2-L	12-Sep-2022	15-Sep-2022	----	----		15-Sep-2022	3 days	3 days	*	EHTL
<b>Anions and Nutrients : Nitrite in Water by IC (Low Level)</b>											
HDPE RG_MIULE_WS_LAEMP_CMP_2022-09_N	E235.NO2-L	12-Sep-2022	15-Sep-2022	----	----		15-Sep-2022	3 days	3 days	*	EHTL
<b>Anions and Nutrients : Sulfate in Water by IC</b>											
HDPE RG_M15_WS_LAEMP_CMO_2022-09_N	E235.SO4	12-Sep-2022	15-Sep-2022	----	----		15-Sep-2022	28 days	3 days	✓	
<b>Anions and Nutrients : Sulfate in Water by IC</b>											
HDPE RG_MIULE_WS_LAEMP_CMP_2022-09_N	E235.SO4	12-Sep-2022	15-Sep-2022	----	----		15-Sep-2022	28 days	3 days	✓	



Matrix: **Water** Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
Rec	Actual	Rec		Actual							
<b>Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_M15_WS_LAEMP_CMO_2022-09_N	E318	12-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	28 days	5 days	✓	
<b>Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_MIULE_WS_LAEMP_CMP_2022-09_N	E318	12-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	28 days	5 days	✓	
<b>Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_M15_WS_LAEMP_CMO_2022-09_N	E372-U	12-Sep-2022	16-Sep-2022	----	----		17-Sep-2022	28 days	5 days	✓	
<b>Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_MIULE_WS_LAEMP_CMP_2022-09_N	E372-U	12-Sep-2022	16-Sep-2022	----	----		17-Sep-2022	28 days	5 days	✓	
<b>Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)</b>											
<b>HDPE dissolved (nitric acid)</b> RG_M15_WS_LAEMP_CMO_2022-09_N	E421.Cr-L	12-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	180 days	4 days	✓	
<b>Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)</b>											
<b>HDPE dissolved (nitric acid)</b> RG_MIULE_WS_LAEMP_CMP_2022-09_N	E421.Cr-L	12-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	180 days	4 days	✓	
<b>Dissolved Metals : Dissolved Mercury in Water by CVAAS</b>											
<b>Glass vial dissolved (hydrochloric acid)</b> RG_M15_WS_LAEMP_CMO_2022-09_N	E509	12-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	4 days	✓	
<b>Dissolved Metals : Dissolved Mercury in Water by CVAAS</b>											
<b>Glass vial dissolved (hydrochloric acid)</b> RG_MIULE_WS_LAEMP_CMP_2022-09_N	E509	12-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	4 days	✓	
<b>Dissolved Metals : Dissolved Metals in Water by CRC ICPMS</b>											
<b>HDPE dissolved (nitric acid)</b> RG_M15_WS_LAEMP_CMO_2022-09_N	E421	12-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	180 days	4 days	✓	



Matrix: **Water** Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Dissolved Metals : Dissolved Metals in Water by CRC ICPMS</b>											
<b>HDPE dissolved (nitric acid)</b> RG_MIULE_WS_LAEMP_CMP_2022-09_N	E421	12-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	180 days	4 days	✓	
<b>Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)</b>											
<b>Amber glass dissolved (sulfuric acid)</b> RG_M15_WS_LAEMP_CMO_2022-09_N	E358-L	12-Sep-2022	15-Sep-2022	----	----		15-Sep-2022	28 days	3 days	✓	
<b>Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)</b>											
<b>Amber glass dissolved (sulfuric acid)</b> RG_MIULE_WS_LAEMP_CMP_2022-09_N	E358-L	12-Sep-2022	15-Sep-2022	----	----		15-Sep-2022	28 days	3 days	✓	
<b>Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_M15_WS_LAEMP_CMO_2022-09_N	E355-L	12-Sep-2022	15-Sep-2022	----	----		15-Sep-2022	28 days	3 days	✓	
<b>Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_MIULE_WS_LAEMP_CMP_2022-09_N	E355-L	12-Sep-2022	15-Sep-2022	----	----		15-Sep-2022	28 days	3 days	✓	
<b>Physical Tests : Acidity by Titration</b>											
<b>HDPE</b> RG_M15_WS_LAEMP_CMO_2022-09_N	E283	12-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	14 days	4 days	✓	
<b>Physical Tests : Acidity by Titration</b>											
<b>HDPE</b> RG_MIULE_WS_LAEMP_CMP_2022-09_N	E283	12-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	14 days	4 days	✓	
<b>Physical Tests : Alkalinity Species by Titration</b>											
<b>HDPE</b> RG_M15_WS_LAEMP_CMO_2022-09_N	E290	12-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	14 days	4 days	✓	
<b>Physical Tests : Alkalinity Species by Titration</b>											
<b>HDPE</b> RG_MIULE_WS_LAEMP_CMP_2022-09_N	E290	12-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	14 days	4 days	✓	



Matrix: **Water** Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Physical Tests : Conductivity in Water</b>											
HDPE RG_M15_WS_LAEMP_CMO_2022-09_N	E100	12-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	4 days	✓	
<b>Physical Tests : Conductivity in Water</b>											
HDPE RG_MIULE_WS_LAEMP_CMP_2022-09_N	E100	12-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	4 days	✓	
<b>Physical Tests : ORP by Electrode</b>											
HDPE RG_MIULE_WS_LAEMP_CMP_2022-09_N	E125	12-Sep-2022	----	----	----		16-Sep-2022	0.25 hrs	92 hrs	* EHTR-FM	
<b>Physical Tests : ORP by Electrode</b>											
HDPE RG_M15_WS_LAEMP_CMO_2022-09_N	E125	12-Sep-2022	----	----	----		16-Sep-2022	0.25 hrs	95 hrs	* EHTR-FM	
<b>Physical Tests : pH by Meter</b>											
HDPE RG_M15_WS_LAEMP_CMO_2022-09_N	E108	12-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	0.25 hrs	0.26 hrs	* EHTR-FM	
<b>Physical Tests : pH by Meter</b>											
HDPE RG_MIULE_WS_LAEMP_CMP_2022-09_N	E108	12-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	0.25 hrs	0.26 hrs	* EHTR-FM	
<b>Physical Tests : TDS by Gravimetry</b>											
HDPE RG_M15_WS_LAEMP_CMO_2022-09_N	E162	12-Sep-2022	----	----	----		15-Sep-2022	7 days	3 days	✓	
<b>Physical Tests : TDS by Gravimetry</b>											
HDPE RG_MIULE_WS_LAEMP_CMP_2022-09_N	E162	12-Sep-2022	----	----	----		15-Sep-2022	7 days	3 days	✓	
<b>Physical Tests : TSS by Gravimetry (Low Level)</b>											
HDPE RG_M15_WS_LAEMP_CMO_2022-09_N	E160-L	12-Sep-2022	----	----	----		15-Sep-2022	7 days	3 days	✓	





Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
Rec	Actual	Rec		Actual							
<b>Physical Tests : TSS by Gravimetry (Low Level)</b>											
<b>HDPE</b> RG_MIULE_WS_LAEMP_CMP_2022-09_N	E160-L	12-Sep-2022	----	----	----		15-Sep-2022	7 days	3 days	✔	
<b>Physical Tests : Turbidity by Nephelometry</b>											
<b>HDPE</b> RG_M15_WS_LAEMP_CMO_2022-09_N	E121	12-Sep-2022	----	----	----		15-Sep-2022	3 days	3 days	✔	
<b>Physical Tests : Turbidity by Nephelometry</b>											
<b>HDPE</b> RG_MIULE_WS_LAEMP_CMP_2022-09_N	E121	12-Sep-2022	----	----	----		15-Sep-2022	3 days	3 days	✔	
<b>Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)</b>											
<b>HDPE total (nitric acid)</b> RG_M15_WS_LAEMP_CMO_2022-09_N	E420.Cr-L	12-Sep-2022	16-Sep-2022	----	----		17-Sep-2022	180 days	5 days	✔	
<b>Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)</b>											
<b>HDPE total (nitric acid)</b> RG_MIULE_WS_LAEMP_CMP_2022-09_N	E420.Cr-L	12-Sep-2022	16-Sep-2022	----	----		17-Sep-2022	180 days	5 days	✔	
<b>Total Metals : Total Mercury in Water by CVAAS</b>											
<b>Glass vial total (hydrochloric acid)</b> RG_M15_WS_LAEMP_CMO_2022-09_N	E508	12-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	4 days	✔	
<b>Total Metals : Total Mercury in Water by CVAAS</b>											
<b>Glass vial total (hydrochloric acid)</b> RG_MIULE_WS_LAEMP_CMP_2022-09_N	E508	12-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	4 days	✔	
<b>Total Metals : Total Metals in Water by CRC ICPMS</b>											
<b>HDPE total (nitric acid)</b> RG_M15_WS_LAEMP_CMO_2022-09_N	E420	12-Sep-2022	16-Sep-2022	----	----		17-Sep-2022	180 days	5 days	✔	
<b>Total Metals : Total Metals in Water by CRC ICPMS</b>											
<b>HDPE total (nitric acid)</b> RG_MIULE_WS_LAEMP_CMP_2022-09_N	E420	12-Sep-2022	16-Sep-2022	----	----		17-Sep-2022	180 days	5 days	✔	

**Legend & Qualifier Definitions**

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended  
 EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.

Page : 9 of 15  
Work Order : CG2212553  
Client : Teck Coal Limited  
Project : REGIONAL EFFECTS PROGRAM

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Rec. HT: ALS recommended hold time (see units).

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## Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water** Evaluation: \* = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		Evaluation
			QC	Regular	Actual	Expected	
<b>Analytical Methods</b>							
<b>Laboratory Duplicates (DUP)</b>							
Acidity by Titration	E283	650894	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	650901	1	20	5.0	5.0	✓
Ammonia by Fluorescence	E298	649577	1	17	5.8	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	649518	1	8	12.5	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	649519	1	8	12.5	5.0	✓
Conductivity in Water	E100	650900	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	650493	1	4	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	650161	1	8	12.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	650494	1	4	25.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	649550	1	17	5.8	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	649627	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	649517	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	649520	1	8	12.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	649521	1	8	12.5	5.0	✓
ORP by Electrode	E125	650423	1	7	14.2	5.0	✓
pH by Meter	E108	650899	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	649522	1	8	12.5	5.0	✓
TDS by Gravimetry	E162	649536	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	650166	1	2	50.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	650756	1	9	11.1	5.0	✓
Total Mercury in Water by CVAAS	E508	650164	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	650167	1	2	50.0	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	649551	1	18	5.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	650784	1	16	6.2	5.0	✓
Turbidity by Nephelometry	E121	649571	1	20	5.0	5.0	✓
<b>Laboratory Control Samples (LCS)</b>							
Acidity by Titration	E283	650894	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	650901	1	20	5.0	5.0	✓
Ammonia by Fluorescence	E298	649577	1	17	5.8	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	649518	1	8	12.5	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	649519	1	8	12.5	5.0	✓
Conductivity in Water	E100	650900	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	650493	1	4	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	650161	1	8	12.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	650494	1	4	25.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	649550	1	17	5.8	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	649627	1	20	5.0	5.0	✓



Matrix: **Water**

Evaluation: \* = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		Evaluation
			QC	Regular	Actual	Expected	
<i>Analytical Methods</i>							
<b>Laboratory Control Samples (LCS) - Continued</b>							
Fluoride in Water by IC	E235.F	649517	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	649520	1	8	12.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	649521	1	8	12.5	5.0	✓
ORP by Electrode	E125	650423	1	7	14.2	5.0	✓
pH by Meter	E108	650899	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	649522	1	8	12.5	5.0	✓
TDS by Gravimetry	E162	649536	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	650166	1	2	50.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	650756	1	9	11.1	5.0	✓
Total Mercury in Water by CVAAS	E508	650164	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	650167	1	2	50.0	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	649551	1	18	5.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	650784	1	16	6.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	649523	1	12	8.3	5.0	✓
Turbidity by Nephelometry	E121	649571	1	20	5.0	5.0	✓
<b>Method Blanks (MB)</b>							
Acidity by Titration	E283	650894	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	650901	1	20	5.0	5.0	✓
Ammonia by Fluorescence	E298	649577	1	17	5.8	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	649518	1	8	12.5	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	649519	1	8	12.5	5.0	✓
Conductivity in Water	E100	650900	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	650493	1	4	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	650161	1	8	12.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	650494	1	4	25.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	649550	1	17	5.8	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	649627	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	649517	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	649520	1	8	12.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	649521	1	8	12.5	5.0	✓
Sulfate in Water by IC	E235.SO4	649522	1	8	12.5	5.0	✓
TDS by Gravimetry	E162	649536	1	16	6.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	650166	1	2	50.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	650756	1	9	11.1	5.0	✓
Total Mercury in Water by CVAAS	E508	650164	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	650167	1	2	50.0	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	649551	1	18	5.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	650784	1	16	6.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	649523	1	12	8.3	5.0	✓
Turbidity by Nephelometry	E121	649571	1	20	5.0	5.0	✓



Matrix: **Water** Evaluation: \* = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		Evaluation
			QC	Regular	Actual	Expected	
<i>Analytical Methods</i>							
<b>Matrix Spikes (MS)</b>							
Ammonia by Fluorescence	E298	649577	1	17	5.8	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	649518	1	8	12.5	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	649519	1	8	12.5	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	650493	1	4	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	650161	1	8	12.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	650494	1	4	25.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	649550	1	17	5.8	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	649627	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	649517	1	8	12.5	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	649520	1	8	12.5	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	649521	1	8	12.5	5.0	✓
Sulfate in Water by IC	E235.SO4	649522	1	8	12.5	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	650166	1	2	50.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	650756	1	9	11.1	5.0	✓
Total Mercury in Water by CVAAS	E508	650164	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	650167	1	2	50.0	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	649551	1	18	5.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	650784	1	16	6.2	5.0	✓



## Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 Calgary - Environmental	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 Calgary - Environmental	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 Calgary - Environmental	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
ORP by Electrode	E125 Calgary - Environmental	Water	ASTM D1498 (mod)	Oxidation reduction potential is reported as the oxidation-reduction potential of the platinum metal-reference electrode employed, measured in mV. For high accuracy test results, it is recommended that this analysis be conducted in the field.
TSS by Gravimetry (Low Level)	E160-L Calgary - Environmental	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry	E162 Calgary - Environmental	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Bromide in Water by IC (Low Level)	E235.Br-L Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Chloride in Water by IC (Low Level)	E235.Cl-L Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 Calgary - Environmental	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 Calgary - Environmental	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 Calgary - Environmental	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 Calgary - Environmental	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L Calgary - Environmental	Water	APHA 5310 B (mod)	Total Organic Carbon (Non-Purgeable), also known as NPOC (total), is a direct measurement of TOC after an acidified sample has been purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO <sub>2</sub> . NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of total carbon (TC) is comprised of IC (which is common), this method is more accurate and more reliable than the TOC by subtraction method (i.e. TC minus TIC).
Dissolved Organic Carbon by Combustion (Low Level)	E358-L Calgary - Environmental	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO <sub>2</sub> . NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U Calgary - Environmental	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U Calgary - Environmental	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter.  Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 Calgary - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.  Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L Calgary - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Dissolved Metals in Water by CRC ICPMS	E421 Calgary - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.  Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L Calgary - Environmental	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Total Mercury in Water by CVAAS	E508 Calgary - Environmental	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 Calgary - Environmental	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 Calgary - Environmental	Water	APHA 2340B	"Hardness (as CaCO <sub>3</sub> ), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO <sub>3</sub> equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Ion Balance using Dissolved Metals	EC101 Calgary - Environmental	Water	APHA 1030E	Cation Sum, Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Dissolved species are used where available. Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 Calgary - Environmental	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 Calgary - Environmental	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Preparation for Total Organic Carbon by Combustion	EP355 Calgary - Environmental	Water		Preparation for Total Organic Carbon by Combustion
Preparation for Dissolved Organic Carbon for Combustion	EP358 Calgary - Environmental	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 Calgary - Environmental	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 Calgary - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO <sub>3</sub> .
Dissolved Mercury Water Filtration	EP509 Calgary - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.





QUALITY CONTROL REPORT

Work Order : CG2212553
Client : Teck Coal Limited
Contact : Cybele Heddle
Address : 421 Pine Avenue
Sparwood BC Canada V0B2G0
Telephone : ---
Project : REGIONAL EFFECTS PROGRAM
PO : VPO00816101
C-O-C number : REP\_LAEMP\_CmM\_2022-09\_ALS
Sampler : Jennifer Ings
Site : ---
Quote number : Teck Coal Master Quote
No. of samples received : 2
No. of samples analysed : 2

Page : 1 of 18
Laboratory : Calgary - Environmental
Account Manager : Lyudmyla Shvets
Address : 2559 29th Street NE
Calgary, Alberta Canada T1Y 7B5
Telephone : +1 403 407 1800
Date Samples Received : 15-Sep-2022 17:02
Date Analysis Commenced : 15-Sep-2022
Issue Date : 19-Sep-2022 13:25

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
Matrix Spike (MS) Report; Recovery and Data Quality Objectives
Method Blank (MB) Report; Recovery and Data Quality Objectives
Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Table with 3 columns: Signatories, Position, Laboratory Department. Lists names like Anthony Calero, Elke Tabora, Harpreet Chawla, Mackenzie Lamoureux, Millicent Brentnall, Parker Sgarbossa, Sara Niroomand, and Vladka Stamenova with their respective roles and departments.

Page : 2 of 18  
Work Order : CG2212553  
Client : Teck Coal Limited  
Project : REGIONAL EFFECTS PROGRAM

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## **General Comments**

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

# = Indicates a QC result that did not meet the ALS DQO.

## **Workorder Comments**

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Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

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### Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Physical Tests (QC Lot: 649536)</b>											
CG2212460-001	Anonymous	solids, total dissolved [TDS]	----	E162	20	mg/L	1540	1550	0.453%	20%	----
<b>Physical Tests (QC Lot: 649571)</b>											
CG2212531-001	Anonymous	turbidity	----	E121	0.10	NTU	0.95	1.01	0.05	Diff <2x LOR	----
<b>Physical Tests (QC Lot: 650423)</b>											
CG2212553-001	RG_M15_WS_LAEMP_CM O_2022-09_N	oxidation-reduction potential [ORP]	----	E125	0.10	mV	292	293	0.308%	15%	----
<b>Physical Tests (QC Lot: 650894)</b>											
CG2212553-001	RG_M15_WS_LAEMP_CM O_2022-09_N	acidity (as CaCO <sub>3</sub> )	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
<b>Physical Tests (QC Lot: 650899)</b>											
CG2212553-001	RG_M15_WS_LAEMP_CM O_2022-09_N	pH	----	E108	0.10	pH units	8.36	8.41	0.596%	4%	----
<b>Physical Tests (QC Lot: 650900)</b>											
CG2212553-001	RG_M15_WS_LAEMP_CM O_2022-09_N	conductivity	----	E100	2.0	µS/cm	508	499	1.79%	10%	----
<b>Physical Tests (QC Lot: 650901)</b>											
CG2212553-001	RG_M15_WS_LAEMP_CM O_2022-09_N	alkalinity, bicarbonate (as CaCO <sub>3</sub> )	----	E290	1.0	mg/L	157	154	2.06%	20%	----
		alkalinity, carbonate (as CaCO <sub>3</sub> )	----	E290	1.0	mg/L	10.0	11.6	14.8%	20%	----
		alkalinity, hydroxide (as CaCO <sub>3</sub> )	----	E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
		alkalinity, total (as CaCO <sub>3</sub> )	----	E290	1.0	mg/L	167	165	0.964%	20%	----
<b>Anions and Nutrients (QC Lot: 649517)</b>											
CG2212553-001	RG_M15_WS_LAEMP_CM O_2022-09_N	fluoride	16984-48-8	E235.F	0.020	mg/L	0.134	0.132	0.002	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 649518)</b>											
CG2212553-001	RG_M15_WS_LAEMP_CM O_2022-09_N	bromide	24959-67-9	E235.Br-L	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 649519)</b>											
CG2212553-001	RG_M15_WS_LAEMP_CM O_2022-09_N	chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.89	0.88	0.01	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 649520)</b>											
CG2212553-001	RG_M15_WS_LAEMP_CM O_2022-09_N	nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.278	0.277	0.504%	20%	----
<b>Anions and Nutrients (QC Lot: 649521)</b>											
CG2212553-001	RG_M15_WS_LAEMP_CM O_2022-09_N	nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	0.0011	0.0012	0.0001	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 649522)</b>											



Sub-Matrix: **Water**

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Anions and Nutrients (QC Lot: 649522) - continued</b>											
CG2212553-001	RG_M15_WS_LAEMP_CM O_2022-09_N	sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	120	122	0.981%	20%	----
<b>Anions and Nutrients (QC Lot: 649577)</b>											
CG2212550-001	Anonymous	ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 649627)</b>											
CG2212545-001	Anonymous	phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 650756)</b>											
CG2212553-001	RG_M15_WS_LAEMP_CM O_2022-09_N	Kjeldahl nitrogen, total [TKN]	----	E318	0.500	mg/L	0.614	<0.500	0.114	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 650784)</b>											
CG2212553-001	RG_M15_WS_LAEMP_CM O_2022-09_N	phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0065	0.0066	0.0002	Diff <2x LOR	----
<b>Organic / Inorganic Carbon (QC Lot: 649550)</b>											
CG2212550-001	Anonymous	carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
<b>Organic / Inorganic Carbon (QC Lot: 649551)</b>											
CG2212550-001	Anonymous	carbon, total organic [TOC]	----	E355-L	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
<b>Total Metals (QC Lot: 650164)</b>											
CG2212515-001	Anonymous	mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
<b>Total Metals (QC Lot: 650166)</b>											
CG2212553-001	RG_M15_WS_LAEMP_CM O_2022-09_N	chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00015	0.00015	0.000002	Diff <2x LOR	----
<b>Total Metals (QC Lot: 650167)</b>											
CG2212553-001	RG_M15_WS_LAEMP_CM O_2022-09_N	aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0069	0.0072	0.0002	Diff <2x LOR	----
		antimony, total	7440-36-0	E420	0.00010	mg/L	0.00012	0.00012	0.0000002	Diff <2x LOR	----
		arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00027	0.00034	0.00006	Diff <2x LOR	----
		barium, total	7440-39-3	E420	0.00010	mg/L	0.127	0.124	2.26%	20%	----
		beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.020 µg/L	<0.000020	0	Diff <2x LOR	----
		bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		boron, total	7440-42-8	E420	0.010	mg/L	0.018	0.017	0.0005	Diff <2x LOR	----
		cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0257 µg/L	0.0000227	0.0000030	Diff <2x LOR	----
		calcium, total	7440-70-2	E420	0.050	mg/L	73.2	71.5	2.34%	20%	----
		cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		copper, total	7440-50-8	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		iron, total	7439-89-6	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		lithium, total	7439-93-2	E420	0.0010	mg/L	0.0085	0.0084	0.00010	Diff <2x LOR	----
		magnesium, total	7439-95-4	E420	0.0050	mg/L	24.2	23.9	1.29%	20%	----



Sub-Matrix: **Water**

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Total Metals (QC Lot: 650167) - continued</b>											
CG2212553-001	RG_M15_WS_LAEMP_CM O_2022-09_N	manganese, total	7439-96-5	E420	0.00010	mg/L	0.00070	0.00069	0.00001	Diff <2x LOR	----
		molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000873	0.000860	1.45%	20%	----
		nickel, total	7440-02-0	E420	0.00050	mg/L	0.00130	0.00123	0.00007	Diff <2x LOR	----
		potassium, total	7440-09-7	E420	0.050	mg/L	0.898	0.886	1.34%	20%	----
		selenium, total	7782-49-2	E420	0.000050	mg/L	2.17 µg/L	0.00241	10.6%	20%	----
		silicon, total	7440-21-3	E420	0.10	mg/L	2.33	2.33	0.0737%	20%	----
		silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		sodium, total	7440-23-5	E420	0.050	mg/L	5.95	5.69	4.54%	20%	----
		strontium, total	7440-24-6	E420	0.00020	mg/L	0.225	0.220	2.52%	20%	----
		sulfur, total	7704-34-9	E420	0.50	mg/L	43.1	43.1	0.101%	20%	----
		thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		uranium, total	7440-61-1	E420	0.000010	mg/L	0.000958	0.000997	4.06%	20%	----
		vanadium, total	7440-62-2	E420	0.00050	mg/L	0.00062	0.00065	0.00003	Diff <2x LOR	----
		zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
<b>Dissolved Metals (QC Lot: 650161)</b>											
CG2212553-001	RG_M15_WS_LAEMP_CM O_2022-09_N	mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
<b>Dissolved Metals (QC Lot: 650493)</b>											
CG2212553-001	RG_M15_WS_LAEMP_CM O_2022-09_N	chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00011	<0.00010	0.00001	Diff <2x LOR	----
<b>Dissolved Metals (QC Lot: 650494)</b>											
CG2212553-001	RG_M15_WS_LAEMP_CM O_2022-09_N	aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00012	0.00012	0.000008	Diff <2x LOR	----
		arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00018	0.00017	0.00001	Diff <2x LOR	----
		barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.128	0.123	4.45%	20%	----
		beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.020 µg/L	<0.000020	0	Diff <2x LOR	----
		bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		boron, dissolved	7440-42-8	E421	0.010	mg/L	0.015	0.015	0.0004	Diff <2x LOR	----
		cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0294 µg/L	0.0000220	0.0000074	Diff <2x LOR	----
		calcium, dissolved	7440-70-2	E421	0.050	mg/L	65.5	65.4	0.186%	20%	----
		cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		copper, dissolved	7440-50-8	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----



Sub-Matrix: **Water**

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Dissolved Metals (QC Lot: 650494) - continued</b>											
CG2212553-001	RG_M15_WS_LAEMP_CM O_2022-09_N	lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0085	0.0087	0.0002	Diff <2x LOR	----
		magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	24.7	24.3	1.38%	20%	----
		manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00051	0.00047	0.00004	Diff <2x LOR	----
		molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000784	0.000783	0.114%	20%	----
		nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00115	0.00114	0.000006	Diff <2x LOR	----
		potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.859	0.842	1.94%	20%	----
		selenium, dissolved	7782-49-2	E421	0.000050	mg/L	2.37 µg/L	0.00245	3.08%	20%	----
		silicon, dissolved	7440-21-3	E421	0.050	mg/L	2.24	2.17	3.12%	20%	----
		silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		sodium, dissolved	7440-23-5	E421	0.050	mg/L	5.89	5.77	1.96%	20%	----
		strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.227	0.227	0.180%	20%	----
		sulfur, dissolved	7704-34-9	E421	0.50	mg/L	45.1	44.6	1.19%	20%	----
		thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000934	0.000945	1.25%	20%	----
		vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----



## Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

### Sub-Matrix: Water

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Physical Tests (QCLot: 649523)</b>						
solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
<b>Physical Tests (QCLot: 649536)</b>						
solids, total dissolved [TDS]	----	E162	10	mg/L	<10	----
<b>Physical Tests (QCLot: 649571)</b>						
turbidity	----	E121	0.1	NTU	<0.10	----
<b>Physical Tests (QCLot: 650894)</b>						
acidity (as CaCO <sub>3</sub> )	----	E283	2	mg/L	<2.0	----
<b>Physical Tests (QCLot: 650900)</b>						
conductivity	----	E100	1	µS/cm	<1.0	----
<b>Physical Tests (QCLot: 650901)</b>						
alkalinity, bicarbonate (as CaCO <sub>3</sub> )	----	E290	1	mg/L	<1.0	----
alkalinity, carbonate (as CaCO <sub>3</sub> )	----	E290	1	mg/L	<1.0	----
alkalinity, hydroxide (as CaCO <sub>3</sub> )	----	E290	1	mg/L	<1.0	----
alkalinity, total (as CaCO <sub>3</sub> )	----	E290	1	mg/L	<1.0	----
<b>Anions and Nutrients (QCLot: 649517)</b>						
fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
<b>Anions and Nutrients (QCLot: 649518)</b>						
bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	----
<b>Anions and Nutrients (QCLot: 649519)</b>						
chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
<b>Anions and Nutrients (QCLot: 649520)</b>						
nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
<b>Anions and Nutrients (QCLot: 649521)</b>						
nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
<b>Anions and Nutrients (QCLot: 649522)</b>						
sulfate (as SO <sub>4</sub> )	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
<b>Anions and Nutrients (QCLot: 649577)</b>						
ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
<b>Anions and Nutrients (QCLot: 649627)</b>						
phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
<b>Anions and Nutrients (QCLot: 650756)</b>						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
<b>Anions and Nutrients (QCLot: 650784)</b>						





Sub-Matrix: Water

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Anions and Nutrients (QCLot: 650784) - continued</b>						
phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	---
<b>Organic / Inorganic Carbon (QCLot: 649550)</b>						
carbon, dissolved organic [DOC]	---	E358-L	0.5	mg/L	<0.50	---
<b>Organic / Inorganic Carbon (QCLot: 649551)</b>						
carbon, total organic [TOC]	---	E355-L	0.5	mg/L	<0.50	---
<b>Total Metals (QCLot: 650164)</b>						
mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	---
<b>Total Metals (QCLot: 650166)</b>						
chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	---
<b>Total Metals (QCLot: 650167)</b>						
aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	---
antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	---
arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	---
barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	---
beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	---
bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	---
boron, total	7440-42-8	E420	0.01	mg/L	<0.010	---
cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	---
calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	---
cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	---
copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	---
iron, total	7439-89-6	E420	0.01	mg/L	<0.010	---
lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	---
lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	---
magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	---
manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	---
molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	---
nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	---
potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	---
selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	---
silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	---
silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	---
sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	---
strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	---
sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	---
thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	---





Sub-Matrix: Water

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Total Metals (QCLot: 650167) - continued</b>						
tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	---
titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	---
uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	---
vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	---
zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	---
<b>Dissolved Metals (QCLot: 650161)</b>						
mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	---
<b>Dissolved Metals (QCLot: 650493)</b>						
chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	---
<b>Dissolved Metals (QCLot: 650494)</b>						
aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	---
antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	---
arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	---
barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	---
beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	---
bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	---
boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	---
cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	---
calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	---
cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	---
copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	---
iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	---
lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	---
lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	---
magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	---
manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	---
molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	---
nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	---
potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	---
selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	---
silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	---
silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	---
sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	---
strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	---
sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	---
thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	---



Sub-Matrix: **Water**

<i>Analyte</i>	<i>CAS Number</i>	<i>Method</i>	<i>LOR</i>	<i>Unit</i>	<i>Result</i>	<i>Qualifier</i>
<b>Dissolved Metals (QCLot: 650494) - continued</b>						
tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----



## Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
<b>Physical Tests (QCLot: 649523)</b>									
solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	95.7	85.0	115	----
<b>Physical Tests (QCLot: 649536)</b>									
solids, total dissolved [TDS]	----	E162	10	mg/L	1000 mg/L	95.0	85.0	115	----
<b>Physical Tests (QCLot: 649571)</b>									
turbidity	----	E121	0.1	NTU	200 NTU	98.2	85.0	115	----
<b>Physical Tests (QCLot: 650423)</b>									
oxidation-reduction potential [ORP]	----	E125	----	mV	220 mV	101	95.4	104	----
<b>Physical Tests (QCLot: 650894)</b>									
acidity (as CaCO <sub>3</sub> )	----	E283	2	mg/L	50 mg/L	103	85.0	115	----
<b>Physical Tests (QCLot: 650899)</b>									
pH	----	E108	----	pH units	7 pH units	101	98.6	101	----
<b>Physical Tests (QCLot: 650900)</b>									
conductivity	----	E100	1	µS/cm	146.9 µS/cm	97.5	90.0	110	----
<b>Physical Tests (QCLot: 650901)</b>									
alkalinity, total (as CaCO <sub>3</sub> )	----	E290	1	mg/L	500 mg/L	100	85.0	115	----
<b>Anions and Nutrients (QCLot: 649517)</b>									
fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	103	90.0	110	----
<b>Anions and Nutrients (QCLot: 649518)</b>									
bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	102	85.0	115	----
<b>Anions and Nutrients (QCLot: 649519)</b>									
chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	----
<b>Anions and Nutrients (QCLot: 649520)</b>									
nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	----
<b>Anions and Nutrients (QCLot: 649521)</b>									
nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	101	90.0	110	----
<b>Anions and Nutrients (QCLot: 649522)</b>									
sulfate (as SO <sub>4</sub> )	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
<b>Anions and Nutrients (QCLot: 649577)</b>									
ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	99.2	85.0	115	----
<b>Anions and Nutrients (QCLot: 649627)</b>									
phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.03 mg/L	102	80.0	120	----
<b>Anions and Nutrients (QCLot: 650756)</b>									



Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
<b>Anions and Nutrients (QCLot: 650756) - continued</b>									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	102	75.0	125	----
<b>Anions and Nutrients (QCLot: 650784)</b>									
phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.03 mg/L	96.8	80.0	120	----
<b>Organic / Inorganic Carbon (QCLot: 649550)</b>									
carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	90.6	80.0	120	----
<b>Organic / Inorganic Carbon (QCLot: 649551)</b>									
carbon, total organic [TOC]	----	E355-L	0.5	mg/L	8.57 mg/L	97.1	80.0	120	----
<b>Total Metals (QCLot: 650164)</b>									
mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	101	80.0	120	----
<b>Total Metals (QCLot: 650166)</b>									
chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	98.4	80.0	120	----
<b>Total Metals (QCLot: 650167)</b>									
aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	98.9	80.0	120	----
antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	108	80.0	120	----
arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	95.5	80.0	120	----
barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	98.5	80.0	120	----
bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	93.7	80.0	120	----
boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	98.6	80.0	120	----
cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	94.4	80.0	120	----
calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	97.2	80.0	120	----
cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	95.8	80.0	120	----
copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	94.7	80.0	120	----
iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	92.6	80.0	120	----
lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	97.2	80.0	120	----
lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	100	80.0	120	----
magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	103	80.0	120	----
manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	96.9	80.0	120	----
molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	98.9	80.0	120	----
nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	95.2	80.0	120	----
potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	100	80.0	120	----
selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	94.7	80.0	120	----
silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	101	60.0	140	----
silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	101	80.0	120	----
sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	97.3	80.0	120	----



Sub-Matrix: Water

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
<b>Total Metals (QCLot: 650167) - continued</b>									
strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	97.0	80.0	120	----
sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	92.3	80.0	120	----
thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	96.9	80.0	120	----
tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	99.6	80.0	120	----
titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	88.5	80.0	120	----
uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	92.0	80.0	120	----
vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	99.4	80.0	120	----
zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	90.1	80.0	120	----
mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	82.7	80.0	120	----
<b>Dissolved Metals (QCLot: 650493)</b>									
chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	94.5	80.0	120	----
<b>Dissolved Metals (QCLot: 650494)</b>									
aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	102	80.0	120	----
antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	104	80.0	120	----
arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	96.5	80.0	120	----
barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	98.2	80.0	120	----
beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	95.5	80.0	120	----
bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	97.2	80.0	120	----
boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	95.5	80.0	120	----
cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	97.1	80.0	120	----
calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	97.2	80.0	120	----
cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	97.1	80.0	120	----
copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	96.0	80.0	120	----
iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	99.4	80.0	120	----
lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	97.9	80.0	120	----
lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	99.0	80.0	120	----
magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	103	80.0	120	----
manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	101	80.0	120	----
nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	96.8	80.0	120	----
potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	96.5	80.0	120	----
selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	92.8	80.0	120	----
silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	99.6	60.0	140	----
silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	95.2	80.0	120	----
sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	97.1	80.0	120	----
strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	98.6	80.0	120	----



Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
<b>Dissolved Metals (QCLot: 650494) - continued</b>									
sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	101	80.0	120	----
thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	98.9	80.0	120	----
tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	96.8	80.0	120	----
titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	99.6	80.0	120	----
uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	96.0	80.0	120	----
vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	99.8	80.0	120	----
zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	97.3	80.0	120	----



## Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
<b>Anions and Nutrients (QCLot: 649517)</b>										
CG2212553-002	RG_MIULE_WS_LAEMP_C MP_2022-09_N	fluoride	16984-48-8	E235.F	1.02 mg/L	1 mg/L	102	75.0	125	----
<b>Anions and Nutrients (QCLot: 649518)</b>										
CG2212553-002	RG_MIULE_WS_LAEMP_C MP_2022-09_N	bromide	24959-67-9	E235.Br-L	0.501 mg/L	0.5 mg/L	100	75.0	125	----
<b>Anions and Nutrients (QCLot: 649519)</b>										
CG2212553-002	RG_MIULE_WS_LAEMP_C MP_2022-09_N	chloride	16887-00-6	E235.Cl-L	101 mg/L	100 mg/L	101	75.0	125	----
<b>Anions and Nutrients (QCLot: 649520)</b>										
CG2212553-002	RG_MIULE_WS_LAEMP_C MP_2022-09_N	nitrate (as N)	14797-55-8	E235.NO3-L	2.53 mg/L	2.5 mg/L	101	75.0	125	----
<b>Anions and Nutrients (QCLot: 649521)</b>										
CG2212553-002	RG_MIULE_WS_LAEMP_C MP_2022-09_N	nitrite (as N)	14797-65-0	E235.NO2-L	0.512 mg/L	0.5 mg/L	102	75.0	125	----
<b>Anions and Nutrients (QCLot: 649522)</b>										
CG2212553-002	RG_MIULE_WS_LAEMP_C MP_2022-09_N	sulfate (as SO4)	14808-79-8	E235.SO4	ND mg/L	100 mg/L	ND	75.0	125	----
<b>Anions and Nutrients (QCLot: 649577)</b>										
CG2212550-002	Anonymous	ammonia, total (as N)	7664-41-7	E298	0.102 mg/L	0.1 mg/L	102	75.0	125	----
<b>Anions and Nutrients (QCLot: 649627)</b>										
CG2212545-002	Anonymous	phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0468 mg/L	0.05 mg/L	93.6	70.0	130	----
<b>Anions and Nutrients (QCLot: 650756)</b>										
CG2212553-002	RG_MIULE_WS_LAEMP_C MP_2022-09_N	Kjeldahl nitrogen, total [TKN]	----	E318	2.60 mg/L	2.5 mg/L	104	70.0	130	----
<b>Anions and Nutrients (QCLot: 650784)</b>										
CG2212553-002	RG_MIULE_WS_LAEMP_C MP_2022-09_N	phosphorus, total	7723-14-0	E372-U	0.0490 mg/L	0.05 mg/L	97.9	70.0	130	----
<b>Organic / Inorganic Carbon (QCLot: 649550)</b>										
CG2212550-001	Anonymous	carbon, dissolved organic [DOC]	----	E358-L	5.18 mg/L	5 mg/L	104	70.0	130	----
<b>Organic / Inorganic Carbon (QCLot: 649551)</b>										
CG2212550-001	Anonymous	carbon, total organic [TOC]	----	E355-L	5.41 mg/L	5 mg/L	108	70.0	130	----
<b>Total Metals (QCLot: 650164)</b>										
CG2212515-002	Anonymous	mercury, total	7439-97-6	E508	0.0000968 mg/L	0.0001 mg/L	96.8	70.0	130	----



Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
<b>Total Metals (QCLot: 650166)</b>										
CG2212553-002	RG_MIULE_WS_LAEMP_C MP_2022-09_N	chromium, total	7440-47-3	E420.Cr-L	0.388 mg/L	0.4 mg/L	97.1	70.0	130	----
<b>Total Metals (QCLot: 650167)</b>										
CG2212553-002	RG_MIULE_WS_LAEMP_C MP_2022-09_N	aluminum, total	7429-90-5	E420	1.91 mg/L	2 mg/L	95.3	70.0	130	----
		antimony, total	7440-36-0	E420	0.209 mg/L	0.2 mg/L	104	70.0	130	----
		arsenic, total	7440-38-2	E420	0.191 mg/L	0.2 mg/L	95.4	70.0	130	----
		barium, total	7440-39-3	E420	0.196 mg/L	0.2 mg/L	98.0	70.0	130	----
		beryllium, total	7440-41-7	E420	0.410 mg/L	0.4 mg/L	102	70.0	130	----
		bismuth, total	7440-69-9	E420	0.0966 mg/L	0.1 mg/L	96.6	70.0	130	----
		boron, total	7440-42-8	E420	1.01 mg/L	1 mg/L	101	70.0	130	----
		cadmium, total	7440-43-9	E420	0.0394 mg/L	0.04 mg/L	98.5	70.0	130	----
		calcium, total	7440-70-2	E420	ND mg/L	40 mg/L	ND	70.0	130	----
		cobalt, total	7440-48-4	E420	0.192 mg/L	0.2 mg/L	95.9	70.0	130	----
		copper, total	7440-50-8	E420	0.194 mg/L	0.2 mg/L	97.3	70.0	130	----
		iron, total	7439-89-6	E420	19.1 mg/L	20 mg/L	95.4	70.0	130	----
		lead, total	7439-92-1	E420	0.201 mg/L	0.2 mg/L	100	70.0	130	----
		lithium, total	7439-93-2	E420	1.05 mg/L	1 mg/L	105	70.0	130	----
		magnesium, total	7439-95-4	E420	ND mg/L	10 mg/L	ND	70.0	130	----
		manganese, total	7439-96-5	E420	0.200 mg/L	0.2 mg/L	99.8	70.0	130	----
		molybdenum, total	7439-98-7	E420	0.206 mg/L	0.2 mg/L	103	70.0	130	----
		nickel, total	7440-02-0	E420	0.390 mg/L	0.4 mg/L	97.4	70.0	130	----
		potassium, total	7440-09-7	E420	39.8 mg/L	40 mg/L	99.4	70.0	130	----
		selenium, total	7782-49-2	E420	0.405 mg/L	0.4 mg/L	101	70.0	130	----
		silicon, total	7440-21-3	E420	100 mg/L	100 mg/L	100	70.0	130	----
		silver, total	7440-22-4	E420	0.0443 mg/L	0.04 mg/L	111	70.0	130	----
		sodium, total	7440-23-5	E420	18.6 mg/L	20 mg/L	93.2	70.0	130	----
		strontium, total	7440-24-6	E420	ND mg/L	0.2 mg/L	ND	70.0	130	----
		sulfur, total	7704-34-9	E420	193 mg/L	200 mg/L	96.5	70.0	130	----
		thallium, total	7440-28-0	E420	0.0390 mg/L	0.04 mg/L	97.5	70.0	130	----
		tin, total	7440-31-5	E420	0.204 mg/L	0.2 mg/L	102	70.0	130	----
		titanium, total	7440-32-6	E420	0.346 mg/L	0.4 mg/L	86.4	70.0	130	----
		uranium, total	7440-61-1	E420	0.0388 mg/L	0.04 mg/L	96.9	70.0	130	----
		vanadium, total	7440-62-2	E420	0.983 mg/L	1 mg/L	98.3	70.0	130	----
		zinc, total	7440-66-6	E420	3.79 mg/L	4 mg/L	94.9	70.0	130	----
<b>Dissolved Metals (QCLot: 650161)</b>										
CG2212553-002	RG_MIULE_WS_LAEMP_C MP_2022-09_N	mercury, dissolved	7439-97-6	E509	0.000100 mg/L	0.0001 mg/L	100	70.0	130	----





Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
<b>Dissolved Metals (QCLot: 650493)</b>										
CG2212553-002	RG_MIULE_WS_LAEMP_C MP_2022-09_N	chromium, dissolved	7440-47-3	E421.Cr-L	0.384 mg/L	0.4 mg/L	95.9	70.0	130	----
<b>Dissolved Metals (QCLot: 650494)</b>										
CG2212553-002	RG_MIULE_WS_LAEMP_C MP_2022-09_N	aluminum, dissolved	7429-90-5	E421	1.77 mg/L	2 mg/L	88.6	70.0	130	----
		antimony, dissolved	7440-36-0	E421	0.205 mg/L	0.2 mg/L	102	70.0	130	----
		arsenic, dissolved	7440-38-2	E421	0.195 mg/L	0.2 mg/L	97.3	70.0	130	----
		barium, dissolved	7440-39-3	E421	0.189 mg/L	0.2 mg/L	94.7	70.0	130	----
		beryllium, dissolved	7440-41-7	E421	0.362 mg/L	0.4 mg/L	90.5	70.0	130	----
		bismuth, dissolved	7440-69-9	E421	0.0978 mg/L	0.1 mg/L	97.8	70.0	130	----
		boron, dissolved	7440-42-8	E421	0.928 mg/L	1 mg/L	92.8	70.0	130	----
		cadmium, dissolved	7440-43-9	E421	0.0391 mg/L	0.04 mg/L	97.7	70.0	130	----
		calcium, dissolved	7440-70-2	E421	ND mg/L	40 mg/L	ND	70.0	130	----
		cobalt, dissolved	7440-48-4	E421	0.200 mg/L	0.2 mg/L	99.8	70.0	130	----
		copper, dissolved	7440-50-8	E421	0.196 mg/L	0.2 mg/L	97.8	70.0	130	----
		iron, dissolved	7439-89-6	E421	17.8 mg/L	20 mg/L	88.9	70.0	130	----
		lead, dissolved	7439-92-1	E421	0.195 mg/L	0.2 mg/L	97.6	70.0	130	----
		lithium, dissolved	7439-93-2	E421	0.915 mg/L	1 mg/L	91.5	70.0	130	----
		magnesium, dissolved	7439-95-4	E421	ND mg/L	10 mg/L	ND	70.0	130	----
		manganese, dissolved	7439-96-5	E421	0.198 mg/L	0.2 mg/L	98.9	70.0	130	----
		molybdenum, dissolved	7439-98-7	E421	0.200 mg/L	0.2 mg/L	100	70.0	130	----
		nickel, dissolved	7440-02-0	E421	0.394 mg/L	0.4 mg/L	98.4	70.0	130	----
		potassium, dissolved	7440-09-7	E421	38.1 mg/L	40 mg/L	95.2	70.0	130	----
		selenium, dissolved	7782-49-2	E421	0.397 mg/L	0.4 mg/L	99.4	70.0	130	----
		silicon, dissolved	7440-21-3	E421	92.3 mg/L	100 mg/L	92.3	70.0	130	----
		silver, dissolved	7440-22-4	E421	0.0428 mg/L	0.04 mg/L	107	70.0	130	----
		sodium, dissolved	7440-23-5	E421	18.4 mg/L	20 mg/L	92.2	70.0	130	----
		strontium, dissolved	7440-24-6	E421	ND mg/L	0.2 mg/L	ND	70.0	130	----
		sulfur, dissolved	7704-34-9	E421	163 mg/L	200 mg/L	81.5	70.0	130	----
		thallium, dissolved	7440-28-0	E421	0.0393 mg/L	0.04 mg/L	98.2	70.0	130	----
		tin, dissolved	7440-31-5	E421	0.192 mg/L	0.2 mg/L	96.0	70.0	130	----
		titanium, dissolved	7440-32-6	E421	0.396 mg/L	0.4 mg/L	98.9	70.0	130	----
		uranium, dissolved	7440-61-1	E421	0.0387 mg/L	0.04 mg/L	96.8	70.0	130	----
		vanadium, dissolved	7440-62-2	E421	0.980 mg/L	1 mg/L	98.0	70.0	130	----
		zinc, dissolved	7440-66-6	E421	4.12 mg/L	4 mg/L	103	70.0	130	----



COC ID: **REP\_LAEMP\_CMm\_2022-09\_ALS**      TURNAROUND TIME: 2-3 Business Days      RUSH: Priority

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO				
Facility Name / Job#	Regional Effects Program			Lab Name	ALS Calgary			Report Format / Distribution	Excel	PDF	EDD	
Project Manager	Cybele Heddle			Lab Contact	Lyudmyla Shvets			Email 1:	AguaSciLab@teck.com	X	X	X
Email	Cybele.Heddle@teck.com			Email	Lyudmyla.Shvets@ALSGlobal.com			Email 2:	teckcoal@equisonline.com			
Address	421 Pine Avenue			Address	2559 29 Street NE			Email 3:	Teck.Lab.Results@teck.com	X	X	X
City	Sparwood	Provinc	BC	City	Calgary	Provinc	AB	Email 4:	Lisa.Bowron@minnow.ca	X	X	X
Postal Code	V0B 2G0	Country	Canada	Postal Code	T1Y 7B5	Country	Canada	Email 5:	Tyler.Mehler@minnow.ca	X	X	X
Phone Number	1-250-865-3048			Phone Number	403 407 1794			PO number	VPO00816101			

SAMPLE DETAILS								ANALYSIS REQUESTED							
Sample ID	Sample Location (sys_loc code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Com p	# Of Cont.	DOC	Mercury_Dissolved	Mercury_Total	TECKCOAL_METNHG_D	TECKCOAL_METNHG_T	TECKCOAL_ROUTINE	TOC_TKN_PT	Filtered - F: Field, L: Lab, FL: Field & Lab, N
RG_MI5_WS_LAEMP_CMO_2022-09_N	RG_MI5	WS		2022/09/12	12:20	G	7	1	1	1	1	1	1	1	F
RG_MIULE_WS_LAEMP_CMO_2022-09_N	RG_MIULE	WS		2022/09/12	15:50	G	7	1	1	1	1	1	1	1	F

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
	Jennifer Ings/Minnow	#####	<i>[Signature]</i>	9/14 9:00

SERVICE REQUEST (rush - subject to availability)			
Regular (default)		Sampler's Name	Jennifer Ings
Priority (2-3 business days) - 50% surcharge	X	Mobile #	519-500-3444
Emergency (1 Business Day) - 100% surcharge		Sampler's Signature	<i>[Signature]</i>
For Emergency <1 Day, ASAP or Weekend - Contact ALS		Date/Time	September 13, 2022

Environmental Division  
Calgary  
Work Order Reference  
**CG2212553**



Telephone : +1 403 407 1600

Environmental Division  
 Calgary  
 Work Order Reference  
**CG2212553**

*llc*



**CERTIFICATE OF ANALYSIS**

**Work Order** : **CG2212617**  
**Client** : **Teck Coal Limited**  
**Contact** : Cybele Heddle  
**Address** : 421 Pine Avenue  
Sparwood BC Canada V0B2G0  
**Telephone** : ----  
**Project** : REGIONAL EFFECTS PROGRAM  
**PO** : VPO00816101  
**C-O-C number** : REP\_LAEMP\_CmM\_2022-09\_ALS  
**Sampler** : Jennifer Ings  
**Site** : ----  
**Quote number** : Teck Coal Master Quote  
**No. of samples received** : 3  
**No. of samples analysed** : 3

**Page** : 1 of 6  
**Laboratory** : Calgary - Environmental  
**Account Manager** : Lyudmyla Shvets  
**Address** : 2559 29th Street NE  
Calgary AB Canada T1Y 7B5  
**Telephone** : +1 403 407 1800  
**Date Samples Received** : 15-Sep-2022 08:50  
**Date Analysis Commenced** : 16-Sep-2022  
**Issue Date** : 17-Sep-2022 18:01

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

**Signatories**

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Anthony Calero	Supervisor - Inorganic	Metals, Calgary, Alberta
Harpreet Chawla	Team Leader - Inorganics	Inorganics, Calgary, Alberta
Mackenzie Lamoureux	Laboratory Analyst	Metals, Calgary, Alberta
Sara Niroomand		Inorganics, Calgary, Alberta
Sara Niroomand		Metals, Calgary, Alberta
Sheida Aria	Lab Assistant	Metals, Calgary, Alberta



## General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances  
 LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
-	No Unit
%	percent
µg/L	micrograms per litre
µS/cm	Microsiemens per centimetre
meq/L	milliequivalents per litre
mg/L	milligrams per litre
mV	millivolts
NTU	nephelometric turbidity units
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

## Qualifiers

<i>Qualifier</i>	<i>Description</i>
DLB	Detection Limit Raised. Analyte detected at comparable level in Method Blank.
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
DTC	Dissolved concentration exceeds total. Results were confirmed by re-analysis.
HTA	Analytical holding time was exceeded.



## Analytical Results

Sub-Matrix: Water					Client sample ID		RG_MIDAG_WS _LAEMP_CMO_ 2022-09_N	RG_MIDCO_WS _LAEMP_CMO_ 2022-09_N	RG_RIVER_WS _LAEMP_CMO_ 2022-09_N	----	----
(Matrix: Water)					Client sampling date / time		13-Sep-2022 11:15	13-Sep-2022 11:15	13-Sep-2022 11:15	----	----
Analyte	CAS Number	Method	LOR	Unit	CG2212617-001	CG2212617-002	CG2212617-003	-----	-----	-----	-----
					Result	Result	Result	---	---	---	---
<b>Physical Tests</b>											
acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	<2.0	----	----	----	----
alkalinity, bicarbonate (as CaCO3)	----	E290	1.0	mg/L	189	255	261	----	----	----	----
alkalinity, bicarbonate (as HCO3)	71-52-3	E290	1.0	mg/L	230	311	318	----	----	----	----
alkalinity, carbonate (as CaCO3)	----	E290	1.0	mg/L	<1.0	4.2	4.4	----	----	----	----
alkalinity, carbonate (as CO3)	3812-32-6	E290	1.0	mg/L	<1.0	2.5	2.6	----	----	----	----
alkalinity, hydroxide (as CaCO3)	----	E290	1.0	mg/L	<1.0	<1.0	<1.0	----	----	----	----
alkalinity, hydroxide (as OH)	14280-30-9	E290	1.0	mg/L	<1.0	<1.0	<1.0	----	----	----	----
alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	189	260	265	----	----	----	----
conductivity	----	E100	2.0	µS/cm	732	1140	1130	----	----	----	----
hardness (as CaCO3), dissolved	----	EC100	0.50	mg/L	386	669	649	----	----	----	----
oxidation-reduction potential [ORP]	----	E125	0.10	mV	315	320	320	----	----	----	----
pH	----	E108	0.10	pH units	8.25	8.30	8.30	----	----	----	----
solids, total dissolved [TDS]	----	E162	10	mg/L	512	908	892	----	----	----	----
solids, total suspended [TSS]	----	E160-L	1.0	mg/L	<1.0	1.6	1.7	----	----	----	----
turbidity	----	E121	0.10	NTU	0.37 <sup>HTA</sup>	0.42 <sup>HTA</sup>	0.29 <sup>HTA</sup>	----	----	----	----
<b>Anions and Nutrients</b>											
ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0058	<0.0050	0.0074	----	----	----	----
bromide	24959-67-9	E235.Br-L	0.050	mg/L	<0.050	<0.250 <sup>DLDS</sup>	<0.250 <sup>DLDS</sup>	----	----	----	----
chloride	16887-00-6	E235.Cl-L	0.10	mg/L	1.00	1.74	1.78	----	----	----	----
fluoride	16984-48-8	E235.F	0.020	mg/L	0.192	0.145	0.146	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318	0.050	mg/L	<0.500 <sup>DLM</sup>	0.102	<0.500 <sup>DLM</sup>	----	----	----	----
nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.728	1.73	1.73	----	----	----	----
nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	0.0013	0.0068	0.0064	----	----	----	----
phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----	----	----
phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0050	0.0035	0.0029	----	----	----	----
sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	230	470	469	----	----	----	----
<b>Organic / Inorganic Carbon</b>											
carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	<0.50	<0.50	<0.50	----	----	----	----
carbon, total organic [TOC]	----	E355-L	0.50	mg/L	<0.50	0.52	<0.50	----	----	----	----



## Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	RG_MIDAG_WS _LAEMP_CMO_ 2022-09_N	RG_MIDCO_WS _LAEMP_CMO_ 2022-09_N	RG_RIVER_WS _LAEMP_CMO_ 2022-09_N	----	----
Client sampling date / time					13-Sep-2022 11:15	13-Sep-2022 11:15	13-Sep-2022 11:15	----	----	
Analyte	CAS Number	Method	LOR	Unit	CG2212617-001	CG2212617-002	CG2212617-003	-----	-----	
					Result	Result	Result	----	----	
<b>Ion Balance</b>										
anion sum	----	EC101	0.10	meq/L	8.66	15.2	15.2	----	----	
cation sum	----	EC101	0.10	meq/L	8.24	14.4	14.0	----	----	
ion balance (cations/anions)	----	EC101	0.010	%	95.2	94.7	92.1	----	----	
ion balance (APHA)	----	EC101	0.010	%	2.48	2.70	4.11	----	----	
<b>Total Metals</b>										
aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0066	0.0073	0.0064	----	----	
antimony, total	7440-36-0	E420	0.00010	mg/L	0.00017	0.00031	0.00044	----	----	
arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00030	0.00028	0.00027	----	----	
barium, total	7440-39-3	E420	0.00010	mg/L	0.0803	0.0764	0.0775	----	----	
beryllium, total	7440-41-7	E420	0.020	µg/L	<0.020	<0.020	<0.020	----	----	
bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	<0.000050	----	----	
boron, total	7440-42-8	E420	0.010	mg/L	0.033	0.072	0.069	----	----	
cadmium, total	7440-43-9	E420	0.0050	µg/L	0.0226	0.0289	0.0350	----	----	
calcium, total	7440-70-2	E420	0.050	mg/L	87.9	135	131	----	----	
chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00018	0.00015	0.00014	----	----	
cobalt, total	7440-48-4	E420	0.10	µg/L	0.10	0.81	0.83	----	----	
copper, total	7440-50-8	E420	0.00050	mg/L	<0.00050	<0.00050	<0.00050	----	----	
iron, total	7439-89-6	E420	0.010	mg/L	<0.010	<0.010	<0.010	----	----	
lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	<0.000050	----	----	
lithium, total	7439-93-2	E420	0.0010	mg/L	0.0156	0.0324	0.0325	----	----	
magnesium, total	7439-95-4	E420	0.0050	mg/L	37.8	71.2	73.6	----	----	
manganese, total	7439-96-5	E420	0.00010	mg/L	0.00168	0.00439	0.00434	----	----	
mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	----	----	
molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000895	0.00124	0.00125	----	----	
nickel, total	7440-02-0	E420	0.00050	mg/L	0.00507	0.0213	0.0213	----	----	
potassium, total	7440-09-7	E420	0.050	mg/L	1.18	2.28	2.36	----	----	
selenium, total	7782-49-2	E420	0.050	µg/L	5.06	10.7	10.5	----	----	
silicon, total	7440-21-3	E420	0.10	mg/L	1.72	1.76 <sup>DTC</sup>	1.87	----	----	
silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	<0.000010	----	----	
sodium, total	7440-23-5	E420	0.050	mg/L	10.3	20.6	21.0	----	----	



## Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	RG_MIDAG_WS _LAEMP_CMO_ 2022-09_N	RG_MIDCO_WS _LAEMP_CMO_ 2022-09_N	RG_RIVER_WS _LAEMP_CMO_ 2022-09_N	----	----
Client sampling date / time					13-Sep-2022 11:15	13-Sep-2022 11:15	13-Sep-2022 11:15	----	----	
Analyte	CAS Number	Method	LOR	Unit	CG2212617-001 Result	CG2212617-002 Result	CG2212617-003 Result	----- ----	----- ----	
<b>Total Metals</b>										
strontium, total	7440-24-6	E420	0.00020	mg/L	0.352	0.574	0.580	----	----	
sulfur, total	7704-34-9	E420	0.50	mg/L	81.3	162	167	----	----	
thallium, total	7440-28-0	E420	0.000010	mg/L	0.000020	0.000022	0.000025	----	----	
tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	<0.00010	----	----	
titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	<0.00030	----	----	
uranium, total	7440-61-1	E420	0.000010	mg/L	0.00196	0.00398	0.00400	----	----	
vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00250 <sup>DLB</sup>	<0.00250 <sup>DLB</sup>	<0.00250 <sup>DLB</sup>	----	----	
zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	<0.0030	----	----	
<b>Dissolved Metals</b>										
aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0012	0.0012	<0.0010	----	----	
antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00017	0.00029	0.00029	----	----	
arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00024	0.00020	0.00019	----	----	
barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0877	0.0870	0.0822	----	----	
beryllium, dissolved	7440-41-7	E421	0.020	µg/L	<0.020	<0.020	<0.020	----	----	
bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	<0.000050	----	----	
boron, dissolved	7440-42-8	E421	0.010	mg/L	0.029	0.060	0.059	----	----	
cadmium, dissolved	7440-43-9	E421	0.0050	µg/L	0.0202	0.0282	0.0244	----	----	
calcium, dissolved	7440-70-2	E421	0.050	mg/L	91.0	139	136	----	----	
chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00017	0.00013	0.00010	----	----	
cobalt, dissolved	7440-48-4	E421	0.10	µg/L	0.10	0.86	0.85	----	----	
copper, dissolved	7440-50-8	E421	0.00020	mg/L	<0.00020	<0.00020	<0.00020	----	----	
iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	<0.010	----	----	
lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	<0.000050	----	----	
lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0153	0.0309	0.0312	----	----	
magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	38.7	78.1	75.1	----	----	
manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00191	0.00499	0.00502	----	----	
mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	----	----	
molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000953	0.00132	0.00132	----	----	
nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00503	0.0222	0.0220	----	----	
potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.30	2.63	2.58	----	----	





## Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	RG_MIDAG_WS _LAEMP_CMO_ 2022-09_N	RG_MIDCO_WS _LAEMP_CMO_ 2022-09_N	RG_RIVER_WS _LAEMP_CMO_ 2022-09_N	----	----
Client sampling date / time					13-Sep-2022 11:15	13-Sep-2022 11:15	13-Sep-2022 11:15	----	----	
Analyte	CAS Number	Method	LOR	Unit	CG2212617-001	CG2212617-002	CG2212617-003	-----	-----	
					Result	Result	Result	----	----	
<b>Dissolved Metals</b>										
selenium, dissolved	7782-49-2	E421	0.050	µg/L	5.03	11.4	11.1	----	----	
silicon, dissolved	7440-21-3	E421	0.050	mg/L	2.11	2.38 <sup>DTC</sup>	2.36	----	----	
silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	<0.000010	----	----	
sodium, dissolved	7440-23-5	E421	0.050	mg/L	11.0	22.2	21.9	----	----	
strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.364	0.597	0.584	----	----	
sulfur, dissolved	7704-34-9	E421	0.50	mg/L	84.3	188	172	----	----	
thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000021	0.000021	0.000020	----	----	
tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	<0.00010	----	----	
titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	<0.00030	----	----	
uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.00204	0.00402	0.00415	----	----	
vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	<0.00050	----	----	
zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	<0.0010	----	----	
dissolved mercury filtration location	----	EP509	-	-	Field	Field	Field	----	----	
dissolved metals filtration location	----	EP421	-	-	Field	Field	Field	----	----	

Please refer to the General Comments section for an explanation of any qualifiers detected.

## QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: <b>CG2212617</b>	Page	: 1 of 18
Client	: <b>Teck Coal Limited</b>	Laboratory	: Calgary - Environmental
Contact	: Cybele Heddle	Account Manager	: Lyudmyla Shvets
Address	: 421 Pine Avenue Sparwood BC Canada V0B2G0	Address	: 2559 29th Street NE Calgary, Alberta Canada T1Y 7B5
Telephone	: ----	Telephone	: +1 403 407 1800
Project	: REGIONAL EFFECTS PROGRAM	Date Samples Received	: 15-Sep-2022 08:50
PO	: VPO00816101	Issue Date	: 17-Sep-2022 18:01
C-O-C number	: REP_LAEMP_CMm_2022-09_ALS		
Sampler	: Jennifer Ings		
Site	: ----		
Quote number	: Teck Coal Master Quote		
No. of samples received	: 3		
No. of samples analysed	: 3		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

### Key

**Anonymous:** Refers to samples which are not part of this work order, but which formed part of the QC process lot.

**CAS Number:** Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

**DQO:** Data Quality Objective.

**LOR:** Limit of Reporting (detection limit).

**RPD:** Relative Percent Difference.

### **Workorder Comments**

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

### **Summary of Outliers**

#### **Outliers : Quality Control Samples**

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

#### **Outliers: Reference Material (RM) Samples**

- No Reference Material (RM) Sample outliers occur.

#### **Outliers : Analysis Holding Time Compliance (Breaches)**

- Analysis Holding Time Outliers exist - please see following pages for full details.

#### **Outliers : Frequency of Quality Control Samples**

- No Quality Control Sample Frequency Outliers occur.





**Outliers : Quality Control Samples**

*Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes*

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
<b>Method Blank (MB) Values</b>								
Total Metals	QC-MRG2-6516750 01	----	vanadium, total	7440-62-2	E420	0.00052 <sup>MB-LOR</sup> mg/L	0.0005 mg/L	Blank result exceeds permitted value

**Result Qualifiers**

Qualifier	Description
MB-LOR	Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits below 5x blank level.



## Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Anions and Nutrients : Ammonia by Fluorescence</b>										
<b>Amber glass total (sulfuric acid)</b> RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E298	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✓
<b>Anions and Nutrients : Ammonia by Fluorescence</b>										
<b>Amber glass total (sulfuric acid)</b> RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E298	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✓
<b>Anions and Nutrients : Ammonia by Fluorescence</b>										
<b>Amber glass total (sulfuric acid)</b> RG_RIVER_WS_LAEMP_CMO_2022-09_N	E298	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✓
<b>Anions and Nutrients : Bromide in Water by IC (Low Level)</b>										
<b>HDPE</b> RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E235.Br-L	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✓
<b>Anions and Nutrients : Bromide in Water by IC (Low Level)</b>										
<b>HDPE</b> RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E235.Br-L	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✓
<b>Anions and Nutrients : Bromide in Water by IC (Low Level)</b>										
<b>HDPE</b> RG_RIVER_WS_LAEMP_CMO_2022-09_N	E235.Br-L	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✓
<b>Anions and Nutrients : Chloride in Water by IC (Low Level)</b>										
<b>HDPE</b> RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E235.Cl-L	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✓



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
Rec	Actual	Rec		Actual							
<b>Anions and Nutrients : Chloride in Water by IC (Low Level)</b>											
HDPE RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E235.Cl-L	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✔	
<b>Anions and Nutrients : Chloride in Water by IC (Low Level)</b>											
HDPE RG_RIVER_WS_LAEMP_CMO_2022-09_N	E235.Cl-L	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✔	
<b>Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001)</b>											
HDPE RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E378-U	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	3 days	3 days	✔	
<b>Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001)</b>											
HDPE RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E378-U	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	3 days	3 days	✔	
<b>Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001)</b>											
HDPE RG_RIVER_WS_LAEMP_CMO_2022-09_N	E378-U	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	3 days	3 days	✔	
<b>Anions and Nutrients : Fluoride in Water by IC</b>											
HDPE RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E235.F	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✔	
<b>Anions and Nutrients : Fluoride in Water by IC</b>											
HDPE RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E235.F	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✔	
<b>Anions and Nutrients : Fluoride in Water by IC</b>											
HDPE RG_RIVER_WS_LAEMP_CMO_2022-09_N	E235.F	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✔	
<b>Anions and Nutrients : Nitrate in Water by IC (Low Level)</b>											
HDPE RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E235.NO3-L	13-Sep-2022	16-Sep-2022	3 days	3 days	✔	16-Sep-2022	3 days	0 days	✔	



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Anions and Nutrients : Nitrate in Water by IC (Low Level)</b>											
<b>HDPE</b> RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E235.NO3-L	13-Sep-2022	16-Sep-2022	3 days	3 days	✔	16-Sep-2022	3 days	0 days	✔	
<b>Anions and Nutrients : Nitrate in Water by IC (Low Level)</b>											
<b>HDPE</b> RG_RIVER_WS_LAEMP_CMO_2022-09_N	E235.NO3-L	13-Sep-2022	16-Sep-2022	3 days	3 days	✔	16-Sep-2022	3 days	0 days	✔	
<b>Anions and Nutrients : Nitrite in Water by IC (Low Level)</b>											
<b>HDPE</b> RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E235.NO2-L	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	3 days	3 days	✔	
<b>Anions and Nutrients : Nitrite in Water by IC (Low Level)</b>											
<b>HDPE</b> RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E235.NO2-L	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	3 days	3 days	✔	
<b>Anions and Nutrients : Nitrite in Water by IC (Low Level)</b>											
<b>HDPE</b> RG_RIVER_WS_LAEMP_CMO_2022-09_N	E235.NO2-L	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	3 days	3 days	✔	
<b>Anions and Nutrients : Sulfate in Water by IC</b>											
<b>HDPE</b> RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E235.SO4	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✔	
<b>Anions and Nutrients : Sulfate in Water by IC</b>											
<b>HDPE</b> RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E235.SO4	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✔	
<b>Anions and Nutrients : Sulfate in Water by IC</b>											
<b>HDPE</b> RG_RIVER_WS_LAEMP_CMO_2022-09_N	E235.SO4	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✔	
<b>Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E318	13-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	28 days	4 days	✔	



Matrix: **Water** Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times Rec Actual		Eval	Analysis Date	Holding Times Rec Actual		Eval	
<b>Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E318	13-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	28 days	4 days	✓	
<b>Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_RIVER_WS_LAEMP_CMO_2022-09_N	E318	13-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	28 days	4 days	✓	
<b>Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E372-U	13-Sep-2022	16-Sep-2022	----	----		17-Sep-2022	28 days	4 days	✓	
<b>Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E372-U	13-Sep-2022	16-Sep-2022	----	----		17-Sep-2022	28 days	4 days	✓	
<b>Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_RIVER_WS_LAEMP_CMO_2022-09_N	E372-U	13-Sep-2022	16-Sep-2022	----	----		17-Sep-2022	28 days	4 days	✓	
<b>Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)</b>											
<b>HDPE - dissolved (lab preserved)</b> RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E421.Cr-L	13-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	180 days	4 days	✓	
<b>Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)</b>											
<b>HDPE - dissolved (lab preserved)</b> RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E421.Cr-L	13-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	180 days	4 days	✓	
<b>Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)</b>											
<b>HDPE - dissolved (lab preserved)</b> RG_RIVER_WS_LAEMP_CMO_2022-09_N	E421.Cr-L	13-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	180 days	4 days	✓	
<b>Dissolved Metals : Dissolved Mercury in Water by CVAAS</b>											
<b>Glass vial dissolved (hydrochloric acid)</b> RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E509	13-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	28 days	4 days	✓	





Matrix: **Water** Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Dissolved Metals : Dissolved Mercury in Water by CVAAS</b>											
<b>Glass vial dissolved (hydrochloric acid)</b> RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E509	13-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	28 days	4 days	✓	
<b>Dissolved Metals : Dissolved Mercury in Water by CVAAS</b>											
<b>Glass vial dissolved (hydrochloric acid)</b> RG_RIVER_WS_LAEMP_CMO_2022-09_N	E509	13-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	28 days	4 days	✓	
<b>Dissolved Metals : Dissolved Metals in Water by CRC ICPMS</b>											
<b>HDPE - dissolved (lab preserved)</b> RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E421	13-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	180 days	4 days	✓	
<b>Dissolved Metals : Dissolved Metals in Water by CRC ICPMS</b>											
<b>HDPE - dissolved (lab preserved)</b> RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E421	13-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	180 days	4 days	✓	
<b>Dissolved Metals : Dissolved Metals in Water by CRC ICPMS</b>											
<b>HDPE - dissolved (lab preserved)</b> RG_RIVER_WS_LAEMP_CMO_2022-09_N	E421	13-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	180 days	4 days	✓	
<b>Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)</b>											
<b>Amber glass dissolved (sulfuric acid)</b> RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E358-L	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✓	
<b>Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)</b>											
<b>Amber glass dissolved (sulfuric acid)</b> RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E358-L	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✓	
<b>Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)</b>											
<b>Amber glass dissolved (sulfuric acid)</b> RG_RIVER_WS_LAEMP_CMO_2022-09_N	E358-L	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✓	
<b>Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E355-L	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✓	



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E355-L	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✔	
<b>Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_RIVER_WS_LAEMP_CMO_2022-09_N	E355-L	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✔	
<b>Physical Tests : Acidity by Titration</b>											
<b>HDPE</b> RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E283	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	14 days	3 days	✔	
<b>Physical Tests : Acidity by Titration</b>											
<b>HDPE</b> RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E283	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	14 days	3 days	✔	
<b>Physical Tests : Acidity by Titration</b>											
<b>HDPE</b> RG_RIVER_WS_LAEMP_CMO_2022-09_N	E283	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	14 days	3 days	✔	
<b>Physical Tests : Alkalinity Species by Titration</b>											
<b>HDPE</b> RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E290	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	14 days	3 days	✔	
<b>Physical Tests : Alkalinity Species by Titration</b>											
<b>HDPE</b> RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E290	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	14 days	3 days	✔	
<b>Physical Tests : Alkalinity Species by Titration</b>											
<b>HDPE</b> RG_RIVER_WS_LAEMP_CMO_2022-09_N	E290	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	14 days	3 days	✔	
<b>Physical Tests : Conductivity in Water</b>											
<b>HDPE</b> RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E100	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✔	



Matrix: **Water** Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
Rec	Actual	Rec		Actual							
<b>Physical Tests : Conductivity in Water</b>											
HDPE RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E100	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✓	
<b>Physical Tests : Conductivity in Water</b>											
HDPE RG_RIVER_WS_LAEMP_CMO_2022-09_N	E100	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	3 days	✓	
<b>Physical Tests : ORP by Electrode</b>											
HDPE RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E125	13-Sep-2022	----	----	----		16-Sep-2022	0.25 hrs	82 hrs	* EHTR-FM	
<b>Physical Tests : ORP by Electrode</b>											
HDPE RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E125	13-Sep-2022	----	----	----		16-Sep-2022	0.25 hrs	82 hrs	* EHTR-FM	
<b>Physical Tests : ORP by Electrode</b>											
HDPE RG_RIVER_WS_LAEMP_CMO_2022-09_N	E125	13-Sep-2022	----	----	----		16-Sep-2022	0.25 hrs	82 hrs	* EHTR-FM	
<b>Physical Tests : pH by Meter</b>											
HDPE RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E108	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	0.25 hrs	0.25 hrs	* EHTR-FM	
<b>Physical Tests : pH by Meter</b>											
HDPE RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E108	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	0.25 hrs	0.25 hrs	* EHTR-FM	
<b>Physical Tests : pH by Meter</b>											
HDPE RG_RIVER_WS_LAEMP_CMO_2022-09_N	E108	13-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	0.25 hrs	0.25 hrs	* EHTR-FM	
<b>Physical Tests : TDS by Gravimetry</b>											
HDPE RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E162	13-Sep-2022	----	----	----		16-Sep-2022	7 days	3 days	✓	



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Physical Tests : TDS by Gravimetry</b>											
HDPE RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E162	13-Sep-2022	----	----	----		16-Sep-2022	7 days	3 days	✔	
<b>Physical Tests : TDS by Gravimetry</b>											
HDPE RG_RIVER_WS_LAEMP_CMO_2022-09_N	E162	13-Sep-2022	----	----	----		16-Sep-2022	7 days	3 days	✔	
<b>Physical Tests : TSS by Gravimetry (Low Level)</b>											
HDPE RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E160-L	13-Sep-2022	----	----	----		16-Sep-2022	7 days	3 days	✔	
<b>Physical Tests : TSS by Gravimetry (Low Level)</b>											
HDPE RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E160-L	13-Sep-2022	----	----	----		16-Sep-2022	7 days	3 days	✔	
<b>Physical Tests : TSS by Gravimetry (Low Level)</b>											
HDPE RG_RIVER_WS_LAEMP_CMO_2022-09_N	E160-L	13-Sep-2022	----	----	----		16-Sep-2022	7 days	3 days	✔	
<b>Physical Tests : Turbidity by Nephelometry</b>											
HDPE RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E121	13-Sep-2022	----	----	----		16-Sep-2022	3 days	3 days	✔	
<b>Physical Tests : Turbidity by Nephelometry</b>											
HDPE RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E121	13-Sep-2022	----	----	----		16-Sep-2022	3 days	3 days	✔	
<b>Physical Tests : Turbidity by Nephelometry</b>											
HDPE RG_RIVER_WS_LAEMP_CMO_2022-09_N	E121	13-Sep-2022	----	----	----		16-Sep-2022	3 days	3 days	✔	
<b>Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)</b>											
HDPE - total (lab preserved) RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E420.Cr-L	13-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	180 days	4 days	✔	



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
Rec	Actual	Rec		Actual							
<b>Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)</b>											
<b>HDPE - total (lab preserved)</b> RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E420.Cr-L	13-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	180 days	4 days	✔	
<b>Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)</b>											
<b>HDPE - total (lab preserved)</b> RG_RIVER_WS_LAEMP_CMO_2022-09_N	E420.Cr-L	13-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	180 days	4 days	✔	
<b>Total Metals : Total Mercury in Water by CVAAS</b>											
<b>Glass vial total (hydrochloric acid)</b> RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E508	13-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	28 days	4 days	✔	
<b>Total Metals : Total Mercury in Water by CVAAS</b>											
<b>Glass vial total (hydrochloric acid)</b> RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E508	13-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	28 days	4 days	✔	
<b>Total Metals : Total Mercury in Water by CVAAS</b>											
<b>Glass vial total (hydrochloric acid)</b> RG_RIVER_WS_LAEMP_CMO_2022-09_N	E508	13-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	28 days	4 days	✔	
<b>Total Metals : Total Metals in Water by CRC ICPMS</b>											
<b>HDPE - total (lab preserved)</b> RG_MIDAG_WS_LAEMP_CMO_2022-09_N	E420	13-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	180 days	4 days	✔	
<b>Total Metals : Total Metals in Water by CRC ICPMS</b>											
<b>HDPE - total (lab preserved)</b> RG_MIDCO_WS_LAEMP_CMO_2022-09_N	E420	13-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	180 days	4 days	✔	
<b>Total Metals : Total Metals in Water by CRC ICPMS</b>											
<b>HDPE - total (lab preserved)</b> RG_RIVER_WS_LAEMP_CMO_2022-09_N	E420	13-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	180 days	4 days	✔	

**Legend & Qualifier Definitions**

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended  
 Rec. HT: ALS recommended hold time (see units).



## Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water** Evaluation: \* = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		Evaluation
			QC	Regular	Actual	Expected	
<b>Analytical Methods</b>							
<b>Laboratory Duplicates (DUP)</b>							
Acidity by Titration	E283	651426	1	17	5.8	5.0	✓
Alkalinity Species by Titration	E290	651429	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	651485	1	17	5.8	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	651474	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	651475	1	20	5.0	5.0	✓
Conductivity in Water	E100	651428	1	17	5.8	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	652076	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	651966	1	18	5.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	652077	1	17	5.8	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	651436	1	15	6.6	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	651462	1	17	5.8	5.0	✓
Fluoride in Water by IC	E235.F	651473	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	651476	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	651477	1	20	5.0	5.0	✓
ORP by Electrode	E125	651554	1	17	5.8	5.0	✓
pH by Meter	E108	651427	1	17	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	651478	1	20	5.0	5.0	✓
TDS by Gravimetry	E162	651516	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	651675	1	17	5.8	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	651465	1	17	5.8	5.0	✓
Total Mercury in Water by CVAAS	E508	651965	1	16	6.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	651676	1	17	5.8	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	651437	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	651459	1	17	5.8	5.0	✓
Turbidity by Nephelometry	E121	651457	1	8	12.5	5.0	✓
<b>Laboratory Control Samples (LCS)</b>							
Acidity by Titration	E283	651426	1	17	5.8	5.0	✓
Alkalinity Species by Titration	E290	651429	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	651485	1	17	5.8	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	651474	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	651475	1	20	5.0	5.0	✓
Conductivity in Water	E100	651428	1	17	5.8	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	652076	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	651966	1	18	5.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	652077	1	17	5.8	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	651436	1	15	6.6	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	651462	1	17	5.8	5.0	✓





Matrix: **Water**

Evaluation: \* = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		Evaluation
			QC	Regular	Actual	Expected	
<i>Analytical Methods</i>							
<b>Laboratory Control Samples (LCS) - Continued</b>							
Fluoride in Water by IC	E235.F	651473	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	651476	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	651477	1	20	5.0	5.0	✓
ORP by Electrode	E125	651554	1	17	5.8	5.0	✓
pH by Meter	E108	651427	1	17	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	651478	1	20	5.0	5.0	✓
TDS by Gravimetry	E162	651516	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	651675	1	17	5.8	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	651465	1	17	5.8	5.0	✓
Total Mercury in Water by CVAAS	E508	651965	1	16	6.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	651676	1	17	5.8	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	651437	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	651459	1	17	5.8	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	651515	1	19	5.2	5.0	✓
Turbidity by Nephelometry	E121	651457	1	8	12.5	5.0	✓
<b>Method Blanks (MB)</b>							
Acidity by Titration	E283	651426	1	17	5.8	5.0	✓
Alkalinity Species by Titration	E290	651429	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	651485	1	17	5.8	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	651474	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	651475	1	20	5.0	5.0	✓
Conductivity in Water	E100	651428	1	17	5.8	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	652076	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	651966	1	18	5.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	652077	1	17	5.8	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	651436	1	15	6.6	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	651462	1	17	5.8	5.0	✓
Fluoride in Water by IC	E235.F	651473	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	651476	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	651477	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	651478	1	20	5.0	5.0	✓
TDS by Gravimetry	E162	651516	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	651675	1	17	5.8	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	651465	1	17	5.8	5.0	✓
Total Mercury in Water by CVAAS	E508	651965	1	16	6.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	651676	1	17	5.8	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	651437	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	651459	1	17	5.8	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	651515	1	19	5.2	5.0	✓
Turbidity by Nephelometry	E121	651457	1	8	12.5	5.0	✓



Matrix: **Water**

Evaluation: \* = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		Evaluation
			QC	Regular	Actual	Expected	
<i>Analytical Methods</i>							
<b>Matrix Spikes (MS)</b>							
Ammonia by Fluorescence	E298	651485	1	17	5.8	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	651474	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	651475	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	652076	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	651966	1	18	5.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	652077	1	17	5.8	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	651436	1	15	6.6	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	651462	1	17	5.8	5.0	✓
Fluoride in Water by IC	E235.F	651473	1	20	5.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	651476	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	651477	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	651478	1	20	5.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	651675	1	17	5.8	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	651465	1	17	5.8	5.0	✓
Total Mercury in Water by CVAAS	E508	651965	1	16	6.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	651676	1	17	5.8	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	651437	1	17	5.8	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	651459	1	17	5.8	5.0	✓





## Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 Calgary - Environmental	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 Calgary - Environmental	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 Calgary - Environmental	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
ORP by Electrode	E125 Calgary - Environmental	Water	ASTM D1498 (mod)	Oxidation reduction potential is reported as the oxidation-reduction potential of the platinum metal-reference electrode employed, measured in mV. For high accuracy test results, it is recommended that this analysis be conducted in the field.
TSS by Gravimetry (Low Level)	E160-L Calgary - Environmental	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry	E162 Calgary - Environmental	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Bromide in Water by IC (Low Level)	E235.Br-L Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Chloride in Water by IC (Low Level)	E235.Cl-L Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 Calgary - Environmental	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 Calgary - Environmental	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 Calgary - Environmental	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 Calgary - Environmental	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L Calgary - Environmental	Water	APHA 5310 B (mod)	Total Organic Carbon (Non-Purgeable), also known as NPOC (total), is a direct measurement of TOC after an acidified sample has been purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO <sub>2</sub> . NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of total carbon (TC) is comprised of IC (which is common), this method is more accurate and more reliable than the TOC by subtraction method (i.e. TC minus TIC).
Dissolved Organic Carbon by Combustion (Low Level)	E358-L Calgary - Environmental	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO <sub>2</sub> . NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U Calgary - Environmental	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U Calgary - Environmental	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter.  Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 Calgary - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.  Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L Calgary - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Dissolved Metals in Water by CRC ICPMS	E421 Calgary - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.  Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L Calgary - Environmental	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Total Mercury in Water by CVAAS	E508 Calgary - Environmental	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 Calgary - Environmental	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 Calgary - Environmental	Water	APHA 2340B	"Hardness (as CaCO <sub>3</sub> ), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO <sub>3</sub> equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Ion Balance using Dissolved Metals	EC101 Calgary - Environmental	Water	APHA 1030E	Cation Sum, Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Dissolved species are used where available. Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 Calgary - Environmental	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 Calgary - Environmental	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Preparation for Total Organic Carbon by Combustion	EP355 Calgary - Environmental	Water		Preparation for Total Organic Carbon by Combustion
Preparation for Dissolved Organic Carbon for Combustion	EP358 Calgary - Environmental	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 Calgary - Environmental	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 Calgary - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO <sub>3</sub> .
Dissolved Mercury Water Filtration	EP509 Calgary - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.



## QUALITY CONTROL REPORT

**Work Order** : **CG2212617**  
**Client** : Teck Coal Limited  
**Contact** : Cybele Heddle  
**Address** : 421 Pine Avenue  
Sparwood BC Canada V0B2G0  
**Telephone** : ----  
**Project** : REGIONAL EFFECTS PROGRAM  
**PO** : VPO00816101  
**C-O-C number** : REP\_LAEMP\_CmM\_2022-09\_ALS  
**Sampler** : Jennifer Ings  
**Site** : ----  
**Quote number** : Teck Coal Master Quote  
**No. of samples received** : 3  
**No. of samples analysed** : 3

**Page** : 1 of 18  
**Laboratory** : Calgary - Environmental  
**Account Manager** : Lyudmyla Shvets  
**Address** : 2559 29th Street NE  
Calgary, Alberta Canada T1Y 7B5  
**Telephone** : +1 403 407 1800  
**Date Samples Received** : 15-Sep-2022 08:50  
**Date Analysis Commenced** : 16-Sep-2022  
**Issue Date** : 17-Sep-2022 18:01

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

### Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Anthony Calero	Supervisor - Inorganic	Calgary Metals, Calgary, Alberta
Harpreet Chawla	Team Leader - Inorganics	Calgary Inorganics, Calgary, Alberta
Mackenzie Lamoureux	Laboratory Analyst	Calgary Metals, Calgary, Alberta
Sara Niroomand		Calgary Inorganics, Calgary, Alberta
Sara Niroomand		Calgary Metals, Calgary, Alberta
Sheida Aria	Lab Assistant	Calgary Metals, Calgary, Alberta

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Work Order : CG2212617  
Client : Teck Coal Limited  
Project : REGIONAL EFFECTS PROGRAM

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## **General Comments**

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

# = Indicates a QC result that did not meet the ALS DQO.

## **Workorder Comments**

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Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

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### Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: Water					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Physical Tests (QC Lot: 651426)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
<b>Physical Tests (QC Lot: 651427)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	pH	----	E108	0.10	pH units	8.25	8.25	0.00%	4%	----
<b>Physical Tests (QC Lot: 651428)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	conductivity	----	E100	2.0	µS/cm	732	724	1.10%	10%	----
<b>Physical Tests (QC Lot: 651429)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	alkalinity, bicarbonate (as CaCO3)	----	E290	1.0	mg/L	189	184	2.52%	20%	----
		alkalinity, carbonate (as CaCO3)	----	E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
		alkalinity, hydroxide (as CaCO3)	----	E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
		alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	189	184	2.52%	20%	----
<b>Physical Tests (QC Lot: 651457)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	turbidity	----	E121	0.10	NTU	0.37	0.37	0.0002	Diff <2x LOR	----
<b>Physical Tests (QC Lot: 651516)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	solids, total dissolved [TDS]	----	E162	20	mg/L	512	523	2.03%	20%	----
<b>Physical Tests (QC Lot: 651554)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	oxidation-reduction potential [ORP]	----	E125	0.10	mV	315	318	0.854%	15%	----
<b>Anions and Nutrients (QC Lot: 651459)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0050	0.0048	0.0001	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 651462)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 651465)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	Kjeldahl nitrogen, total [TKN]	----	E318	0.500	mg/L	<0.500	<0.500	0	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 651473)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	fluoride	16984-48-8	E235.F	0.020	mg/L	0.192	0.195	0.003	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 651474)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	bromide	24959-67-9	E235.Br-L	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----



Sub-Matrix: **Water**

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Anions and Nutrients (QC Lot: 651475)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	chloride	16887-00-6	E235.Cl-L	0.10	mg/L	1.00	1.00	0.234%	20%	----
<b>Anions and Nutrients (QC Lot: 651476)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.728	0.726	0.316%	20%	----
<b>Anions and Nutrients (QC Lot: 651477)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	0.0013	0.0013	0	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 651478)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	230	230	0.0432%	20%	----
<b>Anions and Nutrients (QC Lot: 651485)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0058	0.0051	0.0007	Diff <2x LOR	----
<b>Organic / Inorganic Carbon (QC Lot: 651436)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
<b>Organic / Inorganic Carbon (QC Lot: 651437)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	carbon, total organic [TOC]	----	E355-L	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
<b>Total Metals (QC Lot: 651675)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00018	0.00016	0.00001	Diff <2x LOR	----
<b>Total Metals (QC Lot: 651676)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0066	0.0066	0.00006	Diff <2x LOR	----
		antimony, total	7440-36-0	E420	0.00010	mg/L	0.00017	0.00017	0.000005	Diff <2x LOR	----
		arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00030	0.00032	0.00003	Diff <2x LOR	----
		barium, total	7440-39-3	E420	0.00010	mg/L	0.0803	0.0784	2.39%	20%	----
		beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.020 µg/L	<0.000020	0	Diff <2x LOR	----
		bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		boron, total	7440-42-8	E420	0.010	mg/L	0.033	0.034	0.001	Diff <2x LOR	----
		cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0226 µg/L	0.0000234	0.0000008	Diff <2x LOR	----
		calcium, total	7440-70-2	E420	0.050	mg/L	87.9	88.1	0.204%	20%	----
		cobalt, total	7440-48-4	E420	0.00010	mg/L	0.10 µg/L	<0.00010	0.000004	Diff <2x LOR	----
		copper, total	7440-50-8	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		iron, total	7439-89-6	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		lithium, total	7439-93-2	E420	0.0010	mg/L	0.0156	0.0158	1.71%	20%	----
		magnesium, total	7439-95-4	E420	0.0050	mg/L	37.8	36.6	3.10%	20%	----





Sub-Matrix: **Water**

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Total Metals (QC Lot: 651676) - continued</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	manganese, total	7439-96-5	E420	0.00010	mg/L	0.00168	0.00167	0.701%	20%	----
		molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000895	0.000886	1.04%	20%	----
		nickel, total	7440-02-0	E420	0.00050	mg/L	0.00507	0.00491	0.00016	Diff <2x LOR	----
		potassium, total	7440-09-7	E420	0.050	mg/L	1.18	1.15	2.05%	20%	----
		selenium, total	7782-49-2	E420	0.000050	mg/L	5.06 µg/L	0.00527	4.15%	20%	----
		silicon, total	7440-21-3	E420	0.10	mg/L	1.72	1.62	6.41%	20%	----
		silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		sodium, total	7440-23-5	E420	0.050	mg/L	10.3	10.1	2.22%	20%	----
		strontium, total	7440-24-6	E420	0.00020	mg/L	0.352	0.353	0.533%	20%	----
		sulfur, total	7704-34-9	E420	0.50	mg/L	81.3	80.3	1.33%	20%	----
		thallium, total	7440-28-0	E420	0.000010	mg/L	0.000020	0.000020	0.00000004	Diff <2x LOR	----
		tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		uranium, total	7440-61-1	E420	0.000010	mg/L	0.00196	0.00202	3.16%	20%	----
		vanadium, total	7440-62-2	E420	0.00250	mg/L	<0.00250	<0.00250	0	Diff <2x LOR	----
		zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
<b>Total Metals (QC Lot: 651965)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
<b>Dissolved Metals (QC Lot: 651966)</b>											
CG2212467-001	Anonymous	mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
<b>Dissolved Metals (QC Lot: 652076)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00017	0.00015	0.00002	Diff <2x LOR	----
<b>Dissolved Metals (QC Lot: 652077)</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0012	<0.0010	0.0002	Diff <2x LOR	----
		antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00017	0.00017	0.000006	Diff <2x LOR	----
		arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00024	0.00026	0.00001	Diff <2x LOR	----
		barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0877	0.0868	0.999%	20%	----
		beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.020 µg/L	<0.000020	0	Diff <2x LOR	----
		bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		boron, dissolved	7440-42-8	E421	0.010	mg/L	0.029	0.031	0.002	Diff <2x LOR	----
		cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0202 µg/L	0.0000195	0.0000006	Diff <2x LOR	----
		calcium, dissolved	7440-70-2	E421	0.050	mg/L	91.0	89.5	1.57%	20%	----
		cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.10 µg/L	0.00010	0.00000006	Diff <2x LOR	----
		copper, dissolved	7440-50-8	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----





Sub-Matrix: **Water**

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Dissolved Metals (QC Lot: 652077) - continued</b>											
CG2212617-001	RG_MIDAG_WS_LAEMP_CMO_2022-09_N	iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0153	0.0155	1.53%	20%	----
		magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	38.7	38.6	0.203%	20%	----
		manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00191	0.00194	1.56%	20%	----
		molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000953	0.000939	1.42%	20%	----
		nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00503	0.00494	0.00009	Diff <2x LOR	----
		potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.30	1.28	1.79%	20%	----
		selenium, dissolved	7782-49-2	E421	0.000050	mg/L	5.03 µg/L	0.00516	2.69%	20%	----
		silicon, dissolved	7440-21-3	E421	0.050	mg/L	2.11	2.10	0.595%	20%	----
		silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		sodium, dissolved	7440-23-5	E421	0.050	mg/L	11.0	10.9	1.05%	20%	----
		strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.364	0.368	1.28%	20%	----
		sulfur, dissolved	7704-34-9	E421	0.50	mg/L	84.3	84.0	0.292%	20%	----
		thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000021	0.000020	0.00001	Diff <2x LOR	----
		tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.00204	0.00204	0.194%	20%	----
		vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----



## Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

### Sub-Matrix: Water

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Physical Tests (QCLot: 651426)</b>						
acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
<b>Physical Tests (QCLot: 651428)</b>						
conductivity	----	E100	1	µS/cm	1.3	----
<b>Physical Tests (QCLot: 651429)</b>						
alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
<b>Physical Tests (QCLot: 651457)</b>						
turbidity	----	E121	0.1	NTU	<0.10	----
<b>Physical Tests (QCLot: 651515)</b>						
solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
<b>Physical Tests (QCLot: 651516)</b>						
solids, total dissolved [TDS]	----	E162	10	mg/L	<10	----
<b>Anions and Nutrients (QCLot: 651459)</b>						
phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
<b>Anions and Nutrients (QCLot: 651462)</b>						
phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
<b>Anions and Nutrients (QCLot: 651465)</b>						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
<b>Anions and Nutrients (QCLot: 651473)</b>						
fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
<b>Anions and Nutrients (QCLot: 651474)</b>						
bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	----
<b>Anions and Nutrients (QCLot: 651475)</b>						
chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
<b>Anions and Nutrients (QCLot: 651476)</b>						
nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
<b>Anions and Nutrients (QCLot: 651477)</b>						
nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
<b>Anions and Nutrients (QCLot: 651478)</b>						
sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
<b>Anions and Nutrients (QCLot: 651485)</b>						



Sub-Matrix: Water

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Anions and Nutrients (QCLot: 651485) - continued</b>						
ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	---
<b>Organic / Inorganic Carbon (QCLot: 651436)</b>						
carbon, dissolved organic [DOC]	---	E358-L	0.5	mg/L	<0.50	---
<b>Organic / Inorganic Carbon (QCLot: 651437)</b>						
carbon, total organic [TOC]	---	E355-L	0.5	mg/L	<0.50	---
<b>Total Metals (QCLot: 651675)</b>						
chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	---
<b>Total Metals (QCLot: 651676)</b>						
aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	---
antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	---
arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	---
barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	---
beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	---
bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	---
boron, total	7440-42-8	E420	0.01	mg/L	<0.010	---
cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	---
calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	---
cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	---
copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	---
iron, total	7439-89-6	E420	0.01	mg/L	<0.010	---
lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	---
lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	---
magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	---
manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	---
molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	---
nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	---
potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	---
selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	---
silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	---
silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	---
sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	---
strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	---
sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	---
thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	---
tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	---
titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	---



Sub-Matrix: Water

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Total Metals (QCLot: 651676) - continued</b>						
uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	---
vanadium, total	7440-62-2	E420	0.0005	mg/L	# 0.00052	MB-LOR
zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	---
<b>Total Metals (QCLot: 651965)</b>						
mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	---
<b>Dissolved Metals (QCLot: 651966)</b>						
mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	---
<b>Dissolved Metals (QCLot: 652076)</b>						
chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	---
<b>Dissolved Metals (QCLot: 652077)</b>						
aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	---
antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	---
arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	---
barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	---
beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	---
bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	---
boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	---
cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	---
calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	---
cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	---
copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	---
iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	---
lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	---
lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	---
magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	---
manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	---
molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	---
nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	---
potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	---
selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	---
silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	---
silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	---
sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	---
strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	---
sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	---
thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	---



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Dissolved Metals (QCLot: 652077) - continued</b>						
tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----

**Qualifiers**

Qualifier	Description
MB-LOR	Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits below 5x blank level.



## Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: <b>Water</b>					Laboratory Control Sample (LCS) Report				
					Spike Concentration	Recovery (%) LCS	Recovery Limits (%)		Qualifier
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
<b>Physical Tests (QCLot: 651426)</b>									
acidity (as CaCO3)	---	E283	2	mg/L	50 mg/L	106	85.0	115	---
<b>Physical Tests (QCLot: 651427)</b>									
pH	---	E108	---	pH units	7 pH units	101	98.6	101	---
<b>Physical Tests (QCLot: 651428)</b>									
conductivity	---	E100	1	µS/cm	146.9 µS/cm	100	90.0	110	---
<b>Physical Tests (QCLot: 651429)</b>									
alkalinity, total (as CaCO3)	---	E290	1	mg/L	500 mg/L	103	85.0	115	---
<b>Physical Tests (QCLot: 651457)</b>									
turbidity	---	E121	0.1	NTU	200 NTU	110	85.0	115	---
<b>Physical Tests (QCLot: 651515)</b>									
solids, total suspended [TSS]	---	E160-L	1	mg/L	150 mg/L	93.9	85.0	115	---
<b>Physical Tests (QCLot: 651516)</b>									
solids, total dissolved [TDS]	---	E162	10	mg/L	1000 mg/L	93.0	85.0	115	---
<b>Physical Tests (QCLot: 651554)</b>									
oxidation-reduction potential [ORP]	---	E125	---	mV	220 mV	101	95.4	104	---
<b>Anions and Nutrients (QCLot: 651459)</b>									
phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.03 mg/L	103	80.0	120	---
<b>Anions and Nutrients (QCLot: 651462)</b>									
phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.03 mg/L	93.9	80.0	120	---
<b>Anions and Nutrients (QCLot: 651465)</b>									
Kjeldahl nitrogen, total [TKN]	---	E318	0.05	mg/L	4 mg/L	104	75.0	125	---
<b>Anions and Nutrients (QCLot: 651473)</b>									
fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	101	90.0	110	---
<b>Anions and Nutrients (QCLot: 651474)</b>									
bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	103	85.0	115	---
<b>Anions and Nutrients (QCLot: 651475)</b>									
chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	100	90.0	110	---
<b>Anions and Nutrients (QCLot: 651476)</b>									
nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	101	90.0	110	---
<b>Anions and Nutrients (QCLot: 651477)</b>									
nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.7	90.0	110	---
<b>Anions and Nutrients (QCLot: 651478)</b>									



Sub-Matrix: Water

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
<b>Anions and Nutrients (QCLot: 651478) - continued</b>									
sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	----
<b>Anions and Nutrients (QCLot: 651485)</b>									
ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	97.8	85.0	115	----
<b>Organic / Inorganic Carbon (QCLot: 651436)</b>									
carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	95.4	80.0	120	----
<b>Organic / Inorganic Carbon (QCLot: 651437)</b>									
carbon, total organic [TOC]	----	E355-L	0.5	mg/L	8.57 mg/L	96.8	80.0	120	----
<b>Total Metals (QCLot: 651675)</b>									
chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	96.7	80.0	120	----
<b>Total Metals (QCLot: 651676)</b>									
aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	100	80.0	120	----
antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	97.1	80.0	120	----
arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	95.4	80.0	120	----
barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	98.0	80.0	120	----
beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	99.9	80.0	120	----
bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	91.2	80.0	120	----
boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	99.7	80.0	120	----
cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	94.3	80.0	120	----
calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	92.1	80.0	120	----
cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	93.1	80.0	120	----
copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	92.9	80.0	120	----
iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	106	80.0	120	----
lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	93.3	80.0	120	----
lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	108	80.0	120	----
magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	96.7	80.0	120	----
manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	99.8	80.0	120	----
molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	96.2	80.0	120	----
nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	94.0	80.0	120	----
potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	96.8	80.0	120	----
selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	97.2	80.0	120	----
silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	89.3	60.0	140	----
silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	89.3	80.0	120	----
sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	95.8	80.0	120	----
strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	98.4	80.0	120	----
sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	107	80.0	120	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
<b>Total Metals (QCLot: 651676) - continued</b>									
thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	92.1	80.0	120	----
tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	96.3	80.0	120	----
titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	97.2	80.0	120	----
uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	94.3	80.0	120	----
vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	96.1	80.0	120	----
zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	94.8	80.0	120	----
<b>Total Metals (QCLot: 651965)</b>									
mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	101	80.0	120	----
mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	97.0	80.0	120	----
<b>Dissolved Metals (QCLot: 652076)</b>									
chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	99.0	80.0	120	----
<b>Dissolved Metals (QCLot: 652077)</b>									
aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	101	80.0	120	----
antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	97.7	80.0	120	----
arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	95.8	80.0	120	----
barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	97.8	80.0	120	----
beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	103	80.0	120	----
bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	93.8	80.0	120	----
boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	104	80.0	120	----
cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	102	80.0	120	----
calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	94.7	80.0	120	----
cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	99.0	80.0	120	----
copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	98.3	80.0	120	----
iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	111	80.0	120	----
lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	97.8	80.0	120	----
lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	106	80.0	120	----
magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	97.4	80.0	120	----
manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	100	80.0	120	----
nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	97.4	80.0	120	----
potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	96.6	80.0	120	----
selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	92.8	80.0	120	----
silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	106	60.0	140	----
silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	94.2	80.0	120	----
sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	98.2	80.0	120	----
strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	101	80.0	120	----





Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
<b>Dissolved Metals (QCLot: 652077) - continued</b>									
sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	92.8	80.0	120	----
thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	94.0	80.0	120	----
tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	101	80.0	120	----
titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	101	80.0	120	----
uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	99.0	80.0	120	----
vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	99.7	80.0	120	----
zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	97.3	80.0	120	----



## Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level  $\geq 1x$  spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
<b>Anions and Nutrients (QCLot: 651459)</b>										
CG2212617-002	RG_MIDCO_WS_LAEMP_C MO_2022-09_N	phosphorus, total	7723-14-0	E372-U	0.0531 mg/L	0.05 mg/L	106	70.0	130	----
<b>Anions and Nutrients (QCLot: 651462)</b>										
CG2212617-002	RG_MIDCO_WS_LAEMP_C MO_2022-09_N	phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0510 mg/L	0.05 mg/L	102	70.0	130	----
<b>Anions and Nutrients (QCLot: 651465)</b>										
CG2212617-002	RG_MIDCO_WS_LAEMP_C MO_2022-09_N	Kjeldahl nitrogen, total [TKN]	----	E318	2.68 mg/L	2.5 mg/L	107	70.0	130	----
<b>Anions and Nutrients (QCLot: 651473)</b>										
CG2212630-006	Anonymous	fluoride	16984-48-8	E235.F	1.02 mg/L	1 mg/L	102	75.0	125	----
<b>Anions and Nutrients (QCLot: 651474)</b>										
CG2212630-006	Anonymous	bromide	24959-67-9	E235.Br-L	0.516 mg/L	0.5 mg/L	103	75.0	125	----
<b>Anions and Nutrients (QCLot: 651475)</b>										
CG2212630-006	Anonymous	chloride	16887-00-6	E235.Cl-L	99.7 mg/L	100 mg/L	99.7	75.0	125	----
<b>Anions and Nutrients (QCLot: 651476)</b>										
CG2212630-006	Anonymous	nitrate (as N)	14797-55-8	E235.NO3-L	2.50 mg/L	2.5 mg/L	100	75.0	125	----
<b>Anions and Nutrients (QCLot: 651477)</b>										
CG2212630-006	Anonymous	nitrite (as N)	14797-65-0	E235.NO2-L	0.508 mg/L	0.5 mg/L	102	75.0	125	----
<b>Anions and Nutrients (QCLot: 651478)</b>										
CG2212630-006	Anonymous	sulfate (as SO4)	14808-79-8	E235.SO4	101 mg/L	100 mg/L	101	75.0	125	----
<b>Anions and Nutrients (QCLot: 651485)</b>										
CG2212617-002	RG_MIDCO_WS_LAEMP_C MO_2022-09_N	ammonia, total (as N)	7664-41-7	E298	0.0997 mg/L	0.1 mg/L	99.7	75.0	125	----
<b>Organic / Inorganic Carbon (QCLot: 651436)</b>										
CG2212617-001	RG_MIDAG_WS_LAEMP_C MO_2022-09_N	carbon, dissolved organic [DOC]	----	E358-L	5.35 mg/L	5 mg/L	107	70.0	130	----
<b>Organic / Inorganic Carbon (QCLot: 651437)</b>										
CG2212617-001	RG_MIDAG_WS_LAEMP_C MO_2022-09_N	carbon, total organic [TOC]	----	E355-L	5.65 mg/L	5 mg/L	113	70.0	130	----
<b>Total Metals (QCLot: 651675)</b>										
CG2212617-002	RG_MIDCO_WS_LAEMP_C MO_2022-09_N	chromium, total	7440-47-3	E420.Cr-L	0.402 mg/L	0.4 mg/L	100	70.0	130	----



Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
<b>Total Metals (QCLot: 651676)</b>										
CG2212617-002	RG_MIDCO_WS_LAEMP_CMO_2022-09_N	aluminum, total	7429-90-5	E420	1.88 mg/L	2 mg/L	94.3	70.0	130	----
		antimony, total	7440-36-0	E420	0.204 mg/L	0.2 mg/L	102	70.0	130	----
		arsenic, total	7440-38-2	E420	0.189 mg/L	0.2 mg/L	94.4	70.0	130	----
		barium, total	7440-39-3	E420	0.187 mg/L	0.2 mg/L	93.3	70.0	130	----
		beryllium, total	7440-41-7	E420	0.420 mg/L	0.4 mg/L	105	70.0	130	----
		bismuth, total	7440-69-9	E420	0.102 mg/L	0.1 mg/L	102	70.0	130	----
		boron, total	7440-42-8	E420	1.13 mg/L	1 mg/L	113	70.0	130	----
		cadmium, total	7440-43-9	E420	0.0413 mg/L	0.04 mg/L	103	70.0	130	----
		calcium, total	7440-70-2	E420	ND mg/L	40 mg/L	ND	70.0	130	----
		cobalt, total	7440-48-4	E420	0.199 mg/L	0.2 mg/L	99.6	70.0	130	----
		copper, total	7440-50-8	E420	0.201 mg/L	0.2 mg/L	100	70.0	130	----
		iron, total	7439-89-6	E420	20.4 mg/L	20 mg/L	102	70.0	130	----
		lead, total	7439-92-1	E420	0.195 mg/L	0.2 mg/L	97.7	70.0	130	----
		lithium, total	7439-93-2	E420	1.04 mg/L	1 mg/L	104	70.0	130	----
		magnesium, total	7439-95-4	E420	ND mg/L	10 mg/L	ND	70.0	130	----
		manganese, total	7439-96-5	E420	0.200 mg/L	0.2 mg/L	100	70.0	130	----
		molybdenum, total	7439-98-7	E420	0.191 mg/L	0.2 mg/L	95.3	70.0	130	----
		nickel, total	7440-02-0	E420	0.400 mg/L	0.4 mg/L	100	70.0	130	----
		potassium, total	7440-09-7	E420	37.8 mg/L	40 mg/L	94.5	70.0	130	----
		selenium, total	7782-49-2	E420	0.480 mg/L	0.4 mg/L	120	70.0	130	----
		silicon, total	7440-21-3	E420	75.8 mg/L	100 mg/L	75.8	70.0	130	----
		silver, total	7440-22-4	E420	0.0403 mg/L	0.04 mg/L	101	70.0	130	----
		sodium, total	7440-23-5	E420	ND mg/L	20 mg/L	ND	70.0	130	----
		strontium, total	7440-24-6	E420	ND mg/L	0.2 mg/L	ND	70.0	130	----
		sulfur, total	7704-34-9	E420	151 mg/L	200 mg/L	75.7	70.0	130	----
		thallium, total	7440-28-0	E420	0.0376 mg/L	0.04 mg/L	94.1	70.0	130	----
tin, total	7440-31-5	E420	0.204 mg/L	0.2 mg/L	102	70.0	130	----		
titanium, total	7440-32-6	E420	0.386 mg/L	0.4 mg/L	96.4	70.0	130	----		
uranium, total	7440-61-1	E420	0.0403 mg/L	0.04 mg/L	101	70.0	130	----		
vanadium, total	7440-62-2	E420	0.970 mg/L	1 mg/L	97.0	70.0	130	----		
zinc, total	7440-66-6	E420	4.02 mg/L	4 mg/L	100	70.0	130	----		
<b>Total Metals (QCLot: 651965)</b>										
CG2212617-002	RG_MIDCO_WS_LAEMP_CMO_2022-09_N	mercury, total	7439-97-6	E508	0.0000968 mg/L	0.0001 mg/L	96.8	70.0	130	----
<b>Dissolved Metals (QCLot: 651966)</b>										
CG2212467-002	Anonymous	mercury, dissolved	7439-97-6	E509	0.000106 mg/L	0.0001 mg/L	106	70.0	130	----



Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
<b>Dissolved Metals (QCLot: 652076)</b>										
CG2212617-002	RG_MIDCO_WS_LAEMP_CMO_2022-09_N	chromium, dissolved	7440-47-3	E421.Cr-L	0.378 mg/L	0.4 mg/L	94.4	70.0	130	----
<b>Dissolved Metals (QCLot: 652077)</b>										
CG2212617-002	RG_MIDCO_WS_LAEMP_CMO_2022-09_N	aluminum, dissolved	7429-90-5	E421	1.87 mg/L	2 mg/L	93.6	70.0	130	----
		antimony, dissolved	7440-36-0	E421	0.188 mg/L	0.2 mg/L	94.1	70.0	130	----
		arsenic, dissolved	7440-38-2	E421	0.183 mg/L	0.2 mg/L	91.6	70.0	130	----
		barium, dissolved	7440-39-3	E421	0.169 mg/L	0.2 mg/L	84.7	70.0	130	----
		beryllium, dissolved	7440-41-7	E421	0.372 mg/L	0.4 mg/L	92.9	70.0	130	----
		bismuth, dissolved	7440-69-9	E421	0.0930 mg/L	0.1 mg/L	93.0	70.0	130	----
		boron, dissolved	7440-42-8	E421	0.978 mg/L	1 mg/L	97.8	70.0	130	----
		cadmium, dissolved	7440-43-9	E421	0.0398 mg/L	0.04 mg/L	99.5	70.0	130	----
		calcium, dissolved	7440-70-2	E421	ND mg/L	40 mg/L	ND	70.0	130	----
		cobalt, dissolved	7440-48-4	E421	0.192 mg/L	0.2 mg/L	95.8	70.0	130	----
		copper, dissolved	7440-50-8	E421	0.191 mg/L	0.2 mg/L	95.4	70.0	130	----
		iron, dissolved	7439-89-6	E421	18.9 mg/L	20 mg/L	94.4	70.0	130	----
		lead, dissolved	7439-92-1	E421	0.189 mg/L	0.2 mg/L	94.4	70.0	130	----
		lithium, dissolved	7439-93-2	E421	0.922 mg/L	1 mg/L	92.2	70.0	130	----
		magnesium, dissolved	7439-95-4	E421	ND mg/L	10 mg/L	ND	70.0	130	----
		manganese, dissolved	7439-96-5	E421	0.189 mg/L	0.2 mg/L	94.7	70.0	130	----
		molybdenum, dissolved	7439-98-7	E421	0.191 mg/L	0.2 mg/L	95.6	70.0	130	----
		nickel, dissolved	7440-02-0	E421	0.375 mg/L	0.4 mg/L	93.8	70.0	130	----
		potassium, dissolved	7440-09-7	E421	36.6 mg/L	40 mg/L	91.5	70.0	130	----
		selenium, dissolved	7782-49-2	E421	0.372 mg/L	0.4 mg/L	93.0	70.0	130	----
		silicon, dissolved	7440-21-3	E421	93.6 mg/L	100 mg/L	93.6	70.0	130	----
		silver, dissolved	7440-22-4	E421	0.0400 mg/L	0.04 mg/L	99.9	70.0	130	----
		sodium, dissolved	7440-23-5	E421	ND mg/L	20 mg/L	ND	70.0	130	----
		strontium, dissolved	7440-24-6	E421	ND mg/L	0.2 mg/L	ND	70.0	130	----
		sulfur, dissolved	7704-34-9	E421	143 mg/L	200 mg/L	71.6	70.0	130	----
		thallium, dissolved	7440-28-0	E421	0.0363 mg/L	0.04 mg/L	90.9	70.0	130	----
		tin, dissolved	7440-31-5	E421	0.188 mg/L	0.2 mg/L	94.1	70.0	130	----
		titanium, dissolved	7440-32-6	E421	0.378 mg/L	0.4 mg/L	94.6	70.0	130	----
		uranium, dissolved	7440-61-1	E421	0.0379 mg/L	0.04 mg/L	94.8	70.0	130	----
		vanadium, dissolved	7440-62-2	E421	0.935 mg/L	1 mg/L	93.5	70.0	130	----
		zinc, dissolved	7440-66-6	E421	3.79 mg/L	4 mg/L	94.8	70.0	130	----



COC ID: REP\_LAEMP\_CmM\_2022-09 ALS TURNAROUND TIME: 2-3 Business Days RUSH: Priority

PROJECT/CLIENT INFO: Regional Effects Program  
 Facility Name / Job#: Regional Effects Program  
 Project Manager: Cybele Heddle  
 Email: cybele.heddle@teck.com  
 Address: 421 Pine Avenue  
 City: Sparwood  
 Postal Code: V0R 2G0  
 Phone Number: 1-250-865-3048

LABORATORY: ALS Calgary  
 Lab Name: ALS Calgary  
 Lab Contact: Lyndmyla Shivers  
 Email: lyndmyla.shivers@alscalgary.com  
 Address: 2559 29 Street NE  
 City: Calgary  
 Postal Code: T1Y 7B5  
 Phone Number: 403 407 1794

OTHER INFO: Report Format / Distribution: Excel PDF EDD  
 Email 1: ayana.abbott@teck.com  
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 Email 3: Teck Lab Results@teck.com  
 Email 4: Lisa.Brown@minneca.ca  
 Email 5: Tyler.Melniek@minneca.ca  
 Email 6: Hannah.Fraser@teck.com  
 PO number: YPO0816101

SAMPLE DETAILS

Sample ID	Sample Location (Sys loc code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Com p	# OF Cont.	ANALYSIS REQUESTED							
								DOC	Mercury_Dissolved	Mercury_Total	TECKCOAL_METNHG_D	TECKCOAL_METNHG_T	TECKCOAL_ROUTINE	TOC_TKN_PT	
RG_MIDAG_WS_LAEMP_CMO_2022-09_N	RG_MIDAG	WS		2022/09/13	11:15	G	7	1	1	1	1	1	1	1	1
RG_MIDCO_WS_LAEMP_CMO_2022-09_N	RG_MIDCO	WS		2022/09/13	16:17	G	7	1	1	1	1	1	1	1	1
RG_RIVER_WS_LAEMP_CMO_2022-09_NP	RG_RIVER	WS		2022/09/13	16:17	G	7	1	1	1	1	1	1	1	1

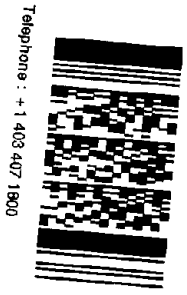
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS: Dissolved metals were field filtered and to be lab preserved  
 Total metals to be lab preserved

SERVICE REQUEST (rush - subject to availability): Regular (default)  
 Priority (2-3 business days) - 50% surcharge X  
 Emergency (1 Business Day) - 100% surcharge  
 For Emergency < 1 Day, ASAP or Weekend - Contact ALS

RELINQUISHED BY/AFFILIATION: Jennifer Ings/Minnow  
 DATE/TIME: #####

ACCEPTED BY/AFFILIATION: [Signature]  
 DATE/TIME: [Signature]

Sampler's Name: Jennifer Ings  
 Sampler's Signature: [Signature]  
 Mobile #: 519-500-3444  
 Date/Time: September 14, 2022



Environmental Division  
 Calgary  
 Work Order Reference  
**CG2212617**

Environmental Division  
 Calgary  
 Work Order Reference  
**CG2212617**



## CERTIFICATE OF ANALYSIS

**Work Order** : **CG2212650**  
**Client** : **Teck Coal Limited**  
**Contact** : Cybele Heddle  
**Address** : 421 Pine Avenue  
Sparwood BC Canada V0B2G0  
**Telephone** : ----  
**Project** : Regional Effects Program  
**PO** : VPO00816101  
**C-O-C number** : REP\_LAEMP\_CMm\_2022-09\_ALS  
**Sampler** : Jenifer Ings  
**Site** : ----  
**Quote number** : Teck Coal Master Quote  
**No. of samples received** : 2  
**No. of samples analysed** : 2

**Page** : 1 of 6  
**Laboratory** : Calgary - Environmental  
**Account Manager** : Lyudmyla Shvets  
**Address** : 2559 29th Street NE  
Calgary AB Canada T1Y 7B5  
**Telephone** : +1 403 407 1800  
**Date Samples Received** : 16-Sep-2022 08:50  
**Date Analysis Commenced** : 16-Sep-2022  
**Issue Date** : 20-Sep-2022 16:26

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

### Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Anthony Calero	Supervisor - Inorganic	Inorganics, Calgary, Alberta
Anthony Calero	Supervisor - Inorganic	Metals, Calgary, Alberta
Elke Tabora		Inorganics, Calgary, Alberta
Harpreet Chawla	Team Leader - Inorganics	Inorganics, Calgary, Alberta
Mackenzie Lamoureux	Laboratory Analyst	Metals, Calgary, Alberta
Ruifang Zheng	Analyst	Inorganics, Calgary, Alberta
Sara Niroomand		Inorganics, Calgary, Alberta



## General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances  
 LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
-	No Unit
%	percent
µg/L	micrograms per litre
µS/cm	Microsiemens per centimetre
meq/L	milliequivalents per litre
mg/L	milligrams per litre
mV	millivolts
NTU	nephelometric turbidity units
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

## Qualifiers

<i>Qualifier</i>	<i>Description</i>
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
TKNI	TKN result may be biased low due to Nitrate interference. Nitrate-N is > 10x TKN.





## Analytical Results

Sub-Matrix: Water					Client sample ID	RG_MIUCO_WS _LAEMP_CMO_ 2022-09_N	RG_CORCK_W S_LAEMP_CMO 2022-09_N	----	----	----
(Matrix: Water)					Client sampling date / time	14-Sep-2022 11:00	14-Sep-2022 14:45	----	----	----
Analyte	CAS Number	Method	LOR	Unit	CG2212650-001	CG2212650-002	-----	-----	-----	
					Result	Result	---	---	---	
<b>Physical Tests</b>										
acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	2.9	----	----	----	
alkalinity, bicarbonate (as CaCO3)	----	E290	1.0	mg/L	144	300	----	----	----	
alkalinity, bicarbonate (as HCO3)	71-52-3	E290	1.0	mg/L	176	366	----	----	----	
alkalinity, carbonate (as CaCO3)	----	E290	1.0	mg/L	6.8	<1.0	----	----	----	
alkalinity, carbonate (as CO3)	3812-32-6	E290	1.0	mg/L	4.1	<1.0	----	----	----	
alkalinity, hydroxide (as CaCO3)	----	E290	1.0	mg/L	<1.0	<1.0	----	----	----	
alkalinity, hydroxide (as OH)	14280-30-9	E290	1.0	mg/L	<1.0	<1.0	----	----	----	
alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	151	300	----	----	----	
conductivity	----	E100	2.0	µS/cm	287	1540	----	----	----	
hardness (as CaCO3), dissolved	----	EC100	0.50	mg/L	161	986	----	----	----	
oxidation-reduction potential [ORP]	----	E125	0.10	mV	268	274	----	----	----	
pH	----	E108	0.10	pH units	8.34	8.13	----	----	----	
solids, total dissolved [TDS]	----	E162	10	mg/L	165	1340	----	----	----	
solids, total suspended [TSS]	----	E160-L	1.0	mg/L	<1.0	<1.0	----	----	----	
turbidity	----	E121	0.10	NTU	0.31	0.30	----	----	----	
<b>Anions and Nutrients</b>										
ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	<0.0050	0.0255	----	----	----	
bromide	24959-67-9	E235.Br-L	0.050	mg/L	<0.050	<0.250 <sup>DLDS</sup>	----	----	----	
chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.25	2.16	----	----	----	
fluoride	16984-48-8	E235.F	0.020	mg/L	0.080	0.186	----	----	----	
Kjeldahl nitrogen, total [TKN]	----	E318	0.050	mg/L	<0.050	0.296 <sup>TKNI</sup>	----	----	----	
nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0088	3.08	----	----	----	
nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	0.0260	----	----	----	
phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	----	----	----	
phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0033	0.0022	----	----	----	
sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	15.0	752	----	----	----	
<b>Organic / Inorganic Carbon</b>										
carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	<0.50	0.62	----	----	----	
carbon, total organic [TOC]	----	E355-L	0.50	mg/L	<0.50	0.69	----	----	----	



## Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	RG_MIUCO_WS _LAEMP_CMO_ 2022-09_N	RG_CORCK_W S_LAEMP_CMO _2022-09_N	---	---	---
Client sampling date / time					14-Sep-2022 11:00	14-Sep-2022 14:45	---	---	---	
Analyte	CAS Number	Method	LOR	Unit	CG2212650-001	CG2212650-002	-----	-----	-----	
					Result	Result	---	---	---	
<b>Ion Balance</b>										
anion sum	----	EC101	0.10	meq/L	3.34	21.9	---	---	---	
cation sum	----	EC101	0.10	meq/L	3.33	21.2	---	---	---	
ion balance (cations/anions)	----	EC101	0.010	%	99.7	96.8	---	---	---	
ion balance (APHA)	----	EC101	0.010	%	0.150	1.62	---	---	---	
<b>Total Metals</b>										
aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0128	0.0066	---	---	---	
antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	0.00052	---	---	---	
arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00018	0.00028	---	---	---	
barium, total	7440-39-3	E420	0.00010	mg/L	0.0753	0.0399	---	---	---	
beryllium, total	7440-41-7	E420	0.020	µg/L	<0.020	<0.020	---	---	---	
bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	---	---	---	
boron, total	7440-42-8	E420	0.010	mg/L	0.012	0.095	---	---	---	
cadmium, total	7440-43-9	E420	0.0050	µg/L	0.0058	0.0739	---	---	---	
calcium, total	7440-70-2	E420	0.050	mg/L	41.7	206	---	---	---	
chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00019	0.00013	---	---	---	
cobalt, total	7440-48-4	E420	0.10	µg/L	<0.10	5.25	---	---	---	
copper, total	7440-50-8	E420	0.00050	mg/L	<0.00050	<0.00050	---	---	---	
iron, total	7439-89-6	E420	0.010	mg/L	0.015	0.013	---	---	---	
lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	---	---	---	
lithium, total	7439-93-2	E420	0.0010	mg/L	0.0040	0.0468	---	---	---	
magnesium, total	7439-95-4	E420	0.0050	mg/L	12.9	121	---	---	---	
manganese, total	7439-96-5	E420	0.00010	mg/L	0.00182	0.0228	---	---	---	
mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	---	---	---	
molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000712	0.00154	---	---	---	
nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	0.0630	---	---	---	
potassium, total	7440-09-7	E420	0.050	mg/L	0.450	3.84	---	---	---	
selenium, total	7782-49-2	E420	0.050	µg/L	0.247	17.1	---	---	---	
silicon, total	7440-21-3	E420	0.10	mg/L	2.38	2.55	---	---	---	
silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	---	---	---	
sodium, total	7440-23-5	E420	0.050	mg/L	2.49	32.8	---	---	---	



## Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	RG_MIUCO_WS _LAEMP_CMO_ 2022-09_N	RG_CORCK_W S_LAEMP_CMO _2022-09_N	----	----	----
Client sampling date / time					14-Sep-2022 11:00	14-Sep-2022 14:45	----	----	----	
Analyte	CAS Number	Method	LOR	Unit	CG2212650-001 Result	CG2212650-002 Result	-----	-----	-----	
<b>Total Metals</b>										
strontium, total	7440-24-6	E420	0.00020	mg/L	0.140	0.849	----	----	----	
sulfur, total	7704-34-9	E420	0.50	mg/L	5.51	241	----	----	----	
thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	0.000045	----	----	----	
tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	----	----	----	
titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	----	----	----	
uranium, total	7440-61-1	E420	0.000010	mg/L	0.000244	0.00614	----	----	----	
vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	----	----	----	
zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	----	----	----	
<b>Dissolved Metals</b>										
aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0016	0.0011	----	----	----	
antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	0.00053	----	----	----	
arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00012	0.00020	----	----	----	
barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0783	0.0397	----	----	----	
beryllium, dissolved	7440-41-7	E421	0.020	µg/L	<0.020	<0.020	----	----	----	
bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	----	----	----	
boron, dissolved	7440-42-8	E421	0.010	mg/L	0.011	0.088	----	----	----	
cadmium, dissolved	7440-43-9	E421	0.0050	µg/L	<0.0050	0.0583	----	----	----	
calcium, dissolved	7440-70-2	E421	0.050	mg/L	43.4	210	----	----	----	
chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00018	<0.00010	----	----	----	
cobalt, dissolved	7440-48-4	E421	0.10	µg/L	<0.10	4.74	----	----	----	
copper, dissolved	7440-50-8	E421	0.00020	mg/L	<0.00020	<0.00020	----	----	----	
iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	----	----	----	
lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	----	----	----	
lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0047	0.0537	----	----	----	
magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	12.7	112	----	----	----	
manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00126	0.0198	----	----	----	
mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	----	----	----	
molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.000768	0.00166	----	----	----	
nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	0.0590	----	----	----	
potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.472	3.72	----	----	----	



## Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	RG_MIUCO_WS _LAEMP_CMO_ 2022-09_N	RG_CORCK_W S_LAEMP_CMO _2022-09_N	----	----	----
Client sampling date / time					14-Sep-2022 11:00	14-Sep-2022 14:45	----	----	----	
Analyte	CAS Number	Method	LOR	Unit	CG2212650-001 Result	CG2212650-002 Result	-----	-----	-----	
<b>Dissolved Metals</b>										
selenium, dissolved	7782-49-2	E421	0.050	µg/L	0.290	19.0	----	----	----	
silicon, dissolved	7440-21-3	E421	0.050	mg/L	2.55	2.64	----	----	----	
silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	----	----	----	
sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.58	31.7	----	----	----	
strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.155	0.921	----	----	----	
sulfur, dissolved	7704-34-9	E421	0.50	mg/L	5.17	214	----	----	----	
thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	0.000048	----	----	----	
tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	----	----	----	
titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	----	----	----	
uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000283	0.00674	----	----	----	
vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	----	----	----	
zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	0.0024	----	----	----	
dissolved mercury filtration location	----	EP509	-	-	Field	Field	----	----	----	
dissolved metals filtration location	----	EP421	-	-	Field	Field	----	----	----	

Please refer to the General Comments section for an explanation of any qualifiers detected.

## QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: <b>CG2212650</b>	Page	: 1 of 15
Client	: <b>Teck Coal Limited</b>	Laboratory	: Calgary - Environmental
Contact	: Cybele Heddle	Account Manager	: Lyudmyla Shvets
Address	: 421 Pine Avenue Sparwood BC Canada V0B2G0	Address	: 2559 29th Street NE Calgary, Alberta Canada T1Y 7B5
Telephone	: ----	Telephone	: +1 403 407 1800
Project	: Regional Effects Program	Date Samples Received	: 16-Sep-2022 08:50
PO	: VPO00816101	Issue Date	: 20-Sep-2022 16:26
C-O-C number	: REP_LAEMP_CMm_2022-09_ALS		
Sampler	: Jenifer Ings		
Site	: ----		
Quote number	: Teck Coal Master Quote		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

### Key

**Anonymous:** Refers to samples which are not part of this work order, but which formed part of the QC process lot.

**CAS Number:** Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

**DQO:** Data Quality Objective.

**LOR:** Limit of Reporting (detection limit).

**RPD:** Relative Percent Difference.

### **Workorder Comments**

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

### **Summary of Outliers**

#### **Outliers : Quality Control Samples**

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

#### **Outliers: Reference Material (RM) Samples**

- No Reference Material (RM) Sample outliers occur.

#### **Outliers : Analysis Holding Time Compliance (Breaches)**

- Analysis Holding Time Outliers exist - please see following pages for full details.

#### **Outliers : Frequency of Quality Control Samples**

- No Quality Control Sample Frequency Outliers occur.





## Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Anions and Nutrients : Ammonia by Fluorescence</b>										
<b>Amber glass total (sulfuric acid)</b> RG_CORCK_WS_LAEMP_CMO_2022-09_N	E298	14-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	2 days	✓
<b>Anions and Nutrients : Ammonia by Fluorescence</b>										
<b>Amber glass total (sulfuric acid)</b> RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E298	14-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	2 days	✓
<b>Anions and Nutrients : Bromide in Water by IC (Low Level)</b>										
<b>HDPE</b> RG_CORCK_WS_LAEMP_CMO_2022-09_N	E235.Br-L	14-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	2 days	✓
<b>Anions and Nutrients : Bromide in Water by IC (Low Level)</b>										
<b>HDPE</b> RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E235.Br-L	14-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	2 days	✓
<b>Anions and Nutrients : Chloride in Water by IC (Low Level)</b>										
<b>HDPE</b> RG_CORCK_WS_LAEMP_CMO_2022-09_N	E235.Cl-L	14-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	2 days	✓
<b>Anions and Nutrients : Chloride in Water by IC (Low Level)</b>										
<b>HDPE</b> RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E235.Cl-L	14-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	2 days	✓
<b>Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001)</b>										
<b>HDPE</b> RG_CORCK_WS_LAEMP_CMO_2022-09_N	E378-U	14-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	3 days	3 days	✓



Matrix: **Water** Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001)</b>											
HDPE RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E378-U	14-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	3 days	3 days	✓	
<b>Anions and Nutrients : Fluoride in Water by IC</b>											
HDPE RG_CORCK_WS_LAEMP_CMO_2022-09_N	E235.F	14-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	2 days	✓	
<b>Anions and Nutrients : Fluoride in Water by IC</b>											
HDPE RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E235.F	14-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	2 days	✓	
<b>Anions and Nutrients : Nitrate in Water by IC (Low Level)</b>											
HDPE RG_CORCK_WS_LAEMP_CMO_2022-09_N	E235.NO3-L	14-Sep-2022	16-Sep-2022	3 days	2 days	✓	16-Sep-2022	3 days	0 days	✓	
<b>Anions and Nutrients : Nitrate in Water by IC (Low Level)</b>											
HDPE RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E235.NO3-L	14-Sep-2022	16-Sep-2022	3 days	2 days	✓	16-Sep-2022	3 days	0 days	✓	
<b>Anions and Nutrients : Nitrite in Water by IC (Low Level)</b>											
HDPE RG_CORCK_WS_LAEMP_CMO_2022-09_N	E235.NO2-L	14-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	3 days	2 days	✓	
<b>Anions and Nutrients : Nitrite in Water by IC (Low Level)</b>											
HDPE RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E235.NO2-L	14-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	3 days	2 days	✓	
<b>Anions and Nutrients : Sulfate in Water by IC</b>											
HDPE RG_CORCK_WS_LAEMP_CMO_2022-09_N	E235.SO4	14-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	2 days	✓	
<b>Anions and Nutrients : Sulfate in Water by IC</b>											
HDPE RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E235.SO4	14-Sep-2022	16-Sep-2022	----	----		16-Sep-2022	28 days	2 days	✓	





Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_CORCK_WS_LAEMP_CMO_2022-09_N	E318	14-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	28 days	3 days	✔	
<b>Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E318	14-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	28 days	3 days	✔	
<b>Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_CORCK_WS_LAEMP_CMO_2022-09_N	E372-U	14-Sep-2022	19-Sep-2022	----	----		20-Sep-2022	28 days	6 days	✔	
<b>Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E372-U	14-Sep-2022	19-Sep-2022	----	----		20-Sep-2022	28 days	6 days	✔	
<b>Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)</b>											
<b>HDPE - dissolved (lab preserved)</b> RG_CORCK_WS_LAEMP_CMO_2022-09_N	E421.Cr-L	14-Sep-2022	19-Sep-2022	----	----		19-Sep-2022	180 days	5 days	✔	
<b>Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)</b>											
<b>HDPE - dissolved (lab preserved)</b> RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E421.Cr-L	14-Sep-2022	19-Sep-2022	----	----		19-Sep-2022	180 days	5 days	✔	
<b>Dissolved Metals : Dissolved Mercury in Water by CVAAS</b>											
<b>Glass vial dissolved (hydrochloric acid)</b> RG_CORCK_WS_LAEMP_CMO_2022-09_N	E509	14-Sep-2022	20-Sep-2022	----	----		20-Sep-2022	28 days	6 days	✔	
<b>Dissolved Metals : Dissolved Mercury in Water by CVAAS</b>											
<b>Glass vial dissolved (hydrochloric acid)</b> RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E509	14-Sep-2022	20-Sep-2022	----	----		20-Sep-2022	28 days	6 days	✔	
<b>Dissolved Metals : Dissolved Metals in Water by CRC ICPMS</b>											
<b>HDPE - dissolved (lab preserved)</b> RG_CORCK_WS_LAEMP_CMO_2022-09_N	E421	14-Sep-2022	19-Sep-2022	----	----		19-Sep-2022	180 days	5 days	✔	



Matrix: **Water** Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Dissolved Metals : Dissolved Metals in Water by CRC ICPMS</b>											
<b>HDPE - dissolved (lab preserved)</b> RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E421	14-Sep-2022	19-Sep-2022	----	----		19-Sep-2022	180 days	5 days	✓	
<b>Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)</b>											
<b>Amber glass dissolved (sulfuric acid)</b> RG_CORCK_WS_LAEMP_CMO_2022-09_N	E358-L	14-Sep-2022	16-Sep-2022	----	----		17-Sep-2022	28 days	3 days	✓	
<b>Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)</b>											
<b>Amber glass dissolved (sulfuric acid)</b> RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E358-L	14-Sep-2022	16-Sep-2022	----	----		17-Sep-2022	28 days	3 days	✓	
<b>Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_CORCK_WS_LAEMP_CMO_2022-09_N	E355-L	14-Sep-2022	16-Sep-2022	----	----		17-Sep-2022	28 days	3 days	✓	
<b>Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E355-L	14-Sep-2022	16-Sep-2022	----	----		17-Sep-2022	28 days	3 days	✓	
<b>Physical Tests : Acidity by Titration</b>											
<b>HDPE</b> RG_CORCK_WS_LAEMP_CMO_2022-09_N	E283	14-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	14 days	3 days	✓	
<b>Physical Tests : Acidity by Titration</b>											
<b>HDPE</b> RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E283	14-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	14 days	3 days	✓	
<b>Physical Tests : Alkalinity Species by Titration</b>											
<b>HDPE</b> RG_CORCK_WS_LAEMP_CMO_2022-09_N	E290	14-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	14 days	3 days	✓	
<b>Physical Tests : Alkalinity Species by Titration</b>											
<b>HDPE</b> RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E290	14-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	14 days	3 days	✓	



Matrix: **Water** Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Physical Tests : Conductivity in Water</b>											
HDPE RG_CORCK_WS_LAEMP_CMO_2022-09_N	E100	14-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	28 days	3 days	✓	
<b>Physical Tests : Conductivity in Water</b>											
HDPE RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E100	14-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	28 days	3 days	✓	
<b>Physical Tests : ORP by Electrode</b>											
HDPE RG_CORCK_WS_LAEMP_CMO_2022-09_N	E125	14-Sep-2022	----	----	----		17-Sep-2022	0.25 hrs	67 hrs	* EHTR-FM	
<b>Physical Tests : ORP by Electrode</b>											
HDPE RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E125	14-Sep-2022	----	----	----		17-Sep-2022	0.25 hrs	71 hrs	* EHTR-FM	
<b>Physical Tests : pH by Meter</b>											
HDPE RG_CORCK_WS_LAEMP_CMO_2022-09_N	E108	14-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	0.25 hrs	0.25 hrs	* EHTR-FM	
<b>Physical Tests : pH by Meter</b>											
HDPE RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E108	14-Sep-2022	17-Sep-2022	----	----		17-Sep-2022	0.25 hrs	0.25 hrs	* EHTR-FM	
<b>Physical Tests : TDS by Gravimetry</b>											
HDPE RG_CORCK_WS_LAEMP_CMO_2022-09_N	E162	14-Sep-2022	----	----	----		16-Sep-2022	7 days	2 days	✓	
<b>Physical Tests : TDS by Gravimetry</b>											
HDPE RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E162	14-Sep-2022	----	----	----		16-Sep-2022	7 days	2 days	✓	
<b>Physical Tests : TSS by Gravimetry (Low Level)</b>											
HDPE [TSS-WB] RG_CORCK_WS_LAEMP_CMO_2022-09_N	E160-L	14-Sep-2022	----	----	----		16-Sep-2022	7 days	2 days	✓	



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Physical Tests : TSS by Gravimetry (Low Level)</b>											
<b>HDPE [TSS-WB]</b> RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E160-L	14-Sep-2022	----	----	----		16-Sep-2022	7 days	2 days	✔	
<b>Physical Tests : Turbidity by Nephelometry</b>											
<b>HDPE</b> RG_CORCK_WS_LAEMP_CMO_2022-09_N	E121	14-Sep-2022	----	----	----		16-Sep-2022	3 days	2 days	✔	
<b>Physical Tests : Turbidity by Nephelometry</b>											
<b>HDPE</b> RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E121	14-Sep-2022	----	----	----		16-Sep-2022	3 days	2 days	✔	
<b>Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)</b>											
<b>HDPE - total (lab preserved)</b> RG_CORCK_WS_LAEMP_CMO_2022-09_N	E420.Cr-L	14-Sep-2022	18-Sep-2022	----	----		18-Sep-2022	180 days	4 days	✔	
<b>Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)</b>											
<b>HDPE - total (lab preserved)</b> RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E420.Cr-L	14-Sep-2022	18-Sep-2022	----	----		18-Sep-2022	180 days	4 days	✔	
<b>Total Metals : Total Mercury in Water by CVAAS</b>											
<b>Glass vial total (hydrochloric acid)</b> RG_CORCK_WS_LAEMP_CMO_2022-09_N	E508	14-Sep-2022	20-Sep-2022	----	----		20-Sep-2022	28 days	6 days	✔	
<b>Total Metals : Total Mercury in Water by CVAAS</b>											
<b>Glass vial total (hydrochloric acid)</b> RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E508	14-Sep-2022	20-Sep-2022	----	----		20-Sep-2022	28 days	6 days	✔	
<b>Total Metals : Total Metals in Water by CRC ICPMS</b>											
<b>HDPE - total (lab preserved)</b> RG_CORCK_WS_LAEMP_CMO_2022-09_N	E420	14-Sep-2022	18-Sep-2022	----	----		18-Sep-2022	180 days	4 days	✔	
<b>Total Metals : Total Metals in Water by CRC ICPMS</b>											
<b>HDPE - total (lab preserved)</b> RG_MIUCO_WS_LAEMP_CMO_2022-09_N	E420	14-Sep-2022	18-Sep-2022	----	----		18-Sep-2022	180 days	4 days	✔	

**Legend & Qualifier Definitions**

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

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Work Order : CG2212650  
Client : Teck Coal Limited  
Project : Regional Effects Program

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Rec. HT: ALS recommended hold time (see units).

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## Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water** Evaluation: \* = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		Evaluation
			QC	Regular	Actual	Expected	
<b>Analytical Methods</b>							
<b>Laboratory Duplicates (DUP)</b>							
Acidity by Titration	E283	652128	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	652131	1	19	5.2	5.0	✓
Ammonia by Fluorescence	E298	651651	1	12	8.3	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	651629	1	11	9.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	651630	1	11	9.0	5.0	✓
Conductivity in Water	E100	652130	1	19	5.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	653362	1	19	5.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	655111	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	653363	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	651624	1	6	16.6	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	651928	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	651628	1	11	9.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	651631	1	11	9.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	651632	1	11	9.0	5.0	✓
ORP by Electrode	E125	652149	1	19	5.2	5.0	✓
pH by Meter	E108	652129	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	651633	1	11	9.0	5.0	✓
TDS by Gravimetry	E162	651516	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	652278	1	15	6.6	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	651592	1	4	25.0	5.0	✓
Total Mercury in Water by CVAAS	E508	655100	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	652279	1	15	6.6	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	651625	1	6	16.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	653712	1	20	5.0	5.0	✓
Turbidity by Nephelometry	E121	651627	1	20	5.0	5.0	✓
<b>Laboratory Control Samples (LCS)</b>							
Acidity by Titration	E283	652128	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	652131	1	19	5.2	5.0	✓
Ammonia by Fluorescence	E298	651651	1	12	8.3	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	651629	1	11	9.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	651630	1	11	9.0	5.0	✓
Conductivity in Water	E100	652130	1	19	5.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	653362	1	19	5.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	655111	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	653363	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	651624	1	6	16.6	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	651928	1	20	5.0	5.0	✓



Matrix: **Water**

Evaluation: \* = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		Evaluation
			QC	Regular	Actual	Expected	
<i>Analytical Methods</i>							
<b>Laboratory Control Samples (LCS) - Continued</b>							
Fluoride in Water by IC	E235.F	651628	1	11	9.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	651631	1	11	9.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	651632	1	11	9.0	5.0	✓
ORP by Electrode	E125	652149	1	19	5.2	5.0	✓
pH by Meter	E108	652129	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	651633	1	11	9.0	5.0	✓
TDS by Gravimetry	E162	651516	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	652278	1	15	6.6	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	651592	1	4	25.0	5.0	✓
Total Mercury in Water by CVAAS	E508	655100	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	652279	1	15	6.6	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	651625	1	6	16.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	653712	1	20	5.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	651515	1	19	5.2	5.0	✓
Turbidity by Nephelometry	E121	651627	1	20	5.0	5.0	✓
<b>Method Blanks (MB)</b>							
Acidity by Titration	E283	652128	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	652131	1	19	5.2	5.0	✓
Ammonia by Fluorescence	E298	651651	1	12	8.3	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	651629	1	11	9.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	651630	1	11	9.0	5.0	✓
Conductivity in Water	E100	652130	1	19	5.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	653362	1	19	5.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	655111	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	653363	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	651624	1	6	16.6	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	651928	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	651628	1	11	9.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	651631	1	11	9.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	651632	1	11	9.0	5.0	✓
Sulfate in Water by IC	E235.SO4	651633	1	11	9.0	5.0	✓
TDS by Gravimetry	E162	651516	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	652278	1	15	6.6	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	651592	1	4	25.0	5.0	✓
Total Mercury in Water by CVAAS	E508	655100	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	652279	1	15	6.6	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	651625	1	6	16.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	653712	1	20	5.0	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	651515	1	19	5.2	5.0	✓
Turbidity by Nephelometry	E121	651627	1	20	5.0	5.0	✓





Matrix: **Water** Evaluation: \* = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		Evaluation
			QC	Regular	Actual	Expected	
<i>Analytical Methods</i>							
<b>Matrix Spikes (MS)</b>							
Ammonia by Fluorescence	E298	651651	1	12	8.3	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	651629	1	11	9.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	651630	1	11	9.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	653362	1	19	5.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	655111	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	653363	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	651624	1	6	16.6	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	651928	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	651628	1	11	9.0	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	651631	1	11	9.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	651632	1	11	9.0	5.0	✓
Sulfate in Water by IC	E235.SO4	651633	1	11	9.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	652278	1	15	6.6	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	651592	1	4	25.0	5.0	✓
Total Mercury in Water by CVAAS	E508	655100	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	652279	1	15	6.6	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	651625	1	6	16.6	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	653712	1	20	5.0	5.0	✓





## Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 Calgary - Environmental	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 Calgary - Environmental	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 Calgary - Environmental	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
ORP by Electrode	E125 Calgary - Environmental	Water	ASTM D1498 (mod)	Oxidation reduction potential is reported as the oxidation-reduction potential of the platinum metal-reference electrode employed, measured in mV. For high accuracy test results, it is recommended that this analysis be conducted in the field.
TSS by Gravimetry (Low Level)	E160-L Calgary - Environmental	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry	E162 Calgary - Environmental	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Bromide in Water by IC (Low Level)	E235.Br-L Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Chloride in Water by IC (Low Level)	E235.Cl-L Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 Calgary - Environmental	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 Calgary - Environmental	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 Calgary - Environmental	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 Calgary - Environmental	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L Calgary - Environmental	Water	APHA 5310 B (mod)	Total Organic Carbon (Non-Purgeable), also known as NPOC (total), is a direct measurement of TOC after an acidified sample has been purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO <sub>2</sub> . NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of total carbon (TC) is comprised of IC (which is common), this method is more accurate and more reliable than the TOC by subtraction method (i.e. TC minus TIC).
Dissolved Organic Carbon by Combustion (Low Level)	E358-L Calgary - Environmental	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO <sub>2</sub> . NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U Calgary - Environmental	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U Calgary - Environmental	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter.  Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 Calgary - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.  Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L Calgary - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Dissolved Metals in Water by CRC ICPMS	E421 Calgary - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.  Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L Calgary - Environmental	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Total Mercury in Water by CVAAS	E508 Calgary - Environmental	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 Calgary - Environmental	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 Calgary - Environmental	Water	APHA 2340B	"Hardness (as CaCO <sub>3</sub> ), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO <sub>3</sub> equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Ion Balance using Dissolved Metals	EC101 Calgary - Environmental	Water	APHA 1030E	Cation Sum, Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Dissolved species are used where available. Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 Calgary - Environmental	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 Calgary - Environmental	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Preparation for Total Organic Carbon by Combustion	EP355 Calgary - Environmental	Water		Preparation for Total Organic Carbon by Combustion
Preparation for Dissolved Organic Carbon for Combustion	EP358 Calgary - Environmental	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 Calgary - Environmental	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 Calgary - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO <sub>3</sub> .
Dissolved Mercury Water Filtration	EP509 Calgary - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.



## QUALITY CONTROL REPORT

**Work Order** : **CG2212650**

Client : Teck Coal Limited  
Contact : Cybele Heddle  
Address : 421 Pine Avenue  
Sparwood BC Canada V0B2G0

Telephone : ----

Project : Regional Effects Program  
PO : VPO00816101  
C-O-C number : REP\_LAEMP\_CmM\_2022-09\_ALS  
Sampler : Jenifer Ings  
Site : ----  
Quote number : Teck Coal Master Quote  
No. of samples received : 2  
No. of samples analysed : 2

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Laboratory : Calgary - Environmental  
Account Manager : Lyudmyla Shvets  
Address : 2559 29th Street NE  
Calgary, Alberta Canada T1Y 7B5

Telephone : +1 403 407 1800  
Date Samples Received : 16-Sep-2022 08:50  
Date Analysis Commenced : 16-Sep-2022  
Issue Date : 20-Sep-2022 16:26

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

### Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Anthony Calero	Supervisor - Inorganic	Calgary Inorganics, Calgary, Alberta
Anthony Calero	Supervisor - Inorganic	Calgary Metals, Calgary, Alberta
Elke Tabora		Calgary Inorganics, Calgary, Alberta
Harpreet Chawla	Team Leader - Inorganics	Calgary Inorganics, Calgary, Alberta
Mackenzie Lamoureux	Laboratory Analyst	Calgary Metals, Calgary, Alberta
Ruifang Zheng	Analyst	Calgary Inorganics, Calgary, Alberta
Sara Niroomand		Calgary Inorganics, Calgary, Alberta

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Work Order : CG2212650  
Client : Teck Coal Limited  
Project : Regional Effects Program

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## **General Comments**

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

# = Indicates a QC result that did not meet the ALS DQO.

## **Workorder Comments**

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Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

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### Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: <b>Water</b>					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Physical Tests (QC Lot: 651516)</b>											
CG2212617-001	Anonymous	solids, total dissolved [TDS]	----	E162	20	mg/L	512	523	2.03%	20%	----
<b>Physical Tests (QC Lot: 651627)</b>											
CG2212619-005	Anonymous	turbidity	----	E121	0.10	NTU	<0.10	<0.10	0	Diff <2x LOR	----
<b>Physical Tests (QC Lot: 652128)</b>											
CG2212650-001	RG_MIUCO_WS_LAEMP_CMO_2022-09_N	acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
<b>Physical Tests (QC Lot: 652129)</b>											
CG2212650-001	RG_MIUCO_WS_LAEMP_CMO_2022-09_N	pH	----	E108	0.10	pH units	8.34	8.31	0.360%	4%	----
<b>Physical Tests (QC Lot: 652130)</b>											
CG2212650-001	RG_MIUCO_WS_LAEMP_CMO_2022-09_N	conductivity	----	E100	2.0	µS/cm	287	288	0.348%	10%	----
<b>Physical Tests (QC Lot: 652131)</b>											
CG2212650-001	RG_MIUCO_WS_LAEMP_CMO_2022-09_N	alkalinity, bicarbonate (as CaCO3)	----	E290	1.0	mg/L	144	156	7.92%	20%	----
		alkalinity, carbonate (as CaCO3)	----	E290	1.0	mg/L	6.8	5.4	1.4	Diff <2x LOR	----
		alkalinity, hydroxide (as CaCO3)	----	E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
		alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	151	162	6.72%	20%	----
<b>Physical Tests (QC Lot: 652149)</b>											
CG2212650-001	RG_MIUCO_WS_LAEMP_CMO_2022-09_N	oxidation-reduction potential [ORP]	----	E125	0.10	mV	268	269	0.186%	15%	----
<b>Anions and Nutrients (QC Lot: 651592)</b>											
CG2212650-001	RG_MIUCO_WS_LAEMP_CMO_2022-09_N	Kjeldahl nitrogen, total [TKN]	----	E318	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 651628)</b>											
CG2212647-001	Anonymous	fluoride	16984-48-8	E235.F	0.020	mg/L	0.144	0.144	0.0003	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 651629)</b>											
CG2212647-001	Anonymous	bromide	24959-67-9	E235.Br-L	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 651630)</b>											
CG2212647-001	Anonymous	chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.17	0.18	0.009	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 651631)</b>											
CG2212647-001	Anonymous	nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0455	0.0466	0.0011	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 651632)</b>											
CG2212647-001	Anonymous	nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 651633)</b>											



Sub-Matrix: Water					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Anions and Nutrients (QC Lot: 651633) - continued</b>											
CG2212647-001	Anonymous	sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	46.8	46.7	0.379%	20%	----
<b>Anions and Nutrients (QC Lot: 651651)</b>											
CG2212588-001	Anonymous	ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 651928)</b>											
CG2212626-001	Anonymous	phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	0.0048	0.0047	0.00008	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 653712)</b>											
CG2212650-001	RG_MIUCO_WS_LAEMP_CMO_2022-09_N	phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0033	0.0035	0.0002	Diff <2x LOR	----
<b>Organic / Inorganic Carbon (QC Lot: 651624)</b>											
CG2212650-001	RG_MIUCO_WS_LAEMP_CMO_2022-09_N	carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
<b>Organic / Inorganic Carbon (QC Lot: 651625)</b>											
CG2212650-001	RG_MIUCO_WS_LAEMP_CMO_2022-09_N	carbon, total organic [TOC]	----	E355-L	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
<b>Total Metals (QC Lot: 652278)</b>											
CG2212385-001	Anonymous	chromium, total	7440-47-3	E420.Cr-L	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
<b>Total Metals (QC Lot: 652279)</b>											
CG2212385-001	Anonymous	aluminum, total	7429-90-5	E420	0.0060	mg/L	0.0110	0.0110	0.00003	Diff <2x LOR	----
		antimony, total	7440-36-0	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		arsenic, total	7440-38-2	E420	0.00020	mg/L	0.00031	0.00029	0.00001	Diff <2x LOR	----
		barium, total	7440-39-3	E420	0.00020	mg/L	0.0320	0.0300	6.28%	20%	----
		beryllium, total	7440-41-7	E420	0.000040	mg/L	<0.040 µg/L	<0.000040	0	Diff <2x LOR	----
		bismuth, total	7440-69-9	E420	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		boron, total	7440-42-8	E420	0.020	mg/L	<0.020	<0.020	0	Diff <2x LOR	----
		cadmium, total	7440-43-9	E420	0.0000100	mg/L	0.0406 µg/L	0.0000339	0.0000067	Diff <2x LOR	----
		calcium, total	7440-70-2	E420	0.100	mg/L	318	304	4.43%	20%	----
		cobalt, total	7440-48-4	E420	0.00020	mg/L	<0.20 µg/L	<0.00020	0	Diff <2x LOR	----
		copper, total	7440-50-8	E420	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		iron, total	7439-89-6	E420	0.020	mg/L	<0.020	<0.020	0	Diff <2x LOR	----
		lead, total	7439-92-1	E420	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		lithium, total	7439-93-2	E420	0.0020	mg/L	0.0380	0.0349	8.66%	20%	----
		magnesium, total	7439-95-4	E420	0.0100	mg/L	186	178	4.04%	20%	----
		manganese, total	7439-96-5	E420	0.00020	mg/L	0.0264	0.0255	3.63%	20%	----
		molybdenum, total	7439-98-7	E420	0.000100	mg/L	0.00194	0.00175	9.93%	20%	----
		nickel, total	7440-02-0	E420	0.00100	mg/L	0.00108	0.00106	0.00002	Diff <2x LOR	----
		potassium, total	7440-09-7	E420	0.100	mg/L	3.69	3.52	4.69%	20%	----
		selenium, total	7782-49-2	E420	0.000100	mg/L	225 µg/L	0.214	4.91%	20%	----





Sub-Matrix: **Water**

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Total Metals (QC Lot: 652279) - continued</b>											
CG2212385-001	Anonymous	silicon, total	7440-21-3	E420	0.20	mg/L	6.30	5.96	5.64%	20%	----
		silver, total	7440-22-4	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		sodium, total	7440-23-5	E420	0.100	mg/L	20.2	19.4	3.98%	20%	----
		strontium, total	7440-24-6	E420	0.00040	mg/L	0.208	0.200	3.65%	20%	----
		sulfur, total	7704-34-9	E420	1.00	mg/L	350	329	6.05%	20%	----
		thallium, total	7440-28-0	E420	0.000020	mg/L	0.000109	0.000105	0.000004	Diff <2x LOR	----
		tin, total	7440-31-5	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		titanium, total	7440-32-6	E420	0.00060	mg/L	<0.00060	<0.00060	0	Diff <2x LOR	----
		uranium, total	7440-61-1	E420	0.000020	mg/L	0.00759	0.00737	2.94%	20%	----
		vanadium, total	7440-62-2	E420	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		zinc, total	7440-66-6	E420	0.0060	mg/L	<0.0060	<0.0060	0	Diff <2x LOR	----
<b>Total Metals (QC Lot: 655100)</b>											
CG2212650-001	RG_MIUCO_WS_LAEMP_CMO_2022-09_N	mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	0.0000055	0.0000005	Diff <2x LOR	----
<b>Dissolved Metals (QC Lot: 653362)</b>											
CG2212385-001	Anonymous	chromium, dissolved	7440-47-3	E421.Cr-L	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
<b>Dissolved Metals (QC Lot: 653363)</b>											
CG2212385-001	Anonymous	aluminum, dissolved	7429-90-5	E421	0.0020	mg/L	0.0029	0.0031	0.0002	Diff <2x LOR	----
		antimony, dissolved	7440-36-0	E421	0.00020	mg/L	0.00022	0.00020	0.00002	Diff <2x LOR	----
		arsenic, dissolved	7440-38-2	E421	0.00020	mg/L	0.00028	0.00028	0.000002	Diff <2x LOR	----
		barium, dissolved	7440-39-3	E421	0.00020	mg/L	0.0378	0.0405	6.68%	20%	----
		beryllium, dissolved	7440-41-7	E421	0.000040	mg/L	<0.040 µg/L	<0.000040	0	Diff <2x LOR	----
		bismuth, dissolved	7440-69-9	E421	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		boron, dissolved	7440-42-8	E421	0.020	mg/L	<0.020	<0.020	0	Diff <2x LOR	----
		cadmium, dissolved	7440-43-9	E421	0.0000100	mg/L	0.0295 µg/L	0.0000320	0.0000025	Diff <2x LOR	----
		calcium, dissolved	7440-70-2	E421	0.100	mg/L	280	308	9.73%	20%	----
		cobalt, dissolved	7440-48-4	E421	0.00020	mg/L	<0.20 µg/L	<0.00020	0	Diff <2x LOR	----
		copper, dissolved	7440-50-8	E421	0.00040	mg/L	0.00181	0.00198	0.00017	Diff <2x LOR	----
		iron, dissolved	7439-89-6	E421	0.020	mg/L	<0.020	<0.020	0	Diff <2x LOR	----
		lead, dissolved	7439-92-1	E421	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		lithium, dissolved	7439-93-2	E421	0.0020	mg/L	0.0390	0.0382	2.27%	20%	----
		magnesium, dissolved	7439-95-4	E421	0.0100	mg/L	158	164	4.09%	20%	----
		manganese, dissolved	7439-96-5	E421	0.00020	mg/L	0.00567	0.00600	5.56%	20%	----
		molybdenum, dissolved	7439-98-7	E421	0.000100	mg/L	0.00184	0.00196	6.25%	20%	----
		nickel, dissolved	7440-02-0	E421	0.00100	mg/L	<0.00100	0.00111	0.00011	Diff <2x LOR	----
		potassium, dissolved	7440-09-7	E421	0.100	mg/L	3.44	3.63	5.37%	20%	----





Sub-Matrix: **Water**

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Dissolved Metals (QC Lot: 653363) - continued</b>											
CG2212385-001	Anonymous	selenium, dissolved	7782-49-2	E421	0.000100	mg/L	208 µg/L	0.220	5.88%	20%	----
		silicon, dissolved	7440-21-3	E421	0.100	mg/L	5.95	6.13	2.99%	20%	----
		silver, dissolved	7440-22-4	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		sodium, dissolved	7440-23-5	E421	0.100	mg/L	19.8	20.7	4.78%	20%	----
		strontium, dissolved	7440-24-6	E421	0.00040	mg/L	0.197	0.218	9.97%	20%	----
		sulfur, dissolved	7704-34-9	E421	1.00	mg/L	279	289	3.57%	20%	----
		thallium, dissolved	7440-28-0	E421	0.000020	mg/L	0.000101	0.000110	0.000009	Diff <2x LOR	----
		tin, dissolved	7440-31-5	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		titanium, dissolved	7440-32-6	E421	0.00060	mg/L	<0.00060	<0.00060	0	Diff <2x LOR	----
		uranium, dissolved	7440-61-1	E421	0.000020	mg/L	0.00684	0.00748	9.04%	20%	----
		vanadium, dissolved	7440-62-2	E421	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		zinc, dissolved	7440-66-6	E421	0.0020	mg/L	0.0027	0.0027	0.00003	Diff <2x LOR	----
<b>Dissolved Metals (QC Lot: 655111)</b>											
CG2212650-001	RG_MIUCO_WS_LAEMP_CMO_2022-09_N	mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----



## Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

### Sub-Matrix: Water

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Physical Tests (QCLot: 651515)</b>						
solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
<b>Physical Tests (QCLot: 651516)</b>						
solids, total dissolved [TDS]	----	E162	10	mg/L	<10	----
<b>Physical Tests (QCLot: 651627)</b>						
turbidity	----	E121	0.1	NTU	<0.10	----
<b>Physical Tests (QCLot: 652128)</b>						
acidity (as CaCO3)	----	E283	2	mg/L	<2.0	----
<b>Physical Tests (QCLot: 652130)</b>						
conductivity	----	E100	1	µS/cm	<1.0	----
<b>Physical Tests (QCLot: 652131)</b>						
alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
<b>Anions and Nutrients (QCLot: 651592)</b>						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
<b>Anions and Nutrients (QCLot: 651628)</b>						
fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
<b>Anions and Nutrients (QCLot: 651629)</b>						
bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	----
<b>Anions and Nutrients (QCLot: 651630)</b>						
chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
<b>Anions and Nutrients (QCLot: 651631)</b>						
nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
<b>Anions and Nutrients (QCLot: 651632)</b>						
nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
<b>Anions and Nutrients (QCLot: 651633)</b>						
sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
<b>Anions and Nutrients (QCLot: 651651)</b>						
ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
<b>Anions and Nutrients (QCLot: 651928)</b>						
phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
<b>Anions and Nutrients (QCLot: 653712)</b>						



Sub-Matrix: Water

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Anions and Nutrients (QCLot: 653712) - continued</b>						
phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	---
<b>Organic / Inorganic Carbon (QCLot: 651624)</b>						
carbon, dissolved organic [DOC]	---	E358-L	0.5	mg/L	<0.50	---
<b>Organic / Inorganic Carbon (QCLot: 651625)</b>						
carbon, total organic [TOC]	---	E355-L	0.5	mg/L	<0.50	---
<b>Total Metals (QCLot: 652278)</b>						
chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	---
<b>Total Metals (QCLot: 652279)</b>						
aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	---
antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	---
arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	---
barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	---
beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	---
bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	---
boron, total	7440-42-8	E420	0.01	mg/L	<0.010	---
cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	---
calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	---
cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	---
copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	---
iron, total	7439-89-6	E420	0.01	mg/L	<0.010	---
lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	---
lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	---
magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	---
manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	---
molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	---
nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	---
potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	---
selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	---
silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	---
silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	---
sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	---
strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	---
sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	---
thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	---
tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	---
titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	---



Sub-Matrix: Water

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Total Metals (QCLot: 652279) - continued</b>						
uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	---
vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	---
zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	---
<b>Total Metals (QCLot: 655100)</b>						
mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	---
<b>Dissolved Metals (QCLot: 653362)</b>						
chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	---
<b>Dissolved Metals (QCLot: 653363)</b>						
aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	---
antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	---
arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	---
barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	---
beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	---
bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	---
boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	---
cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	---
calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	---
cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	---
copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	---
iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	---
lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	---
lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	---
magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	---
manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	---
molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	---
nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	---
potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	---
selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	---
silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	---
silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	---
sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	---
strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	---
sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	---
thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	---
tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	---
titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	---



Sub-Matrix: **Water**

<i>Analyte</i>	<i>CAS Number</i>	<i>Method</i>	<i>LOR</i>	<i>Unit</i>	<i>Result</i>	<i>Qualifier</i>
<b>Dissolved Metals (QCLot: 653363) - continued</b>						
uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
<b>Dissolved Metals (QCLot: 655111)</b>						
mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----



## Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
<b>Physical Tests (QCLot: 651515)</b>									
solids, total suspended [TSS]	---	E160-L	1	mg/L	150 mg/L	93.9	85.0	115	---
<b>Physical Tests (QCLot: 651516)</b>									
solids, total dissolved [TDS]	---	E162	10	mg/L	1000 mg/L	93.0	85.0	115	---
<b>Physical Tests (QCLot: 651627)</b>									
turbidity	---	E121	0.1	NTU	200 NTU	113	85.0	115	---
<b>Physical Tests (QCLot: 652128)</b>									
acidity (as CaCO3)	---	E283	2	mg/L	50 mg/L	106	85.0	115	---
<b>Physical Tests (QCLot: 652129)</b>									
pH	---	E108	---	pH units	7 pH units	100	98.6	101	---
<b>Physical Tests (QCLot: 652130)</b>									
conductivity	---	E100	1	µS/cm	146.9 µS/cm	97.3	90.0	110	---
<b>Physical Tests (QCLot: 652131)</b>									
alkalinity, total (as CaCO3)	---	E290	1	mg/L	500 mg/L	101	85.0	115	---
<b>Physical Tests (QCLot: 652149)</b>									
oxidation-reduction potential [ORP]	---	E125	---	mV	220 mV	100	95.4	104	---
<b>Anions and Nutrients (QCLot: 651592)</b>									
Kjeldahl nitrogen, total [TKN]	---	E318	0.05	mg/L	4 mg/L	99.1	75.0	125	---
<b>Anions and Nutrients (QCLot: 651628)</b>									
fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	103	90.0	110	---
<b>Anions and Nutrients (QCLot: 651629)</b>									
bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	102	85.0	115	---
<b>Anions and Nutrients (QCLot: 651630)</b>									
chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	101	90.0	110	---
<b>Anions and Nutrients (QCLot: 651631)</b>									
nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	102	90.0	110	---
<b>Anions and Nutrients (QCLot: 651632)</b>									
nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	99.7	90.0	110	---
<b>Anions and Nutrients (QCLot: 651633)</b>									
sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	104	90.0	110	---
<b>Anions and Nutrients (QCLot: 651651)</b>									
ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	97.4	85.0	115	---
<b>Anions and Nutrients (QCLot: 651928)</b>									



Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
<b>Anions and Nutrients (QCLot: 651928) - continued</b>									
phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.03 mg/L	92.8	80.0	120	----
<b>Anions and Nutrients (QCLot: 653712)</b>									
phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.03 mg/L	95.2	80.0	120	----
<b>Organic / Inorganic Carbon (QCLot: 651624)</b>									
carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	97.9	80.0	120	----
<b>Organic / Inorganic Carbon (QCLot: 651625)</b>									
carbon, total organic [TOC]	----	E355-L	0.5	mg/L	8.57 mg/L	102	80.0	120	----
<b>Total Metals (QCLot: 652278)</b>									
chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	89.3	80.0	120	----
<b>Total Metals (QCLot: 652279)</b>									
aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	103	80.0	120	----
antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	108	80.0	120	----
arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	90.0	80.0	120	----
barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	105	80.0	120	----
beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	88.2	80.0	120	----
bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	91.5	80.0	120	----
boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	86.2	80.0	120	----
cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	88.6	80.0	120	----
calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	104	80.0	120	----
cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	87.4	80.0	120	----
copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	89.1	80.0	120	----
iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	108	80.0	120	----
lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	90.7	80.0	120	----
lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	99.2	80.0	120	----
magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	87.4	80.0	120	----
manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	95.1	80.0	120	----
molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	93.1	80.0	120	----
nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	91.1	80.0	120	----
potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	90.4	80.0	120	----
selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	84.0	80.0	120	----
silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	108	60.0	140	----
silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	86.2	80.0	120	----
sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	90.3	80.0	120	----
strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	95.5	80.0	120	----
sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	97.6	80.0	120	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
<b>Total Metals (QCLot: 652279) - continued</b>									
thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	91.5	80.0	120	----
tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	104	80.0	120	----
titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	93.4	80.0	120	----
uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	102	80.0	120	----
vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	89.7	80.0	120	----
zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	108	80.0	120	----
<b>Total Metals (QCLot: 655100)</b>									
mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	118	80.0	120	----
<b>Dissolved Metals (QCLot: 653362)</b>									
chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	90.7	80.0	120	----
<b>Dissolved Metals (QCLot: 653363)</b>									
aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	95.3	80.0	120	----
antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	98.4	80.0	120	----
arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	87.9	80.0	120	----
barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	91.6	80.0	120	----
beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	98.8	80.0	120	----
bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	94.4	80.0	120	----
boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	89.1	80.0	120	----
cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	88.6	80.0	120	----
calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	95.1	80.0	120	----
cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	90.2	80.0	120	----
copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	89.3	80.0	120	----
iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	105	80.0	120	----
lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	94.6	80.0	120	----
lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	105	80.0	120	----
magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	90.6	80.0	120	----
manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	91.6	80.0	120	----
molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	98.1	80.0	120	----
nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	88.1	80.0	120	----
potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	92.4	80.0	120	----
selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	86.9	80.0	120	----
silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	99.8	60.0	140	----
silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	88.6	80.0	120	----
sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	94.0	80.0	120	----
strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	96.2	80.0	120	----
sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	84.0	80.0	120	----





Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
<b>Dissolved Metals (QCLot: 653363) - continued</b>									
thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	94.2	80.0	120	----
tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	93.9	80.0	120	----
titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	89.3	80.0	120	----
uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	95.8	80.0	120	----
vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	91.2	80.0	120	----
zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	93.2	80.0	120	----
mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	95.8	80.0	120	----



## Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level  $\geq 1x$  spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
<b>Anions and Nutrients (QCLot: 651592)</b>										
CG2212650-002	RG_CORCK_WS_LAEMP_CMO_2022-09_N	Kjeldahl nitrogen, total [TKN]	----	E318	2.41 mg/L	2.5 mg/L	96.2	70.0	130	----
<b>Anions and Nutrients (QCLot: 651628)</b>										
CG2212647-002	Anonymous	fluoride	16984-48-8	E235.F	1.02 mg/L	1 mg/L	102	75.0	125	----
<b>Anions and Nutrients (QCLot: 651629)</b>										
CG2212647-002	Anonymous	bromide	24959-67-9	E235.Br-L	0.510 mg/L	0.5 mg/L	102	75.0	125	----
<b>Anions and Nutrients (QCLot: 651630)</b>										
CG2212647-002	Anonymous	chloride	16887-00-6	E235.Cl-L	100 mg/L	100 mg/L	100	75.0	125	----
<b>Anions and Nutrients (QCLot: 651631)</b>										
CG2212647-002	Anonymous	nitrate (as N)	14797-55-8	E235.NO3-L	2.53 mg/L	2.5 mg/L	101	75.0	125	----
<b>Anions and Nutrients (QCLot: 651632)</b>										
CG2212647-002	Anonymous	nitrite (as N)	14797-65-0	E235.NO2-L	0.515 mg/L	0.5 mg/L	103	75.0	125	----
<b>Anions and Nutrients (QCLot: 651633)</b>										
CG2212647-002	Anonymous	sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125	----
<b>Anions and Nutrients (QCLot: 651651)</b>										
CG2212588-002	Anonymous	ammonia, total (as N)	7664-41-7	E298	0.106 mg/L	0.1 mg/L	106	75.0	125	----
<b>Anions and Nutrients (QCLot: 651928)</b>										
CG2212650-001	RG_MIUCO_WS_LAEMP_CMO_2022-09_N	phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0514 mg/L	0.05 mg/L	103	70.0	130	----
<b>Anions and Nutrients (QCLot: 653712)</b>										
CG2212650-002	RG_CORCK_WS_LAEMP_CMO_2022-09_N	phosphorus, total	7723-14-0	E372-U	0.0504 mg/L	0.05 mg/L	101	70.0	130	----
<b>Organic / Inorganic Carbon (QCLot: 651624)</b>										
CG2212650-001	RG_MIUCO_WS_LAEMP_CMO_2022-09_N	carbon, dissolved organic [DOC]	----	E358-L	5.19 mg/L	5 mg/L	104	70.0	130	----
<b>Organic / Inorganic Carbon (QCLot: 651625)</b>										
CG2212650-001	RG_MIUCO_WS_LAEMP_CMO_2022-09_N	carbon, total organic [TOC]	----	E355-L	5.52 mg/L	5 mg/L	110	70.0	130	----
<b>Total Metals (QCLot: 652278)</b>										
CG2212385-002	Anonymous	chromium, total	7440-47-3	E420.Cr-L	0.459 mg/L	0.4 mg/L	115	70.0	130	----
<b>Total Metals (QCLot: 652279)</b>										



Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
<b>Total Metals (QCLot: 652279) - continued</b>										
CG2212385-002	Anonymous	aluminum, total	7429-90-5	E420	2.34 mg/L	2 mg/L	117	70.0	130	----
		antimony, total	7440-36-0	E420	0.215 mg/L	0.2 mg/L	107	70.0	130	----
		arsenic, total	7440-38-2	E420	0.224 mg/L	0.2 mg/L	112	70.0	130	----
		barium, total	7440-39-3	E420	0.242 mg/L	0.2 mg/L	121	70.0	130	----
		beryllium, total	7440-41-7	E420	0.414 mg/L	0.4 mg/L	103	70.0	130	----
		bismuth, total	7440-69-9	E420	0.0981 mg/L	0.1 mg/L	98.1	70.0	130	----
		boron, total	7440-42-8	E420	1.02 mg/L	1 mg/L	102	70.0	130	----
		cadmium, total	7440-43-9	E420	0.0472 mg/L	0.04 mg/L	118	70.0	130	----
		calcium, total	7440-70-2	E420	ND mg/L	40 mg/L	ND	70.0	130	----
		cobalt, total	7440-48-4	E420	0.232 mg/L	0.2 mg/L	116	70.0	130	----
		copper, total	7440-50-8	E420	0.224 mg/L	0.2 mg/L	112	70.0	130	----
		iron, total	7439-89-6	E420	23.1 mg/L	20 mg/L	116	70.0	130	----
		lead, total	7439-92-1	E420	0.202 mg/L	0.2 mg/L	101	70.0	130	----
		lithium, total	7439-93-2	E420	1.03 mg/L	1 mg/L	103	70.0	130	----
		magnesium, total	7439-95-4	E420	ND mg/L	10 mg/L	ND	70.0	130	----
		manganese, total	7439-96-5	E420	ND mg/L	0.2 mg/L	ND	70.0	130	----
		molybdenum, total	7439-98-7	E420	0.213 mg/L	0.2 mg/L	106	70.0	130	----
		nickel, total	7440-02-0	E420	0.452 mg/L	0.4 mg/L	113	70.0	130	----
		potassium, total	7440-09-7	E420	47.4 mg/L	40 mg/L	118	70.0	130	----
		selenium, total	7782-49-2	E420	0.472 mg/L	0.4 mg/L	118	70.0	130	----
		silicon, total	7440-21-3	E420	92.1 mg/L	100 mg/L	92.1	70.0	130	----
		silver, total	7440-22-4	E420	0.0429 mg/L	0.04 mg/L	107	70.0	130	----
		sodium, total	7440-23-5	E420	16.3 mg/L	20 mg/L	81.3	70.0	130	----
		strontium, total	7440-24-6	E420	ND mg/L	0.2 mg/L	ND	70.0	130	----
		sulfur, total	7704-34-9	E420	ND mg/L	200 mg/L	ND	70.0	130	----
		thallium, total	7440-28-0	E420	0.0402 mg/L	0.04 mg/L	100	70.0	130	----
		tin, total	7440-31-5	E420	0.208 mg/L	0.2 mg/L	104	70.0	130	----
		titanium, total	7440-32-6	E420	0.450 mg/L	0.4 mg/L	112	70.0	130	----
		uranium, total	7440-61-1	E420	0.0416 mg/L	0.04 mg/L	104	70.0	130	----
		vanadium, total	7440-62-2	E420	1.17 mg/L	1 mg/L	117	70.0	130	----
		zinc, total	7440-66-6	E420	4.52 mg/L	4 mg/L	113	70.0	130	----
<b>Total Metals (QCLot: 655100)</b>										
CG2212650-002	RG_CORCK_WS_LAEMP_CMO_2022-09_N	mercury, total	7439-97-6	E508	0.0000937 mg/L	0.0001 mg/L	93.7	70.0	130	----
<b>Dissolved Metals (QCLot: 653362)</b>										
CG2212385-002	Anonymous	chromium, dissolved	7440-47-3	E421.Cr-L	0.354 mg/L	0.4 mg/L	88.6	70.0	130	----



Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
<b>Dissolved Metals (QCLot: 653363)</b>										
CG2212385-002	Anonymous	aluminum, dissolved	7429-90-5	E421	1.76 mg/L	2 mg/L	88.2	70.0	130	----
		antimony, dissolved	7440-36-0	E421	0.208 mg/L	0.2 mg/L	104	70.0	130	----
		arsenic, dissolved	7440-38-2	E421	0.171 mg/L	0.2 mg/L	85.4	70.0	130	----
		barium, dissolved	7440-39-3	E421	0.176 mg/L	0.2 mg/L	88.0	70.0	130	----
		beryllium, dissolved	7440-41-7	E421	0.386 mg/L	0.4 mg/L	96.6	70.0	130	----
		bismuth, dissolved	7440-69-9	E421	0.0933 mg/L	0.1 mg/L	93.3	70.0	130	----
		boron, dissolved	7440-42-8	E421	0.976 mg/L	1 mg/L	97.6	70.0	130	----
		cadmium, dissolved	7440-43-9	E421	0.0362 mg/L	0.04 mg/L	90.5	70.0	130	----
		calcium, dissolved	7440-70-2	E421	ND mg/L	40 mg/L	ND	70.0	130	----
		cobalt, dissolved	7440-48-4	E421	0.174 mg/L	0.2 mg/L	87.2	70.0	130	----
		copper, dissolved	7440-50-8	E421	0.171 mg/L	0.2 mg/L	85.4	70.0	130	----
		iron, dissolved	7439-89-6	E421	17.8 mg/L	20 mg/L	88.9	70.0	130	----
		lead, dissolved	7439-92-1	E421	0.191 mg/L	0.2 mg/L	95.4	70.0	130	----
		lithium, dissolved	7439-93-2	E421	1.02 mg/L	1 mg/L	102	70.0	130	----
		magnesium, dissolved	7439-95-4	E421	ND mg/L	10 mg/L	ND	70.0	130	----
		manganese, dissolved	7439-96-5	E421	ND mg/L	0.2 mg/L	ND	70.0	130	----
		molybdenum, dissolved	7439-98-7	E421	0.205 mg/L	0.2 mg/L	102	70.0	130	----
		nickel, dissolved	7440-02-0	E421	0.343 mg/L	0.4 mg/L	85.8	70.0	130	----
		potassium, dissolved	7440-09-7	E421	35.0 mg/L	40 mg/L	87.4	70.0	130	----
		selenium, dissolved	7782-49-2	E421	0.389 mg/L	0.4 mg/L	97.3	70.0	130	----
		silicon, dissolved	7440-21-3	E421	78.0 mg/L	100 mg/L	78.0	70.0	130	----
		silver, dissolved	7440-22-4	E421	0.0410 mg/L	0.04 mg/L	102	70.0	130	----
		sodium, dissolved	7440-23-5	E421	17.2 mg/L	20 mg/L	85.8	70.0	130	----
		strontium, dissolved	7440-24-6	E421	ND mg/L	0.2 mg/L	ND	70.0	130	----
		sulfur, dissolved	7704-34-9	E421	ND mg/L	200 mg/L	ND	70.0	130	----
		thallium, dissolved	7440-28-0	E421	0.0374 mg/L	0.04 mg/L	93.5	70.0	130	----
		tin, dissolved	7440-31-5	E421	0.188 mg/L	0.2 mg/L	94.1	70.0	130	----
		titanium, dissolved	7440-32-6	E421	0.344 mg/L	0.4 mg/L	85.9	70.0	130	----
		uranium, dissolved	7440-61-1	E421	0.0390 mg/L	0.04 mg/L	97.6	70.0	130	----
		vanadium, dissolved	7440-62-2	E421	0.876 mg/L	1 mg/L	87.6	70.0	130	----
		zinc, dissolved	7440-66-6	E421	3.62 mg/L	4 mg/L	90.6	70.0	130	----
<b>Dissolved Metals (QCLot: 655111)</b>										
CG2212650-002	RG_CORCK_WS_LAEMP_CMO_2022-09_N	mercury, dissolved	7439-97-6	E509	0.0000938 mg/L	0.0001 mg/L	93.8	70.0	130	----



<b>COC ID:</b> REP_LAEMP_CmM_2022-09_ALS	<b>TURNAROUND TIME:</b> 2-3 Business Days	<b>RUSH Priority</b>	<b>OTHER INFO</b>
<b>PROJECT/CLIENT INFO</b>		<b>LABORATORY</b>	
Facility Name / Job# Regional Effects Program	Lab Name ALS Calgary	Report Format / Distribution	Excel PDF EDD
Project Manager Cybele Huddle	Lab Contact Lyndmyla Shivers	Email 1: Agnes.Sell_and@Teck.com	X X X
Email: Cybele.Huddle@teck.com	Email: Lyndmyla.Shivers@ALSSchool.com	Email 2: teckcal@equisonline.com	X X X
Address: 421 Pine Avenue	Address: 2559 29 Street NE	Email 3: Total.Lab.Results@teck.com	X X X
City: Sparwood	City: Calgary	Email 4: Lisa.Bowen@turnrow.ca	X X X
Postal Code: V0B 2G0	Postal Code: T1Y 7B5	Email 5: Tyler.Mahler@turnrow.ca	X X X
Phone Number: 1-250-865-3048	Phone Number: 403 407 1794	Email 6: Hannah.Penner@Teck.com	X X X
		PO number: YP000816101	X X X

Entered - PE Field 1; Lab. FU, Field 8; Lab. N

Sample ID	Sample Location (sys loc code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Com p	# OF Cont.	ANALYSIS REQUESTED							
								ANALYSIS	PRESERV.	FR.					
RG_MUICO_WS_LAEMP_CMO_2022-09_N	RG_MUICO	WS		2022/09/14	11:00	G	7	DOC	H2SO4	HCL	HCL	TECKCOAL_METNHG_D	TECKCOAL_METNHG_T	TECKCOAL_ROUTINE	TQC_TKN_PT
RG_CORCK_WS_LAEMP_CMO_2022-09_N	RG_CORCK	WS		2022/09/14	14:45	G	7								

**ADDITIONAL COMMENT/SPECIAL INSTRUCTIONS**  
Dissolved metals were field filtered and to be lab preserved  
Total metals to be lab preserved

**SERVICE REQUEST (rush - subject to availability)**

Regular (default)	Priority (2-3 business days) - 50% surcharge	Emergency (1 Business Day) - 100% surcharge	For Emergency <1 Day, ASAP or Weekend - Contact ALS
	X		

RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
Jennifer Ings/Minnow	#####		
Jennifer Ings			
Sampler's Name		Mobile #	519-500-3444
Sampler's Signature		Date/Time	September 15, 2022

Environmental Division  
Calgary  
Work Order Reference  
**CG2212650**

Barcode:

Telephone : +1 403 407 1900

Environmental Division  
Calgary  
Work Order Reference  
**CG2212650**



**CERTIFICATE OF ANALYSIS**

**Work Order** : **CG2212931**  
**Client** : **Teck Coal Limited**  
**Contact** : Cybele Heddle  
**Address** : 421 Pine Ave  
                   Sparwood BC Canada  
**Telephone** : ----  
**Project** : REGIONAL EFFECTS PROGRAM  
**PO** : VPO00816101  
**C-O-C number** : REP\_LAEMP\_CmM\_2022-09\_ALS  
**Sampler** : Jennifer Ings  
**Site** : ----  
**Quote number** : Teck Coal Master Quote  
**No. of samples received** : 5  
**No. of samples analysed** : 5

**Page** : 1 of 6  
**Laboratory** : Calgary - Environmental  
**Account Manager** : Lyudmyla Shvets  
**Address** : 2559 29th Street NE  
                   Calgary AB Canada T1Y 7B5  
**Telephone** : +1 403 407 1800  
**Date Samples Received** : 17-Sep-2022 11:38  
**Date Analysis Commenced** : 22-Sep-2022  
**Issue Date** : 26-Sep-2022 18:29

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

**Signatories**

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Anthony Calero	Supervisor - Inorganic	Inorganics, Calgary, Alberta
Anthony Calero	Supervisor - Inorganic	Metals, Calgary, Alberta
Elke Tabora		Inorganics, Calgary, Alberta
Harpreet Chawla	Team Leader - Inorganics	Inorganics, Calgary, Alberta
Harpreet Chawla	Team Leader - Inorganics	Metals, Calgary, Alberta
Mackenzie Lamoureux	Laboratory Analyst	Metals, Calgary, Alberta
Millicent Brentnall	Laboratory Analyst	Metals, Calgary, Alberta
Parker Sgarbossa	Laboratory Analyst	Inorganics, Calgary, Alberta
Ruifang Zheng	Analyst	Inorganics, Calgary, Alberta
Sara Niroomand		Inorganics, Calgary, Alberta
Vladka Stamenova	Analyst	Inorganics, Calgary, Alberta



## General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances  
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
-	No Unit
%	percent
µg/L	micrograms per litre
µS/cm	Microsiemens per centimetre
meq/L	milliequivalents per litre
mg/L	milligrams per litre
mV	millivolts
NTU	nephelometric turbidity units
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

## Qualifiers

<i>Qualifier</i>	<i>Description</i>
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
HTA	Analytical holding time was exceeded.
HTD	Hold time exceeded for re-analysis or dilution, but initial testing was conducted within hold time.
RRV	Reported result verified by repeat analysis.





## Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	RG_MI25_WS_ LAEMP_CMO_2 022-09_N	RG_AGCK_WS_ LAEMP_CMO_2 022-09_N	RG_LE1_WS_L AEMP_CMO_20 22-09_N	RG_RG_FBLAN K_WS_LAEMP_CMO_2022-09_N	RG_RG_TRIP_ WS_LAEMP_CMO_2022-09_N
Client sampling date / time					15-Sep-2022 11:30	15-Sep-2022 15:28	16-Sep-2022 10:45	16-Sep-2022 10:22	16-Sep-2022 10:45	
Analyte	CAS Number	Method	LOR	Unit	CG2212931-001	CG2212931-002	CG2212931-003	CG2212931-004	CG2212931-005	
					Result	Result	Result	Result	Result	
<b>Physical Tests</b>										
acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0	
alkalinity, bicarbonate (as CaCO3)	----	E290	1.0	mg/L	155	127	111	<1.0	<1.0	
alkalinity, bicarbonate (as HCO3)	71-52-3	E290	1.0	mg/L	190	155	136	<1.0	<1.0	
alkalinity, carbonate (as CaCO3)	----	E290	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
alkalinity, carbonate (as CO3)	3812-32-6	E290	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
alkalinity, hydroxide (as CaCO3)	----	E290	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
alkalinity, hydroxide (as OH)	14280-30-9	E290	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	155	127	111	<1.0	<1.0	
conductivity	----	E100	2.0	µS/cm	282	245	193	<2.0	<2.0	
hardness (as CaCO3), dissolved	----	EC100	0.50	mg/L	160	142	111	<0.50	<0.50	
oxidation-reduction potential [ORP]	----	E125	0.10	mV	336	306	341	509	531	
pH	----	E108	0.10	pH units	8.30	8.29	8.16	5.73	5.00	
solids, total dissolved [TDS]	----	E162	10	mg/L	188	158	113	<10	<10	
solids, total suspended [TSS]	----	E160-L	1.0	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	
turbidity	----	E121	0.10	NTU	0.12 <sup>HTA</sup>	0.13 <sup>HTA</sup>	0.53 <sup>HTA</sup>	<0.10 <sup>HTA</sup>	<0.10 <sup>HTA</sup>	
<b>Anions and Nutrients</b>										
ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0060	<0.0050	0.0050	<0.0050	0.0313 <sup>RRV</sup>	
bromide	24959-67-9	E235.Br-L	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	
chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.66	0.45	0.19	<0.10	<0.10	
fluoride	16984-48-8	E235.F	0.020	mg/L	0.070	0.298	0.062	<0.020	<0.020	
Kjeldahl nitrogen, total [TKN]	----	E318	0.050	mg/L	<0.500 <sup>DLM</sup>	<0.500 <sup>DLM</sup>	<0.500 <sup>DLM</sup>	<0.050	<0.050	
nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0186	0.0770	0.0141	<0.0050	<0.0050 <sup>HTD</sup>	
nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010 <sup>HTA</sup>	<0.0010 <sup>HTA</sup>	0.0104 <sup>HTA</sup>	<0.0010 <sup>HTA</sup>	<0.0010 <sup>HTA</sup>	
phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0051	0.0021	0.0128	<0.0020	<0.0020	
sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	14.9	18.7	4.15	<0.30	<0.30	
<b>Organic / Inorganic Carbon</b>										
carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	<0.50	<0.50	<0.50	<0.50	----	



## Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	RG_MI25_WS_ LAEMP_CMO_2 022-09_N	RG_AGCK_WS_ LAEMP_CMO_2 022-09_N	RG_LE1_WS_L AEMP_CMO_20 22-09_N	RG_RG_FBLAN K_WS_LAEMP_ CMO_2022-09_ N	RG_RG_TRIP_ WS_LAEMP_C MO_2022-09_N
Client sampling date / time					15-Sep-2022 11:30	15-Sep-2022 15:28	16-Sep-2022 10:45	16-Sep-2022 10:22	16-Sep-2022 10:45	
Analyte	CAS Number	Method	LOR	Unit	CG2212931-001	CG2212931-002	CG2212931-003	CG2212931-004	CG2212931-005	
					Result	Result	Result	Result	Result	
<b>Organic / Inorganic Carbon</b>										
carbon, total organic [TOC]	----	E355-L	0.50	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>Ion Balance</b>										
anion sum	----	EC101	0.10	meq/L	3.43	2.96	2.31	<0.10	<0.10	
cation sum	----	EC101	0.10	meq/L	3.37	2.87	2.27	<0.10	<0.10	
ion balance (cations/anions)	----	EC101	0.010	%	98.2	97.0	98.3	100	100	
ion balance (APHA)	----	EC101	0.010	%	0.882	1.54	0.873	<0.010	<0.010	
<b>Total Metals</b>										
aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0075	0.0065	0.0074	<0.0030	0.0041	
antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00026	0.00054	0.00024	<0.00010	<0.00010	
barium, total	7440-39-3	E420	0.00010	mg/L	0.0572	0.0228	0.150	0.00018 <sup>RRV</sup>	<0.00010	
beryllium, total	7440-41-7	E420	0.020	µg/L	<0.020	<0.020	<0.020	<0.020	<0.020	
bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	
boron, total	7440-42-8	E420	0.010	mg/L	0.019	<0.010	<0.010	<0.010	<0.010	
cadmium, total	7440-43-9	E420	0.0050	µg/L	0.0142	0.0165	0.0333	<0.0050	<0.0050	
calcium, total	7440-70-2	E420	0.050	mg/L	41.8	39.8	28.8	<0.050	<0.050	
chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00020	0.00032	<0.00010	<0.00010	<0.00010	
cobalt, total	7440-48-4	E420	0.10	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	
copper, total	7440-50-8	E420	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
iron, total	7439-89-6	E420	0.010	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	
lithium, total	7439-93-2	E420	0.0010	mg/L	0.0061	0.0024	0.0019	<0.0010	<0.0010	
magnesium, total	7439-95-4	E420	0.0050	mg/L	12.7	9.28	9.40	<0.0050	0.0054	
manganese, total	7439-96-5	E420	0.00010	mg/L	0.00041	0.00013	0.00084	<0.00010	<0.00010	
mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	
molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000937	0.000770	0.000674	<0.000050	<0.000050	
nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
potassium, total	7440-09-7	E420	0.050	mg/L	0.545	0.247	0.576	<0.050	<0.050	
selenium, total	7782-49-2	E420	0.050	µg/L	0.176	1.52	0.513	<0.050	<0.050	



## Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	RG_MI25_WS_ LAEMP_CMO_2 022-09_N	RG_AGCK_WS_ LAEMP_CMO_2 022-09_N	RG_LE1_WS_L AEMP_CMO_20 22-09_N	RG_RG_FBLAN K_WS_LAEMP_ CMO_2022-09_ N	RG_RG_TRIP_ WS_LAEMP_C MO_2022-09_N
Client sampling date / time					15-Sep-2022 11:30	15-Sep-2022 15:28	16-Sep-2022 10:45	16-Sep-2022 10:22	16-Sep-2022 10:45	
Analyte	CAS Number	Method	LOR	Unit	CG2212931-001	CG2212931-002	CG2212931-003	CG2212931-004	CG2212931-005	
					Result	Result	Result	Result	Result	
<b>Total Metals</b>										
silicon, total	7440-21-3	E420	0.10	mg/L	2.39	1.47	2.34	<0.10	<0.10	
silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	
sodium, total	7440-23-5	E420	0.050	mg/L	3.27	0.651	0.851	0.227 <sup>RRV</sup>	<0.050	
strontium, total	7440-24-6	E420	0.00020	mg/L	0.175	0.148	0.0686	<0.00020	<0.00020	
sulfur, total	7704-34-9	E420	0.50	mg/L	5.61	6.59	1.93	<0.50	0.56	
thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	0.000043	<0.000010	<0.000010	<0.000010	
tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	<0.00010	0.00038 <sup>RRV</sup>	<0.00010	
titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	
uranium, total	7440-61-1	E420	0.000010	mg/L	0.000228	0.000696	0.000206	<0.000010	<0.000010	
vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	0.00053	0.00059	<0.00050	<0.00050	
zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	
<b>Dissolved Metals</b>										
aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	<0.0010	0.0012	0.0013	<0.0010	----	
antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	----	
arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00020	0.00049	0.00018	<0.00010	----	
barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0570	0.0228	0.159	0.00014	----	
beryllium, dissolved	7440-41-7	E421	0.020	µg/L	<0.020	<0.020	<0.020	<0.020	----	
bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	----	
boron, dissolved	7440-42-8	E421	0.010	mg/L	0.018	<0.010	<0.010	<0.010	----	
cadmium, dissolved	7440-43-9	E421	0.0050	µg/L	0.0088	0.0093	0.0263	<0.0050	----	
calcium, dissolved	7440-70-2	E421	0.050	mg/L	43.2	41.3	29.1	<0.050	<0.050	
chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00018	0.00026	<0.00010	<0.00010	----	
cobalt, dissolved	7440-48-4	E421	0.10	µg/L	<0.10	<0.10	<0.10	<0.10	----	
copper, dissolved	7440-50-8	E421	0.00020	mg/L	<0.00020	<0.00020	<0.00020	0.00023	----	
iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	<0.010	<0.010	----	
lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	----	
lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0053	0.0018	0.0014	<0.0010	----	
magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	12.8	9.37	9.29	<0.0050	<0.0050	
manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00012	<0.00010	0.00070	<0.00010	----	



## Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	RG_MI25_WS_ LAEMP_CMO_2 022-09_N	RG_AGCK_WS_ LAEMP_CMO_2 022-09_N	RG_LE1_WS_L AEMP_CMO_20 22-09_N	RG_RG_FBLAN K_WS_LAEMP_CMO_2022-09_N	RG_RG_TRIP_ WS_LAEMP_CMO_2022-09_N
Client sampling date / time					15-Sep-2022 11:30	15-Sep-2022 15:28	16-Sep-2022 10:45	16-Sep-2022 10:22	16-Sep-2022 10:45	
Analyte	CAS Number	Method	LOR	Unit	CG2212931-001	CG2212931-002	CG2212931-003	CG2212931-004	CG2212931-005	
					Result	Result	Result	Result	Result	
<b>Dissolved Metals</b>										
mercury, dissolved	7439-97-6	E509	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	----	
molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00100	0.000782	0.000678	<0.000050	----	
nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	----	
potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.526	0.228	0.568	<0.050	<0.050	
selenium, dissolved	7782-49-2	E421	0.050	µg/L	0.246	1.98	0.607	<0.050	----	
silicon, dissolved	7440-21-3	E421	0.050	mg/L	2.54	1.53	2.38	<0.050	----	
silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	----	
sodium, dissolved	7440-23-5	E421	0.050	mg/L	3.33	0.658	0.919	0.204	<0.050	
strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.185	0.150	0.0710	<0.00020	----	
sulfur, dissolved	7704-34-9	E421	0.50	mg/L	4.71	6.11	<0.50	<0.50	----	
thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	0.000045	<0.000010	<0.000010	----	
tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	<0.00010	0.00017	----	
titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	<0.00030	<0.00030	----	
uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000234	0.000735	0.000193	<0.000010	----	
vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	----	
zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	0.0010	<0.0010	<0.0010	----	
dissolved mercury filtration location	----	EP509	-	-	Field	Field	Field	Field	----	
dissolved metals filtration location	----	EP421	-	-	Field	Field	Field	Field	Laboratory	

Please refer to the General Comments section for an explanation of any qualifiers detected.



QUALITY CONTROL REPORT

Work Order : CG2212931
Client : Teck Coal Limited
Contact : Cybele Heddle
Address : 421 Pine Ave
Sparwood BC Canada
Telephone : ---
Project : REGIONAL EFFECTS PROGRAM
PO : VPO00816101
C-O-C number : REP\_LAEMP\_CmM\_2022-09\_ALS
Sampler : Jennifer Ings
Site : ---
Quote number : Teck Coal Master Quote
No. of samples received : 5
No. of samples analysed : 5

Page : 1 of 18
Laboratory : Calgary - Environmental
Account Manager : Lyudmyla Shvets
Address : 2559 29th Street NE
Calgary, Alberta Canada T1Y 7B5
Telephone : +1 403 407 1800
Date Samples Received : 17-Sep-2022 11:38
Date Analysis Commenced : 22-Sep-2022
Issue Date : 26-Sep-2022 18:30

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
Matrix Spike (MS) Report; Recovery and Data Quality Objectives
Method Blank (MB) Report; Recovery and Data Quality Objectives
Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Table with 3 columns: Signatories, Position, Laboratory Department. Lists names like Anthony Calero, Elke Tabora, Harpreet Chawla, Mackenzie Lamoureux, Millicent Brentnall, Parker Sgarbossa, Ruifang Zheng, Sara Niroomand, Vladka Stamenova with their respective roles and departments.

Page : 2 of 18  
Work Order : CG2212931  
Client : Teck Coal Limited  
Project : REGIONAL EFFECTS PROGRAM

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## **General Comments**

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

# = Indicates a QC result that did not meet the ALS DQO.

## **Workorder Comments**

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Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

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### Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: Water					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Physical Tests (QC Lot: 661110)</b>											
CG2212931-001	RG_MI25_WS_LAEMP_C MO_2022-09_N	turbidity	----	E121	0.10	NTU	0.12	0.14	0.02	Diff <2x LOR	----
<b>Physical Tests (QC Lot: 661276)</b>											
CG2212931-001	RG_MI25_WS_LAEMP_C MO_2022-09_N	solids, total dissolved [TDS]	----	E162	20	mg/L	188	173	16	Diff <2x LOR	----
<b>Physical Tests (QC Lot: 661931)</b>											
CG2212931-003	RG_LE1_WS_LAEMP_CM O_2022-09_N	solids, total dissolved [TDS]	----	E162	20	mg/L	113	111	2	Diff <2x LOR	----
<b>Physical Tests (QC Lot: 662100)</b>											
CG2212785-004	Anonymous	acidity (as CaCO3)	----	E283	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
<b>Physical Tests (QC Lot: 662106)</b>											
CG2212785-004	Anonymous	conductivity	----	E100	2.0	µS/cm	<2.0	<2.0	0	Diff <2x LOR	----
<b>Physical Tests (QC Lot: 662107)</b>											
CG2212785-004	Anonymous	pH	----	E108	0.10	pH units	5.15	5.11	0.780%	4%	----
<b>Physical Tests (QC Lot: 662108)</b>											
CG2212785-004	Anonymous	alkalinity, bicarbonate (as CaCO3)	----	E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
		alkalinity, carbonate (as CaCO3)	----	E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
		alkalinity, hydroxide (as CaCO3)	----	E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
		alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
<b>Physical Tests (QC Lot: 662920)</b>											
CG2212931-001	RG_MI25_WS_LAEMP_C MO_2022-09_N	oxidation-reduction potential [ORP]	----	E125	0.10	mV	336	337	0.297%	15%	----
<b>Anions and Nutrients (QC Lot: 660985)</b>											
CG2212931-001	RG_MI25_WS_LAEMP_C MO_2022-09_N	phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 661065)</b>											
CG2212931-001	RG_MI25_WS_LAEMP_C MO_2022-09_N	fluoride	16984-48-8	E235.F	0.020	mg/L	0.070	0.070	0.0001	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 661066)</b>											
CG2212931-001	RG_MI25_WS_LAEMP_C MO_2022-09_N	bromide	24959-67-9	E235.Br-L	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 661067)</b>											
CG2212931-001	RG_MI25_WS_LAEMP_C MO_2022-09_N	chloride	16887-00-6	E235.Cl-L	0.10	mg/L	0.66	0.54	0.12	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 661068)</b>											



Sub-Matrix: Water					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Anions and Nutrients (QC Lot: 661068) - continued</b>											
CG2212931-001	RG_MI25_WS_LAEMP_C MO_2022-09_N	nitrate (as N)	14797-55-8	E235.NO3-L	0.0050	mg/L	0.0186	0.0200	0.0014	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 661069)</b>											
CG2212931-001	RG_MI25_WS_LAEMP_C MO_2022-09_N	nitrite (as N)	14797-65-0	E235.NO2-L	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 661070)</b>											
CG2212931-001	RG_MI25_WS_LAEMP_C MO_2022-09_N	sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	14.9	14.8	0.469%	20%	----
<b>Anions and Nutrients (QC Lot: 661142)</b>											
CG2212931-001	RG_MI25_WS_LAEMP_C MO_2022-09_N	ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0060	0.0058	0.0002	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 661206)</b>											
CG2212931-001	RG_MI25_WS_LAEMP_C MO_2022-09_N	Kjeldahl nitrogen, total [TKN]	----	E318	0.500	mg/L	<0.500	<0.500	0	Diff <2x LOR	----
<b>Anions and Nutrients (QC Lot: 661974)</b>											
CG2212931-001	RG_MI25_WS_LAEMP_C MO_2022-09_N	phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0051	0.0047	0.0004	Diff <2x LOR	----
<b>Organic / Inorganic Carbon (QC Lot: 660961)</b>											
CG2212931-001	RG_MI25_WS_LAEMP_C MO_2022-09_N	carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
<b>Organic / Inorganic Carbon (QC Lot: 660962)</b>											
CG2212931-001	RG_MI25_WS_LAEMP_C MO_2022-09_N	carbon, total organic [TOC]	----	E355-L	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
<b>Total Metals (QC Lot: 662245)</b>											
CG2212931-001	RG_MI25_WS_LAEMP_C MO_2022-09_N	mercury, total	7439-97-6	E508	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
<b>Total Metals (QC Lot: 662944)</b>											
CG2212812-001	Anonymous	chromium, total	7440-47-3	E420.Cr-L	0.00010	mg/L	0.00025	0.00023	0.00002	Diff <2x LOR	----
<b>Total Metals (QC Lot: 662945)</b>											
CG2212812-001	Anonymous	aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0182	0.0179	0.0002	Diff <2x LOR	----
		antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00015	0.00016	0.00002	Diff <2x LOR	----
		barium, total	7440-39-3	E420	0.00010	mg/L	0.0476	0.0477	0.283%	20%	----
		beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.020 µg/L	<0.000020	0	Diff <2x LOR	----
		bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0121 µg/L	0.0000122	0.00000007	Diff <2x LOR	----
		calcium, total	7440-70-2	E420	0.050	mg/L	43.1	43.1	0.131%	20%	----
		cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		copper, total	7440-50-8	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----





Sub-Matrix: **Water**

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Total Metals (QC Lot: 662945) - continued</b>											
CG2212812-001	Anonymous	iron, total	7439-89-6	E420	0.010	mg/L	0.016	0.017	0.00008	Diff <2x LOR	----
		lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		lithium, total	7439-93-2	E420	0.0010	mg/L	0.0020	0.0021	0.00010	Diff <2x LOR	----
		magnesium, total	7439-95-4	E420	0.0050	mg/L	11.2	11.0	1.08%	20%	----
		manganese, total	7439-96-5	E420	0.00010	mg/L	0.00340	0.00344	1.23%	20%	----
		molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.00106	0.00108	1.31%	20%	----
		nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		potassium, total	7440-09-7	E420	0.050	mg/L	0.384	0.386	0.002	Diff <2x LOR	----
		selenium, total	7782-49-2	E420	0.000050	mg/L	0.730 µg/L	0.000737	0.973%	20%	----
		silicon, total	7440-21-3	E420	0.10	mg/L	1.77	1.77	0.161%	20%	----
		silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		sodium, total	7440-23-5	E420	0.050	mg/L	0.668	0.672	0.627%	20%	----
		strontium, total	7440-24-6	E420	0.00020	mg/L	0.209	0.214	2.15%	20%	----
		sulfur, total	7704-34-9	E420	0.50	mg/L	6.52	6.41	1.77%	20%	----
		thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		titanium, total	7440-32-6	E420	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		uranium, total	7440-61-1	E420	0.000010	mg/L	0.000685	0.000700	2.11%	20%	----
		vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
<b>Dissolved Metals (QC Lot: 661148)</b>											
CG2212931-001	RG_MI25_WS_LAEMP_C MO_2022-09_N	aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	<0.0010	0.0010	0.00005	Diff <2x LOR	----
		antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00020	0.00020	0.0000002	Diff <2x LOR	----
		barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0570	0.0568	0.301%	20%	----
		beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.020 µg/L	<0.000020	0	Diff <2x LOR	----
		bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		boron, dissolved	7440-42-8	E421	0.010	mg/L	0.018	0.018	0.0006	Diff <2x LOR	----
		cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0088 µg/L	0.0000105	0.0000018	Diff <2x LOR	----
		calcium, dissolved	7440-70-2	E421	0.050	mg/L	43.2	43.2	0.0925%	20%	----
		cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		copper, dissolved	7440-50-8	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0053	0.0055	0.0002	Diff <2x LOR	----



Sub-Matrix: **Water**

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Dissolved Metals (QC Lot: 661148) - continued</b>											
CG2212931-001	RG_MI25_WS_LAEMP_C MO_2022-09_N	magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	12.8	13.0	1.84%	20%	----
		manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00012	0.00014	0.00002	Diff <2x LOR	----
		molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00100	0.00100	0.602%	20%	----
		nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.526	0.532	1.19%	20%	----
		selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.246 µg/L	0.000261	0.000015	Diff <2x LOR	----
		silicon, dissolved	7440-21-3	E421	0.050	mg/L	2.54	2.57	1.33%	20%	----
		silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		sodium, dissolved	7440-23-5	E421	0.050	mg/L	3.33	3.40	2.02%	20%	----
		strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.185	0.183	1.19%	20%	----
		sulfur, dissolved	7704-34-9	E421	0.50	mg/L	4.71	4.51	0.20	Diff <2x LOR	----
		thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000234	0.000247	5.75%	20%	----
		vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
<b>Dissolved Metals (QC Lot: 661149)</b>											
CG2212931-001	RG_MI25_WS_LAEMP_C MO_2022-09_N	chromium, dissolved	7440-47-3	E421.Cr-L	0.00010	mg/L	0.00018	0.00019	0.000004	Diff <2x LOR	----
<b>Dissolved Metals (QC Lot: 662251)</b>											
CG2212715-001	Anonymous	mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----



## Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

### Sub-Matrix: Water

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Physical Tests (QCLot: 661110)</b>						
turbidity	----	E121	0.1	NTU	<0.10	----
<b>Physical Tests (QCLot: 661276)</b>						
solids, total dissolved [TDS]	----	E162	10	mg/L	<10	----
<b>Physical Tests (QCLot: 661277)</b>						
solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
<b>Physical Tests (QCLot: 661926)</b>						
solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
<b>Physical Tests (QCLot: 661931)</b>						
solids, total dissolved [TDS]	----	E162	10	mg/L	<10	----
<b>Physical Tests (QCLot: 662100)</b>						
acidity (as CaCO <sub>3</sub> )	----	E283	2	mg/L	<2.0	----
<b>Physical Tests (QCLot: 662106)</b>						
conductivity	---	E100	1	µS/cm	<1.0	----
<b>Physical Tests (QCLot: 662108)</b>						
alkalinity, bicarbonate (as CaCO <sub>3</sub> )	----	E290	1	mg/L	<1.0	----
alkalinity, carbonate (as CaCO <sub>3</sub> )	----	E290	1	mg/L	<1.0	----
alkalinity, hydroxide (as CaCO <sub>3</sub> )	----	E290	1	mg/L	<1.0	----
alkalinity, total (as CaCO <sub>3</sub> )	----	E290	1	mg/L	<1.0	----
<b>Anions and Nutrients (QCLot: 660985)</b>						
phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
<b>Anions and Nutrients (QCLot: 661065)</b>						
fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
<b>Anions and Nutrients (QCLot: 661066)</b>						
bromide	24959-67-9	E235.Br-L	0.05	mg/L	<0.050	----
<b>Anions and Nutrients (QCLot: 661067)</b>						
chloride	16887-00-6	E235.Cl-L	0.1	mg/L	<0.10	----
<b>Anions and Nutrients (QCLot: 661068)</b>						
nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	<0.0050	----
<b>Anions and Nutrients (QCLot: 661069)</b>						
nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	<0.0010	----
<b>Anions and Nutrients (QCLot: 661070)</b>						
sulfate (as SO <sub>4</sub> )	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
<b>Anions and Nutrients (QCLot: 661142)</b>						



Sub-Matrix: Water

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Anions and Nutrients (QCLot: 661142) - continued</b>						
ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	---
<b>Anions and Nutrients (QCLot: 661206)</b>						
Kjeldahl nitrogen, total [TKN]	---	E318	0.05	mg/L	<0.050	---
<b>Anions and Nutrients (QCLot: 661974)</b>						
phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	---
<b>Organic / Inorganic Carbon (QCLot: 660961)</b>						
carbon, dissolved organic [DOC]	---	E358-L	0.5	mg/L	<0.50	---
<b>Organic / Inorganic Carbon (QCLot: 660962)</b>						
carbon, total organic [TOC]	---	E355-L	0.5	mg/L	<0.50	---
<b>Total Metals (QCLot: 662245)</b>						
mercury, total	7439-97-6	E508	0.000005	mg/L	<0.0000050	---
<b>Total Metals (QCLot: 662944)</b>						
chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	<0.00010	---
<b>Total Metals (QCLot: 662945)</b>						
aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	---
antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	---
arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	---
barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	---
beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	---
bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	---
boron, total	7440-42-8	E420	0.01	mg/L	<0.010	---
cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	---
calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	---
cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	---
copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	---
iron, total	7439-89-6	E420	0.01	mg/L	<0.010	---
lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	---
lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	---
magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	---
manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	---
molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	---
nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	---
potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	---
selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	---
silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	---
silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	---



Sub-Matrix: Water

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Total Metals (QCLot: 662945) - continued</b>						
sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	---
strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	---
sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	---
thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	---
tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	---
titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	---
uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	---
vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	---
zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	---
<b>Dissolved Metals (QCLot: 661148)</b>						
aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	---
antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	---
arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	---
barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	---
beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	---
bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	---
boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	---
cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	---
calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	---
cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	---
copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	---
iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	---
lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	---
lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	---
magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	---
manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	---
molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	---
nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	---
potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	---
selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	---
silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	---
silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	---
sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	---
strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	---
sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	---
thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	---



Sub-Matrix: **Water**

<i>Analyte</i>	<i>CAS Number</i>	<i>Method</i>	<i>LOR</i>	<i>Unit</i>	<i>Result</i>	<i>Qualifier</i>
<b>Dissolved Metals (QCLot: 661148) - continued</b>						
tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
<b>Dissolved Metals (QCLot: 661149)</b>						
chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	<0.00010	----
<b>Dissolved Metals (QCLot: 662251)</b>						
mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----



## Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
<b>Physical Tests (QCLot: 661110)</b>									
turbidity	---	E121	0.1	NTU	200 NTU	109	85.0	115	---
<b>Physical Tests (QCLot: 661276)</b>									
solids, total dissolved [TDS]	---	E162	10	mg/L	1000 mg/L	99.0	85.0	115	---
<b>Physical Tests (QCLot: 661277)</b>									
solids, total suspended [TSS]	---	E160-L	1	mg/L	150 mg/L	94.6	85.0	115	---
<b>Physical Tests (QCLot: 661926)</b>									
solids, total suspended [TSS]	---	E160-L	1	mg/L	150 mg/L	101	85.0	115	---
<b>Physical Tests (QCLot: 661931)</b>									
solids, total dissolved [TDS]	---	E162	10	mg/L	1000 mg/L	95.1	85.0	115	---
<b>Physical Tests (QCLot: 662100)</b>									
acidity (as CaCO <sub>3</sub> )	---	E283	2	mg/L	50 mg/L	106	85.0	115	---
<b>Physical Tests (QCLot: 662106)</b>									
conductivity	---	E100	1	µS/cm	146.9 µS/cm	95.9	90.0	110	---
<b>Physical Tests (QCLot: 662107)</b>									
pH	---	E108	---	pH units	7 pH units	101	98.6	101	---
<b>Physical Tests (QCLot: 662108)</b>									
alkalinity, total (as CaCO <sub>3</sub> )	---	E290	1	mg/L	500 mg/L	105	85.0	115	---
<b>Physical Tests (QCLot: 662920)</b>									
oxidation-reduction potential [ORP]	---	E125	---	mV	220 mV	102	95.4	104	---
<b>Anions and Nutrients (QCLot: 660985)</b>									
phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.03 mg/L	102	80.0	120	---
<b>Anions and Nutrients (QCLot: 661065)</b>									
fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	101	90.0	110	---
<b>Anions and Nutrients (QCLot: 661066)</b>									
bromide	24959-67-9	E235.Br-L	0.05	mg/L	0.5 mg/L	98.3	85.0	115	---
<b>Anions and Nutrients (QCLot: 661067)</b>									
chloride	16887-00-6	E235.Cl-L	0.1	mg/L	100 mg/L	99.7	90.0	110	---
<b>Anions and Nutrients (QCLot: 661068)</b>									
nitrate (as N)	14797-55-8	E235.NO3-L	0.005	mg/L	2.5 mg/L	100	90.0	110	---
<b>Anions and Nutrients (QCLot: 661069)</b>									
nitrite (as N)	14797-65-0	E235.NO2-L	0.001	mg/L	0.5 mg/L	95.5	90.0	110	---
<b>Anions and Nutrients (QCLot: 661070)</b>									





Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
<b>Anions and Nutrients (QCLot: 661070) - continued</b>									
sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	----
<b>Anions and Nutrients (QCLot: 661142)</b>									
ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	99.0	85.0	115	----
<b>Anions and Nutrients (QCLot: 661206)</b>									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	104	75.0	125	----
<b>Anions and Nutrients (QCLot: 661974)</b>									
phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.03 mg/L	91.3	80.0	120	----
<b>Organic / Inorganic Carbon (QCLot: 660961)</b>									
carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	102	80.0	120	----
<b>Organic / Inorganic Carbon (QCLot: 660962)</b>									
carbon, total organic [TOC]	----	E355-L	0.5	mg/L	8.57 mg/L	104	80.0	120	----
<b>Total Metals (QCLot: 662245)</b>									
mercury, total	7439-97-6	E508	0.000005	mg/L	0.0001 mg/L	103	80.0	120	----
<b>Total Metals (QCLot: 662944)</b>									
chromium, total	7440-47-3	E420.Cr-L	0.0001	mg/L	0.25 mg/L	96.3	80.0	120	----
<b>Total Metals (QCLot: 662945)</b>									
aluminum, total	7429-90-5	E420	0.003	mg/L	2 mg/L	101	80.0	120	----
antimony, total	7440-36-0	E420	0.0001	mg/L	1 mg/L	101	80.0	120	----
arsenic, total	7440-38-2	E420	0.0001	mg/L	1 mg/L	97.5	80.0	120	----
barium, total	7440-39-3	E420	0.0001	mg/L	0.25 mg/L	98.1	80.0	120	----
beryllium, total	7440-41-7	E420	0.00002	mg/L	0.1 mg/L	102	80.0	120	----
bismuth, total	7440-69-9	E420	0.00005	mg/L	1 mg/L	95.5	80.0	120	----
boron, total	7440-42-8	E420	0.01	mg/L	1 mg/L	96.9	80.0	120	----
cadmium, total	7440-43-9	E420	0.000005	mg/L	0.1 mg/L	95.4	80.0	120	----
calcium, total	7440-70-2	E420	0.05	mg/L	50 mg/L	95.9	80.0	120	----
cobalt, total	7440-48-4	E420	0.0001	mg/L	0.25 mg/L	96.2	80.0	120	----
copper, total	7440-50-8	E420	0.0005	mg/L	0.25 mg/L	94.6	80.0	120	----
iron, total	7439-89-6	E420	0.01	mg/L	1 mg/L	104	80.0	120	----
lead, total	7439-92-1	E420	0.00005	mg/L	0.5 mg/L	94.8	80.0	120	----
lithium, total	7439-93-2	E420	0.001	mg/L	0.25 mg/L	104	80.0	120	----
magnesium, total	7439-95-4	E420	0.005	mg/L	50 mg/L	97.8	80.0	120	----
manganese, total	7439-96-5	E420	0.0001	mg/L	0.25 mg/L	97.9	80.0	120	----
molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.25 mg/L	98.4	80.0	120	----
nickel, total	7440-02-0	E420	0.0005	mg/L	0.5 mg/L	95.5	80.0	120	----
potassium, total	7440-09-7	E420	0.05	mg/L	50 mg/L	100	80.0	120	----





Sub-Matrix: Water

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
<b>Total Metals (QCLot: 662945) - continued</b>									
selenium, total	7782-49-2	E420	0.00005	mg/L	1 mg/L	92.3	80.0	120	----
silicon, total	7440-21-3	E420	0.1	mg/L	10 mg/L	93.0	60.0	140	----
silver, total	7440-22-4	E420	0.00001	mg/L	0.1 mg/L	94.5	80.0	120	----
sodium, total	7440-23-5	E420	0.05	mg/L	50 mg/L	101	80.0	120	----
strontium, total	7440-24-6	E420	0.0002	mg/L	0.25 mg/L	98.6	80.0	120	----
sulfur, total	7704-34-9	E420	0.5	mg/L	50 mg/L	104	80.0	120	----
thallium, total	7440-28-0	E420	0.00001	mg/L	1 mg/L	93.4	80.0	120	----
tin, total	7440-31-5	E420	0.0001	mg/L	0.5 mg/L	95.7	80.0	120	----
titanium, total	7440-32-6	E420	0.0003	mg/L	0.25 mg/L	99.2	80.0	120	----
uranium, total	7440-61-1	E420	0.00001	mg/L	0.005 mg/L	95.3	80.0	120	----
vanadium, total	7440-62-2	E420	0.0005	mg/L	0.5 mg/L	98.0	80.0	120	----
zinc, total	7440-66-6	E420	0.003	mg/L	0.5 mg/L	92.4	80.0	120	----
<b>Dissolved Metals (QCLot: 661148)</b>									
aluminum, dissolved	7429-90-5	E421	0.001	mg/L	2 mg/L	104	80.0	120	----
antimony, dissolved	7440-36-0	E421	0.0001	mg/L	1 mg/L	89.4	80.0	120	----
arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	1 mg/L	98.6	80.0	120	----
barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.25 mg/L	101	80.0	120	----
beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.1 mg/L	90.9	80.0	120	----
bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	1 mg/L	85.8	80.0	120	----
boron, dissolved	7440-42-8	E421	0.01	mg/L	1 mg/L	88.5	80.0	120	----
cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.1 mg/L	97.5	80.0	120	----
calcium, dissolved	7440-70-2	E421	0.05	mg/L	50 mg/L	87.2	80.0	120	----
cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.25 mg/L	97.3	80.0	120	----
copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.25 mg/L	96.8	80.0	120	----
iron, dissolved	7439-89-6	E421	0.01	mg/L	1 mg/L	99.7	80.0	120	----
lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.5 mg/L	88.0	80.0	120	----
lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.25 mg/L	93.3	80.0	120	----
magnesium, dissolved	7439-95-4	E421	0.005	mg/L	50 mg/L	106	80.0	120	----
manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.25 mg/L	102	80.0	120	----
molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.25 mg/L	89.0	80.0	120	----
nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.5 mg/L	97.4	80.0	120	----
potassium, dissolved	7440-09-7	E421	0.05	mg/L	50 mg/L	102	80.0	120	----
selenium, dissolved	7782-49-2	E421	0.00005	mg/L	1 mg/L	96.9	80.0	120	----
silicon, dissolved	7440-21-3	E421	0.05	mg/L	10 mg/L	106	60.0	140	----
silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.1 mg/L	85.2	80.0	120	----
sodium, dissolved	7440-23-5	E421	0.05	mg/L	50 mg/L	106	80.0	120	----
strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.25 mg/L	92.1	80.0	120	----



Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
<b>Dissolved Metals (QCLot: 661148) - continued</b>									
sulfur, dissolved	7704-34-9	E421	0.5	mg/L	50 mg/L	94.0	80.0	120	----
thallium, dissolved	7440-28-0	E421	0.00001	mg/L	1 mg/L	87.2	80.0	120	----
tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.5 mg/L	88.0	80.0	120	----
titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.25 mg/L	98.6	80.0	120	----
uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.005 mg/L	80.4	80.0	120	----
vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.5 mg/L	101	80.0	120	----
zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.5 mg/L	95.2	80.0	120	----
<b>Dissolved Metals (QCLot: 661149)</b>									
chromium, dissolved	7440-47-3	E421.Cr-L	0.0001	mg/L	0.25 mg/L	98.9	80.0	120	----
mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	91.5	80.0	120	----



## Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
<b>Anions and Nutrients (QCLot: 660985)</b>										
CG2212931-002	RG_AGCK_WS_LAEMP_CMO_2022-09_N	phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0511 mg/L	0.05 mg/L	102	70.0	130	----
<b>Anions and Nutrients (QCLot: 661065)</b>										
CG2212931-005	RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	fluoride	16984-48-8	E235.F	1.00 mg/L	1 mg/L	100	75.0	125	----
<b>Anions and Nutrients (QCLot: 661066)</b>										
CG2212931-005	RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	bromide	24959-67-9	E235.Br-L	0.486 mg/L	0.5 mg/L	97.1	75.0	125	----
<b>Anions and Nutrients (QCLot: 661067)</b>										
CG2212931-005	RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	chloride	16887-00-6	E235.Cl-L	99.0 mg/L	100 mg/L	99.0	75.0	125	----
<b>Anions and Nutrients (QCLot: 661068)</b>										
CG2212931-005	RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	nitrate (as N)	14797-55-8	E235.NO3-L	2.49 mg/L	2.5 mg/L	99.7	75.0	125	----
<b>Anions and Nutrients (QCLot: 661069)</b>										
CG2212931-005	RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	nitrite (as N)	14797-65-0	E235.NO2-L	0.506 mg/L	0.5 mg/L	101	75.0	125	----
<b>Anions and Nutrients (QCLot: 661070)</b>										
CG2212931-005	RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	sulfate (as SO4)	14808-79-8	E235.SO4	102 mg/L	100 mg/L	102	75.0	125	----
<b>Anions and Nutrients (QCLot: 661142)</b>										
CG2212931-002	RG_AGCK_WS_LAEMP_CMO_2022-09_N	ammonia, total (as N)	7664-41-7	E298	0.0998 mg/L	0.1 mg/L	99.8	75.0	125	----
<b>Anions and Nutrients (QCLot: 661206)</b>										
CG2212931-002	RG_AGCK_WS_LAEMP_CMO_2022-09_N	Kjeldahl nitrogen, total [TKN]	----	E318	2.62 mg/L	2.5 mg/L	105	70.0	130	----
<b>Anions and Nutrients (QCLot: 661974)</b>										
CG2212931-002	RG_AGCK_WS_LAEMP_CMO_2022-09_N	phosphorus, total	7723-14-0	E372-U	0.0457 mg/L	0.05 mg/L	91.4	70.0	130	----
<b>Organic / Inorganic Carbon (QCLot: 660961)</b>										
CG2212931-001	RG_MI25_WS_LAEMP_CM O_2022-09_N	carbon, dissolved organic [DOC]	----	E358-L	5.63 mg/L	5 mg/L	113	70.0	130	----
<b>Organic / Inorganic Carbon (QCLot: 660962)</b>										
CG2212931-001	RG_MI25_WS_LAEMP_CM O_2022-09_N	carbon, total organic [TOC]	----	E355-L	5.65 mg/L	5 mg/L	113	70.0	130	----



Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
<b>Total Metals (QCLot: 662245)</b>										
CG2212931-002	RG_AGCK_WS_LAEMP_CMO_2022-09_N	mercury, total	7439-97-6	E508	0.0000976 mg/L	0.0001 mg/L	97.6	70.0	130	----
<b>Total Metals (QCLot: 662944)</b>										
CG2212931-001	RG_MI25_WS_LAEMP_CMO_2022-09_N	chromium, total	7440-47-3	E420.Cr-L	0.409 mg/L	0.4 mg/L	102	70.0	130	----
<b>Total Metals (QCLot: 662945)</b>										
CG2212931-001	RG_MI25_WS_LAEMP_CMO_2022-09_N	aluminum, total	7429-90-5	E420	2.05 mg/L	2 mg/L	102	70.0	130	----
		antimony, total	7440-36-0	E420	0.209 mg/L	0.2 mg/L	104	70.0	130	----
		arsenic, total	7440-38-2	E420	0.205 mg/L	0.2 mg/L	102	70.0	130	----
		barium, total	7440-39-3	E420	0.208 mg/L	0.2 mg/L	104	70.0	130	----
		beryllium, total	7440-41-7	E420	0.412 mg/L	0.4 mg/L	103	70.0	130	----
		bismuth, total	7440-69-9	E420	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		boron, total	7440-42-8	E420	1.05 mg/L	1 mg/L	105	70.0	130	----
		cadmium, total	7440-43-9	E420	0.0424 mg/L	0.04 mg/L	106	70.0	130	----
		calcium, total	7440-70-2	E420	ND mg/L	40 mg/L	ND	70.0	130	----
		cobalt, total	7440-48-4	E420	0.207 mg/L	0.2 mg/L	103	70.0	130	----
		copper, total	7440-50-8	E420	0.205 mg/L	0.2 mg/L	102	70.0	130	----
		iron, total	7439-89-6	E420	20.5 mg/L	20 mg/L	103	70.0	130	----
		lead, total	7439-92-1	E420	0.204 mg/L	0.2 mg/L	102	70.0	130	----
		lithium, total	7439-93-2	E420	1.02 mg/L	1 mg/L	102	70.0	130	----
		magnesium, total	7439-95-4	E420	ND mg/L	10 mg/L	ND	70.0	130	----
		manganese, total	7439-96-5	E420	0.209 mg/L	0.2 mg/L	104	70.0	130	----
		molybdenum, total	7439-98-7	E420	0.208 mg/L	0.2 mg/L	104	70.0	130	----
		nickel, total	7440-02-0	E420	0.409 mg/L	0.4 mg/L	102	70.0	130	----
		potassium, total	7440-09-7	E420	40.9 mg/L	40 mg/L	102	70.0	130	----
		selenium, total	7782-49-2	E420	0.392 mg/L	0.4 mg/L	98.0	70.0	130	----
		silicon, total	7440-21-3	E420	86.9 mg/L	100 mg/L	86.9	70.0	130	----
		silver, total	7440-22-4	E420	0.0456 mg/L	0.04 mg/L	114	70.0	130	----
		sodium, total	7440-23-5	E420	21.3 mg/L	20 mg/L	107	70.0	130	----
		strontium, total	7440-24-6	E420	0.216 mg/L	0.2 mg/L	108	70.0	130	----
		sulfur, total	7704-34-9	E420	173 mg/L	200 mg/L	86.7	70.0	130	----
		thallium, total	7440-28-0	E420	0.0389 mg/L	0.04 mg/L	97.3	70.0	130	----
		tin, total	7440-31-5	E420	0.206 mg/L	0.2 mg/L	103	70.0	130	----
		titanium, total	7440-32-6	E420	0.416 mg/L	0.4 mg/L	104	70.0	130	----
		uranium, total	7440-61-1	E420	0.0400 mg/L	0.04 mg/L	100	70.0	130	----
		vanadium, total	7440-62-2	E420	1.02 mg/L	1 mg/L	102	70.0	130	----
		zinc, total	7440-66-6	E420	4.02 mg/L	4 mg/L	100	70.0	130	----



Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
<b>Dissolved Metals (QCLot: 661148)</b>										
CG2212931-002	RG_AGCK_WS_LAEMP_C MO_2022-09_N	aluminum, dissolved	7429-90-5	E421	1.93 mg/L	2 mg/L	96.4	70.0	130	----
		antimony, dissolved	7440-36-0	E421	0.168 mg/L	0.2 mg/L	83.8	70.0	130	----
		arsenic, dissolved	7440-38-2	E421	0.191 mg/L	0.2 mg/L	95.4	70.0	130	----
		barium, dissolved	7440-39-3	E421	0.193 mg/L	0.2 mg/L	96.6	70.0	130	----
		beryllium, dissolved	7440-41-7	E421	0.356 mg/L	0.4 mg/L	88.9	70.0	130	----
		bismuth, dissolved	7440-69-9	E421	0.0816 mg/L	0.1 mg/L	81.6	70.0	130	----
		boron, dissolved	7440-42-8	E421	0.901 mg/L	1 mg/L	90.1	70.0	130	----
		cadmium, dissolved	7440-43-9	E421	0.0387 mg/L	0.04 mg/L	96.8	70.0	130	----
		calcium, dissolved	7440-70-2	E421	ND mg/L	40 mg/L	ND	70.0	130	----
		cobalt, dissolved	7440-48-4	E421	0.193 mg/L	0.2 mg/L	96.5	70.0	130	----
		copper, dissolved	7440-50-8	E421	0.194 mg/L	0.2 mg/L	97.0	70.0	130	----
		iron, dissolved	7439-89-6	E421	19.1 mg/L	20 mg/L	95.7	70.0	130	----
		lead, dissolved	7439-92-1	E421	0.183 mg/L	0.2 mg/L	91.5	70.0	130	----
		lithium, dissolved	7439-93-2	E421	0.898 mg/L	1 mg/L	89.8	70.0	130	----
		magnesium, dissolved	7439-95-4	E421	8.06 mg/L	10 mg/L	80.6	70.0	130	----
		manganese, dissolved	7439-96-5	E421	0.195 mg/L	0.2 mg/L	97.4	70.0	130	----
		molybdenum, dissolved	7439-98-7	E421	0.181 mg/L	0.2 mg/L	90.5	70.0	130	----
		nickel, dissolved	7440-02-0	E421	0.388 mg/L	0.4 mg/L	97.0	70.0	130	----
		potassium, dissolved	7440-09-7	E421	38.6 mg/L	40 mg/L	96.5	70.0	130	----
		selenium, dissolved	7782-49-2	E421	0.381 mg/L	0.4 mg/L	95.3	70.0	130	----
		silicon, dissolved	7440-21-3	E421	102 mg/L	100 mg/L	102	70.0	130	----
		silver, dissolved	7440-22-4	E421	0.0345 mg/L	0.04 mg/L	86.3	70.0	130	----
		sodium, dissolved	7440-23-5	E421	20.5 mg/L	20 mg/L	102	70.0	130	----
		strontium, dissolved	7440-24-6	E421	0.170 mg/L	0.2 mg/L	85.0	70.0	130	----
sulfur, dissolved	7704-34-9	E421	176 mg/L	200 mg/L	87.8	70.0	130	----		
thallium, dissolved	7440-28-0	E421	0.0322 mg/L	0.04 mg/L	80.5	70.0	130	----		
tin, dissolved	7440-31-5	E421	0.164 mg/L	0.2 mg/L	82.2	70.0	130	----		
titanium, dissolved	7440-32-6	E421	0.376 mg/L	0.4 mg/L	94.1	70.0	130	----		
uranium, dissolved	7440-61-1	E421	0.0322 mg/L	0.04 mg/L	80.6	70.0	130	----		
vanadium, dissolved	7440-62-2	E421	0.973 mg/L	1 mg/L	97.3	70.0	130	----		
zinc, dissolved	7440-66-6	E421	3.76 mg/L	4 mg/L	94.0	70.0	130	----		
<b>Dissolved Metals (QCLot: 661149)</b>										
CG2212931-002	RG_AGCK_WS_LAEMP_C MO_2022-09_N	chromium, dissolved	7440-47-3	E421.Cr-L	0.384 mg/L	0.4 mg/L	95.9	70.0	130	----
<b>Dissolved Metals (QCLot: 662251)</b>										
CG2212715-002	Anonymous	mercury, dissolved	7439-97-6	E509	0.000104 mg/L	0.0001 mg/L	104	70.0	130	----



## QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: <b>CG2212931</b>	Page	: 1 of 23
Client	: <b>Teck Coal Limited</b>	Laboratory	: Calgary - Environmental
Contact	: Cybele Heddle	Account Manager	: Lyudmyla Shvets
Address	: 421 Pine Ave Sparwood BC Canada	Address	: 2559 29th Street NE Calgary, Alberta Canada T1Y 7B5
Telephone	: ----	Telephone	: +1 403 407 1800
Project	: REGIONAL EFFECTS PROGRAM	Date Samples Received	: 17-Sep-2022 11:38
PO	: VPO00816101	Issue Date	: 26-Sep-2022 18:30
C-O-C number	: REP_LAEMP_CMm_2022-09_ALS		
Sampler	: Jennifer Ings		
Site	: ----		
Quote number	: Teck Coal Master Quote		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

### Key

**Anonymous:** Refers to samples which are not part of this work order, but which formed part of the QC process lot.

**CAS Number:** Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

**DQO:** Data Quality Objective.

**LOR:** Limit of Reporting (detection limit).

**RPD:** Relative Percent Difference.

### **Workorder Comments**

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

### **Summary of Outliers**

#### **Outliers : Quality Control Samples**

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

#### **Outliers: Reference Material (RM) Samples**

- No Reference Material (RM) Sample outliers occur.

#### **Outliers : Analysis Holding Time Compliance (Breaches)**

- Analysis Holding Time Outliers exist - please see following pages for full details.

#### **Outliers : Frequency of Quality Control Samples**

- No Quality Control Sample Frequency Outliers occur.







## Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Anions and Nutrients : Ammonia by Fluorescence</b>										
<b>Amber glass total (sulfuric acid)</b> RG_LE1_WS_LAEMP_CMO_2022-09_N	E298	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	6 days	✓
<b>Anions and Nutrients : Ammonia by Fluorescence</b>										
<b>Amber glass total (sulfuric acid)</b> RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E298	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	6 days	✓
<b>Anions and Nutrients : Ammonia by Fluorescence</b>										
<b>Amber glass total (sulfuric acid)</b> RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E298	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	6 days	✓
<b>Anions and Nutrients : Ammonia by Fluorescence</b>										
<b>Amber glass total (sulfuric acid)</b> RG_AGCK_WS_LAEMP_CMO_2022-09_N	E298	15-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	7 days	✓
<b>Anions and Nutrients : Ammonia by Fluorescence</b>										
<b>Amber glass total (sulfuric acid)</b> RG_MI25_WS_LAEMP_CMO_2022-09_N	E298	15-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	7 days	✓
<b>Anions and Nutrients : Bromide in Water by IC (Low Level)</b>										
<b>HDPE</b> RG_LE1_WS_LAEMP_CMO_2022-09_N	E235.Br-L	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	6 days	✓
<b>Anions and Nutrients : Bromide in Water by IC (Low Level)</b>										
<b>HDPE</b> RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E235.Br-L	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	6 days	✓



Matrix: **Water** Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Anions and Nutrients : Bromide in Water by IC (Low Level)</b>											
HDPE RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E235.Br-L	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	6 days	✓	
<b>Anions and Nutrients : Bromide in Water by IC (Low Level)</b>											
HDPE RG_AGCK_WS_LAEMP_CMO_2022-09_N	E235.Br-L	15-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	7 days	✓	
<b>Anions and Nutrients : Bromide in Water by IC (Low Level)</b>											
HDPE RG_MI25_WS_LAEMP_CMO_2022-09_N	E235.Br-L	15-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	7 days	✓	
<b>Anions and Nutrients : Chloride in Water by IC (Low Level)</b>											
HDPE RG_LE1_WS_LAEMP_CMO_2022-09_N	E235.Cl-L	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	6 days	✓	
<b>Anions and Nutrients : Chloride in Water by IC (Low Level)</b>											
HDPE RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E235.Cl-L	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	6 days	✓	
<b>Anions and Nutrients : Chloride in Water by IC (Low Level)</b>											
HDPE RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E235.Cl-L	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	6 days	✓	
<b>Anions and Nutrients : Chloride in Water by IC (Low Level)</b>											
HDPE RG_AGCK_WS_LAEMP_CMO_2022-09_N	E235.Cl-L	15-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	7 days	✓	
<b>Anions and Nutrients : Chloride in Water by IC (Low Level)</b>											
HDPE RG_MI25_WS_LAEMP_CMO_2022-09_N	E235.Cl-L	15-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	7 days	✓	
<b>Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001)</b>											
HDPE RG_LE1_WS_LAEMP_CMO_2022-09_N	E378-U	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	3 days	6 days	* EHT	



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Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001)</b>											
HDPE RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E378-U	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	3 days	6 days	*	EHT
<b>Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001)</b>											
HDPE RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E378-U	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	3 days	6 days	*	EHT
<b>Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001)</b>											
HDPE RG_AGCK_WS_LAEMP_CMO_2022-09_N	E378-U	15-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	3 days	7 days	*	EHT
<b>Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001)</b>											
HDPE RG_MI25_WS_LAEMP_CMO_2022-09_N	E378-U	15-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	3 days	7 days	*	EHT
<b>Anions and Nutrients : Fluoride in Water by IC</b>											
HDPE RG_LE1_WS_LAEMP_CMO_2022-09_N	E235.F	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	6 days	✓	
<b>Anions and Nutrients : Fluoride in Water by IC</b>											
HDPE RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E235.F	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	6 days	✓	
<b>Anions and Nutrients : Fluoride in Water by IC</b>											
HDPE RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E235.F	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	6 days	✓	
<b>Anions and Nutrients : Fluoride in Water by IC</b>											
HDPE RG_AGCK_WS_LAEMP_CMO_2022-09_N	E235.F	15-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	7 days	✓	
<b>Anions and Nutrients : Fluoride in Water by IC</b>											
HDPE RG_MI25_WS_LAEMP_CMO_2022-09_N	E235.F	15-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	7 days	✓	



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Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Anions and Nutrients : Nitrate in Water by IC (Low Level)</b>											
HDPE RG_LE1_WS_LAEMP_CMO_2022-09_N	E235.NO3-L	16-Sep-2022	22-Sep-2022	3 days	6 days	* EHT	22-Sep-2022	3 days	0 days	✓	
<b>Anions and Nutrients : Nitrate in Water by IC (Low Level)</b>											
HDPE RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E235.NO3-L	16-Sep-2022	22-Sep-2022	3 days	6 days	* EHT	22-Sep-2022	3 days	0 days	✓	
<b>Anions and Nutrients : Nitrate in Water by IC (Low Level)</b>											
HDPE RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E235.NO3-L	16-Sep-2022	22-Sep-2022	3 days	6 days	* EHT	26-Sep-2022	3 days	4 days	* EHT	
<b>Anions and Nutrients : Nitrate in Water by IC (Low Level)</b>											
HDPE RG_AGCK_WS_LAEMP_CMO_2022-09_N	E235.NO3-L	15-Sep-2022	22-Sep-2022	3 days	7 days	* EHT	22-Sep-2022	3 days	0 days	✓	
<b>Anions and Nutrients : Nitrate in Water by IC (Low Level)</b>											
HDPE RG_MI25_WS_LAEMP_CMO_2022-09_N	E235.NO3-L	15-Sep-2022	22-Sep-2022	3 days	7 days	* EHT	22-Sep-2022	3 days	0 days	✓	
<b>Anions and Nutrients : Nitrite in Water by IC (Low Level)</b>											
HDPE RG_LE1_WS_LAEMP_CMO_2022-09_N	E235.NO2-L	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	3 days	6 days	* EHT	
<b>Anions and Nutrients : Nitrite in Water by IC (Low Level)</b>											
HDPE RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E235.NO2-L	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	3 days	6 days	* EHT	
<b>Anions and Nutrients : Nitrite in Water by IC (Low Level)</b>											
HDPE RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E235.NO2-L	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	3 days	6 days	* EHT	
<b>Anions and Nutrients : Nitrite in Water by IC (Low Level)</b>											
HDPE RG_AGCK_WS_LAEMP_CMO_2022-09_N	E235.NO2-L	15-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	3 days	7 days	* EHT	



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Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Anions and Nutrients : Nitrite in Water by IC (Low Level)</b>											
<b>HDPE</b> RG_MI25_WS_LAEMP_CMO_2022-09_N	E235.NO2-L	15-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	3 days	7 days	*	EHT
<b>Anions and Nutrients : Sulfate in Water by IC</b>											
<b>HDPE</b> RG_LE1_WS_LAEMP_CMO_2022-09_N	E235.SO4	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	6 days	✓	
<b>Anions and Nutrients : Sulfate in Water by IC</b>											
<b>HDPE</b> RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E235.SO4	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	6 days	✓	
<b>Anions and Nutrients : Sulfate in Water by IC</b>											
<b>HDPE</b> RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E235.SO4	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	6 days	✓	
<b>Anions and Nutrients : Sulfate in Water by IC</b>											
<b>HDPE</b> RG_AGCK_WS_LAEMP_CMO_2022-09_N	E235.SO4	15-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	7 days	✓	
<b>Anions and Nutrients : Sulfate in Water by IC</b>											
<b>HDPE</b> RG_MI25_WS_LAEMP_CMO_2022-09_N	E235.SO4	15-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	7 days	✓	
<b>Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_LE1_WS_LAEMP_CMO_2022-09_N	E318	16-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	28 days	7 days	✓	
<b>Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E318	16-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	28 days	7 days	✓	
<b>Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E318	16-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	28 days	7 days	✓	



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_AGCK_WS_LAEMP_CMO_2022-09_N	E318	15-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	28 days	8 days	✔	
<b>Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_MI25_WS_LAEMP_CMO_2022-09_N	E318	15-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	28 days	8 days	✔	
<b>Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_LE1_WS_LAEMP_CMO_2022-09_N	E372-U	16-Sep-2022	23-Sep-2022	----	----		24-Sep-2022	28 days	8 days	✔	
<b>Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E372-U	16-Sep-2022	23-Sep-2022	----	----		24-Sep-2022	28 days	8 days	✔	
<b>Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E372-U	16-Sep-2022	23-Sep-2022	----	----		24-Sep-2022	28 days	8 days	✔	
<b>Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_AGCK_WS_LAEMP_CMO_2022-09_N	E372-U	15-Sep-2022	23-Sep-2022	----	----		24-Sep-2022	28 days	9 days	✔	
<b>Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_MI25_WS_LAEMP_CMO_2022-09_N	E372-U	15-Sep-2022	23-Sep-2022	----	----		24-Sep-2022	28 days	9 days	✔	
<b>Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)</b>											
<b>HDPE dissolved (nitric acid)</b> RG_LE1_WS_LAEMP_CMO_2022-09_N	E421.Cr-L	16-Sep-2022	22-Sep-2022	----	----		23-Sep-2022	180 days	6 days	✔	
<b>Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)</b>											
<b>HDPE dissolved (nitric acid)</b> RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E421.Cr-L	16-Sep-2022	22-Sep-2022	----	----		23-Sep-2022	180 days	6 days	✔	





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Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times Rec Actual		Eval	Analysis Date	Holding Times Rec Actual		Eval	
<b>Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)</b>											
<b>HDPE dissolved (nitric acid)</b> RG_AGCK_WS_LAEMP_CMO_2022-09_N	E421.Cr-L	15-Sep-2022	22-Sep-2022	----	----		23-Sep-2022	180 days	7 days	✔	
<b>Dissolved Metals : Dissolved Chromium in Water by CRC ICPMS (Low Level)</b>											
<b>HDPE dissolved (nitric acid)</b> RG_MI25_WS_LAEMP_CMO_2022-09_N	E421.Cr-L	15-Sep-2022	22-Sep-2022	----	----		23-Sep-2022	180 days	7 days	✔	
<b>Dissolved Metals : Dissolved Mercury in Water by CVAAS</b>											
<b>Glass vial dissolved (hydrochloric acid)</b> RG_LE1_WS_LAEMP_CMO_2022-09_N	E509	16-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	28 days	8 days	✔	
<b>Dissolved Metals : Dissolved Mercury in Water by CVAAS</b>											
<b>Glass vial dissolved (hydrochloric acid)</b> RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E509	16-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	28 days	8 days	✔	
<b>Dissolved Metals : Dissolved Mercury in Water by CVAAS</b>											
<b>Glass vial dissolved (hydrochloric acid)</b> RG_AGCK_WS_LAEMP_CMO_2022-09_N	E509	15-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	28 days	9 days	✔	
<b>Dissolved Metals : Dissolved Mercury in Water by CVAAS</b>											
<b>Glass vial dissolved (hydrochloric acid)</b> RG_MI25_WS_LAEMP_CMO_2022-09_N	E509	15-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	28 days	9 days	✔	
<b>Dissolved Metals : Dissolved Metals in Water by CRC ICPMS</b>											
<b>HDPE dissolved (nitric acid)</b> RG_LE1_WS_LAEMP_CMO_2022-09_N	E421	16-Sep-2022	22-Sep-2022	----	----		23-Sep-2022	180 days	6 days	✔	
<b>Dissolved Metals : Dissolved Metals in Water by CRC ICPMS</b>											
<b>HDPE dissolved (nitric acid)</b> RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E421	16-Sep-2022	22-Sep-2022	----	----		23-Sep-2022	180 days	6 days	✔	
<b>Dissolved Metals : Dissolved Metals in Water by CRC ICPMS</b>											
<b>HDPE - dissolved (lab preserved)</b> RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E421	16-Sep-2022	22-Sep-2022	----	----		23-Sep-2022	180 days	6 days	✔	



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Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Dissolved Metals : Dissolved Metals in Water by CRC ICPMS</b>											
<b>HDPE dissolved (nitric acid)</b> RG_AGCK_WS_LAEMP_CMO_2022-09_N	E421	15-Sep-2022	22-Sep-2022	----	----		23-Sep-2022	180 days	7 days	✓	
<b>Dissolved Metals : Dissolved Metals in Water by CRC ICPMS</b>											
<b>HDPE dissolved (nitric acid)</b> RG_MI25_WS_LAEMP_CMO_2022-09_N	E421	15-Sep-2022	22-Sep-2022	----	----		23-Sep-2022	180 days	7 days	✓	
<b>Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)</b>											
<b>Amber glass dissolved (sulfuric acid)</b> RG_LE1_WS_LAEMP_CMO_2022-09_N	E358-L	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	6 days	✓	
<b>Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)</b>											
<b>Amber glass dissolved (sulfuric acid)</b> RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E358-L	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	6 days	✓	
<b>Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)</b>											
<b>Amber glass dissolved (sulfuric acid)</b> RG_AGCK_WS_LAEMP_CMO_2022-09_N	E358-L	15-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	7 days	✓	
<b>Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)</b>											
<b>Amber glass dissolved (sulfuric acid)</b> RG_MI25_WS_LAEMP_CMO_2022-09_N	E358-L	15-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	7 days	✓	
<b>Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_LE1_WS_LAEMP_CMO_2022-09_N	E355-L	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	6 days	✓	
<b>Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E355-L	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	6 days	✓	
<b>Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E355-L	16-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	6 days	✓	





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Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_AGCK_WS_LAEMP_CMO_2022-09_N	E355-L	15-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	7 days	✔	
<b>Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)</b>											
<b>Amber glass total (sulfuric acid)</b> RG_MI25_WS_LAEMP_CMO_2022-09_N	E355-L	15-Sep-2022	22-Sep-2022	----	----		22-Sep-2022	28 days	7 days	✔	
<b>Physical Tests : Acidity by Titration</b>											
<b>HDPE</b> RG_LE1_WS_LAEMP_CMO_2022-09_N	E283	16-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	14 days	7 days	✔	
<b>Physical Tests : Acidity by Titration</b>											
<b>HDPE</b> RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E283	16-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	14 days	7 days	✔	
<b>Physical Tests : Acidity by Titration</b>											
<b>HDPE</b> RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E283	16-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	14 days	7 days	✔	
<b>Physical Tests : Acidity by Titration</b>											
<b>HDPE</b> RG_AGCK_WS_LAEMP_CMO_2022-09_N	E283	15-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	14 days	8 days	✔	
<b>Physical Tests : Acidity by Titration</b>											
<b>HDPE</b> RG_MI25_WS_LAEMP_CMO_2022-09_N	E283	15-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	14 days	8 days	✔	
<b>Physical Tests : Alkalinity Species by Titration</b>											
<b>HDPE</b> RG_LE1_WS_LAEMP_CMO_2022-09_N	E290	16-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	14 days	7 days	✔	
<b>Physical Tests : Alkalinity Species by Titration</b>											
<b>HDPE</b> RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E290	16-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	14 days	7 days	✔	



Matrix: **Water** Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
Rec	Actual	Rec		Actual							
<b>Physical Tests : Alkalinity Species by Titration</b>											
HDPE RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E290	16-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	14 days	7 days	✓	
<b>Physical Tests : Alkalinity Species by Titration</b>											
HDPE RG_AGCK_WS_LAEMP_CMO_2022-09_N	E290	15-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	14 days	8 days	✓	
<b>Physical Tests : Alkalinity Species by Titration</b>											
HDPE RG_MI25_WS_LAEMP_CMO_2022-09_N	E290	15-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	14 days	8 days	✓	
<b>Physical Tests : Conductivity in Water</b>											
HDPE RG_LE1_WS_LAEMP_CMO_2022-09_N	E100	16-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	28 days	7 days	✓	
<b>Physical Tests : Conductivity in Water</b>											
HDPE RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E100	16-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	28 days	7 days	✓	
<b>Physical Tests : Conductivity in Water</b>											
HDPE RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E100	16-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	28 days	7 days	✓	
<b>Physical Tests : Conductivity in Water</b>											
HDPE RG_AGCK_WS_LAEMP_CMO_2022-09_N	E100	15-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	28 days	8 days	✓	
<b>Physical Tests : Conductivity in Water</b>											
HDPE RG_MI25_WS_LAEMP_CMO_2022-09_N	E100	15-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	28 days	8 days	✓	
<b>Physical Tests : ORP by Electrode</b>											
HDPE RG_LE1_WS_LAEMP_CMO_2022-09_N	E125	16-Sep-2022	----	----	----		24-Sep-2022	0.25 hrs	192 hrs	* EHTR-FM	



Matrix: **Water** Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Physical Tests : ORP by Electrode</b>											
HDPE RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E125	16-Sep-2022	----	----	----		24-Sep-2022	0.25 hrs	192 hrs	*	EHTR-FM
<b>Physical Tests : ORP by Electrode</b>											
HDPE RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E125	16-Sep-2022	----	----	----		24-Sep-2022	0.25 hrs	192 hrs	*	EHTR-FM
<b>Physical Tests : ORP by Electrode</b>											
HDPE RG_AGCK_WS_LAEMP_CMO_2022-09_N	E125	15-Sep-2022	----	----	----		24-Sep-2022	0.25 hrs	211 hrs	*	EHTR-FM
<b>Physical Tests : ORP by Electrode</b>											
HDPE RG_MI25_WS_LAEMP_CMO_2022-09_N	E125	15-Sep-2022	----	----	----		24-Sep-2022	0.25 hrs	215 hrs	*	EHTR-FM
<b>Physical Tests : pH by Meter</b>											
HDPE RG_AGCK_WS_LAEMP_CMO_2022-09_N	E108	15-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	0.25 hrs	0.26 hrs	*	EHTR-FM
<b>Physical Tests : pH by Meter</b>											
HDPE RG_LE1_WS_LAEMP_CMO_2022-09_N	E108	16-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	0.25 hrs	0.26 hrs	*	EHTR-FM
<b>Physical Tests : pH by Meter</b>											
HDPE RG_MI25_WS_LAEMP_CMO_2022-09_N	E108	15-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	0.25 hrs	0.26 hrs	*	EHTR-FM
<b>Physical Tests : pH by Meter</b>											
HDPE RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E108	16-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	0.25 hrs	0.26 hrs	*	EHTR-FM
<b>Physical Tests : pH by Meter</b>											
HDPE RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E108	16-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	0.25 hrs	0.26 hrs	*	EHTR-FM



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Physical Tests : TDS by Gravimetry</b>											
HDPE RG_AGCK_WS_LAEMP_CMO_2022-09_N	E162	15-Sep-2022	----	----	----		22-Sep-2022	7 days	7 days	✔	
<b>Physical Tests : TDS by Gravimetry</b>											
HDPE RG_LE1_WS_LAEMP_CMO_2022-09_N	E162	16-Sep-2022	----	----	----		23-Sep-2022	7 days	7 days	✔	
<b>Physical Tests : TDS by Gravimetry</b>											
HDPE RG_MI25_WS_LAEMP_CMO_2022-09_N	E162	15-Sep-2022	----	----	----		22-Sep-2022	7 days	7 days	✔	
<b>Physical Tests : TDS by Gravimetry</b>											
HDPE RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E162	16-Sep-2022	----	----	----		23-Sep-2022	7 days	7 days	✔	
<b>Physical Tests : TDS by Gravimetry</b>											
HDPE RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E162	16-Sep-2022	----	----	----		23-Sep-2022	7 days	7 days	✔	
<b>Physical Tests : TSS by Gravimetry (Low Level)</b>											
HDPE RG_AGCK_WS_LAEMP_CMO_2022-09_N	E160-L	15-Sep-2022	----	----	----		22-Sep-2022	7 days	7 days	✔	
<b>Physical Tests : TSS by Gravimetry (Low Level)</b>											
HDPE RG_LE1_WS_LAEMP_CMO_2022-09_N	E160-L	16-Sep-2022	----	----	----		23-Sep-2022	7 days	7 days	✔	
<b>Physical Tests : TSS by Gravimetry (Low Level)</b>											
HDPE RG_MI25_WS_LAEMP_CMO_2022-09_N	E160-L	15-Sep-2022	----	----	----		22-Sep-2022	7 days	7 days	✔	
<b>Physical Tests : TSS by Gravimetry (Low Level)</b>											
HDPE RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E160-L	16-Sep-2022	----	----	----		23-Sep-2022	7 days	7 days	✔	



Matrix: **Water** Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
Rec	Actual	Rec		Actual							
<b>Physical Tests : TSS by Gravimetry (Low Level)</b>											
HDPE RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E160-L	16-Sep-2022	----	----	----		23-Sep-2022	7 days	7 days	✓	
<b>Physical Tests : Turbidity by Nephelometry</b>											
HDPE RG_LE1_WS_LAEMP_CMO_2022-09_N	E121	16-Sep-2022	----	----	----		22-Sep-2022	3 days	6 days	* EHT	
<b>Physical Tests : Turbidity by Nephelometry</b>											
HDPE RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E121	16-Sep-2022	----	----	----		22-Sep-2022	3 days	6 days	* EHT	
<b>Physical Tests : Turbidity by Nephelometry</b>											
HDPE RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E121	16-Sep-2022	----	----	----		22-Sep-2022	3 days	6 days	* EHT	
<b>Physical Tests : Turbidity by Nephelometry</b>											
HDPE RG_AGCK_WS_LAEMP_CMO_2022-09_N	E121	15-Sep-2022	----	----	----		22-Sep-2022	3 days	7 days	* EHT	
<b>Physical Tests : Turbidity by Nephelometry</b>											
HDPE RG_MI25_WS_LAEMP_CMO_2022-09_N	E121	15-Sep-2022	----	----	----		22-Sep-2022	3 days	7 days	* EHT	
<b>Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)</b>											
HDPE total (nitric acid) RG_LE1_WS_LAEMP_CMO_2022-09_N	E420.Cr-L	16-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	180 days	8 days	✓	
<b>Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)</b>											
HDPE total (nitric acid) RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E420.Cr-L	16-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	180 days	8 days	✓	
<b>Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)</b>											
HDPE total (nitric acid) RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E420.Cr-L	16-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	180 days	8 days	✓	



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)</b>											
<b>HDPE total (nitric acid)</b> RG_AGCK_WS_LAEMP_CMO_2022-09_N	E420.Cr-L	15-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	180 days	9 days	✔	
<b>Total Metals : Total Chromium in Water by CRC ICPMS (Low Level)</b>											
<b>HDPE total (nitric acid)</b> RG_MI25_WS_LAEMP_CMO_2022-09_N	E420.Cr-L	15-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	180 days	9 days	✔	
<b>Total Metals : Total Mercury in Water by CVAAS</b>											
<b>Glass vial total (hydrochloric acid)</b> RG_LE1_WS_LAEMP_CMO_2022-09_N	E508	16-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	28 days	8 days	✔	
<b>Total Metals : Total Mercury in Water by CVAAS</b>											
<b>Glass vial total (hydrochloric acid)</b> RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E508	16-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	28 days	8 days	✔	
<b>Total Metals : Total Mercury in Water by CVAAS</b>											
<b>Glass vial total (hydrochloric acid)</b> RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E508	16-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	28 days	8 days	✔	
<b>Total Metals : Total Mercury in Water by CVAAS</b>											
<b>Glass vial total (hydrochloric acid)</b> RG_AGCK_WS_LAEMP_CMO_2022-09_N	E508	15-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	28 days	9 days	✔	
<b>Total Metals : Total Mercury in Water by CVAAS</b>											
<b>Glass vial total (hydrochloric acid)</b> RG_MI25_WS_LAEMP_CMO_2022-09_N	E508	15-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	28 days	9 days	✔	
<b>Total Metals : Total Metals in Water by CRC ICPMS</b>											
<b>HDPE total (nitric acid)</b> RG_LE1_WS_LAEMP_CMO_2022-09_N	E420	16-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	180 days	8 days	✔	
<b>Total Metals : Total Metals in Water by CRC ICPMS</b>											
<b>HDPE total (nitric acid)</b> RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	E420	16-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	180 days	8 days	✔	



Matrix: **Water** Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Total Metals : Total Metals in Water by CRC ICPMS</b>										
<b>HDPE total (nitric acid)</b> RG_RG_TRIP_WS_LAEMP_CMO_2022-09_N	E420	16-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	180 days	8 days	✓
<b>Total Metals : Total Metals in Water by CRC ICPMS</b>										
<b>HDPE total (nitric acid)</b> RG_AGCK_WS_LAEMP_CMO_2022-09_N	E420	15-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	180 days	9 days	✓
<b>Total Metals : Total Metals in Water by CRC ICPMS</b>										
<b>HDPE total (nitric acid)</b> RG_MI25_WS_LAEMP_CMO_2022-09_N	E420	15-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	180 days	9 days	✓

**Legend & Qualifier Definitions**

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended  
 EHT: Exceeded ALS recommended hold time prior to analysis.  
 Rec. HT: ALS recommended hold time (see units).





## Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water** Evaluation: \* = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		Evaluation
			QC	Regular	Actual	Expected	
<b>Analytical Methods</b>							
<b>Laboratory Duplicates (DUP)</b>							
Acidity by Titration	E283	662100	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	662108	1	20	5.0	5.0	✓
Ammonia by Fluorescence	E298	661142	1	12	8.3	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	661066	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	661067	1	19	5.2	5.0	✓
Conductivity in Water	E100	662106	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	661149	1	4	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	662251	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	661148	1	10	10.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	660961	1	19	5.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	660985	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	661065	1	19	5.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	661068	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	661069	1	19	5.2	5.0	✓
ORP by Electrode	E125	662920	1	14	7.1	5.0	✓
pH by Meter	E108	662107	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	661070	1	19	5.2	5.0	✓
TDS by Gravimetry	E162	661276	2	5	40.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	662944	1	15	6.6	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	661206	1	5	20.0	5.0	✓
Total Mercury in Water by CVAAS	E508	662245	1	14	7.1	5.0	✓
Total Metals in Water by CRC ICPMS	E420	662945	1	15	6.6	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	660962	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	661974	1	14	7.1	5.0	✓
Turbidity by Nephelometry	E121	661110	1	5	20.0	5.0	✓
<b>Laboratory Control Samples (LCS)</b>							
Acidity by Titration	E283	662100	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	662108	1	20	5.0	5.0	✓
Ammonia by Fluorescence	E298	661142	1	12	8.3	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	661066	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	661067	1	19	5.2	5.0	✓
Conductivity in Water	E100	662106	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	661149	1	4	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	662251	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	661148	1	10	10.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	660961	1	19	5.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	660985	1	20	5.0	5.0	✓





Matrix: **Water**

Evaluation: \* = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		Evaluation
			QC	Regular	Actual	Expected	
<b>Analytical Methods</b>							
<b>Laboratory Control Samples (LCS) - Continued</b>							
Fluoride in Water by IC	E235.F	661065	1	19	5.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	661068	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	661069	1	19	5.2	5.0	✓
ORP by Electrode	E125	662920	1	14	7.1	5.0	✓
pH by Meter	E108	662107	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	661070	1	19	5.2	5.0	✓
TDS by Gravimetry	E162	661276	2	5	40.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	662944	1	15	6.6	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	661206	1	5	20.0	5.0	✓
Total Mercury in Water by CVAAS	E508	662245	1	14	7.1	5.0	✓
Total Metals in Water by CRC ICPMS	E420	662945	1	15	6.6	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	660962	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	661974	1	14	7.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	661277	2	5	40.0	5.0	✓
Turbidity by Nephelometry	E121	661110	1	5	20.0	5.0	✓
<b>Method Blanks (MB)</b>							
Acidity by Titration	E283	662100	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	662108	1	20	5.0	5.0	✓
Ammonia by Fluorescence	E298	661142	1	12	8.3	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	661066	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	661067	1	19	5.2	5.0	✓
Conductivity in Water	E100	662106	1	20	5.0	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	661149	1	4	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	662251	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	661148	1	10	10.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	660961	1	19	5.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	660985	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	661065	1	19	5.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	661068	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	661069	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	661070	1	19	5.2	5.0	✓
TDS by Gravimetry	E162	661276	2	5	40.0	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	662944	1	15	6.6	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	661206	1	5	20.0	5.0	✓
Total Mercury in Water by CVAAS	E508	662245	1	14	7.1	5.0	✓
Total Metals in Water by CRC ICPMS	E420	662945	1	15	6.6	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	660962	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	661974	1	14	7.1	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	661277	2	5	40.0	5.0	✓
Turbidity by Nephelometry	E121	661110	1	5	20.0	5.0	✓



Matrix: **Water** Evaluation: \* = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		Evaluation
			QC	Regular	Actual	Expected	
<i>Analytical Methods</i>							
<b>Matrix Spikes (MS)</b>							
Ammonia by Fluorescence	E298	661142	1	12	8.3	5.0	✓
Bromide in Water by IC (Low Level)	E235.Br-L	661066	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	661067	1	19	5.2	5.0	✓
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L	661149	1	4	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	662251	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	661148	1	10	10.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	660961	1	19	5.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	660985	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	661065	1	19	5.2	5.0	✓
Nitrate in Water by IC (Low Level)	E235.NO3-L	661068	1	20	5.0	5.0	✓
Nitrite in Water by IC (Low Level)	E235.NO2-L	661069	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	661070	1	19	5.2	5.0	✓
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L	662944	1	15	6.6	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	661206	1	5	20.0	5.0	✓
Total Mercury in Water by CVAAS	E508	662245	1	14	7.1	5.0	✓
Total Metals in Water by CRC ICPMS	E420	662945	1	15	6.6	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	660962	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	661974	1	14	7.1	5.0	✓



## Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 Calgary - Environmental	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 Calgary - Environmental	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 Calgary - Environmental	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
ORP by Electrode	E125 Calgary - Environmental	Water	ASTM D1498 (mod)	Oxidation reduction potential is reported as the oxidation-reduction potential of the platinum metal-reference electrode employed, measured in mV. For high accuracy test results, it is recommended that this analysis be conducted in the field.
TSS by Gravimetry (Low Level)	E160-L Calgary - Environmental	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry	E162 Calgary - Environmental	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Bromide in Water by IC (Low Level)	E235.Br-L Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Chloride in Water by IC (Low Level)	E235.Cl-L Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC (Low Level)	E235.NO2-L Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC (Low Level)	E235.NO3-L Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 Calgary - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 Calgary - Environmental	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Alkalinity Species by Titration	E290 Calgary - Environmental	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 Calgary - Environmental	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 Calgary - Environmental	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L Calgary - Environmental	Water	APHA 5310 B (mod)	Total Organic Carbon (Non-Purgeable), also known as NPOC (total), is a direct measurement of TOC after an acidified sample has been purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO <sub>2</sub> . NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of total carbon (TC) is comprised of IC (which is common), this method is more accurate and more reliable than the TOC by subtraction method (i.e. TC minus TIC).
Dissolved Organic Carbon by Combustion (Low Level)	E358-L Calgary - Environmental	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO <sub>2</sub> . NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U Calgary - Environmental	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U Calgary - Environmental	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter.  Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 Calgary - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.  Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Chromium in Water by CRC ICPMS (Low Level)	E420.Cr-L Calgary - Environmental	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS.
Dissolved Metals in Water by CRC ICPMS	E421 Calgary - Environmental	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS.  Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

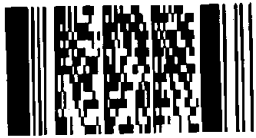


Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Chromium in Water by CRC ICPMS (Low Level)	E421.Cr-L Calgary - Environmental	Water	APHA 3030 B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS
Total Mercury in Water by CVAAS	E508 Calgary - Environmental	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 Calgary - Environmental	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 Calgary - Environmental	Water	APHA 2340B	"Hardness (as CaCO <sub>3</sub> ), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO <sub>3</sub> equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Ion Balance using Dissolved Metals	EC101 Calgary - Environmental	Water	APHA 1030E	Cation Sum, Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Dissolved species are used where available. Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 Calgary - Environmental	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 Calgary - Environmental	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Preparation for Total Organic Carbon by Combustion	EP355 Calgary - Environmental	Water		Preparation for Total Organic Carbon by Combustion
Preparation for Dissolved Organic Carbon for Combustion	EP358 Calgary - Environmental	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 Calgary - Environmental	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 Calgary - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO <sub>3</sub> .
Dissolved Mercury Water Filtration	EP509 Calgary - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

COC ID: <b>REP_LAEMP_CMm_2022-09_ALS</b>		TURNAROUND TIME: 2-3 Business Days		RUSH: Priority					
PROJECT/CLIENT INFO			LABORATORY			OTHER INFO			
Facility Name / Job# Regional Effects Program			Lab Name ALS Calgary		Report Format / Distribution		Excel	PDF	EDD
Project Manager Cybele Heddle			Lab Contact Lyudmyla Shvets		Email 1: AlyaSciLab@Teck.com		X	X	X
Email Cybele.Heddle@teck.com			Email Lyudmyla.Shvets@ALSGlobal.com		Email 2: teckcoal@equisonline.com		X	X	X
Address 421 Pine Avenue			Address 2559 29 Street NE		Email 3: TeckLab.Results@teck.com		X	X	X
City Sparwood			City Calgary		Email 4: Lisa.Bowron@minnow.ca		X	X	X
Postal Code V0B 2G0			Postal Code T1Y 7B5		Email 5: Tyler.Mehler@minnow.ca		X	X	X
Province BC			Province AB		Email 6: Hannah.Penner@Teck.com		X	X	X
Country Canada			Country Canada		Phone number 403 407 1794		PO number VPO00816101		

Environmental Division  
Calgary  
Work Order Reference  
**CG2212931**



Telephone: +1 403 407 1800

SAMPLE DETAILS							ANALYSIS REQUESTED							
Sample ID	Sample Location (sys loc code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Com p	# Of Cont.	DOC	Mercury_Dissolved	Mercury_Total	TECKCOAL_METNHG D	TECKCOAL_METNHG T	TECKCOAL_ROUTINE	TOC_TKN_PT
RG_MI25_WS_LAEMP_CMO_2022-09_N	RG_MI25	WS		2022/09/15	11:30	G	7	1	1	1	1	1	1	1
RG_AGCK_WS_LAEMP_CMO_2022-09_N	RG_AGCK	WS		2022/09/15	15:28	G	7	1	1	1	1	1	1	1
RG_LE1_WS_LAEMP_CMO_2022-09_N	RG_LE1	WS		2022/09/16	10:4	G	7	1	1	1	1	1	1	1
RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	RG_FBLANK	WS		2022/09/16	10:22	G	7	1	1	1	1	1	1	1
RG_RG_FBLANK_WS_LAEMP_CMO_2022-09_N	RG_TRIP	WS		2022/09/16	10:45	G	4			1		1	1	1

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS		RELINQUISHED BY/AFFILIATION		DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
Dissolved metals were field filtered and to be lab preserved Total metals to be lab preserved		Jennifer Ings/Minnow		#####	Scena	09/17 1138AM SC
SERVICE REQUEST (rush - subject to availability)						
Regular (default)		Sampler's Name		Jennifer Ings		Mobile #
Priority (2-3 business days) - 50% surcharge X		Sampler's Signature		<i>Jennifer Ings</i>		519-500-3444
Emergency (1 Business Day) - 100% surcharge				Date/Time		September 16, 2022
For Emergency <1 Day, ASAP or Weekend - Contact ALS						

## CERTIFICATE OF ANALYSIS

**Work Order** : **CG2212740**  
**Client** : **Teck Coal Limited**  
**Contact** : Cybele Heddle  
**Address** : 421 Pine Ave  
                   Sparwood BC Canada  
**Telephone** : ----  
**Project** : REGIONAL EFFECTS PROGRAM  
**PO** : VPO00816101  
**C-O-C number** : REP\_LAEMP\_CMm\_2022-09\_ALS  
**Sampler** : Jennifer Ings  
**Site** : ----  
**Quote number** : Teck Coal Master Quote  
**No. of samples received** : 18  
**No. of samples analysed** : 18

**Page** : 1 of 19  
**Laboratory** : Calgary - Environmental  
**Account Manager** : Lyudmyla Shvets  
**Address** : 2559 29th Street NE  
                   Calgary AB Canada T1Y 7B5  
**Telephone** : +1 403 407 1800  
**Date Samples Received** : 15-Sep-2022 08:50  
**Date Analysis Commenced** : 20-Sep-2022  
**Issue Date** : 28-Sep-2022 16:32

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

### Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Amber Sheikh	Laboratory Assistant	Organics, Calgary, Alberta
Anthony Calero	Supervisor - Inorganic	Metals, Calgary, Alberta
Hedy Lai	Team Leader - Inorganics	Inorganics, Saskatoon, Saskatchewan
Hedy Lai	Team Leader - Inorganics	Sask Soils, Saskatoon, Saskatchewan
Sara Niroomand		Metals, Calgary, Alberta
Sorina Motea	Laboratory Analyst	Organics, Calgary, Alberta
Vishnu Patel		Inorganics, Calgary, Alberta



## General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances  
 LOR: Limit of Reporting (detection limit).

Unit	Description
-	No Unit
%	percent
mg/kg	milligrams per kilogram
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

## Sample Comments

Sample	Client Id	Comment
CG2212740-002	RG_MI5_SE-2_2022-09-12_N	Sample(s) XXX: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.
CG2212740-003	RG_MI5_SE-3_2022-09-12_N	Sample(s) XXX: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.
CG2212740-007	RG_MIULE_SE-4_2022-09-12_N	Sample(s) XXX: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.
CG2212740-009	RG_MIDAG_SE-1_2022-09-13_N	Sample(s) XXX: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.
CG2212740-010	RG_MIDAG_SE-2_2022-09-13_N	Sample(s) XXX: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.
CG2212740-011	RG_MIDAG_SE-3_2022-09-13_N	Sample(s) XXX: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.
CG2212740-012	RG_MIDAG_SE-4_2022-09-13_N	Sample(s) XXX: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.
CG2212740-013	RG_MIDAG_SE-5_2022-09-13_N	Sample(s) XXX: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.





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CG2212740-014	RG_MIDCO_SE-1_2022-09-13 _N	Sample(s) XXX: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.
CG2212740-016	RG_MIDCO_SE-3_2022-09-13 _N	Sample(s) XXX: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.

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## Analytical Results

Sub-Matrix: Sediment  
 (Matrix: Soil/Solid)

Client sample ID

					RG_MI5_SE-1_2 022-09-12_N	RG_MI5_SE-2_2 022-09-12_N	RG_MI5_SE-3_2 022-09-12_N	RG_MIULE_SE- 1_2022-09-12_ N	RG_MIULE_SE- 2_2022-09-12_ N
Client sampling date / time					12-Sep-2022 09:30	12-Sep-2022 10:00	12-Sep-2022 10:30	12-Sep-2022 15:41	12-Sep-2022 14:31
Analyte	CAS Number	Method	LOR	Unit	CG2212740-001	CG2212740-002	CG2212740-003	CG2212740-004	CG2212740-005
					Result	Result	Result	Result	Result
<b>Physical Tests</b>									
moisture	----	E144	0.25	%	66.5	82.1	50.5	77.0	73.2
pH (1:2 soil:water)	----	E108	0.10	pH units	7.68	7.61	7.67	7.33	7.49
<b>Particle Size</b>									
grain size curve	----	E185A	-	-	See Attached	See Attached	See Attached	See Attached	See Attached
clay (<0.004mm)	----	EC184A	1.0	%	4.2	7.5	6.1	4.0	4.9
silt (0.063mm - 0.0312mm)	----	EC184A	1.0	%	14.6	27.3	18.2	20.2	20.9
silt (0.0312mm - 0.004mm)	----	EC184A	1.0	%	14.6	30.0	21.1	20.0	23.8
sand (0.125mm - 0.063mm)	----	EC184A	1.0	%	17.4	7.5	11.0	14.4	7.8
sand (0.25mm - 0.125mm)	----	EC184A	1.0	%	27.8	4.7	13.1	15.0	8.0
sand (0.5mm - 0.25mm)	----	EC184A	1.0	%	16.9	3.4	14.2	6.5	13.1
sand (1.0mm - 0.50mm)	----	EC184A	1.0	%	2.6	4.4	10.5	2.4	10.9
sand (2.0mm - 1.0mm)	----	EC184A	1.0	%	<1.0	6.2	3.3	2.4	5.0
gravel (>2mm)	----	EC184A	1.0	%	1.4	9.0	2.5	15.1	5.6
<b>Organic / Inorganic Carbon</b>									
carbon, total [TC]	----	E351	0.050	%	4.94	8.87	6.04	7.63	7.78
carbon, inorganic [IC]	----	E354	0.050	%	1.12	2.24	1.42	1.71	2.09
carbon, inorganic [IC], (as CaCO3 equivalent)	----	E354	0.40	%	9.36	18.6	11.8	14.3	17.4
carbon, total organic [TOC]	----	EC356	0.050	%	3.82	6.63	4.62	5.92	5.69
<b>Metals</b>									
aluminum	7429-90-5	E440	50	mg/kg	7640	6310	6050	7070	6350
antimony	7440-36-0	E440	0.10	mg/kg	0.74	0.49	0.66	0.56	0.60
arsenic	7440-38-2	E440	0.10	mg/kg	5.06	4.85	5.01	5.60	5.98
barium	7440-39-3	E440	0.50	mg/kg	190	200	204	166	147
beryllium	7440-41-7	E440	0.10	mg/kg	0.61	0.44	0.54	0.62	0.60
bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
boron	7440-42-8	E440	5.0	mg/kg	7.9	9.1	7.9	8.8	8.5
cadmium	7440-43-9	E440	0.020	mg/kg	1.41	1.67	1.73	1.19	1.39
calcium	7440-70-2	E440	50	mg/kg	38700	65200	46100	55400	57900
chromium	7440-47-3	E440	0.50	mg/kg	11.6	10.1	10.0	10.2	10.3



## Analytical Results

Sub-Matrix: Sediment  
 (Matrix: Soil/Solid)

Client sample ID

					RG_MI5_SE-1_2 022-09-12_N	RG_MI5_SE-2_2 022-09-12_N	RG_MI5_SE-3_2 022-09-12_N	RG_MIULE_SE- 1_2022-09-12_ N	RG_MIULE_SE- 2_2022-09-12_ N
Client sampling date / time					12-Sep-2022 09:30	12-Sep-2022 10:00	12-Sep-2022 10:30	12-Sep-2022 15:41	12-Sep-2022 14:31
Analyte	CAS Number	Method	LOR	Unit	CG2212740-001	CG2212740-002	CG2212740-003	CG2212740-004	CG2212740-005
					Result	Result	Result	Result	Result
<b>Metals</b>									
cobalt	7440-48-4	E440	0.10	mg/kg	6.09	6.27	5.96	8.97	9.87
copper	7440-50-8	E440	0.50	mg/kg	11.2	10.2	10.7	11.3	13.4
iron	7439-89-6	E440	50	mg/kg	11900	10300	13900	11900	15400
lead	7439-92-1	E440	0.50	mg/kg	8.13	6.49	7.49	8.32	8.02
lithium	7439-93-2	E440	2.0	mg/kg	10.1	8.4	8.8	10.7	10.7
magnesium	7439-95-4	E440	20	mg/kg	4550	5450	4240	6520	5460
manganese	7439-96-5	E440	1.0	mg/kg	147	191	202	198	217
mercury	7439-97-6	E510	0.0050	mg/kg	0.0373	0.0277	0.0338	0.0325	0.0271
molybdenum	7439-98-7	E440	0.10	mg/kg	1.26	0.88	1.17	1.39	1.83
nickel	7440-02-0	E440	0.50	mg/kg	27.5	29.9	27.8	37.8	427
phosphorus	7723-14-0	E440	50	mg/kg	1220	1210	1190	1080	1160
potassium	7440-09-7	E440	100	mg/kg	1380	1130	1040	1370	1220
selenium	7782-49-2	E440	0.20	mg/kg	1.74	2.75	2.12	1.95	2.43
silver	7440-22-4	E440	0.10	mg/kg	0.17	0.15	0.17	0.16	0.14
sodium	7440-23-5	E440	50	mg/kg	87	123	79	103	105
strontium	7440-24-6	E440	0.50	mg/kg	73.3	107	93.2	86.1	93.4
sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	<1000	1000	<1000
thallium	7440-28-0	E440	0.050	mg/kg	0.253	0.186	0.222	0.327	0.305
tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0
titanium	7440-32-6	E440	1.0	mg/kg	41.5	25.7	30.3	20.0	21.6
tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
uranium	7440-61-1	E440	0.050	mg/kg	1.28	0.857	1.02	0.854	0.862
vanadium	7440-62-2	E440	0.20	mg/kg	30.9	24.1	25.1	22.2	23.7
zinc	7440-66-6	E440	2.0	mg/kg	94.6	94.9	91.8	96.5	121
zirconium	7440-67-7	E440	1.0	mg/kg	1.1	<1.0	<1.0	1.2	<1.0
<b>Polycyclic Aromatic Hydrocarbons</b>									
acenaphthene	83-32-9	E641A	0.050	mg/kg	<0.050	<0.066	<0.050	<0.050	<0.050
acenaphthylene	208-96-8	E641A	0.050	mg/kg	<0.050	<0.066	<0.050	<0.050	<0.050
acridine	260-94-6	E641A	0.050	mg/kg	<0.050	<0.066	<0.050	<0.050	<0.050
anthracene	120-12-7	E641A	0.050	mg/kg	<0.050	0.204	0.099	<0.050	<0.050



## Analytical Results

Sub-Matrix: Sediment

Client sample ID

(Matrix: Soil/Solid)

					RG_MI5_SE-1_2 022-09-12_N	RG_MI5_SE-2_2 022-09-12_N	RG_MI5_SE-3_2 022-09-12_N	RG_MIULE_SE- 1_2022-09-12_ N	RG_MIULE_SE- 2_2022-09-12_ N
Client sampling date / time					12-Sep-2022 09:30	12-Sep-2022 10:00	12-Sep-2022 10:30	12-Sep-2022 15:41	12-Sep-2022 14:31
Analyte	CAS Number	Method	LOR	Unit	CG2212740-001	CG2212740-002	CG2212740-003	CG2212740-004	CG2212740-005
					Result	Result	Result	Result	Result
<b>Polycyclic Aromatic Hydrocarbons</b>									
benzo(a)anthracene	56-55-3	E641A	0.050	mg/kg	<0.050	<0.066	<0.050	<0.050	<0.050
benzo(a)pyrene	50-32-8	E641A	0.050	mg/kg	<0.050	<0.066	<0.050	<0.050	<0.050
benzo(b+j)fluoranthene	n/a	E641A	0.050	mg/kg	<0.050	<0.066	<0.050	0.068	0.059
benzo(b+j+k)fluoranthene	n/a	E641A	0.075	mg/kg	<0.075	<0.093	<0.075	<0.075	<0.075
benzo(g,h,i)perylene	191-24-2	E641A	0.050	mg/kg	<0.050	<0.066	<0.050	<0.050	<0.050
benzo(k)fluoranthene	207-08-9	E641A	0.050	mg/kg	<0.050	<0.066	<0.050	<0.050	<0.050
chrysene	218-01-9	E641A	0.050	mg/kg	0.073	0.081	<0.050	0.105	0.100
dibenz(a,h)anthracene	53-70-3	E641A	0.050	mg/kg	<0.050	<0.066	<0.050	<0.050	<0.050
fluoranthene	206-44-0	E641A	0.050	mg/kg	<0.050	<0.066	<0.050	<0.050	<0.050
fluorene	86-73-7	E641A	0.050	mg/kg	<0.050	<0.066	<0.050	<0.050	<0.050
indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.050	mg/kg	<0.050	<0.066	<0.050	<0.050	<0.050
methylnaphthalene, 1-	90-12-0	E641A	0.030	mg/kg	0.118	0.140	0.064	0.215	0.163
methylnaphthalene, 1+2-	----	E641A	0.050	mg/kg	0.263	0.324	0.150	0.522	0.391
methylnaphthalene, 2-	91-57-6	E641A	0.030	mg/kg	0.145	0.184	0.086	0.307	0.228
naphthalene	91-20-3	E641A	0.010	mg/kg	0.073	0.096	0.041	0.154	0.117
phenanthrene	85-01-8	E641A	0.050	mg/kg	0.172	0.203	0.097	0.272	0.214
pyrene	129-00-0	E641A	0.050	mg/kg	<0.050	<0.066	<0.050	<0.050	<0.050
quinoline	91-22-5	E641A	0.050	mg/kg	<0.050	<0.066	<0.050	<0.050	<0.050
B(a)P total potency equivalents [B(a)P TPE]	----	E641A	0.065	mg/kg	<0.065	0.080	<0.065	0.066	<0.065
IACR (CCME)	----	E641A	0.60	-	0.61	0.80	<0.60	0.90	0.84
IACR AB (coarse)	----	E641A	0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10
IACR AB (fine)	----	E641A	0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10
PAHs, total (BC Sched 3.4)	n/a	E641A	0.20	mg/kg	0.46	0.77	0.32	0.84	0.66
PAHs, total (EPA 16)	n/a	E641A	0.20	mg/kg	0.32	0.58	0.24	0.60	0.49
<b>Polycyclic Aromatic Hydrocarbons Surrogates</b>									
acridine-d9	34749-75-2	E641A	0.1	%	90.9	105	96.7	98.5	95.9
chrysene-d12	1719-03-5	E641A	0.1	%	104	119	112	112	109
naphthalene-d8	1146-65-2	E641A	0.1	%	73.1	73.5	84.5	63.6	80.4
phenanthrene-d10	1517-22-2	E641A	0.1	%	92.8	109	102	101	101



Please refer to the General Comments section for an explanation of any qualifiers detected.

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## Analytical Results

Sub-Matrix: Sediment

(Matrix: Soil/Solid)

Client sample ID

					RG_MIULE_SE-3_2022-09-12_N	RG_MIULE_SE-4_2022-09-12_N	RG_MIULE_SE-5_2022-09-12_N	RG_MIDAG_SE-1_2022-09-13_N	RG_MIDAG_SE-2_2022-09-13_N
Client sampling date / time					12-Sep-2022 13:40	12-Sep-2022 16:25	12-Sep-2022 15:00	13-Sep-2022 11:07	13-Sep-2022 10:17
Analyte	CAS Number	Method	LOR	Unit	CG2212740-006	CG2212740-007	CG2212740-008	CG2212740-009	CG2212740-010
					Result	Result	Result	Result	Result
<b>Physical Tests</b>									
moisture	----	E144	0.25	%	79.0	85.5	69.2	82.8	85.9
pH (1:2 soil:water)	----	E108	0.10	pH units	7.34	7.21	7.55	7.57	7.42
<b>Particle Size</b>									
grain size curve	----	E185A	-	-	See Attached	See Attached	See Attached	See Attached	See Attached
clay (<0.004mm)	----	EC184A	1.0	%	6.1	6.5	4.9	5.6	9.1
silt (0.063mm - 0.0312mm)	----	EC184A	1.0	%	24.7	30.3	17.4	23.6	36.8
silt (0.0312mm - 0.004mm)	----	EC184A	1.0	%	27.5	33.1	19.4	25.5	41.1
sand (0.125mm - 0.063mm)	----	EC184A	1.0	%	6.7	6.1	8.2	9.5	7.4
sand (0.25mm - 0.125mm)	----	EC184A	1.0	%	5.5	5.1	10.1	4.6	3.0
sand (0.5mm - 0.25mm)	----	EC184A	1.0	%	5.0	7.0	19.7	1.6	1.4
sand (1.0mm - 0.50mm)	----	EC184A	1.0	%	7.2	4.3	13.3	3.1	1.0
sand (2.0mm - 1.0mm)	----	EC184A	1.0	%	4.6	2.9	4.0	7.3	<1.0
gravel (>2mm)	----	EC184A	1.0	%	12.7	4.7	3.0	19.2	<1.0
<b>Organic / Inorganic Carbon</b>									
carbon, total [TC]	----	E351	0.050	%	9.50	9.97	6.86	10.2	12.9
carbon, inorganic [IC]	----	E354	0.050	%	2.48	2.50	1.89	2.55	2.49
carbon, inorganic [IC], (as CaCO3 equivalent)	----	E354	0.40	%	20.7	20.8	15.8	21.2	20.7
carbon, total organic [TOC]	----	EC356	0.050	%	7.02	7.47	4.97	7.65	10.4
<b>Metals</b>									
aluminum	7429-90-5	E440	50	mg/kg	5290	5410	6830	6160	6530
antimony	7440-36-0	E440	0.10	mg/kg	0.50	0.41	0.52	0.41	0.48
arsenic	7440-38-2	E440	0.10	mg/kg	4.72	4.30	5.93	4.90	5.45
barium	7440-39-3	E440	0.50	mg/kg	149	153	133	107	111
beryllium	7440-41-7	E440	0.10	mg/kg	0.51	0.49	0.61	0.58	0.61
bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
boron	7440-42-8	E440	5.0	mg/kg	7.4	10.6	8.4	8.3	8.7
cadmium	7440-43-9	E440	0.020	mg/kg	1.41	1.40	1.20	1.54	1.68
calcium	7440-70-2	E440	50	mg/kg	79400	83400	56000	73400	76400
chromium	7440-47-3	E440	0.50	mg/kg	8.52	8.24	9.72	9.44	10.1



## Analytical Results

Sub-Matrix: Sediment

(Matrix: Soil/Solid)

Client sample ID

					RG_MIULE_SE-3_2022-09-12_N	RG_MIULE_SE-4_2022-09-12_N	RG_MIULE_SE-5_2022-09-12_N	RG_MIDAG_SE-1_2022-09-13_N	RG_MIDAG_SE-2_2022-09-13_N
Client sampling date / time					12-Sep-2022 13:40	12-Sep-2022 16:25	12-Sep-2022 15:00	13-Sep-2022 11:07	13-Sep-2022 10:17
Analyte	CAS Number	Method	LOR	Unit	CG2212740-006	CG2212740-007	CG2212740-008	CG2212740-009	CG2212740-010
					Result	Result	Result	Result	Result
<b>Metals</b>									
cobalt	7440-48-4	E440	0.10	mg/kg	9.50	10.9	9.54	16.1	17.5
copper	7440-50-8	E440	0.50	mg/kg	10.2	10.0	11.4	11.0	11.7
iron	7439-89-6	E440	50	mg/kg	11000	9640	13300	10300	10400
lead	7439-92-1	E440	0.50	mg/kg	6.92	6.63	8.21	7.38	7.34
lithium	7439-93-2	E440	2.0	mg/kg	9.8	10.0	11.0	10.8	11.3
magnesium	7439-95-4	E440	20	mg/kg	6430	5850	5770	7670	7770
manganese	7439-96-5	E440	1.0	mg/kg	212	213	182	156	194
mercury	7439-97-6	E510	0.0050	mg/kg	0.0277	0.0337	0.0315	0.0401	0.0352
molybdenum	7439-98-7	E440	0.10	mg/kg	1.29	1.15	1.37	1.18	1.23
nickel	7440-02-0	E440	0.50	mg/kg	36.6	39.3	35.8	57.7	62.7
phosphorus	7723-14-0	E440	50	mg/kg	1020	955	1080	955	1100
potassium	7440-09-7	E440	100	mg/kg	950	1360	1280	1160	1280
selenium	7782-49-2	E440	0.20	mg/kg	3.19	3.88	2.06	3.27	4.71
silver	7440-22-4	E440	0.10	mg/kg	0.15	0.15	0.13	0.17	0.19
sodium	7440-23-5	E440	50	mg/kg	125	158	90	116	175
strontium	7440-24-6	E440	0.50	mg/kg	114	114	85.5	106	114
sulfur	7704-34-9	E440	1000	mg/kg	1400	1600	1100	1700	1800
thallium	7440-28-0	E440	0.050	mg/kg	0.263	0.258	0.317	0.370	0.390
tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0
titanium	7440-32-6	E440	1.0	mg/kg	14.7	15.8	16.3	17.3	13.7
tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
uranium	7440-61-1	E440	0.050	mg/kg	0.776	0.755	0.806	0.871	0.967
vanadium	7440-62-2	E440	0.20	mg/kg	17.6	15.9	21.3	16.3	17.7
zinc	7440-66-6	E440	2.0	mg/kg	100	99.3	99.6	116	123
zirconium	7440-67-7	E440	1.0	mg/kg	1.2	1.1	1.1	1.3	1.5
<b>Polycyclic Aromatic Hydrocarbons</b>									
acenaphthene	83-32-9	E641A	0.050	mg/kg	<0.050	<0.068	<0.050	<0.071	<0.069
acenaphthylene	208-96-8	E641A	0.050	mg/kg	<0.050	<0.068	<0.050	<0.071	<0.069
acridine	260-94-6	E641A	0.050	mg/kg	<0.050	<0.068	<0.050	<0.071	<0.069
anthracene	120-12-7	E641A	0.050	mg/kg	<0.050	0.357	<0.050	<0.071	<0.069



## Analytical Results

Sub-Matrix: Sediment

Client sample ID

(Matrix: Soil/Solid)

					RG_MIULE_SE-3_2022-09-12_N	RG_MIULE_SE-4_2022-09-12_N	RG_MIULE_SE-5_2022-09-12_N	RG_MIDAG_SE-1_2022-09-13_N	RG_MIDAG_SE-2_2022-09-13_N
Client sampling date / time					12-Sep-2022 13:40	12-Sep-2022 16:25	12-Sep-2022 15:00	13-Sep-2022 11:07	13-Sep-2022 10:17
Analyte	CAS Number	Method	LOR	Unit	CG2212740-006	CG2212740-007	CG2212740-008	CG2212740-009	CG2212740-010
					Result	Result	Result	Result	Result
<b>Polycyclic Aromatic Hydrocarbons</b>									
benzo(a)anthracene	56-55-3	E641A	0.050	mg/kg	<0.050	<0.068	<0.050	<0.071	<0.069
benzo(a)pyrene	50-32-8	E641A	0.050	mg/kg	<0.050	<0.068	<0.050	<0.071	<0.069
benzo(b+j)fluoranthene	n/a	E641A	0.050	mg/kg	0.084	0.085	<0.050	0.123	0.103
benzo(b+j+k)fluoranthene	n/a	E641A	0.075	mg/kg	0.084	<0.096	<0.075	0.123	0.103
benzo(g,h,i)perylene	191-24-2	E641A	0.050	mg/kg	<0.050	<0.068	<0.050	<0.071	<0.069
benzo(k)fluoranthene	207-08-9	E641A	0.050	mg/kg	<0.050	<0.068	<0.050	<0.071	<0.069
chrysene	218-01-9	E641A	0.050	mg/kg	0.115	0.150	0.064	0.191	0.146
dibenz(a,h)anthracene	53-70-3	E641A	0.050	mg/kg	<0.050	<0.068	<0.050	<0.071	<0.069
fluoranthene	206-44-0	E641A	0.050	mg/kg	0.058	0.075	<0.050	<0.071	0.074
fluorene	86-73-7	E641A	0.050	mg/kg	<0.050	<0.068	<0.050	<0.071	<0.069
indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.050	mg/kg	<0.050	<0.068	<0.050	<0.071	<0.069
methylnaphthalene, 1-	90-12-0	E641A	0.030	mg/kg	0.182	0.268	0.127	0.465	0.333
methylnaphthalene, 1+2-	----	E641A	0.050	mg/kg	0.441	0.662	0.304	1.14	0.819
methylnaphthalene, 2-	91-57-6	E641A	0.030	mg/kg	0.259	0.394	0.177	0.676	0.486
naphthalene	91-20-3	E641A	0.010	mg/kg	0.132	0.192	0.091	0.333	0.236
phenanthrene	85-01-8	E641A	0.050	mg/kg	0.243	0.358	0.166	0.523	0.416
pyrene	129-00-0	E641A	0.050	mg/kg	<0.050	<0.068	<0.050	<0.071	0.071
quinoline	91-22-5	E641A	0.050	mg/kg	<0.050	<0.068	<0.050	<0.071	<0.069
B(a)P total potency equivalents [B(a)P TPE]	----	E641A	0.065	mg/kg	0.067	0.088	<0.065	0.096	0.091
IACR (CCME)	----	E641A	0.60	-	1.00	1.18	0.61	1.46	1.29
IACR AB (coarse)	----	E641A	0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10
IACR AB (fine)	----	E641A	0.10	-	<0.10	0.10	<0.10	0.12	0.11
PAHs, total (BC Sched 3.4)	n/a	E641A	0.20	mg/kg	0.81	1.53	0.50	1.72	1.43
PAHs, total (EPA 16)	n/a	E641A	0.20	mg/kg	0.63	1.22	0.32	1.17	1.05
<b>Polycyclic Aromatic Hydrocarbons Surrogates</b>									
acridine-d9	34749-75-2	E641A	0.1	%	109	122	102	105	92.7
chrysene-d12	1719-03-5	E641A	0.1	%	124	126	117	123	105
naphthalene-d8	1146-65-2	E641A	0.1	%	102	81.9	83.5	84.1	70.0
phenanthrene-d10	1517-22-2	E641A	0.1	%	115	124	106	111	96.7





Please refer to the General Comments section for an explanation of any qualifiers detected.

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## Analytical Results

Sub-Matrix: Sediment  
 (Matrix: Soil/Solid)

Client sample ID

					RG_MIDAG_SE-3_2022-09-13_N	RG_MIDAG_SE-4_2022-09-13_N	RG_MIDAG_SE-5_2022-09-13_N	RG_MIDCO_SE-1_2022-09-13_N	RG_MIDCO_SE-2_2022-09-13_N
Client sampling date / time					13-Sep-2022 09:20	13-Sep-2022 10:37	13-Sep-2022 09:10	13-Sep-2022 14:07	13-Sep-2022 15:23
Analyte	CAS Number	Method	LOR	Unit	CG2212740-011	CG2212740-012	CG2212740-013	CG2212740-014	CG2212740-015
					Result	Result	Result	Result	Result
<b>Physical Tests</b>									
moisture	----	E144	0.25	%	83.9	90.0	88.0	75.7	67.6
pH (1:2 soil:water)	----	E108	0.10	pH units	7.28	7.42	7.65	7.85	7.89
<b>Particle Size</b>									
grain size curve	----	E185A	-	-	See Attached	See Attached	See Attached	See Attached	See Attached
clay (<0.004mm)	----	EC184A	1.0	%	8.5	9.7	8.1	10.9	7.1
silt (0.063mm - 0.0312mm)	----	EC184A	1.0	%	35.2	35.5	36.3	28.8	18.7
silt (0.0312mm - 0.004mm)	----	EC184A	1.0	%	36.7	39.8	39.4	39.4	25.6
sand (0.125mm - 0.063mm)	----	EC184A	1.0	%	10.6	8.1	6.4	7.2	8.9
sand (0.25mm - 0.125mm)	----	EC184A	1.0	%	5.4	4.4	3.4	4.0	5.6
sand (0.5mm - 0.25mm)	----	EC184A	1.0	%	1.6	1.6	1.3	2.5	6.2
sand (1.0mm - 0.50mm)	----	EC184A	1.0	%	<1.0	<1.0	<1.0	2.6	15.5
sand (2.0mm - 1.0mm)	----	EC184A	1.0	%	<1.0	<1.0	<1.0	3.4	10.0
gravel (>2mm)	----	EC184A	1.0	%	<1.0	<1.0	3.5	1.2	2.4
<b>Organic / Inorganic Carbon</b>									
carbon, total [TC]	----	E351	0.050	%	13.0	11.9	15.5	9.32	5.95
carbon, inorganic [IC]	----	E354	0.050	%	2.74	2.19	2.97	2.33	1.68
carbon, inorganic [IC], (as CaCO3 equivalent)	----	E354	0.40	%	22.8	18.2	24.7	19.4	14.0
carbon, total organic [TOC]	----	EC356	0.050	%	10.3	9.71	12.5	6.99	4.27
<b>Metals</b>									
aluminum	7429-90-5	E440	50	mg/kg	5800	6920	6680	7430	10900
antimony	7440-36-0	E440	0.10	mg/kg	0.38	0.50	0.46	0.31	0.36
arsenic	7440-38-2	E440	0.10	mg/kg	4.33	5.13	4.66	5.29	6.78
barium	7440-39-3	E440	0.50	mg/kg	111	123	117	142	150
beryllium	7440-41-7	E440	0.10	mg/kg	0.56	0.62	0.57	0.65	0.80
bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
boron	7440-42-8	E440	5.0	mg/kg	8.0	10.0	10.2	10.3	12.8
cadmium	7440-43-9	E440	0.020	mg/kg	1.57	1.72	1.56	1.98	2.06
calcium	7440-70-2	E440	50	mg/kg	81500	67600	92000	75500	66200
chromium	7440-47-3	E440	0.50	mg/kg	8.97	10.4	10.4	9.34	13.6



## Analytical Results

Sub-Matrix: Sediment  
 (Matrix: Soil/Solid)

Client sample ID

					RG_MIDAG_SE-3_2022-09-13_N	RG_MIDAG_SE-4_2022-09-13_N	RG_MIDAG_SE-5_2022-09-13_N	RG_MIDCO_SE-1_2022-09-13_N	RG_MIDCO_SE-2_2022-09-13_N
Client sampling date / time					13-Sep-2022 09:20	13-Sep-2022 10:37	13-Sep-2022 09:10	13-Sep-2022 14:07	13-Sep-2022 15:23
Analyte	CAS Number	Method	LOR	Unit	CG2212740-011	CG2212740-012	CG2212740-013	CG2212740-014	CG2212740-015
					Result	Result	Result	Result	Result
<b>Metals</b>									
cobalt	7440-48-4	E440	0.10	mg/kg	15.2	20.2	14.2	81.0	64.0
copper	7440-50-8	E440	0.50	mg/kg	10.9	12.6	10.6	13.6	16.7
iron	7439-89-6	E440	50	mg/kg	9360	10400	9640	13200	17800
lead	7439-92-1	E440	0.50	mg/kg	6.96	7.75	6.82	9.36	10.9
lithium	7439-93-2	E440	2.0	mg/kg	11.1	11.1	11.3	13.8	19.1
magnesium	7439-95-4	E440	20	mg/kg	7200	7190	7290	5720	6680
manganese	7439-96-5	E440	1.0	mg/kg	132	282	148	751	584
mercury	7439-97-6	E510	0.0050	mg/kg	0.0326	0.0444	0.0334	0.0341	0.0319
molybdenum	7439-98-7	E440	0.10	mg/kg	1.09	1.25	1.19	1.48	1.67
nickel	7440-02-0	E440	0.50	mg/kg	57.9	64.4	57.2	119	114
phosphorus	7723-14-0	E440	50	mg/kg	984	1020	1010	1040	1230
potassium	7440-09-7	E440	100	mg/kg	1110	1390	1390	1320	2010
selenium	7782-49-2	E440	0.20	mg/kg	3.73	6.19	5.18	3.53	3.99
silver	7440-22-4	E440	0.10	mg/kg	0.17	0.21	0.17	0.10	0.10
sodium	7440-23-5	E440	50	mg/kg	145	149	162	160	181
strontium	7440-24-6	E440	0.50	mg/kg	116	102	129	133	120
sulfur	7704-34-9	E440	1000	mg/kg	1900	2100	2400	1800	2000
thallium	7440-28-0	E440	0.050	mg/kg	0.356	0.379	0.393	0.267	0.321
tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0
titanium	7440-32-6	E440	1.0	mg/kg	14.1	14.2	17.9	19.1	26.6
tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
uranium	7440-61-1	E440	0.050	mg/kg	0.885	1.02	0.975	0.987	0.955
vanadium	7440-62-2	E440	0.20	mg/kg	15.2	18.9	18.1	15.0	21.0
zinc	7440-66-6	E440	2.0	mg/kg	115	125	117	152	169
zirconium	7440-67-7	E440	1.0	mg/kg	1.3	1.4	1.7	1.0	1.3
<b>Polycyclic Aromatic Hydrocarbons</b>									
acenaphthene	83-32-9	E641A	0.050	mg/kg	<0.070	<0.140	<0.073	<0.050	<0.050
acenaphthylene	208-96-8	E641A	0.050	mg/kg	<0.070	<0.140	<0.073	<0.050	<0.050
acridine	260-94-6	E641A	0.050	mg/kg	<0.070	<0.140	<0.073	0.074	<0.050
anthracene	120-12-7	E641A	0.050	mg/kg	<0.070	<0.140	<0.073	<0.050	<0.050



## Analytical Results

Sub-Matrix: Sediment

(Matrix: Soil/Solid)

Client sample ID

					RG_MIDAG_SE-3_2022-09-13_N	RG_MIDAG_SE-4_2022-09-13_N	RG_MIDAG_SE-5_2022-09-13_N	RG_MIDCO_SE-1_2022-09-13_N	RG_MIDCO_SE-2_2022-09-13_N
Client sampling date / time					13-Sep-2022 09:20	13-Sep-2022 10:37	13-Sep-2022 09:10	13-Sep-2022 14:07	13-Sep-2022 15:23
Analyte	CAS Number	Method	LOR	Unit	CG2212740-011	CG2212740-012	CG2212740-013	CG2212740-014	CG2212740-015
					Result	Result	Result	Result	Result
<b>Polycyclic Aromatic Hydrocarbons</b>									
benzo(a)anthracene	56-55-3	E641A	0.050	mg/kg	<0.070	<0.140	<0.073	<0.050	<0.050
benzo(a)pyrene	50-32-8	E641A	0.050	mg/kg	<0.070	<0.140	<0.073	<0.050	<0.050
benzo(b+j)fluoranthene	n/a	E641A	0.050	mg/kg	0.110	0.212	0.081	0.168	0.100
benzo(b+j+k)fluoranthene	n/a	E641A	0.075	mg/kg	0.110	0.212	<0.103	0.168	0.100
benzo(g,h,i)perylene	191-24-2	E641A	0.050	mg/kg	<0.070	<0.140	<0.073	0.086	0.058
benzo(k)fluoranthene	207-08-9	E641A	0.050	mg/kg	<0.070	<0.140	<0.073	<0.050	<0.050
chrysene	218-01-9	E641A	0.050	mg/kg	0.163	0.243	0.124	0.280	0.178
dibenz(a,h)anthracene	53-70-3	E641A	0.050	mg/kg	<0.070	<0.140	<0.073	<0.050	<0.050
fluoranthene	206-44-0	E641A	0.050	mg/kg	0.092	<0.140	<0.073	0.060	<0.050
fluorene	86-73-7	E641A	0.050	mg/kg	<0.070	<0.140	<0.073	0.108	0.072
indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.050	mg/kg	<0.070	<0.140	<0.073	<0.050	<0.050
methylnaphthalene, 1-	90-12-0	E641A	0.030	mg/kg	0.366	0.403	0.276	0.744	0.513
methylnaphthalene, 1+2-	----	E641A	0.050	mg/kg	0.876	0.986	0.660	1.91	1.33
methylnaphthalene, 2-	91-57-6	E641A	0.030	mg/kg	0.510	0.583	0.384	1.17	0.814
naphthalene	91-20-3	E641A	0.010	mg/kg	0.267	0.296	0.218	0.450	0.341
phenanthrene	85-01-8	E641A	0.050	mg/kg	0.440	0.544	0.335	0.681	0.449
pyrene	129-00-0	E641A	0.050	mg/kg	0.079	<0.140	<0.073	0.079	0.054
quinoline	91-22-5	E641A	0.050	mg/kg	<0.070	<0.140	<0.073	<0.050	<0.050
B(a)P total potency equivalents [B(a)P TPE]	----	E641A	0.065	mg/kg	0.093	0.185	0.094	0.078	0.070
IACR (CCME)	----	E641A	0.60	-	1.35	2.62	1.18	1.61	1.14
IACR AB (coarse)	----	E641A	0.10	-	<0.10	<0.14	<0.10	<0.10	<0.10
IACR AB (fine)	----	E641A	0.10	-	0.11	0.22	0.11	0.12	<0.10
PAHs, total (BC Sched 3.4)	n/a	E641A	0.20	mg/kg	1.55	1.67	1.06	2.83	1.91
PAHs, total (EPA 16)	n/a	E641A	0.20	mg/kg	1.15	1.30	0.76	1.91	1.25
<b>Polycyclic Aromatic Hydrocarbons Surrogates</b>									
acridine-d9	34749-75-2	E641A	0.1	%	99.5	99.8	99.3	98.1	90.3
chrysene-d12	1719-03-5	E641A	0.1	%	114	114	115	110	104
naphthalene-d8	1146-65-2	E641A	0.1	%	78.8	74.5	77.5	100	68.4
phenanthrene-d10	1517-22-2	E641A	0.1	%	102	102	103	104	95.4



Please refer to the General Comments section for an explanation of any qualifiers detected.

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## Analytical Results

Sub-Matrix: Sediment  
 (Matrix: Soil/Solid)

Client sample ID

					RG_MIDCO_SE-3_2022-09-13_N	RG_MIDCO_SE-4_2022-09-13_N	RG_MIDCO_SE-5_2022-09-13_N	----	----
Client sampling date / time					13-Sep-2022 14:34	13-Sep-2022 13:54	13-Sep-2022 13:13	----	----
Analyte	CAS Number	Method	LOR	Unit	CG2212740-016	CG2212740-017	CG2212740-018	-----	-----
					Result	Result	Result	----	----
<b>Physical Tests</b>									
moisture	----	E144	0.25	%	78.4	76.6	73.8	----	----
pH (1:2 soil:water)	----	E108	0.10	pH units	7.83	8.03	8.12	----	----
<b>Particle Size</b>									
grain size curve	----	E185A	-	-	See Attached	See Attached	See Attached	----	----
clay (<0.004mm)	----	EC184A	1.0	%	8.3	7.3	10.0	----	----
silt (0.063mm - 0.0312mm)	----	EC184A	1.0	%	22.2	21.0	26.5	----	----
silt (0.0312mm - 0.004mm)	----	EC184A	1.0	%	30.6	29.3	37.2	----	----
sand (0.125mm - 0.063mm)	----	EC184A	1.0	%	6.6	4.5	5.2	----	----
sand (0.25mm - 0.125mm)	----	EC184A	1.0	%	5.8	3.9	3.4	----	----
sand (0.5mm - 0.25mm)	----	EC184A	1.0	%	7.1	6.0	3.9	----	----
sand (1.0mm - 0.50mm)	----	EC184A	1.0	%	9.6	11.0	7.0	----	----
sand (2.0mm - 1.0mm)	----	EC184A	1.0	%	6.4	13.0	4.5	----	----
gravel (>2mm)	----	EC184A	1.0	%	3.4	4.0	2.3	----	----
<b>Organic / Inorganic Carbon</b>									
carbon, total [TC]	----	E351	0.050	%	7.96	8.31	9.52	----	----
carbon, inorganic [IC]	----	E354	0.050	%	2.09	2.43	2.22	----	----
carbon, inorganic [IC], (as CaCO3 equivalent)	----	E354	0.40	%	17.4	20.2	18.5	----	----
carbon, total organic [TOC]	----	EC356	0.050	%	5.87	5.88	7.30	----	----
<b>Metals</b>									
aluminum	7429-90-5	E440	50	mg/kg	8370	9290	11400	----	----
antimony	7440-36-0	E440	0.10	mg/kg	0.33	0.34	0.28	----	----
arsenic	7440-38-2	E440	0.10	mg/kg	5.90	6.69	6.44	----	----
barium	7440-39-3	E440	0.50	mg/kg	142	161	110	----	----
beryllium	7440-41-7	E440	0.10	mg/kg	0.69	0.71	0.71	----	----
bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	<0.20	----	----
boron	7440-42-8	E440	5.0	mg/kg	10.1	9.9	9.9	----	----
cadmium	7440-43-9	E440	0.020	mg/kg	1.84	2.24	1.27	----	----
calcium	7440-70-2	E440	50	mg/kg	80000	73300	46400	----	----
chromium	7440-47-3	E440	0.50	mg/kg	10.5	11.8	13.3	----	----



## Analytical Results

Sub-Matrix: Sediment  
 (Matrix: Soil/Solid)

Client sample ID

					RG_MIDCO_SE-3_2022-09-13_N	RG_MIDCO_SE-4_2022-09-13_N	RG_MIDCO_SE-5_2022-09-13_N	----	----
Client sampling date / time					13-Sep-2022 14:34	13-Sep-2022 13:54	13-Sep-2022 13:13	----	----
Analyte	CAS Number	Method	LOR	Unit	CG2212740-016	CG2212740-017	CG2212740-018	-----	-----
					Result	Result	Result	----	----
<b>Metals</b>									
cobalt	7440-48-4	E440	0.10	mg/kg	65.9	82.6	48.8	----	----
copper	7440-50-8	E440	0.50	mg/kg	14.8	16.4	16.4	----	----
iron	7439-89-6	E440	50	mg/kg	15400	16100	21200	----	----
lead	7439-92-1	E440	0.50	mg/kg	10.1	10.4	10.1	----	----
lithium	7439-93-2	E440	2.0	mg/kg	16.1	15.7	21.6	----	----
magnesium	7439-95-4	E440	20	mg/kg	6930	6670	7570	----	----
manganese	7439-96-5	E440	1.0	mg/kg	629	684	605	----	----
mercury	7439-97-6	E510	0.0050	mg/kg	0.0313	0.0332	0.0233	----	----
molybdenum	7439-98-7	E440	0.10	mg/kg	1.58	1.58	1.36	----	----
nickel	7440-02-0	E440	0.50	mg/kg	109	134	89.4	----	----
phosphorus	7723-14-0	E440	50	mg/kg	1150	1300	1220	----	----
potassium	7440-09-7	E440	100	mg/kg	1410	1550	1920	----	----
selenium	7782-49-2	E440	0.20	mg/kg	3.40	4.20	2.25	----	----
silver	7440-22-4	E440	0.10	mg/kg	0.10	0.11	<0.10	----	----
sodium	7440-23-5	E440	50	mg/kg	163	186	151	----	----
strontium	7440-24-6	E440	0.50	mg/kg	137	132	91.9	----	----
sulfur	7704-34-9	E440	1000	mg/kg	1900	2100	<1000	----	----
thallium	7440-28-0	E440	0.050	mg/kg	0.280	0.298	0.284	----	----
tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	<2.0	----	----
titanium	7440-32-6	E440	1.0	mg/kg	21.2	22.8	26.9	----	----
tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	<0.50	----	----
uranium	7440-61-1	E440	0.050	mg/kg	0.940	0.994	0.692	----	----
vanadium	7440-62-2	E440	0.20	mg/kg	16.5	18.4	20.5	----	----
zinc	7440-66-6	E440	2.0	mg/kg	147	176	128	----	----
zirconium	7440-67-7	E440	1.0	mg/kg	1.1	1.1	1.2	----	----
<b>Polycyclic Aromatic Hydrocarbons</b>									
acenaphthene	83-32-9	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	----	----
acenaphthylene	208-96-8	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	----	----
acridine	260-94-6	E641A	0.050	mg/kg	0.081	0.085	0.061	----	----
anthracene	120-12-7	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	----	----



## Analytical Results

Sub-Matrix: Sediment

(Matrix: Soil/Solid)

Client sample ID

					RG_MIDCO_SE-3_2022-09-13_N	RG_MIDCO_SE-4_2022-09-13_N	RG_MIDCO_SE-5_2022-09-13_N	----	----
Client sampling date / time					13-Sep-2022 14:34	13-Sep-2022 13:54	13-Sep-2022 13:13	----	----
Analyte	CAS Number	Method	LOR	Unit	CG2212740-016	CG2212740-017	CG2212740-018	-----	-----
					Result	Result	Result	----	----
<b>Polycyclic Aromatic Hydrocarbons</b>									
benzo(a)anthracene	56-55-3	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	----	----
benzo(a)pyrene	50-32-8	E641A	0.050	mg/kg	<0.050	0.050	<0.050	----	----
benzo(b+j)fluoranthene	n/a	E641A	0.050	mg/kg	0.171	0.203	0.174	----	----
benzo(b+j+k)fluoranthene	n/a	E641A	0.075	mg/kg	0.171	0.257	0.174	----	----
benzo(g,h,i)perylene	191-24-2	E641A	0.050	mg/kg	0.091	0.088	0.076	----	----
benzo(k)fluoranthene	207-08-9	E641A	0.050	mg/kg	<0.050	0.054	<0.050	----	----
chrysene	218-01-9	E641A	0.050	mg/kg	0.276	0.325	0.254	----	----
dibenz(a,h)anthracene	53-70-3	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	----	----
fluoranthene	206-44-0	E641A	0.050	mg/kg	0.062	0.075	0.058	----	----
fluorene	86-73-7	E641A	0.050	mg/kg	0.104	0.124	0.094	----	----
indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	----	----
methylnaphthalene, 1-	90-12-0	E641A	0.030	mg/kg	0.741	0.879	0.699	----	----
methylnaphthalene, 1+2-	----	E641A	0.050	mg/kg	1.91	2.26	1.79	----	----
methylnaphthalene, 2-	91-57-6	E641A	0.030	mg/kg	1.17	1.38	1.09	----	----
naphthalene	91-20-3	E641A	0.010	mg/kg	0.495	0.594	0.443	----	----
phenanthrene	85-01-8	E641A	0.050	mg/kg	0.669	0.782	0.606	----	----
pyrene	129-00-0	E641A	0.050	mg/kg	0.081	0.095	0.074	----	----
quinoline	91-22-5	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	----	----
B(a)P total potency equivalents [B(a)P TPE]	----	E641A	0.065	mg/kg	0.078	0.110	0.078	----	----
IACR (CCME)	----	E641A	0.60	-	1.63	2.10	1.64	----	----
IACR AB (coarse)	----	E641A	0.10	-	<0.10	<0.10	<0.10	----	----
IACR AB (fine)	----	E641A	0.10	-	0.12	0.18	0.12	----	----
PAHs, total (BC Sched 3.4)	n/a	E641A	0.20	mg/kg	2.86	3.42	2.62	----	----
PAHs, total (EPA 16)	n/a	E641A	0.20	mg/kg	1.95	2.39	1.78	----	----
<b>Polycyclic Aromatic Hydrocarbons Surrogates</b>									
acridine-d9	34749-75-2	E641A	0.1	%	94.8	92.3	91.8	----	----
chrysene-d12	1719-03-5	E641A	0.1	%	108	106	106	----	----
naphthalene-d8	1146-65-2	E641A	0.1	%	76.8	83.1	78.7	----	----
phenanthrene-d10	1517-22-2	E641A	0.1	%	100	97.9	97.1	----	----





Please refer to the General Comments section for an explanation of any qualifiers detected.

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## QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: <b>CG2212740</b>	Page	: 1 of 22
Client	: <b>Teck Coal Limited</b>	Laboratory	: Calgary - Environmental
Contact	: Cybele Heddle	Account Manager	: Lyudmyla Shvets
Address	: 421 Pine Ave Sparwood BC Canada	Address	: 2559 29th Street NE Calgary, Alberta Canada T1Y 7B5
Telephone	: ----	Telephone	: +1 403 407 1800
Project	: REGIONAL EFFECTS PROGRAM	Date Samples Received	: 15-Sep-2022 08:50
PO	: VPO00816101	Issue Date	: 28-Sep-2022 16:33
C-O-C number	: REP_LAEMP_CMm_2022-09_ALS		
Sampler	: Jennifer Ings		
Site	: ----		
Quote number	: Teck Coal Master Quote		
No. of samples received	: 18		
No. of samples analysed	: 18		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

### Key

**Anonymous:** Refers to samples which are not part of this work order, but which formed part of the QC process lot.

**CAS Number:** Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

**DQO:** Data Quality Objective.

**LOR:** Limit of Reporting (detection limit).

**RPD:** Relative Percent Difference.

### **Workorder Comments**

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

### **Summary of Outliers**

#### **Outliers : Quality Control Samples**

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

#### **Outliers: Reference Material (RM) Samples**

- No Reference Material (RM) Sample outliers occur.

#### **Outliers : Analysis Holding Time Compliance (Breaches)**

- No Analysis Holding Time Outliers exist.

#### **Outliers : Frequency of Quality Control Samples**

- No Quality Control Sample Frequency Outliers occur.





## Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Soil/Solid**

Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>										
Glass soil jar/Teflon lined cap RG_MIDAG_SE-1_2022-09-13_N	E510	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	28 days	8 days	✓
<b>Metals : Mercury in Soil/Solid by CVAAS</b>										
Glass soil jar/Teflon lined cap RG_MIDAG_SE-2_2022-09-13_N	E510	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	28 days	8 days	✓
<b>Metals : Mercury in Soil/Solid by CVAAS</b>										
Glass soil jar/Teflon lined cap RG_MIDAG_SE-3_2022-09-13_N	E510	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	28 days	8 days	✓
<b>Metals : Mercury in Soil/Solid by CVAAS</b>										
Glass soil jar/Teflon lined cap RG_MIDAG_SE-4_2022-09-13_N	E510	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	28 days	8 days	✓
<b>Metals : Mercury in Soil/Solid by CVAAS</b>										
Glass soil jar/Teflon lined cap RG_MIDAG_SE-5_2022-09-13_N	E510	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	28 days	8 days	✓
<b>Metals : Mercury in Soil/Solid by CVAAS</b>										
Glass soil jar/Teflon lined cap RG_MIDCO_SE-1_2022-09-13_N	E510	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	28 days	8 days	✓
<b>Metals : Mercury in Soil/Solid by CVAAS</b>										
Glass soil jar/Teflon lined cap RG_MIDCO_SE-2_2022-09-13_N	E510	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	28 days	8 days	✓



Matrix: **Soil/Solid**

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDCO_SE-3_2022-09-13_N	E510	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	28 days	8 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDCO_SE-4_2022-09-13_N	E510	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	28 days	8 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDCO_SE-5_2022-09-13_N	E510	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	28 days	8 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MI5_SE-1_2022-09-12_N	E510	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	28 days	9 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MI5_SE-2_2022-09-12_N	E510	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	28 days	9 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MI5_SE-3_2022-09-12_N	E510	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	28 days	9 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-1_2022-09-12_N	E510	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	28 days	9 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-2_2022-09-12_N	E510	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	28 days	9 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-3_2022-09-12_N	E510	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	28 days	9 days	✔	



Matrix: **Soil/Solid**

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-4_2022-09-12_N	E510	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	28 days	9 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-5_2022-09-12_N	E510	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	28 days	9 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDAG_SE-1_2022-09-13_N	E440	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	180 days	8 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDAG_SE-2_2022-09-13_N	E440	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	180 days	8 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDAG_SE-3_2022-09-13_N	E440	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	180 days	8 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDAG_SE-4_2022-09-13_N	E440	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	180 days	8 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDAG_SE-5_2022-09-13_N	E440	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	180 days	8 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDCO_SE-1_2022-09-13_N	E440	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	180 days	8 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDCO_SE-2_2022-09-13_N	E440	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	180 days	8 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDCO_SE-3_2022-09-13_N	E440	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	180 days	8 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDCO_SE-4_2022-09-13_N	E440	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	180 days	8 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDCO_SE-5_2022-09-13_N	E440	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	180 days	8 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MI5_SE-1_2022-09-12_N	E440	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	180 days	9 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MI5_SE-2_2022-09-12_N	E440	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	180 days	9 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MI5_SE-3_2022-09-12_N	E440	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	180 days	9 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-1_2022-09-12_N	E440	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	180 days	9 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-2_2022-09-12_N	E440	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	180 days	9 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-3_2022-09-12_N	E440	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	180 days	9 days	✔	



Matrix: **Soil/Solid**

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-4_2022-09-12_N	E440	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	180 days	9 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-5_2022-09-12_N	E440	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	180 days	9 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
<b>LDPE bag</b> RG_MI5_SE-1_2022-09-12_N	E351	12-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
<b>LDPE bag</b> RG_MI5_SE-2_2022-09-12_N	E351	12-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
<b>LDPE bag</b> RG_MI5_SE-3_2022-09-12_N	E351	12-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
<b>LDPE bag</b> RG_MIDAG_SE-1_2022-09-13_N	E351	13-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
<b>LDPE bag</b> RG_MIDAG_SE-2_2022-09-13_N	E351	13-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
<b>LDPE bag</b> RG_MIDAG_SE-3_2022-09-13_N	E351	13-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
<b>LDPE bag</b> RG_MIDAG_SE-4_2022-09-13_N	E351	13-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	180 days	0 days	✔	





Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
<b>LDPE bag</b> RG_MIDAG_SE-5_2022-09-13_N	E351	13-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
<b>LDPE bag</b> RG_MIDCO_SE-1_2022-09-13_N	E351	13-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
<b>LDPE bag</b> RG_MIDCO_SE-2_2022-09-13_N	E351	13-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
<b>LDPE bag</b> RG_MIDCO_SE-3_2022-09-13_N	E351	13-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
<b>LDPE bag</b> RG_MIDCO_SE-4_2022-09-13_N	E351	13-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
<b>LDPE bag</b> RG_MIDCO_SE-5_2022-09-13_N	E351	13-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
<b>LDPE bag</b> RG_MIULE_SE-1_2022-09-12_N	E351	12-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
<b>LDPE bag</b> RG_MIULE_SE-2_2022-09-12_N	E351	12-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
<b>LDPE bag</b> RG_MIULE_SE-3_2022-09-12_N	E351	12-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	180 days	0 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_MIULE_SE-4_2022-09-12_N	E351	12-Sep-2022	23-Sep-2022	----	----		23-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_MIULE_SE-5_2022-09-12_N	E351	12-Sep-2022	24-Sep-2022	----	----		24-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>											
LDPE bag RG_MI5_SE-1_2022-09-12_N	E354	12-Sep-2022	----	----	----		23-Sep-2022	----	----		
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>											
LDPE bag RG_MI5_SE-2_2022-09-12_N	E354	12-Sep-2022	----	----	----		23-Sep-2022	----	----		
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>											
LDPE bag RG_MI5_SE-3_2022-09-12_N	E354	12-Sep-2022	----	----	----		23-Sep-2022	----	----		
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>											
LDPE bag RG_MIDAG_SE-1_2022-09-13_N	E354	13-Sep-2022	----	----	----		23-Sep-2022	----	----		
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>											
LDPE bag RG_MIDAG_SE-2_2022-09-13_N	E354	13-Sep-2022	----	----	----		23-Sep-2022	----	----		
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>											
LDPE bag RG_MIDAG_SE-3_2022-09-13_N	E354	13-Sep-2022	----	----	----		23-Sep-2022	----	----		
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>											
LDPE bag RG_MIDAG_SE-4_2022-09-13_N	E354	13-Sep-2022	----	----	----		23-Sep-2022	----	----		



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		
				Rec	Actual			Rec	Actual	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MIDAG_SE-5_2022-09-13_N	E354	13-Sep-2022	----	----	----		23-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MIDCO_SE-1_2022-09-13_N	E354	13-Sep-2022	----	----	----		23-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MIDCO_SE-2_2022-09-13_N	E354	13-Sep-2022	----	----	----		23-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MIDCO_SE-3_2022-09-13_N	E354	13-Sep-2022	----	----	----		23-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MIDCO_SE-4_2022-09-13_N	E354	13-Sep-2022	----	----	----		23-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MIDCO_SE-5_2022-09-13_N	E354	13-Sep-2022	----	----	----		23-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MIULE_SE-1_2022-09-12_N	E354	12-Sep-2022	----	----	----		23-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MIULE_SE-2_2022-09-12_N	E354	12-Sep-2022	----	----	----		23-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MIULE_SE-3_2022-09-12_N	E354	12-Sep-2022	----	----	----		23-Sep-2022	----	----	



Matrix: **Soil/Solid**

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
<b>LDPE bag</b> RG_MIULE_SE-4_2022-09-12_N	E354	12-Sep-2022	----	----	----		23-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
<b>LDPE bag</b> RG_MIULE_SE-5_2022-09-12_N	E354	12-Sep-2022	----	----	----		23-Sep-2022	----	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
<b>LDPE bag</b> RG_MI5_SE-1_2022-09-12_N	E185A	12-Sep-2022	----	----	----		28-Sep-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
<b>LDPE bag</b> RG_MI5_SE-2_2022-09-12_N	E185A	12-Sep-2022	----	----	----		28-Sep-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
<b>LDPE bag</b> RG_MI5_SE-3_2022-09-12_N	E185A	12-Sep-2022	----	----	----		28-Sep-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
<b>LDPE bag</b> RG_MIDAG_SE-1_2022-09-13_N	E185A	13-Sep-2022	----	----	----		28-Sep-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
<b>LDPE bag</b> RG_MIDAG_SE-2_2022-09-13_N	E185A	13-Sep-2022	----	----	----		28-Sep-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
<b>LDPE bag</b> RG_MIDAG_SE-3_2022-09-13_N	E185A	13-Sep-2022	----	----	----		28-Sep-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
<b>LDPE bag</b> RG_MIDAG_SE-4_2022-09-13_N	E185A	13-Sep-2022	----	----	----		28-Sep-2022	365 days	----	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
<b>LDPE bag</b> RG_MIDAG_SE-5_2022-09-13_N	E185A	13-Sep-2022	----	----	----		28-Sep-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
<b>LDPE bag</b> RG_MIDCO_SE-1_2022-09-13_N	E185A	13-Sep-2022	----	----	----		28-Sep-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
<b>LDPE bag</b> RG_MIDCO_SE-2_2022-09-13_N	E185A	13-Sep-2022	----	----	----		28-Sep-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
<b>LDPE bag</b> RG_MIDCO_SE-3_2022-09-13_N	E185A	13-Sep-2022	----	----	----		28-Sep-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
<b>LDPE bag</b> RG_MIDCO_SE-4_2022-09-13_N	E185A	13-Sep-2022	----	----	----		28-Sep-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
<b>LDPE bag</b> RG_MIDCO_SE-5_2022-09-13_N	E185A	13-Sep-2022	----	----	----		28-Sep-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
<b>LDPE bag</b> RG_MIULE_SE-1_2022-09-12_N	E185A	12-Sep-2022	----	----	----		28-Sep-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
<b>LDPE bag</b> RG_MIULE_SE-2_2022-09-12_N	E185A	12-Sep-2022	----	----	----		28-Sep-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
<b>LDPE bag</b> RG_MIULE_SE-3_2022-09-12_N	E185A	12-Sep-2022	----	----	----		28-Sep-2022	365 days	----	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
<b>LDPE bag</b> RG_MIULE_SE-4_2022-09-12_N	E185A	12-Sep-2022	----	----	----		28-Sep-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
<b>LDPE bag</b> RG_MIULE_SE-5_2022-09-12_N	E185A	12-Sep-2022	----	----	----		28-Sep-2022	365 days	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_MI5_SE-1_2022-09-12_N	E144	12-Sep-2022	----	----	----		20-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_MI5_SE-2_2022-09-12_N	E144	12-Sep-2022	----	----	----		20-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_MI5_SE-3_2022-09-12_N	E144	12-Sep-2022	----	----	----		20-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_MIDAG_SE-1_2022-09-13_N	E144	13-Sep-2022	----	----	----		20-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_MIDAG_SE-2_2022-09-13_N	E144	13-Sep-2022	----	----	----		20-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_MIDAG_SE-3_2022-09-13_N	E144	13-Sep-2022	----	----	----		20-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_MIDAG_SE-4_2022-09-13_N	E144	13-Sep-2022	----	----	----		20-Sep-2022	----	----	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_MIDAG_SE-5_2022-09-13_N	E144	13-Sep-2022	----	----	----		20-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_MIDCO_SE-1_2022-09-13_N	E144	13-Sep-2022	----	----	----		20-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_MIDCO_SE-2_2022-09-13_N	E144	13-Sep-2022	----	----	----		20-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_MIDCO_SE-3_2022-09-13_N	E144	13-Sep-2022	----	----	----		20-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_MIDCO_SE-4_2022-09-13_N	E144	13-Sep-2022	----	----	----		20-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_MIDCO_SE-5_2022-09-13_N	E144	13-Sep-2022	----	----	----		20-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_MIULE_SE-1_2022-09-12_N	E144	12-Sep-2022	----	----	----		20-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_MIULE_SE-2_2022-09-12_N	E144	12-Sep-2022	----	----	----		20-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_MIULE_SE-3_2022-09-12_N	E144	12-Sep-2022	----	----	----		20-Sep-2022	----	----	





Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-4_2022-09-12_N	E144	12-Sep-2022	----	----	----		20-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-5_2022-09-12_N	E144	12-Sep-2022	----	----	----		20-Sep-2022	----	----	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_MIDAG_SE-1_2022-09-13_N	E108	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	30 days	8 days	✔
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_MIDAG_SE-2_2022-09-13_N	E108	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	30 days	8 days	✔
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_MIDAG_SE-3_2022-09-13_N	E108	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	30 days	8 days	✔
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_MIDAG_SE-4_2022-09-13_N	E108	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	30 days	8 days	✔
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_MIDAG_SE-5_2022-09-13_N	E108	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	30 days	8 days	✔
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_MIDCO_SE-1_2022-09-13_N	E108	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	30 days	8 days	✔
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_MIDCO_SE-2_2022-09-13_N	E108	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	30 days	8 days	✔





Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDCO_SE-3_2022-09-13_N	E108	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	30 days	8 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDCO_SE-4_2022-09-13_N	E108	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	30 days	8 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDCO_SE-5_2022-09-13_N	E108	13-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	30 days	8 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MI5_SE-1_2022-09-12_N	E108	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	30 days	9 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MI5_SE-2_2022-09-12_N	E108	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	30 days	9 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MI5_SE-3_2022-09-12_N	E108	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	30 days	9 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-1_2022-09-12_N	E108	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	30 days	9 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-2_2022-09-12_N	E108	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	30 days	9 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-3_2022-09-12_N	E108	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	30 days	9 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-4_2022-09-12_N	E108	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	30 days	9 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-5_2022-09-12_N	E108	12-Sep-2022	21-Sep-2022	----	----		21-Sep-2022	30 days	9 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDAG_SE-1_2022-09-13_N	E641A	13-Sep-2022	20-Sep-2022	14 days	7 days	✔	20-Sep-2022	40 days	0 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDAG_SE-2_2022-09-13_N	E641A	13-Sep-2022	20-Sep-2022	14 days	7 days	✔	20-Sep-2022	40 days	0 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDAG_SE-3_2022-09-13_N	E641A	13-Sep-2022	20-Sep-2022	14 days	7 days	✔	20-Sep-2022	40 days	0 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDAG_SE-4_2022-09-13_N	E641A	13-Sep-2022	20-Sep-2022	14 days	7 days	✔	20-Sep-2022	40 days	0 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDAG_SE-5_2022-09-13_N	E641A	13-Sep-2022	20-Sep-2022	14 days	7 days	✔	20-Sep-2022	40 days	0 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDCO_SE-1_2022-09-13_N	E641A	13-Sep-2022	20-Sep-2022	14 days	7 days	✔	20-Sep-2022	40 days	0 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDCO_SE-2_2022-09-13_N	E641A	13-Sep-2022	20-Sep-2022	14 days	7 days	✔	20-Sep-2022	40 days	0 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDCO_SE-3_2022-09-13_N	E641A	13-Sep-2022	20-Sep-2022	14 days	7 days	✔	20-Sep-2022	40 days	0 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDCO_SE-4_2022-09-13_N	E641A	13-Sep-2022	20-Sep-2022	14 days	7 days	✔	20-Sep-2022	40 days	0 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIDCO_SE-5_2022-09-13_N	E641A	13-Sep-2022	20-Sep-2022	14 days	7 days	✔	20-Sep-2022	40 days	0 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MI5_SE-1_2022-09-12_N	E641A	12-Sep-2022	20-Sep-2022	14 days	8 days	✔	20-Sep-2022	40 days	0 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MI5_SE-2_2022-09-12_N	E641A	12-Sep-2022	20-Sep-2022	14 days	8 days	✔	20-Sep-2022	40 days	0 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MI5_SE-3_2022-09-12_N	E641A	12-Sep-2022	20-Sep-2022	14 days	8 days	✔	20-Sep-2022	40 days	0 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-1_2022-09-12_N	E641A	12-Sep-2022	20-Sep-2022	14 days	8 days	✔	20-Sep-2022	40 days	0 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-2_2022-09-12_N	E641A	12-Sep-2022	20-Sep-2022	14 days	8 days	✔	20-Sep-2022	40 days	0 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-3_2022-09-12_N	E641A	12-Sep-2022	20-Sep-2022	14 days	8 days	✔	20-Sep-2022	40 days	0 days	✔	



Matrix: **Soil/Solid**

Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-4_2022-09-12_N	E641A	12-Sep-2022	20-Sep-2022	14 days	8 days	✓	20-Sep-2022	40 days	0 days	✓
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_MIULE_SE-5_2022-09-12_N	E641A	12-Sep-2022	20-Sep-2022	14 days	8 days	✓	20-Sep-2022	40 days	0 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).



## Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Soil/Solid**

Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		Evaluation
			QC	Regular	Actual	Expected	
<b>Analytical Methods</b>							
<b>Laboratory Duplicates (DUP)</b>							
Mercury in Soil/Solid by CVAAS	E510	657176	2	40	5.0	5.0	✔
Metals in Soil/Solid by CRC ICPMS	E440	657175	2	40	5.0	5.0	✔
Moisture Content by Gravimetry	E144	655147	1	20	5.0	5.0	✔
PAHs by Hex:Ace GC-MS	E641A	655146	1	20	5.0	5.0	✔
pH by Meter (1:2 Soil:Water Extraction)	E108	658394	1	20	5.0	5.0	✔
Total Carbon by Combustion	E351	658685	2	40	5.0	5.0	✔
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354	662377	2	38	5.2	5.0	✔
<b>Laboratory Control Samples (LCS)</b>							
Mercury in Soil/Solid by CVAAS	E510	657176	4	40	10.0	10.0	✔
Metals in Soil/Solid by CRC ICPMS	E440	657175	4	40	10.0	10.0	✔
Moisture Content by Gravimetry	E144	655147	1	20	5.0	5.0	✔
PAHs by Hex:Ace GC-MS	E641A	655146	1	20	5.0	5.0	✔
pH by Meter (1:2 Soil:Water Extraction)	E108	658394	2	20	10.0	10.0	✔
Total Carbon by Combustion	E351	658685	4	40	10.0	10.0	✔
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354	662377	4	38	10.5	10.0	✔
<b>Method Blanks (MB)</b>							
Mercury in Soil/Solid by CVAAS	E510	657176	2	40	5.0	5.0	✔
Metals in Soil/Solid by CRC ICPMS	E440	657175	2	40	5.0	5.0	✔
Moisture Content by Gravimetry	E144	655147	1	20	5.0	5.0	✔
PAHs by Hex:Ace GC-MS	E641A	655146	1	20	5.0	5.0	✔
Total Carbon by Combustion	E351	658685	2	40	5.0	5.0	✔
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354	662377	2	38	5.2	5.0	✔
<b>Matrix Spikes (MS)</b>							
PAHs by Hex:Ace GC-MS	E641A	655146	1	20	5.0	5.0	✔



## Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
pH by Meter (1:2 Soil:Water Extraction)	E108 Calgary - Environmental	Soil/Solid	BC Lab Manual	pH is determined by potentiometric measurement with a pH electrode at ambient laboratory temperature (normally 20 ± 5°C), and is carried out in accordance with procedures described in the BC Lab Manual (prescriptive method). The procedure involves mixing the dried (at <60 °C) and sieved (10mesh/2mm) sample with ultra pure water at a 1:2 ratio of sediment to water. The pH is then measured by a standard pH probe.
Moisture Content by Gravimetry	E144 Calgary - Environmental	Soil/Solid	CCME PHC in Soil - Tier 1	Moisture is measured gravimetrically by drying the sample at 105°C. Moisture content is calculated as the weight loss (due to water) divided by the wet weight of the sample, expressed as a percentage.
Grain Size Report (Attachment) Pipet/Sieve Method	E185A Saskatoon - Environmental	Soil/Solid	SSIR-51 Method 3.2.1	A grain size curve is a graphical representation of the particle sizing of a sample representing the percent passing against the effective particle size.
Total Carbon by Combustion	E351 Saskatoon - Environmental	Soil/Solid	CSSS (2008) 21.2 (mod)	Total Carbon is determined by the high temperature combustion method with measurement by an infrared detector.
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354 Saskatoon - Environmental	Soil/Solid	CSSS (2008) 20.2	Total Inorganic Carbon is determined by acetic acid pH standard curve, where a known quantity of acetic acid is consumed by reaction with carbonates in the soil. The pH of the resulting solution is measured and compared against a standard curve relating pH to weight of carbonate.
Metals in Soil/Solid by CRC ICPMS	E440 Calgary - Environmental	Soil/Solid	EPA 6020B (mod)	This method is intended to liberate metals that may be environmentally available. Samples are dried, then sieved through a 2 mm sieve, and digested with HNO <sub>3</sub> and HCl.  Dependent on sample matrix, some metals may be only partially recovered, including Al, Ba, Be, Cr, Sr, Ti, Tl, V, W, and Zr. Silicate minerals are not solubilized. Volatile forms of sulfur (including sulfide) may not be captured, as they may be lost during sampling, storage, or digestion. This method does not adequately recover elemental sulfur, and is unsuitable for assessment of elemental sulfur standards or guidelines.  Analysis is by Collision/Reaction Cell ICPMS.
Mercury in Soil/Solid by CVAAS	E510 Calgary - Environmental	Soil/Solid	EPA 200.2/1631 Appendix (mod)	Samples are dried, then sieved through a 2 mm sieve, and digested with HNO <sub>3</sub> and HCl, followed by CVAAS analysis.
PAHs by Hex:Ace GC-MS	E641A Calgary - Environmental	Soil/Solid	EPA 8270E (mod)	Polycyclic Aromatic Hydrocarbons (PAHs) are extracted with hexane/acetone and analyzed by GC-MS. If reported, IACR (index of additive cancer risk, unitless) and B(a)P toxic potency equivalent (in soil concentration units) are calculated as per CCME PAH Soil Quality Guidelines fact sheet (2010) or ABT1.



<i>Analytical Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Particle Size Analysis (Pipette) - Wentworth Classification	EC184A  Saskatoon - Environmental	Soil/Solid	Modified Wentworth	The particle size determination is performed by various methods to generate a Grain Size curve. The data from the curve is then used to produce particle size ranges based on the Modified Wentworth Classification system.
Total Organic Carbon (Calculated) in soil	EC356  Saskatoon - Environmental	Soil/Solid	CSSS (2008) 21.2	Total Organic Carbon (TOC) is calculated by the difference between total carbon (TC) and total inorganic carbon (TIC).
<i>Preparation Methods</i>	<i>Method / Lab</i>	<i>Matrix</i>	<i>Method Reference</i>	<i>Method Descriptions</i>
Leach 1:2 Soil:Water for pH/EC	EP108  Calgary - Environmental	Soil/Solid	BC WLAP METHOD: PH, ELECTROMETRIC, SOIL	The procedure involves mixing the dried (at <60°C) and sieved (No. 10 / 2mm) sample with deionized/distilled water at a 1:2 ratio of sediment to water.
Digestion for Metals and Mercury	EP440  Calgary - Environmental	Soil/Solid	EPA 200.2 (mod)	Samples are dried, then sieved through a 2 mm sieve, and digested with HNO <sub>3</sub> and HCl. This method is intended to liberate metals that may be environmentally available.
PHCs and PAHs Hexane-Acetone Tumbler Extraction	EP601  Calgary - Environmental	Soil/Solid	CCME PHC in Soil - Tier 1 (mod)	Samples are subsampled and Petroleum Hydrocarbons (PHC) and PAHs are extracted with 1:1 hexane:acetone using a rotary extractor.
Dry and Grind	EPP442  Calgary - Environmental	Soil/Solid	Soil Sampling and Methods of Analysis, Carter 2008	After removal of any coarse fragments and reservation of wet subsamples a portion of homogenized sample is set in a tray and dried at less than 60°C until dry. The sample is then particle size reduced with an automated crusher or mortar and pestle, typically to <2 mm. Further size reduction may be needed for particular tests.



QUALITY CONTROL REPORT

Work Order : CG2212740
Client : Teck Coal Limited
Contact : Cybele Heddle
Address : 421 Pine Ave
Sparwood BC Canada
Telephone : ----
Project : REGIONAL EFFECTS PROGRAM
PO : VPO00816101
C-O-C number : REP\_LAEMP\_CmM\_2022-09\_ALS
Sampler : Jennifer Ings
Site : ----
Quote number : Teck Coal Master Quote
No. of samples received : 18
No. of samples analysed : 18

Page : 1 of 18
Laboratory : Calgary - Environmental
Account Manager : Lyudmyla Shvets
Address : 2559 29th Street NE
Calgary, Alberta Canada T1Y 7B5
Telephone : +1 403 407 1800
Date Samples Received : 15-Sep-2022 08:50
Date Analysis Commenced : 20-Sep-2022
Issue Date : 28-Sep-2022 16:33

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
Matrix Spike (MS) Report; Recovery and Data Quality Objectives
Reference Material (RM) Report; Recovery and Data Quality Objectives
Method Blank (MB) Report; Recovery and Data Quality Objectives
Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Table with 3 columns: Signatories, Position, Laboratory Department. Rows include Amber Sheikh, Anthony Calero, Hedy Lai, Sara Niroomand, Sorina Motea, and Vishnu Patel.



Page : 2 of 18  
Work Order : CG2212740  
Client : Teck Coal Limited  
Project : REGIONAL EFFECTS PROGRAM

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## **General Comments**

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

# = Indicates a QC result that did not meet the ALS DQO.

## **Workorder Comments**

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Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

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### Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: Soil/Solid

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Physical Tests (QC Lot: 655147)</b>											
CG2212740-001	RG_MI5_SE-1_2022-09-12_N	moisture	----	E144	0.25	%	66.5	58.7	12.4%	20%	----
<b>Physical Tests (QC Lot: 658394)</b>											
CG2212740-001	RG_MI5_SE-1_2022-09-12_N	pH (1:2 soil:water)	----	E108	0.10	pH units	7.68	7.70	0.260%	5%	----
<b>Organic / Inorganic Carbon (QC Lot: 658655)</b>											
CG2212740-001	RG_MI5_SE-1_2022-09-12_N	carbon, total [TC]	----	E351	0.050	%	4.94	4.69	5.13%	20%	----
<b>Organic / Inorganic Carbon (QC Lot: 658685)</b>											
CG2212740-008	RG_MIULE_SE-5_2022-09-12_N	carbon, total [TC]	----	E351	0.050	%	6.86	6.80	0.835%	20%	----
<b>Organic / Inorganic Carbon (QC Lot: 662326)</b>											
CG2211503-002	Anonymous	carbon, inorganic [IC]	----	E354	0.050	%	0.110	0.109	0.0008	Diff <2x LOR	----
<b>Organic / Inorganic Carbon (QC Lot: 662377)</b>											
CG2212740-011	RG_MIDAG_SE-3_2022-09-13_N	carbon, inorganic [IC]	----	E354	0.050	%	2.74	2.72	0.673%	20%	----
<b>Metals (QC Lot: 657173)</b>											
CG2212737-015	Anonymous	mercury	7439-97-6	E510	0.0050	mg/kg	0.0226	0.0199	0.0027	Diff <2x LOR	----
<b>Metals (QC Lot: 657174)</b>											
CG2212737-015	Anonymous	aluminum	7429-90-5	E440	50	mg/kg	17400	14800	16.4%	40%	----
		antimony	7440-36-0	E440	0.10	mg/kg	0.43	0.38	0.04	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.10	mg/kg	7.46	6.35	16.1%	30%	----
		barium	7440-39-3	E440	0.50	mg/kg	266	231	13.9%	40%	----
		beryllium	7440-41-7	E440	0.10	mg/kg	0.72	0.63	13.5%	30%	----
		bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		boron	7440-42-8	E440	5.0	mg/kg	8.9	6.4	2.5	Diff <2x LOR	----
		cadmium	7440-43-9	E440	0.020	mg/kg	0.431	0.409	5.15%	30%	----
		calcium	7440-70-2	E440	50	mg/kg	83600	75800	9.76%	30%	----
		chromium	7440-47-3	E440	0.50	mg/kg	18.3	15.4	16.8%	30%	----
		cobalt	7440-48-4	E440	0.10	mg/kg	7.20	6.40	11.7%	30%	----
		copper	7440-50-8	E440	0.50	mg/kg	14.8	13.2	11.6%	30%	----
		iron	7439-89-6	E440	50	mg/kg	16200	14400	12.3%	30%	----
		lead	7439-92-1	E440	0.50	mg/kg	9.31	8.52	8.82%	40%	----
		lithium	7439-93-2	E440	2.0	mg/kg	14.2	12.5	12.6%	30%	----



Sub-Matrix: **Soil/Solid**

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Metals (QC Lot: 657174) - continued</b>											
CG2212737-015	Anonymous	magnesium	7439-95-4	E440	20	mg/kg	12000	10600	11.8%	30%	----
		manganese	7439-96-5	E440	1.0	mg/kg	331	295	11.5%	30%	----
		molybdenum	7439-98-7	E440	0.10	mg/kg	0.49	0.45	0.04	Diff <2x LOR	----
		nickel	7440-02-0	E440	0.50	mg/kg	19.8	17.5	12.3%	30%	----
		phosphorus	7723-14-0	E440	50	mg/kg	673	572	16.3%	30%	----
		potassium	7440-09-7	E440	100	mg/kg	2050	1690	19.5%	40%	----
		selenium	7782-49-2	E440	0.20	mg/kg	0.28	0.23	0.05	Diff <2x LOR	----
		silver	7440-22-4	E440	0.10	mg/kg	0.13	0.12	0.009	Diff <2x LOR	----
		sodium	7440-23-5	E440	50	mg/kg	230	193	37	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.50	mg/kg	83.8	75.5	10.4%	40%	----
		sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.050	mg/kg	0.201	0.176	0.024	Diff <2x LOR	----
		tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		titanium	7440-32-6	E440	1.0	mg/kg	50.4	54.8	8.34%	40%	----
		tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.050	mg/kg	0.615	0.552	10.7%	30%	----
		vanadium	7440-62-2	E440	0.20	mg/kg	36.1	30.9	15.4%	30%	----
zinc	7440-66-6	E440	2.0	mg/kg	59.9	51.9	14.2%	30%	----		
zirconium	7440-67-7	E440	1.0	mg/kg	2.3	1.9	0.4	Diff <2x LOR	----		
<b>Metals (QC Lot: 657175)</b>											
CG2212740-018	RG_MIDCO_SE-5_2022-09-13_N	aluminum	7429-90-5	E440	50	mg/kg	11400	10000	13.3%	40%	----
		antimony	7440-36-0	E440	0.10	mg/kg	0.28	0.29	0.006	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.10	mg/kg	6.44	6.53	1.28%	30%	----
		barium	7440-39-3	E440	0.50	mg/kg	110	126	13.8%	40%	----
		beryllium	7440-41-7	E440	0.10	mg/kg	0.71	0.71	0.221%	30%	----
		bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		boron	7440-42-8	E440	5.0	mg/kg	9.9	10.3	0.4	Diff <2x LOR	----
		cadmium	7440-43-9	E440	0.020	mg/kg	1.27	1.52	18.2%	30%	----
		calcium	7440-70-2	E440	50	mg/kg	46400	62100	29.0%	30%	----
		chromium	7440-47-3	E440	0.50	mg/kg	13.3	12.9	3.01%	30%	----
		cobalt	7440-48-4	E440	0.10	mg/kg	48.8	61.3	22.7%	30%	----
		copper	7440-50-8	E440	0.50	mg/kg	16.4	16.5	0.573%	30%	----
		iron	7439-89-6	E440	50	mg/kg	21200	18600	13.0%	30%	----
		lead	7439-92-1	E440	0.50	mg/kg	10.1	10.0	1.11%	40%	----
		lithium	7439-93-2	E440	2.0	mg/kg	21.6	17.9	18.8%	30%	----



Sub-Matrix: Soil/Solid

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Metals (QC Lot: 657175) - continued</b>											
CG2212740-018	RG_MIDCO_SE-5_2022-09-13_N	magnesium	7439-95-4	E440	20	mg/kg	7570	9880	26.5%	30%	----
		manganese	7439-96-5	E440	1.0	mg/kg	605	639	5.44%	30%	----
		molybdenum	7439-98-7	E440	0.10	mg/kg	1.36	1.55	12.8%	40%	----
		nickel	7440-02-0	E440	0.50	mg/kg	89.4	108	18.8%	30%	----
		phosphorus	7723-14-0	E440	50	mg/kg	1220	1070	13.2%	30%	----
		potassium	7440-09-7	E440	100	mg/kg	1920	1910	0.948%	40%	----
		selenium	7782-49-2	E440	0.20	mg/kg	2.25	2.74	19.6%	30%	----
		silver	7440-22-4	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		sodium	7440-23-5	E440	50	mg/kg	151	157	6	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.50	mg/kg	91.9	105	13.6%	40%	----
		sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.050	mg/kg	0.284	0.273	0.011	Diff <2x LOR	----
		tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		titanium	7440-32-6	E440	1.0	mg/kg	26.9	26.6	1.10%	40%	----
		tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.050	mg/kg	0.692	0.838	19.1%	30%	----
		vanadium	7440-62-2	E440	0.20	mg/kg	20.5	19.6	4.65%	30%	----
		zinc	7440-66-6	E440	2.0	mg/kg	128	144	11.8%	30%	----
zirconium	7440-67-7	E440	1.0	mg/kg	1.2	1.2	0.07	Diff <2x LOR	----		
<b>Metals (QC Lot: 657176)</b>											
CG2212740-018	RG_MIDCO_SE-5_2022-09-13_N	mercury	7439-97-6	E510	0.0050	mg/kg	0.0233	0.0259	0.0026	Diff <2x LOR	----
<b>Polycyclic Aromatic Hydrocarbons (QC Lot: 655146)</b>											
CG2212740-001	RG_M15_SE-1_2022-09-12_N	acenaphthene	83-32-9	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		acenaphthylene	208-96-8	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		acridine	260-94-6	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		anthracene	120-12-7	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benz(a)anthracene	56-55-3	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benzo(a)pyrene	50-32-8	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benzo(b+j)fluoranthene	n/a	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benzo(g,h,i)perylene	191-24-2	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benzo(k)fluoranthene	207-08-9	E641A	0.050	mg/kg	<0.050	0.052	0.002	Diff <2x LOR	----
		chrysene	218-01-9	E641A	0.050	mg/kg	0.073	0.106	0.033	Diff <2x LOR	----
		dibenz(a,h)anthracene	53-70-3	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		fluoranthene	206-44-0	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----



Sub-Matrix: **Soil/Solid**

*Laboratory Duplicate (DUP) Report*

<i>Laboratory sample ID</i>	<i>Client sample ID</i>	<i>Analyte</i>	<i>CAS Number</i>	<i>Method</i>	<i>LOR</i>	<i>Unit</i>	<i>Original Result</i>	<i>Duplicate Result</i>	<i>RPD(%) or Difference</i>	<i>Duplicate Limits</i>	<i>Qualifier</i>
<b>Polycyclic Aromatic Hydrocarbons (QC Lot: 655146) - continued</b>											
CG2212740-001	RG_MI5_SE-1_2022-09-12_N	fluorene	86-73-7	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		methylnaphthalene, 1-	90-12-0	E641A	0.030	mg/kg	0.118	0.132	11.4%	50%	----
		methylnaphthalene, 2-	91-57-6	E641A	0.030	mg/kg	0.145	0.162	11.0%	50%	----
		naphthalene	91-20-3	E641A	0.010	mg/kg	0.073	0.077	5.04%	50%	----
		phenanthrene	85-01-8	E641A	0.050	mg/kg	0.172	0.212	0.040	Diff <2x LOR	----
		pyrene	129-00-0	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		quinoline	91-22-5	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----



## Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

### Sub-Matrix: Soil/Solid

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Physical Tests (QCLot: 655147)</b>						
moisture	----	E144	0.25	%	<0.25	----
<b>Organic / Inorganic Carbon (QCLot: 658655)</b>						
carbon, total [TC]	----	E351	0.05	%	<0.050	----
<b>Organic / Inorganic Carbon (QCLot: 658685)</b>						
carbon, total [TC]	----	E351	0.05	%	<0.050	----
<b>Organic / Inorganic Carbon (QCLot: 662326)</b>						
carbon, inorganic [IC]	----	E354	0.05	%	<0.050	----
<b>Organic / Inorganic Carbon (QCLot: 662377)</b>						
carbon, inorganic [IC]	----	E354	0.05	%	<0.050	----
<b>Metals (QCLot: 657173)</b>						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
<b>Metals (QCLot: 657174)</b>						
aluminum	7429-90-5	E440	50	mg/kg	<50	----
antimony	7440-36-0	E440	0.1	mg/kg	<0.10	----
arsenic	7440-38-2	E440	0.1	mg/kg	<0.10	----
barium	7440-39-3	E440	0.5	mg/kg	<0.50	----
beryllium	7440-41-7	E440	0.1	mg/kg	<0.10	----
bismuth	7440-69-9	E440	0.2	mg/kg	<0.20	----
boron	7440-42-8	E440	5	mg/kg	<5.0	----
cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	----
calcium	7440-70-2	E440	50	mg/kg	<50	----
chromium	7440-47-3	E440	0.5	mg/kg	<0.50	----
cobalt	7440-48-4	E440	0.1	mg/kg	<0.10	----
copper	7440-50-8	E440	0.5	mg/kg	<0.50	----
iron	7439-89-6	E440	50	mg/kg	<50	----
lead	7439-92-1	E440	0.5	mg/kg	<0.50	----
lithium	7439-93-2	E440	2	mg/kg	<2.0	----
magnesium	7439-95-4	E440	20	mg/kg	<20	----
manganese	7439-96-5	E440	1	mg/kg	<1.0	----
molybdenum	7439-98-7	E440	0.1	mg/kg	<0.10	----
nickel	7440-02-0	E440	0.5	mg/kg	<0.50	----
phosphorus	7723-14-0	E440	50	mg/kg	<50	----
potassium	7440-09-7	E440	100	mg/kg	<100	----



Sub-Matrix: Soil/Solid

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Metals (QCLot: 657174) - continued</b>						
selenium	7782-49-2	E440	0.2	mg/kg	<0.20	---
silver	7440-22-4	E440	0.1	mg/kg	<0.10	---
sodium	7440-23-5	E440	50	mg/kg	<50	---
strontium	7440-24-6	E440	0.5	mg/kg	<0.50	---
sulfur	7704-34-9	E440	1000	mg/kg	<1000	---
thallium	7440-28-0	E440	0.05	mg/kg	<0.050	---
tin	7440-31-5	E440	2	mg/kg	<2.0	---
titanium	7440-32-6	E440	1	mg/kg	<1.0	---
tungsten	7440-33-7	E440	0.5	mg/kg	<0.50	---
uranium	7440-61-1	E440	0.05	mg/kg	<0.050	---
vanadium	7440-62-2	E440	0.2	mg/kg	<0.20	---
zinc	7440-66-6	E440	2	mg/kg	<2.0	---
zirconium	7440-67-7	E440	1	mg/kg	<1.0	---
<b>Metals (QCLot: 657175)</b>						
aluminum	7429-90-5	E440	50	mg/kg	<50	---
antimony	7440-36-0	E440	0.1	mg/kg	<0.10	---
arsenic	7440-38-2	E440	0.1	mg/kg	<0.10	---
barium	7440-39-3	E440	0.5	mg/kg	<0.50	---
beryllium	7440-41-7	E440	0.1	mg/kg	<0.10	---
bismuth	7440-69-9	E440	0.2	mg/kg	<0.20	---
boron	7440-42-8	E440	5	mg/kg	<5.0	---
cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	---
calcium	7440-70-2	E440	50	mg/kg	<50	---
chromium	7440-47-3	E440	0.5	mg/kg	<0.50	---
cobalt	7440-48-4	E440	0.1	mg/kg	<0.10	---
copper	7440-50-8	E440	0.5	mg/kg	<0.50	---
iron	7439-89-6	E440	50	mg/kg	<50	---
lead	7439-92-1	E440	0.5	mg/kg	<0.50	---
lithium	7439-93-2	E440	2	mg/kg	<2.0	---
magnesium	7439-95-4	E440	20	mg/kg	<20	---
manganese	7439-96-5	E440	1	mg/kg	<1.0	---
molybdenum	7439-98-7	E440	0.1	mg/kg	<0.10	---
nickel	7440-02-0	E440	0.5	mg/kg	<0.50	---
phosphorus	7723-14-0	E440	50	mg/kg	<50	---
potassium	7440-09-7	E440	100	mg/kg	<100	---
selenium	7782-49-2	E440	0.2	mg/kg	<0.20	---



Sub-Matrix: Soil/Solid

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Metals (QCLot: 657175) - continued</b>						
silver	7440-22-4	E440	0.1	mg/kg	<0.10	---
sodium	7440-23-5	E440	50	mg/kg	<50	---
strontium	7440-24-6	E440	0.5	mg/kg	<0.50	---
sulfur	7704-34-9	E440	1000	mg/kg	<1000	---
thallium	7440-28-0	E440	0.05	mg/kg	<0.050	---
tin	7440-31-5	E440	2	mg/kg	<2.0	---
titanium	7440-32-6	E440	1	mg/kg	<1.0	---
tungsten	7440-33-7	E440	0.5	mg/kg	<0.50	---
uranium	7440-61-1	E440	0.05	mg/kg	<0.050	---
vanadium	7440-62-2	E440	0.2	mg/kg	<0.20	---
zinc	7440-66-6	E440	2	mg/kg	<2.0	---
zirconium	7440-67-7	E440	1	mg/kg	<1.0	---
<b>Metals (QCLot: 657176)</b>						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	---
<b>Polycyclic Aromatic Hydrocarbons (QCLot: 655146)</b>						
acenaphthene	83-32-9	E641A	0.05	mg/kg	<0.050	---
acenaphthylene	208-96-8	E641A	0.05	mg/kg	<0.050	---
acridine	260-94-6	E641A	0.05	mg/kg	<0.050	---
anthracene	120-12-7	E641A	0.05	mg/kg	<0.050	---
benz(a)anthracene	56-55-3	E641A	0.05	mg/kg	<0.050	---
benzo(a)pyrene	50-32-8	E641A	0.05	mg/kg	<0.050	---
benzo(b+j)fluoranthene	n/a	E641A	0.05	mg/kg	<0.050	---
benzo(g,h,i)perylene	191-24-2	E641A	0.05	mg/kg	<0.050	---
benzo(k)fluoranthene	207-08-9	E641A	0.05	mg/kg	<0.050	---
chrysene	218-01-9	E641A	0.05	mg/kg	<0.050	---
dibenz(a,h)anthracene	53-70-3	E641A	0.05	mg/kg	<0.050	---
fluoranthene	206-44-0	E641A	0.05	mg/kg	<0.050	---
fluorene	86-73-7	E641A	0.05	mg/kg	<0.050	---
indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.05	mg/kg	<0.050	---
methylnaphthalene, 1-	90-12-0	E641A	0.03	mg/kg	<0.030	---
methylnaphthalene, 2-	91-57-6	E641A	0.03	mg/kg	<0.030	---
naphthalene	91-20-3	E641A	0.01	mg/kg	<0.010	---
phenanthrene	85-01-8	E641A	0.05	mg/kg	<0.050	---
pyrene	129-00-0	E641A	0.05	mg/kg	<0.050	---
quinoline	91-22-5	E641A	0.05	mg/kg	<0.050	---







## Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Soil/Solid**

					Laboratory Control Sample (LCS) Report				
Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
<b>Physical Tests (QCLot: 655147)</b>									
moisture	---	E144	0.25	%	50 %	99.1	90.0	110	---
<b>Physical Tests (QCLot: 658394)</b>									
pH (1:2 soil:water)	---	E108	---	pH units	7 pH units	100	97.0	103	---
<b>Organic / Inorganic Carbon (QCLot: 658655)</b>									
carbon, total [TC]	---	E351	0.05	%	48 %	100	90.0	110	---
<b>Organic / Inorganic Carbon (QCLot: 658685)</b>									
carbon, total [TC]	---	E351	0.05	%	48 %	99.2	90.0	110	---
<b>Organic / Inorganic Carbon (QCLot: 662326)</b>									
carbon, inorganic [IC]	---	E354	0.05	%	0.5 %	95.8	90.0	110	---
<b>Organic / Inorganic Carbon (QCLot: 662377)</b>									
carbon, inorganic [IC]	---	E354	0.05	%	0.5 %	95.5	90.0	110	---
<b>Metals (QCLot: 657173)</b>									
mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	89.7	80.0	120	---
<b>Metals (QCLot: 657174)</b>									
aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	113	80.0	120	---
antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	108	80.0	120	---
arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	91.1	80.0	120	---
barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	96.1	80.0	120	---
beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	108	80.0	120	---
bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	102	80.0	120	---
boron	7440-42-8	E440	5	mg/kg	100 mg/kg	102	80.0	120	---
cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	109	80.0	120	---
calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	106	80.0	120	---
chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	90.4	80.0	120	---
cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	90.1	80.0	120	---
copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	88.7	80.0	120	---
iron	7439-89-6	E440	50	mg/kg	100 mg/kg	100	80.0	120	---
lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	102	80.0	120	---
lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	109	80.0	120	---
magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	91.3	80.0	120	---
manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	93.5	80.0	120	---
molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	105	80.0	120	---



Sub-Matrix: Soil/Solid

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
<b>Metals (QCLot: 657174) - continued</b>									
nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	87.4	80.0	120	----
phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	106	80.0	120	----
potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	94.0	80.0	120	----
selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	101	80.0	120	----
silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	95.5	80.0	120	----
sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	89.7	80.0	120	----
strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	107	80.0	120	----
sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	97.9	80.0	120	----
thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	102	80.0	120	----
tin	7440-31-5	E440	2	mg/kg	50 mg/kg	104	80.0	120	----
titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	113	80.0	120	----
tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	93.8	80.0	120	----
uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	99.0	80.0	120	----
vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	93.6	80.0	120	----
zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	90.6	80.0	120	----
zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	103	80.0	120	----
<b>Metals (QCLot: 657175)</b>									
aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	116	80.0	120	----
antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	109	80.0	120	----
arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	110	80.0	120	----
barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	117	80.0	120	----
beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	112	80.0	120	----
bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	110	80.0	120	----
boron	7440-42-8	E440	5	mg/kg	100 mg/kg	110	80.0	120	----
cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	109	80.0	120	----
calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	112	80.0	120	----
chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	111	80.0	120	----
cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	112	80.0	120	----
copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	110	80.0	120	----
iron	7439-89-6	E440	50	mg/kg	100 mg/kg	119	80.0	120	----
lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	110	80.0	120	----
lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	113	80.0	120	----
magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	117	80.0	120	----
manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	109	80.0	120	----
molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	109	80.0	120	----
nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	111	80.0	120	----
phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	111	80.0	120	----



Sub-Matrix: Soil/Solid

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
<b>Metals (QCLot: 657175) - continued</b>									
potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	114	80.0	120	----
selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	105	80.0	120	----
silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	96.1	80.0	120	----
sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	115	80.0	120	----
strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	111	80.0	120	----
sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	97.9	80.0	120	----
thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	109	80.0	120	----
tin	7440-31-5	E440	2	mg/kg	50 mg/kg	109	80.0	120	----
titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	119	80.0	120	----
tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	105	80.0	120	----
uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	103	80.0	120	----
vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	119	80.0	120	----
zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	108	80.0	120	----
zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	106	80.0	120	----
<b>Metals (QCLot: 657176)</b>									
mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	91.5	80.0	120	----
<b>Polycyclic Aromatic Hydrocarbons (QCLot: 655146)</b>									
acenaphthene	83-32-9	E641A	0.05	mg/kg	0.5 mg/kg	112	60.0	130	----
acenaphthylene	208-96-8	E641A	0.05	mg/kg	0.5 mg/kg	100	60.0	130	----
acridine	260-94-6	E641A	0.05	mg/kg	0.5 mg/kg	104	60.0	130	----
anthracene	120-12-7	E641A	0.05	mg/kg	0.5 mg/kg	100	60.0	130	----
benz(a)anthracene	56-55-3	E641A	0.05	mg/kg	0.5 mg/kg	105	60.0	130	----
benzo(a)pyrene	50-32-8	E641A	0.05	mg/kg	0.5 mg/kg	87.6	60.0	130	----
benzo(b+j)fluoranthene	n/a	E641A	0.05	mg/kg	0.5 mg/kg	109	60.0	130	----
benzo(g,h,i)perylene	191-24-2	E641A	0.05	mg/kg	0.5 mg/kg	90.9	60.0	130	----
benzo(k)fluoranthene	207-08-9	E641A	0.05	mg/kg	0.5 mg/kg	108	60.0	130	----
chrysene	218-01-9	E641A	0.05	mg/kg	0.5 mg/kg	106	60.0	130	----
dibenz(a,h)anthracene	53-70-3	E641A	0.05	mg/kg	0.5 mg/kg	94.2	60.0	130	----
fluoranthene	206-44-0	E641A	0.05	mg/kg	0.5 mg/kg	94.3	60.0	130	----
fluorene	86-73-7	E641A	0.05	mg/kg	0.5 mg/kg	104	60.0	130	----
indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.05	mg/kg	0.5 mg/kg	99.4	60.0	130	----
methylnaphthalene, 1-	90-12-0	E641A	0.03	mg/kg	0.5 mg/kg	109	60.0	130	----
methylnaphthalene, 2-	91-57-6	E641A	0.03	mg/kg	0.5 mg/kg	105	60.0	130	----
naphthalene	91-20-3	E641A	0.01	mg/kg	0.5 mg/kg	116	50.0	130	----
phenanthrene	85-01-8	E641A	0.05	mg/kg	0.5 mg/kg	112	60.0	130	----
pyrene	129-00-0	E641A	0.05	mg/kg	0.5 mg/kg	89.8	60.0	130	----



Sub-Matrix: Soil/Solid

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
<b>Polycyclic Aromatic Hydrocarbons (QCLot: 655146) - continued</b>									
quinoline	91-22-5	E641A	0.05	mg/kg	0.5 mg/kg	98.6	60.0	130	----

### Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: Soil/Solid

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
<b>Polycyclic Aromatic Hydrocarbons (QCLot: 655146)</b>										
CG2212740-001	RG_MI5_SE-1_2022-09-12_N	acenaphthene	83-32-9	E641A	0.424 mg/kg	0.5 mg/kg	113	50.0	140	----
		acenaphthylene	208-96-8	E641A	0.388 mg/kg	0.5 mg/kg	103	50.0	140	----
		acridine	260-94-6	E641A	0.421 mg/kg	0.5 mg/kg	112	50.0	140	----
		anthracene	120-12-7	E641A	0.399 mg/kg	0.5 mg/kg	106	50.0	140	----
		benz(a)anthracene	56-55-3	E641A	0.416 mg/kg	0.5 mg/kg	111	50.0	140	----
		benzo(a)pyrene	50-32-8	E641A	0.370 mg/kg	0.5 mg/kg	98.5	50.0	140	----
		benzo(b+j)fluoranthene	n/a	E641A	0.379 mg/kg	0.5 mg/kg	101	50.0	140	----
		benzo(g,h,i)perylene	191-24-2	E641A	0.367 mg/kg	0.5 mg/kg	97.8	50.0	140	----
		benzo(k)fluoranthene	207-08-9	E641A	0.405 mg/kg	0.5 mg/kg	108	50.0	140	----
		chrysene	218-01-9	E641A	0.382 mg/kg	0.5 mg/kg	102	50.0	140	----
		dibenz(a,h)anthracene	53-70-3	E641A	0.388 mg/kg	0.5 mg/kg	104	50.0	140	----
		fluoranthene	206-44-0	E641A	0.427 mg/kg	0.5 mg/kg	114	50.0	140	----
		fluorene	86-73-7	E641A	0.406 mg/kg	0.5 mg/kg	108	50.0	140	----
		indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.365 mg/kg	0.5 mg/kg	97.2	50.0	140	----
		methylnaphthalene, 1-	90-12-0	E641A	0.424 mg/kg	0.5 mg/kg	113	50.0	140	----
		methylnaphthalene, 2-	91-57-6	E641A	0.422 mg/kg	0.5 mg/kg	112	50.0	140	----
		naphthalene	91-20-3	E641A	0.408 mg/kg	0.5 mg/kg	109	50.0	140	----
		phenanthrene	85-01-8	E641A	0.415 mg/kg	0.5 mg/kg	110	50.0	140	----
		pyrene	129-00-0	E641A	0.441 mg/kg	0.5 mg/kg	118	50.0	140	----
		quinoline	91-22-5	E641A	0.400 mg/kg	0.5 mg/kg	107	50.0	140	----





## Reference Material (RM) Report

A Reference Material (RM) is a homogenous material with known and well-established analyte concentrations. RMs are processed in an identical manner to test samples, and are used to monitor and control the accuracy and precision of a test method for a typical sample matrix. RM results are expressed as percent recovery of the target analyte concentration. RM targets may be certified target concentrations provided by the RM supplier, or may be ALS long-term mean values (for empirical test methods).

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
<b>Physical Tests (QCLot: 658394)</b>									
	RM	pH (1:2 soil:water)	----	E108	8.06 pH units	99.4	96.0	104	----
<b>Organic / Inorganic Carbon (QCLot: 658655)</b>									
	RM	carbon, total [TC]	----	E351	1.4 %	103	80.0	120	----
<b>Organic / Inorganic Carbon (QCLot: 658685)</b>									
	RM	carbon, total [TC]	----	E351	1.4 %	97.6	80.0	120	----
<b>Organic / Inorganic Carbon (QCLot: 662326)</b>									
	RM	carbon, inorganic [IC]	----	E354	0.383 %	110	80.0	120	----
<b>Organic / Inorganic Carbon (QCLot: 662377)</b>									
	RM	carbon, inorganic [IC]	----	E354	0.383 %	109	80.0	120	----
<b>Metals (QCLot: 657173)</b>									
	RM	mercury	7439-97-6	E510	0.062 mg/kg	87.1	70.0	130	----
<b>Metals (QCLot: 657174)</b>									
	RM	aluminum	7429-90-5	E440	9817 mg/kg	118	70.0	130	----
	RM	antimony	7440-36-0	E440	3.99 mg/kg	107	70.0	130	----
	RM	arsenic	7440-38-2	E440	3.73 mg/kg	98.7	70.0	130	----
	RM	barium	7440-39-3	E440	105 mg/kg	100	70.0	130	----
	RM	beryllium	7440-41-7	E440	0.349 mg/kg	118	70.0	130	----
	RM	boron	7440-42-8	E440	8.5 mg/kg	130	40.0	160	----
	RM	cadmium	7440-43-9	E440	0.91 mg/kg	103	70.0	130	----
	RM	calcium	7440-70-2	E440	31082 mg/kg	104	70.0	130	----
	RM	chromium	7440-47-3	E440	101 mg/kg	95.7	70.0	130	----
	RM	cobalt	7440-48-4	E440	6.9 mg/kg	92.9	70.0	130	----
	RM	copper	7440-50-8	E440	123 mg/kg	92.8	70.0	130	----
	RM	iron	7439-89-6	E440	23558 mg/kg	90.6	70.0	130	----
	RM	lead	7439-92-1	E440	267 mg/kg	104	70.0	130	----
	RM	lithium	7439-93-2	E440	9.5 mg/kg	120	70.0	130	----
	RM	magnesium	7439-95-4	E440	5509 mg/kg	94.3	70.0	130	----
	RM	manganese	7439-96-5	E440	269 mg/kg	98.1	70.0	130	----
	RM	molybdenum	7439-98-7	E440	1.03 mg/kg	114	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
<b>Metals (QCLot: 657174) - continued</b>									
	RM	nickel	7440-02-0	E440	26.7 mg/kg	90.4	70.0	130	----
	RM	phosphorus	7723-14-0	E440	752 mg/kg	94.8	70.0	130	----
	RM	potassium	7440-09-7	E440	1587 mg/kg	105	70.0	130	----
	RM	silver	7440-22-4	E440	4.06 mg/kg	108	70.0	130	----
	RM	sodium	7440-23-5	E440	797 mg/kg	99.5	70.0	130	----
	RM	strontium	7440-24-6	E440	86.1 mg/kg	108	70.0	130	----
	RM	thallium	7440-28-0	E440	0.0786 mg/kg	110	40.0	160	----
	RM	tin	7440-31-5	E440	10.6 mg/kg	108	70.0	130	----
	RM	titanium	7440-32-6	E440	839 mg/kg	124	70.0	130	----
	RM	uranium	7440-61-1	E440	0.52 mg/kg	104	70.0	130	----
	RM	vanadium	7440-62-2	E440	32.7 mg/kg	95.5	70.0	130	----
	RM	zinc	7440-66-6	E440	297 mg/kg	91.3	70.0	130	----
	RM	zirconium	7440-67-7	E440	5.73 mg/kg	107	70.0	130	----
<b>Metals (QCLot: 657175)</b>									
	RM	aluminum	7429-90-5	E440	9817 mg/kg	121	70.0	130	----
	RM	antimony	7440-36-0	E440	3.99 mg/kg	110	70.0	130	----
	RM	arsenic	7440-38-2	E440	3.73 mg/kg	102	70.0	130	----
	RM	barium	7440-39-3	E440	105 mg/kg	117	70.0	130	----
	RM	beryllium	7440-41-7	E440	0.349 mg/kg	117	70.0	130	----
	RM	boron	7440-42-8	E440	8.5 mg/kg	140	40.0	160	----
	RM	cadmium	7440-43-9	E440	0.91 mg/kg	104	70.0	130	----
	RM	calcium	7440-70-2	E440	31082 mg/kg	111	70.0	130	----
	RM	chromium	7440-47-3	E440	101 mg/kg	114	70.0	130	----
	RM	cobalt	7440-48-4	E440	6.9 mg/kg	115	70.0	130	----
	RM	copper	7440-50-8	E440	123 mg/kg	113	70.0	130	----
	RM	iron	7439-89-6	E440	23558 mg/kg	111	70.0	130	----
	RM	lead	7439-92-1	E440	267 mg/kg	108	70.0	130	----
	RM	lithium	7439-93-2	E440	9.5 mg/kg	120	70.0	130	----
	RM	magnesium	7439-95-4	E440	5509 mg/kg	115	70.0	130	----
	RM	manganese	7439-96-5	E440	269 mg/kg	121	70.0	130	----
	RM	molybdenum	7439-98-7	E440	1.03 mg/kg	120	70.0	130	----
	RM	nickel	7440-02-0	E440	26.7 mg/kg	114	70.0	130	----





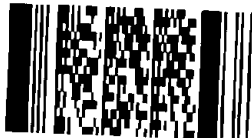
Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
<b>Metals (QCLot: 657175) - continued</b>									
	RM	phosphorus	7723-14-0	E440	752 mg/kg	108	70.0	130	----
	RM	potassium	7440-09-7	E440	1587 mg/kg	93.7	70.0	130	----
	RM	silver	7440-22-4	E440	4.06 mg/kg	115	70.0	130	----
	RM	sodium	7440-23-5	E440	797 mg/kg	96.6	70.0	130	----
	RM	strontium	7440-24-6	E440	86.1 mg/kg	114	70.0	130	----
	RM	thallium	7440-28-0	E440	0.0786 mg/kg	135	40.0	160	----
	RM	tin	7440-31-5	E440	10.6 mg/kg	113	70.0	130	----
	RM	titanium	7440-32-6	E440	839 mg/kg	130	70.0	130	----
	RM	uranium	7440-61-1	E440	0.52 mg/kg	107	70.0	130	----
	RM	vanadium	7440-62-2	E440	32.7 mg/kg	119	70.0	130	----
	RM	zinc	7440-66-6	E440	297 mg/kg	108	70.0	130	----
	RM	zirconium	7440-67-7	E440	5.73 mg/kg	123	70.0	130	----
<b>Metals (QCLot: 657176)</b>									
	RM	mercury	7439-97-6	E510	0.062 mg/kg	100	70.0	130	----

COC ID: <b>REP_LAEMP_CMm_2022-09_ALS</b>		TURNAROUND TIME: 2-3 Business Days		RUSH: Priority						
PROJECT/CLIENT INFO			LABORATORY			OTHER INFO				
Facility Name / Job# Regional Effects Program			Lab Name ALS Calgary		Report Format / Distribution			Excel	PDF	EDD
Project Manager Cybele Heddle			Lab Contact Lyudmyla Shvets		Email 1: AquaSci.Lab@Teck.com		X	X	X	
Email Cybele.Heddle@teck.com			Email Lyudmyla.Shvets@ALSGlobal.com		Email 2: teckcoal@equisonline.com				X	
Address 421 Pine Avenue			Address 2559 29 Street NE		Email 3: Teck.Lab.Results@teck.com		X	X	X	
City Sparwood			City Calgary		Email 4: Lisa.Bowron@minnow.ca		X	X	X	
Postal Code V0B 2G0			Postal Code T1Y 7B5		Email 5: Tyler.Mehler@minnow.ca		X	X	X	
Phone Number 1-250-865-3048			Phone Number 403 407 1794		Email 6: Hannah.Penner@Teck.com		X	X	X	
			PO number			VPO00816101				

SAMPLE DETAILS							ANALYSIS REQUESTED					Filtered - F: Field, L: Lab, FL: Field & Lab, N: None							
Sample ID	Sample Location (sys loc code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Com p	# Of Cont.	ANALYSIS	PRESERV.	N	N	N	N	N					
								C-TOC-SK	MET-CCME+FULL-CL	MOISTURE-CL - % Moisture	PSA-PIPET-DETAIL-SK Particle Size	PAH-TMB-D/A-MS-CL- PAHS							
RG_MI5_SE-1_2022-09-12_N	RG_MI5	SE		2022/09/12	9:30	G	2	1	1	1	1	1							
RG_MI5_SE-2_2022-09-12_N	RG_MI5	SE		2022/09/12	10:00	G	2	1	1	1	1	1							
RG_MI5_SE-3_2022-09-12_N	RG_MI5	SE		2022/09/12	10:30	G	2	1	1	1	1	1							
RG_MIULE_SE-1_2022-09-12_N	RG_MIULE	SE		2022/09/12	15:41	G	2	1	1	1	1	1							
RG_MIULE_SE-2_2022-09-12_N	RG_MIULE	SE		2022/09/12	14:31	G	2	1	1	1	1	1							
RG_MIULE_SE-3_2022-09-12_N	RG_MIULE	SE		2022/09/12	13:40	G	2	1	1	1	1	1							
RG_MIULE_SE-4_2022-09-12_N	RG_MIULE	SE		2022/09/12	16:25	G	2	1	1	1	1	1							
RG_MIULE_SE-5_2022-09-12_N	RG_MIULE	SE		2022/09/12	15:00	G	2	1	1	1	1	1							
RG_MIDAG_SE-1_2022-09-13_N	RG_MIDAG	SE		2022/09/13	11:07	G	2	1	1	1	1	1							
RG_MIDAG_SE-2_2022-09-13_N	RG_MIDAG	SE		2022/09/13	10:17	G	2	1	1	1	1	1							

Environmental Division  
Calgary  
Work Order Reference  
**CG2212740**



Telephone : + 1 403 407 1800

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS		RELINQUISHED BY/AFFILIATION		DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME	
		Jennifer Ings/Minnow		#####		<i>[Signature]</i>		<i>9/15/22</i>	
SERVICE REQUEST (rush - subject to availability)									
Regular (default)		Sampler's Name		Jennifer Ings		Mobile #		519-500-3444	
Priority (2-3 business days) - 50% surcharge X		Sampler's Signature		<i>Jennifer Ings</i>		Date/Time		September 14, 2022	
Emergency (1 Business Day) - 100% surcharge									
For Emergency <1 Day, ASAP or Weekend - Contact ALS									

COC ID: <b>REP_LAEMP_CMm_2022-09_ALS</b>		TURNAROUND TIME: 2-3 Business Days		RUSH: Priority	
PROJECT/CLIENT INFO			LABORATORY		OTHER INFO
Facility Name / Job# Regional Effects Program		Lab Name ALS Calgary		Report Format / Distribution	
Project Manager Cybele Heddle		Lab Contact Lyudmyia Shvets		Excel PDF EDD	
Email Cybele.Heddle@teck.com		Email Lyudmyia.Shvets@ALSGlobal.com		Email 1: AquaSciLab@Teck.com X X X	
Address 421 Pine Avenue		Address 2559 29 Street NE		Email 2: teckcoal@equisonline.com X X X	
City Sparwood		City Calgary		Email 3: Teck.Lab.Results@teck.com X X X	
Postal Code V0B 2G0		Postal Code T1Y 7B5		Email 4: Lisa.Bowron@minnow.ca X X X	
Phone Number 1-250-865-3048		Phone Number 403 407 1794		Email 5: Tyler.Mehler@minnow.ca X X X	
				Email 6: Hannah.Penner@Teck.com X X X	
				PO number VPO00816101	

SAMPLE DETAILS								ANALYSIS REQUESTED					Filterxd - F: Field, L: Lab, FL: Field & Lab, N: None				
Sample ID	Sample Location (sys loc code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Com p	# Of Cont.	ANALYSIS	FTL	N	N	N	N	N			
								C-TOC-SK	PRESERV.	NONE	NONE	NONE	NONE	NONE			
RG_MIS_SE-1_2022-09-12_N	RG_MIS	SE		2022/09/12	9:30	G	2	MET-CCME+FULL-CL									
RG_MIS_SE-2_2022-09-12_N	RG_MIS	SE		2022/09/12	10:00	G	2	MOISTURE-CL - % Moisture									
RG_MIS_SE-3_2022-09-12_N	RG_MIS	SE		2022/09/12	10:30	G	2	PSA-PIPET-DETAIL-SK Particle Size									
RG_MIULE_SE-1_2022-09-12_N	RG_MIULE	SE		2022/09/12	15:41	G	2	PAH-TMB-D/A-MS-CL PAHS									
RG_MIULE_SE-2_2022-09-12_N	RG_MIULE	SE		2022/09/12	14:31	G	2										
RG_MIULE_SE-3_2022-09-12_N	RG_MIULE	SE		2022/09/12	13:40	G	2										
RG_MIULE_SE-4_2022-09-12_N	RG_MIULE	SE		2022/09/12	16:25	G	2										
RG_MIULE_SE-5_2022-09-12_N	RG_MIULE	SE		2022/09/12	15:00	G	2										
RG_MIDAG_SE-1_2022-09-13_N	RG_MIDAG	SE		2022/09/13	11:07	G	2										
RG_MIDAG_SE-2_2022-09-13_N	RG_MIDAG	SE		2022/09/13	10:17	G	2										

Environmental Division  
Calgary  
Work Order Reference  
**CG2212740**



Telephone: +1 403 407 1800

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS		RELINQUISHED BY/AFFILIATION		DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME	
		Jennifer Ings/Minnow		#####		<i>[Signature]</i>		<i>[Signature]</i>	
SERVICE REQUEST (rush - subject to availability)		Sampler's Name		Mobile #		Date/Time			
Regular (default)		Jennifer Ings		519-500-3444					
Priority (2-3 business days) - 50% surcharge X		<i>[Signature]</i>							
Emergency (1 Business Day) - 100% surcharge									
For Emergency <1 Day, ASAP or Weekend - Contact ALS								September 14, 2022	

COC ID:	REP_LAEMP CMm 2022-09_ALS	TURNAROUND TIME:	2-3 Business Days	RUSH:	Priority
PROJECT/CLIENT INFO			LABORATORY	OTHER INFO	
Facility Name / Job#	Regional Effects Program	Lab Name	ALS Calgary	Report Format / Distribution	Excel PDF EDD
Project Manager	Cybele Heddle	Lab Contact	Lyudmyla Shvets	Email 1:	AguaSciLab@Teck.com X X X
Email	Cybele.Heddle@teck.com	Email	Lyudmyla.Shvets@ALSGlobal.com	Email 2:	teckcoal@equisonline.com X X
Address	421 Pine Avenue	Address	2559 29 Street NE	Email 3:	Teck.Lab.Results@teck.com X X X
City	Sparwood	City	Calgary	Email 4:	Lisa.Bowron@minnow.ca X X X
Postal Code	V0B 2G0	Postal Code	T1Y 7B5	Email 5:	Alex.McClymont@minnow.ca X X X
Phone Number	1-250-865-3048	Phone Number	403 407 1794	Email 6:	Hannah.Penner@Teck.com X X X
				PO number	VPO00816101

SAMPLE DETAILS							ANALYSIS REQUESTED											
Sample ID	Sample Location (sys loc code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Com p	# Of Cont.	File	N	N	N	N	N					
								PRESERV.	NONE	NONE	NONE	NONE	NONE					
								ANALYSIS	C-TOC-SK	MET-CCME+FULL-CL	MOISTURE-CL - % Moisture	PSA-PIPET-DETAIL- SK Particle Size	PAH-TMB-D/A-MS-CL- PAHS					
RG_MIDAG_SE-3_2022-09-13_N	RG_MIDAG	SE		2022/09/13	9:20	G	2		1	1	1	1	1					
RG_MIDAG_SE-4_2022-09-13_N	RG_MIDAG	SE		2022/09/13	10:37	G	2		1	1	1	1	1					
RG_MIDAG_SE-5_2022-09-13_N	RG_MIDAG	SE		2022/09/13	9:10	G	2		1	1	1	1	1					
RG_MIDCO_SE-1_2022-09-13_N	RG_MIDCO	SE		2022/09/13	14:07	G	2		1	1	1	1	1					
RG_MIDCO_SE-2_2022-09-13_N	RG_MIDCO	SE		2022/09/13	15:23	G	2		1	1	1	1	1					
RG_MIDCO_SE-3_2022-09-13_N	RG_MIDCO	SE		2022/09/13	14:34	G	2		1	1	1	1	1					
RG_MIDCO_SE-4_2022-09-13_N	RG_MIDCO	SE		2022/09/13	13:54	G	2		1	1	1	1	1					
RG_MIDCO_SE-5_2022-09-13_N	RG_MIDCO	SE		2022/09/13	13:13	G	2		1	1	1	1	1					

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
	Jennifer Ings/Minnow	#####		

SERVICE REQUEST (rush - subject to availability)					
Regular (default)		Sampler's Name	Jennifer Ings	Mobile #	519-500-3444
Priority (2-3 business days) - 50% surcharge X		Sampler's Signature	<i>Jennifer Ings</i>	Date/Time	September 14, 2022
Emergency (1 Business Day) - 100% surcharge					
For Emergency <1 Day, ASAP or Weekend - Contact ALS					



**CERTIFICATE OF ANALYSIS**

<b>Work Order</b>	: <b>CG2213078</b>	Page	: 1 of 19
<b>Amendment</b>	: <b>1</b>		
<b>Client</b>	: <b>Teck Coal Limited</b>	<b>Laboratory</b>	: Calgary - Environmental
<b>Contact</b>	: Cybele Heddle	<b>Account Manager</b>	: Lyudmyla Shvets
<b>Address</b>	: 421 Pine Ave Sparwood BC Canada	<b>Address</b>	: 2559 29th Street NE Calgary AB Canada T1Y 7B5
<b>Telephone</b>	: ----	<b>Telephone</b>	: +1 403 407 1800
<b>Project</b>	: Regional Effects Program	<b>Date Samples Received</b>	: 17-Sep-2022 11:38
<b>PO</b>	: VPO00816101	<b>Date Analysis Commenced</b>	: 24-Sep-2022
<b>C-O-C number</b>	: REP_LAEMP_CmM_2022-09_ALS	<b>Issue Date</b>	: 12-Jan-2023 11:40
<b>Sampler</b>	: JI		
<b>Site</b>	: ----		
<b>Quote number</b>	: Teck Coal Master Quote		
<b>No. of samples received</b>	: 23		
<b>No. of samples analysed</b>	: 20		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

**Signatories**

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Anthony Calero	Supervisor - Inorganic	Metals, Calgary, Alberta
Colby Bingham	Quality Systems Coordinator	Inorganics, Saskatoon, Saskatchewan
Colby Bingham	Quality Systems Coordinator	Metals, Saskatoon, Saskatchewan
Hedy Lai	Team Leader - Inorganics	Inorganics, Saskatoon, Saskatchewan
Hedy Lai	Team Leader - Inorganics	Sask Soils, Saskatoon, Saskatchewan
Joshua Stessun	Laboratory Analyst	Organics, Calgary, Alberta
Jwan Abdalla	Laboratory Analyst	Metals, Saskatoon, Saskatchewan
Kimberly Hanson	Laboratory Analyst	Metals, Saskatoon, Saskatchewan
Kuljeet Chawla		Inorganics, Calgary, Alberta
Sorina Motea	Laboratory Analyst	Organics, Calgary, Alberta



## General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances  
 LOR: Limit of Reporting (detection limit).

Unit	Description
-	no units
%	percent
mg/kg	milligrams per kilogram
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

## Sample Comments

Sample	Client Id	Comment
CG2213078-005	RG_MIUCO_SE-5_2022-09-14_N	Sample(s) XXX: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.
CG2213078-007	RG_RIVER_SE-4_2022-09-14_N	Sample(s) XXX: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.
CG2213078-014	RG_MI25_SE-1_2022-09-14_N	Sample(s) XXX: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.
CG2213078-017	RG_AGCK_SE-1_2022-09-14_N	Sample(s) XXX: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.
CG2213078-022	RG_MI5_SE-5_2022-09-14_N	Sample(s) XXX: Limited sample was available for PSA (100g minimum is standard). Measurement Uncertainty for PSA results may be higher than usual.

## Qualifiers

Qualifier	Description
-----------	-------------



Page : 3 of 19  
Work Order : CG2213078 Amendment 1  
Client : Teck Coal Limited  
Project : Regional Effects Program

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*DLM* *Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).*

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## Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	RG_MIUCO_SE-1_2022-09-14_N	RG_MIUCO_SE-3_2022-09-14_N	RG_MIUCO_SE-4_2022-09-14_N	RG_MIUCO_SE-5_2022-09-14_N	RG_RIVER_SE-1_2022-09-14_N
Client sampling date / time					14-Sep-2022 10:57	14-Sep-2022 09:44	14-Sep-2022 11:22	14-Sep-2022 09:22	14-Sep-2022 10:57	
Analyte	CAS Number	Method	LOR	Unit	CG2213078-001	CG2213078-003	CG2213078-004	CG2213078-005	CG2213078-006	
					Result	Result	Result	Result	Result	
<b>Physical Tests</b>										
Moisture	----	E144	0.25	%	----	----	----	37.9	62.2	
pH (1:2 soil:water)	----	E108	0.10	pH units	8.23	7.94	8.02	8.06	8.09	
<b>Particle Size</b>										
grain size curve	----	E185A	-	-	See Attached	See Attached	See Attached	See Attached	See Attached	
clay (<0.004mm)	----	EC184A	1.0	%	6.4	9.2	4.6	5.5	5.3	
silt (0.063mm - 0.0312mm)	----	EC184A	1.0	%	25.5	17.2	17.7	16.3	16.1	
silt (0.0312mm - 0.004mm)	----	EC184A	1.0	%	28.8	24.0	17.1	20.7	21.0	
sand (0.125mm - 0.063mm)	----	EC184A	1.0	%	19.3	12.2	19.1	12.3	14.6	
sand (0.25mm - 0.125mm)	----	EC184A	1.0	%	8.7	13.8	18.5	11.7	16.1	
sand (0.5mm - 0.25mm)	----	EC184A	1.0	%	3.7	11.6	12.8	8.8	11.4	
sand (1.0mm - 0.50mm)	----	EC184A	1.0	%	1.2	5.8	6.1	10.9	7.6	
sand (2.0mm - 1.0mm)	----	EC184A	1.0	%	1.4	3.5	2.1	8.9	2.5	
gravel (>2mm)	----	EC184A	1.0	%	5.0	2.7	2.0	4.9	5.4	
<b>Organic / Inorganic Carbon</b>										
carbon, total [TC]	----	E351	0.050	%	3.49	7.12	2.00	3.37	13.7	
carbon, inorganic [IC]	----	E354	0.050	%	0.770	0.367	0.360	0.578	6.70	
carbon, inorganic [IC], (as CaCO3 equivalent)	----	E354	0.40	%	6.42	3.06	3.00	4.81	55.9	
carbon, total organic [TOC]	----	EC356	0.050	%	2.72	6.75	1.64	2.79	7.00	
<b>Metals</b>										
aluminum	7429-90-5	E440	50	mg/kg	9400	9830	10300	13200	2210	
antimony	7440-36-0	E440	0.10	mg/kg	0.39	0.40	0.40	0.45	0.33	
arsenic	7440-38-2	E440	0.10	mg/kg	7.23	5.93	7.72	9.45	3.06	
barium	7440-39-3	E440	0.50	mg/kg	558	176	209	156	163	
beryllium	7440-41-7	E440	0.10	mg/kg	0.66	0.77	0.75	0.86	0.40	
bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	0.21	0.22	0.25	<0.20	
boron	7440-42-8	E440	5.0	mg/kg	8.3	6.7	6.1	8.1	6.6	
cadmium	7440-43-9	E440	0.020	mg/kg	0.761	0.901	0.673	0.669	10.0	





## Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	RG_MIUCO_SE-1_2022-09-14_N	RG_MIUCO_SE-3_2022-09-14_N	RG_MIUCO_SE-4_2022-09-14_N	RG_MIUCO_SE-5_2022-09-14_N	RG_RIVER_SE-1_2022-09-14_N
Client sampling date / time					14-Sep-2022 10:57	14-Sep-2022 09:44	14-Sep-2022 11:22	14-Sep-2022 09:22	14-Sep-2022 10:57	
Analyte	CAS Number	Method	LOR	Unit	CG2213078-001	CG2213078-003	CG2213078-004	CG2213078-005	CG2213078-006	
					Result	Result	Result	Result	Result	
<b>Metals</b>										
calcium	7440-70-2	E440	50	mg/kg	25300	14400	13200	17300	336000	
chromium	7440-47-3	E440	0.50	mg/kg	12.8	14.4	14.1	16.8	3.55	
cobalt	7440-48-4	E440	0.10	mg/kg	7.15	7.40	8.83	9.77	301	
copper	7440-50-8	E440	0.50	mg/kg	17.9	18.8	18.3	20.4	8.00	
iron	7439-89-6	E440	50	mg/kg	21000	18200	23200	31300	4780	
lead	7439-92-1	E440	0.50	mg/kg	12.4	12.8	14.6	14.9	3.14	
lithium	7439-93-2	E440	2.0	mg/kg	19.4	19.6	20.5	21.7	3.0	
magnesium	7439-95-4	E440	20	mg/kg	6470	5350	6020	6390	7110	
manganese	7439-96-5	E440	1.0	mg/kg	302	289	576	700	2250	
mercury	7439-97-6	E510	0.0050	mg/kg	0.0284	0.0353	0.0223	0.0204	0.0261	
molybdenum	7439-98-7	E440	0.10	mg/kg	2.07	1.61	2.32	1.89	0.71	
nickel	7440-02-0	E440	0.50	mg/kg	21.3	22.5	24.3	26.9	277	
phosphorus	7723-14-0	E440	50	mg/kg	1320	1310	1370	1400	313	
potassium	7440-09-7	E440	100	mg/kg	1630	1790	1620	2170	660	
selenium	7782-49-2	E440	0.20	mg/kg	0.72	1.00	0.57	0.39	2.90	
silver	7440-22-4	E440	0.10	mg/kg	0.12	0.13	<0.10	<0.10	<0.10	
sodium	7440-23-5	E440	50	mg/kg	244	97	81	73	379	
strontium	7440-24-6	E440	0.50	mg/kg	98.5	55.8	39.8	55.5	406	
sulfur	7704-34-9	E440	1000	mg/kg	1000	<1000	<1000	<1000	4900	
thallium	7440-28-0	E440	0.050	mg/kg	0.301	0.326	0.322	0.304	0.316	
tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	2.5	<2.0	<2.0	
titanium	7440-32-6	E440	1.0	mg/kg	29.1	31.2	28.5	12.1	8.1	
tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	
uranium	7440-61-1	E440	0.050	mg/kg	0.628	0.924	0.604	0.550	2.34	
vanadium	7440-62-2	E440	0.20	mg/kg	20.8	23.1	21.9	25.9	7.38	
zinc	7440-66-6	E440	2.0	mg/kg	88.4	96.0	93.6	96.1	777	
zirconium	7440-67-7	E440	1.0	mg/kg	1.7	1.8	1.3	<1.0	<1.0	
<b>Polycyclic Aromatic Hydrocarbons</b>										
acenaphthene	83-32-9	E641A	0.050	mg/kg	---	---	---	<0.050	<0.050	



## Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	RG_MIUCO_SE-1_2022-09-14_N	RG_MIUCO_SE-3_2022-09-14_N	RG_MIUCO_SE-4_2022-09-14_N	RG_MIUCO_SE-5_2022-09-14_N	RG_RIVER_SE-1_2022-09-14_N
Client sampling date / time					14-Sep-2022 10:57	14-Sep-2022 09:44	14-Sep-2022 11:22	14-Sep-2022 09:22	14-Sep-2022 10:57	
Analyte	CAS Number	Method	LOR	Unit	CG2213078-001	CG2213078-003	CG2213078-004	CG2213078-005	CG2213078-006	
					Result	Result	Result	Result	Result	
<b>Polycyclic Aromatic Hydrocarbons</b>										
acenaphthylene	208-96-8	E641A	0.050	mg/kg	---	---	---	<0.050	<0.050	
acridine	260-94-6	E641A	0.050	mg/kg	---	---	---	<0.050	0.095	
anthracene	120-12-7	E641A	0.050	mg/kg	---	---	---	<0.050	<0.050	
benz(a)anthracene	56-55-3	E641A	0.050	mg/kg	---	---	---	<0.050	0.053	
benzo(a)pyrene	50-32-8	E641A	0.050	mg/kg	---	---	---	<0.050	0.056	
benzo(b+j)fluoranthene	n/a	E641A	0.050	mg/kg	---	---	---	<0.050	0.200	
benzo(b+j+k)fluoranthene	n/a	E641A	0.075	mg/kg	---	---	---	<0.075	0.200	
benzo(g,h,i)perylene	191-24-2	E641A	0.050	mg/kg	---	---	---	<0.050	0.110	
benzo(k)fluoranthene	207-08-9	E641A	0.050	mg/kg	---	---	---	<0.050	<0.050	
chrysene	218-01-9	E641A	0.050	mg/kg	---	---	---	<0.050	0.325	
dibenz(a,h)anthracene	53-70-3	E641A	0.050	mg/kg	---	---	---	<0.050	<0.050	
fluoranthene	206-44-0	E641A	0.050	mg/kg	---	---	---	<0.050	0.065	
fluorene	86-73-7	E641A	0.050	mg/kg	---	---	---	<0.050	0.142	
indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.050	mg/kg	---	---	---	<0.050	<0.050	
methylnaphthalene, 1-	90-12-0	E641A	0.030	mg/kg	---	---	---	0.054	1.02	
methylnaphthalene, 1+2-	---	E641A	0.050	mg/kg	---	---	---	0.125	2.67	
methylnaphthalene, 2-	91-57-6	E641A	0.030	mg/kg	---	---	---	0.071	1.65	
naphthalene	91-20-3	E641A	0.010	mg/kg	---	---	---	0.044	0.595	
phenanthrene	85-01-8	E641A	0.050	mg/kg	---	---	---	0.092	0.886	
pyrene	129-00-0	E641A	0.050	mg/kg	---	---	---	<0.050	0.100	
quinoline	91-22-5	E641A	0.050	mg/kg	---	---	---	<0.050	<0.050	
B(a)P total potency equivalents [B(a)P TPE]	---	E641A	0.065	mg/kg	---	---	---	<0.065	0.116	
IACR (CCME)	---	E641A	0.60	-	---	---	---	<0.60	2.01	
IACR AB (coarse)	---	E641A	0.10	-	---	---	---	<0.10	<0.10	
IACR AB (fine)	---	E641A	0.10	-	---	---	---	<0.10	0.14	
PAHs, total (BC Sched 3.4)	n/a	E641A	0.20	mg/kg	---	---	---	0.21	3.87	
PAHs, total (EPA 16)	n/a	E641A	0.20	mg/kg	---	---	---	<0.20	2.53	
<b>Polycyclic Aromatic Hydrocarbons Surrogates</b>										
acridine-d9	34749-75-2	E641A	0.1	%	---	---	---	107	108	



## Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	RG_MIUCO_SE-1_2022-09-14_N	RG_MIUCO_SE-3_2022-09-14_N	RG_MIUCO_SE-4_2022-09-14_N	RG_MIUCO_SE-5_2022-09-14_N	RG_RIVER_SE-1_2022-09-14_N
Client sampling date / time					14-Sep-2022 10:57	14-Sep-2022 09:44	14-Sep-2022 11:22	14-Sep-2022 09:22	14-Sep-2022 10:57	
Analyte	CAS Number	Method	LOR	Unit	CG2213078-001	CG2213078-003	CG2213078-004	CG2213078-005	CG2213078-006	
					Result	Result	Result	Result	Result	
<b>Polycyclic Aromatic Hydrocarbons Surrogates</b>										
chrysene-d12	1719-03-5	E641A	0.1	%	----	----	----	129	124	
naphthalene-d8	1146-65-2	E641A	0.1	%	----	----	----	114	118	
phenanthrene-d10	1517-22-2	E641A	0.1	%	----	----	----	117	117	

Please refer to the General Comments section for an explanation of any qualifiers detected.



## Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	RG_RIVER_SE-4 _2022-09-14_N	RG_CORCK_SE-1 _2022-09-14_N	RG_CORCK_SE-2 _2022-09-14_N	RG_CORCK_SE-3 _2022-09-14_N	RG_CORCK_SE-4 _2022-09-14_N
Client sampling date / time					14-Sep-2022 11:22	14-Sep-2022 14:24	14-Sep-2022 14:03	14-Sep-2022 13:13	14-Sep-2022 13:45	
Analyte	CAS Number	Method	LOR	Unit	CG2213078-007	CG2213078-008	CG2213078-009	CG2213078-010	CG2213078-011	
					Result	Result	Result	Result	Result	
<b>Physical Tests</b>										
Moisture	----	E144	0.25	%	72.2	57.0	----	60.7	59.0	
pH (1:2 soil:water)	----	E108	0.10	pH units	7.32	8.14	8.03	7.85	8.21	
<b>Particle Size</b>										
grain size curve	----	E185A	-	-	See Attached	See Attached	See Attached	See Attached	See Attached	
clay (<0.004mm)	----	EC184A	1.0	%	5.6	4.9	6.0	5.1	6.4	
silt (0.063mm - 0.0312mm)	----	EC184A	1.0	%	19.3	18.3	18.9	15.9	17.8	
silt (0.0312mm - 0.004mm)	----	EC184A	1.0	%	21.1	23.8	25.3	21.1	25.7	
sand (0.125mm - 0.063mm)	----	EC184A	1.0	%	5.8	14.8	16.2	15.1	15.4	
sand (0.25mm - 0.125mm)	----	EC184A	1.0	%	4.5	13.6	17.3	18.4	13.3	
sand (0.5mm - 0.25mm)	----	EC184A	1.0	%	3.7	3.3	7.4	14.5	7.1	
sand (1.0mm - 0.50mm)	----	EC184A	1.0	%	9.6	1.9	3.8	6.2	4.2	
sand (2.0mm - 1.0mm)	----	EC184A	1.0	%	17.4	3.3	2.9	2.5	4.8	
gravel (>2mm)	----	EC184A	1.0	%	13.0	16.1	2.2	1.2	5.3	
<b>Organic / Inorganic Carbon</b>										
carbon, total [TC]	----	E351	0.050	%	8.47	13.0	13.4	13.7	13.2	
carbon, inorganic [IC]	----	E354	0.050	%	1.81	7.39	6.88	7.01	6.71	
carbon, inorganic [IC], (as CaCO3 equivalent)	----	E354	0.40	%	15.1	61.6	57.3	58.4	55.9	
carbon, total organic [TOC]	----	EC356	0.050	%	6.66	5.61	6.52	6.69	6.49	
<b>Metals</b>										
aluminum	7429-90-5	E440	50	mg/kg	5700	1950	1670	2180	2470	
antimony	7440-36-0	E440	0.10	mg/kg	0.59	0.26	0.31	0.32	0.30	
arsenic	7440-38-2	E440	0.10	mg/kg	6.15	2.69	2.01	2.64	3.36	
barium	7440-39-3	E440	0.50	mg/kg	179	146	146	190	143	
beryllium	7440-41-7	E440	0.10	mg/kg	0.38	0.33	0.30	0.42	0.36	
bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	<0.48 <sup>DLM</sup>	<0.20	<0.20	
boron	7440-42-8	E440	5.0	mg/kg	6.8	6.5	<12.0 <sup>DLM</sup>	7.9	5.6	
cadmium	7440-43-9	E440	0.020	mg/kg	1.50	9.08	7.84	10.7	7.45	
calcium	7440-70-2	E440	50	mg/kg	45200	340000	284000	357000	253000	



## Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	RG_RIVER_SE-4 _2022-09-14_N	RG_CORCK_SE-1 _2022-09-14_N	RG_CORCK_SE-2 _2022-09-14_N	RG_CORCK_SE-3 _2022-09-14_N	RG_CORCK_SE-4 _2022-09-14_N
Client sampling date / time					14-Sep-2022 11:22	14-Sep-2022 14:24	14-Sep-2022 14:03	14-Sep-2022 13:13	14-Sep-2022 13:45	
Analyte	CAS Number	Method	LOR	Unit	CG2213078-007	CG2213078-008	CG2213078-009	CG2213078-010	CG2213078-011	
					Result	Result	Result	Result	Result	
<b>Metals</b>										
chromium	7440-47-3	E440	0.50	mg/kg	10.4	3.39	2.90	3.49	4.56	
cobalt	7440-48-4	E440	0.10	mg/kg	6.01	230	193	279	188	
copper	7440-50-8	E440	0.50	mg/kg	11.7	6.64	5.88	8.03	6.95	
iron	7439-89-6	E440	50	mg/kg	11900	4980	3180	4160	5280	
lead	7439-92-1	E440	0.50	mg/kg	6.71	3.28	2.52	3.00	3.80	
lithium	7439-93-2	E440	2.0	mg/kg	7.8	3.0	<4.8 <sup>DLM</sup>	3.6	3.2	
magnesium	7439-95-4	E440	20	mg/kg	3930	6420	5720	7170	6590	
manganese	7439-96-5	E440	1.0	mg/kg	147	1950	1590	2200	1480	
mercury	7439-97-6	E510	0.0050	mg/kg	0.0319	0.0300	0.0235	0.0285	0.0265	
molybdenum	7439-98-7	E440	0.10	mg/kg	1.35	0.55	0.50	0.80	0.64	
nickel	7440-02-0	E440	0.50	mg/kg	29.5	227	199	284	201	
phosphorus	7723-14-0	E440	50	mg/kg	1050	266	172	343	440	
potassium	7440-09-7	E440	100	mg/kg	1090	580	560	600	630	
selenium	7782-49-2	E440	0.20	mg/kg	2.03	2.06	2.01	4.55	2.20	
silver	7440-22-4	E440	0.10	mg/kg	0.14	<0.10	<0.24 <sup>DLM</sup>	<0.10	<0.10	
sodium	7440-23-5	E440	50	mg/kg	127	348	365	409	263	
strontium	7440-24-6	E440	0.50	mg/kg	74.9	403	365	426	300	
sulfur	7704-34-9	E440	1000	mg/kg	<1000	4900	4200	5000	3400	
thallium	7440-28-0	E440	0.050	mg/kg	0.195	0.171	0.193	0.297	0.242	
tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	<4.8 <sup>DLM</sup>	<2.0	<2.0	
titanium	7440-32-6	E440	1.0	mg/kg	18.3	7.2	25.9	7.2	7.7	
tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	<1.20 <sup>DLM</sup>	<0.50	<0.50	
uranium	7440-61-1	E440	0.050	mg/kg	0.862	2.23	2.02	2.98	1.88	
vanadium	7440-62-2	E440	0.20	mg/kg	26.7	6.43	5.54	7.50	9.02	
zinc	7440-66-6	E440	2.0	mg/kg	99.1	703	667	831	593	
zirconium	7440-67-7	E440	1.0	mg/kg	<1.0	<1.0	<2.4 <sup>DLM</sup>	<1.0	<1.0	
<b>Polycyclic Aromatic Hydrocarbons</b>										
acenaphthene	83-32-9	E641A	0.050	mg/kg	<0.050	<0.050	----	0.051	0.058	
acenaphthylene	208-96-8	E641A	0.050	mg/kg	<0.050	<0.050	----	<0.050	<0.050	



## Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	RG_RIVER_SE-4 _2022-09-14_N	RG_CORCK_SE-1 _2022-09-14_N	RG_CORCK_SE-2 _2022-09-14_N	RG_CORCK_SE-3 _2022-09-14_N	RG_CORCK_SE-4 _2022-09-14_N
Client sampling date / time					14-Sep-2022 11:22	14-Sep-2022 14:24	14-Sep-2022 14:03	14-Sep-2022 13:13	14-Sep-2022 13:45	
Analyte	CAS Number	Method	LOR	Unit	CG2213078-007	CG2213078-008	CG2213078-009	CG2213078-010	CG2213078-011	
					Result	Result	Result	Result	Result	
<b>Polycyclic Aromatic Hydrocarbons</b>										
acridine	260-94-6	E641A	0.050	mg/kg	<0.050	0.058	----	0.094	0.092	
anthracene	120-12-7	E641A	0.050	mg/kg	<0.050	<0.050	----	<0.050	<0.050	
benzo(a)anthracene	56-55-3	E641A	0.050	mg/kg	<0.050	<0.050	----	0.052	0.076	
benzo(a)pyrene	50-32-8	E641A	0.050	mg/kg	<0.050	<0.050	----	0.053	0.056	
benzo(b+j)fluoranthene	n/a	E641A	0.050	mg/kg	<0.050	0.125	----	0.231	0.265	
benzo(b+j+k)fluoranthene	n/a	E641A	0.075	mg/kg	<0.075	0.125	----	0.231	0.265	
benzo(g,h,i)perylene	191-24-2	E641A	0.050	mg/kg	<0.050	0.066	----	0.102	0.141	
benzo(k)fluoranthene	207-08-9	E641A	0.050	mg/kg	<0.050	<0.050	----	<0.050	<0.050	
chrysene	218-01-9	E641A	0.050	mg/kg	0.054	0.189	----	0.314	0.421	
dibenz(a,h)anthracene	53-70-3	E641A	0.050	mg/kg	<0.050	<0.050	----	<0.050	<0.050	
fluoranthene	206-44-0	E641A	0.050	mg/kg	<0.050	<0.050	----	0.064	0.081	
fluorene	86-73-7	E641A	0.050	mg/kg	<0.050	0.080	----	0.150	0.167	
indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.050	mg/kg	<0.050	<0.050	----	<0.050	<0.050	
methylnaphthalene, 1-	90-12-0	E641A	0.030	mg/kg	0.097	0.598	----	1.09	1.41	
<b>methylnaphthalene, 1+2-</b>	----	E641A	0.050	mg/kg	0.229	1.56	----	2.89	3.78	
methylnaphthalene, 2-	91-57-6	E641A	0.030	mg/kg	0.132	0.964	----	1.80	2.37	
naphthalene	91-20-3	E641A	0.010	mg/kg	0.064	0.341	----	0.677	0.881	
phenanthrene	85-01-8	E641A	0.050	mg/kg	0.115	0.541	----	1.13	1.06	
pyrene	129-00-0	E641A	0.050	mg/kg	<0.050	0.056	----	0.098	0.134	
quinoline	91-22-5	E641A	0.050	mg/kg	<0.050	<0.050	----	<0.050	<0.050	
<b>B(a)P total potency equivalents [B(a)P TPE]</b>	----	E641A	0.065	mg/kg	<0.065	0.072	----	0.115	0.126	
IACR (CCME)	----	E641A	0.60	-	0.60	1.30	----	2.18	2.53	
IACR AB (coarse)	----	E641A	0.10	-	<0.10	<0.10	----	<0.10	<0.10	
IACR AB (fine)	----	E641A	0.10	-	<0.10	<0.10	----	0.15	0.16	
PAHs, total (BC Sched 3.4)	n/a	E641A	0.20	mg/kg	0.36	2.17	----	4.39	5.30	
PAHs, total (EPA 16)	n/a	E641A	0.20	mg/kg	0.23	1.40	----	2.92	3.34	
<b>Polycyclic Aromatic Hydrocarbons Surrogates</b>										
acridine-d9	34749-75-2	E641A	0.1	%	119	114	----	115	123	
chrysene-d12	1719-03-5	E641A	0.1	%	122	126	----	126	112	



## Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	RG_RIVER_SE-4_2022-09-14_N	RG_CORCK_SE-1_2022-09-14_N	RG_CORCK_SE-2_2022-09-14_N	RG_CORCK_SE-3_2022-09-14_N	RG_CORCK_SE-4_2022-09-14_N
Client sampling date / time					14-Sep-2022 11:22	14-Sep-2022 14:24	14-Sep-2022 14:03	14-Sep-2022 13:13	14-Sep-2022 13:45	
Analyte	CAS Number	Method	LOR	Unit	CG2213078-007	CG2213078-008	CG2213078-009	CG2213078-010	CG2213078-011	
					Result	Result	Result	Result	Result	
<b>Polycyclic Aromatic Hydrocarbons Surrogates</b>										
naphthalene-d8	1146-65-2	E641A	0.1	%	128	122	----	125	122	
phenanthrene-d10	1517-22-2	E641A	0.1	%	126	121	----	121	124	

Please refer to the General Comments section for an explanation of any qualifiers detected.



## Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	RG_CORCK_SE-5_2022-09-14_N	RG_MI25_SE-1_2022-09-14_N	RG_MI25_SE-2_2022-09-14_N	RG_MI25_SE-3_2022-09-14_N	RG_AGCK_SE-1_2022-09-14_N
Client sampling date / time					14-Sep-2022 13:02	15-Sep-2022 11:25	15-Sep-2022 10:50	15-Sep-2022 09:50	15-Sep-2022 16:48	
Analyte	CAS Number	Method	LOR	Unit	CG2213078-012	CG2213078-014	CG2213078-015	CG2213078-016	CG2213078-017	
					Result	Result	Result	Result	Result	
<b>Physical Tests</b>										
Moisture	----	E144	0.25	%	54.7	46.4	41.9	43.5	81.0	
pH (1:2 soil:water)	----	E108	0.10	pH units	8.15	8.13	8.29	8.24	7.51	
<b>Particle Size</b>										
grain size curve	----	E185A	-	-	See Attached	See Attached	See Attached	----	----	
clay (<0.004mm)	----	EC184A	1.0	%	6.0	5.4	4.4	----	----	
silt (0.063mm - 0.0312mm)	----	EC184A	1.0	%	16.4	9.2	10.1	----	----	
silt (0.0312mm - 0.004mm)	----	EC184A	1.0	%	22.8	12.9	12.9	----	----	
sand (0.125mm - 0.063mm)	----	EC184A	1.0	%	15.6	6.8	10.2	----	----	
sand (0.25mm - 0.125mm)	----	EC184A	1.0	%	15.0	8.6	15.5	----	----	
sand (0.5mm - 0.25mm)	----	EC184A	1.0	%	10.2	12.6	21.4	----	----	
sand (1.0mm - 0.50mm)	----	EC184A	1.0	%	6.2	8.7	12.7	----	----	
sand (2.0mm - 1.0mm)	----	EC184A	1.0	%	4.3	3.2	8.0	----	----	
gravel (>2mm)	----	EC184A	1.0	%	3.5	32.6	4.8	----	----	
<b>Organic / Inorganic Carbon</b>										
carbon, total [TC]	----	E351	0.050	%	13.4	3.11	2.34	2.46	13.6	
carbon, inorganic [IC]	----	E354	0.050	%	7.92	0.478	0.543	0.508	3.83	
carbon, inorganic [IC], (as CaCO3 equivalent)	----	E354	0.40	%	66.0	3.98	4.53	4.24	31.9	
carbon, total organic [TOC]	----	EC356	0.050	%	5.48	2.63	1.80	1.95	9.77	
<b>Metals</b>										
aluminum	7429-90-5	E440	50	mg/kg	2100	13200	12900	15200	2780	
antimony	7440-36-0	E440	0.10	mg/kg	0.32	0.61	0.59	0.59	0.94	
arsenic	7440-38-2	E440	0.10	mg/kg	3.31	12.1	11.1	11.7	6.97	
barium	7440-39-3	E440	0.50	mg/kg	154	150	135	149	50.2	
beryllium	7440-41-7	E440	0.10	mg/kg	0.38	0.82	0.76	0.85	0.41	
bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	0.25	0.22	0.24	<0.20	
boron	7440-42-8	E440	5.0	mg/kg	6.8	6.5	9.0	9.6	<5.0	
cadmium	7440-43-9	E440	0.020	mg/kg	9.16	1.46	1.26	1.45	1.26	
calcium	7440-70-2	E440	50	mg/kg	309000	18300	31400	27600	137000	





## Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	RG_CORCK_SE-5_2022-09-14_N	RG_MI25_SE-1_2022-09-14_N	RG_MI25_SE-2_2022-09-14_N	RG_MI25_SE-3_2022-09-14_N	RG_AGCK_SE-1_2022-09-14_N
Client sampling date / time					14-Sep-2022 13:02	15-Sep-2022 11:25	15-Sep-2022 10:50	15-Sep-2022 09:50	15-Sep-2022 16:48	
Analyte	CAS Number	Method	LOR	Unit	CG2213078-012	CG2213078-014	CG2213078-015	CG2213078-016	CG2213078-017	
					Result	Result	Result	Result	Result	
<b>Metals</b>										
chromium	7440-47-3	E440	0.50	mg/kg	4.16	17.5	18.2	20.2	10.8	
cobalt	7440-48-4	E440	0.10	mg/kg	283	10.1	8.40	9.47	2.75	
copper	7440-50-8	E440	0.50	mg/kg	7.60	30.0	25.7	28.2	9.09	
iron	7439-89-6	E440	50	mg/kg	4950	26600	22700	27400	7250	
lead	7439-92-1	E440	0.50	mg/kg	3.01	16.4	15.2	19.2	4.62	
lithium	7439-93-2	E440	2.0	mg/kg	2.8	21.0	18.7	21.9	4.0	
magnesium	7439-95-4	E440	20	mg/kg	6510	6390	6290	6840	12900	
manganese	7439-96-5	E440	1.0	mg/kg	2170	568	523	708	138	
mercury	7439-97-6	E510	0.0050	mg/kg	0.0277	0.0316	0.0292	0.0267	0.0395	
molybdenum	7439-98-7	E440	0.10	mg/kg	0.69	5.33	4.98	5.15	1.40	
nickel	7440-02-0	E440	0.50	mg/kg	267	36.1	31.4	35.1	24.6	
phosphorus	7723-14-0	E440	50	mg/kg	295	1390	1250	1320	1050	
potassium	7440-09-7	E440	100	mg/kg	590	1970	2320	2720	880	
selenium	7782-49-2	E440	0.20	mg/kg	2.88	0.92	0.68	1.00	2.14	
silver	7440-22-4	E440	0.10	mg/kg	<0.10	0.14	0.13	0.29	0.33	
sodium	7440-23-5	E440	50	mg/kg	326	72	79	80	109	
strontium	7440-24-6	E440	0.50	mg/kg	372	49.7	60.4	76.9	140	
sulfur	7704-34-9	E440	1000	mg/kg	4300	<1000	<1000	<1000	<1000	
thallium	7440-28-0	E440	0.050	mg/kg	0.327	0.679	0.633	0.677	0.689	
tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0	
titanium	7440-32-6	E440	1.0	mg/kg	8.4	8.3	11.2	10.4	10.9	
tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	
uranium	7440-61-1	E440	0.050	mg/kg	2.21	0.816	0.806	0.758	0.969	
vanadium	7440-62-2	E440	0.20	mg/kg	7.81	30.2	31.4	34.0	20.1	
zinc	7440-66-6	E440	2.0	mg/kg	724	155	132	156	147	
zirconium	7440-67-7	E440	1.0	mg/kg	<1.0	1.1	<1.0	<1.0	<1.0	
<b>Polycyclic Aromatic Hydrocarbons</b>										
acenaphthene	83-32-9	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
acenaphthylene	208-96-8	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	



## Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	RG_CORCK_SE-5_2022-09-14_N	RG_MI25_SE-1_2022-09-14_N	RG_MI25_SE-2_2022-09-14_N	RG_MI25_SE-3_2022-09-14_N	RG_AGCK_SE-1_2022-09-14_N
Client sampling date / time					14-Sep-2022 13:02	15-Sep-2022 11:25	15-Sep-2022 10:50	15-Sep-2022 09:50	15-Sep-2022 16:48	
Analyte	CAS Number	Method	LOR	Unit	CG2213078-012	CG2213078-014	CG2213078-015	CG2213078-016	CG2213078-017	
					Result	Result	Result	Result	Result	
<b>Polycyclic Aromatic Hydrocarbons</b>										
acridine	260-94-6	E641A	0.050	mg/kg	0.075	<0.050	<0.050	<0.050	<0.068	
anthracene	120-12-7	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
benzo(a)anthracene	56-55-3	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
benzo(a)pyrene	50-32-8	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
benzo(b+j)fluoranthene	n/a	E641A	0.050	mg/kg	0.191	<0.050	<0.050	<0.050	<0.068	
benzo(b+j+k)fluoranthene	n/a	E641A	0.075	mg/kg	0.191	<0.075	<0.075	<0.075	<0.096	
benzo(g,h,i)perylene	191-24-2	E641A	0.050	mg/kg	0.089	<0.050	<0.050	<0.050	<0.068	
benzo(k)fluoranthene	207-08-9	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
chrysene	218-01-9	E641A	0.050	mg/kg	0.269	<0.050	<0.050	<0.050	<0.068	
dibenz(a,h)anthracene	53-70-3	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
fluoranthene	206-44-0	E641A	0.050	mg/kg	0.052	<0.050	<0.050	<0.050	<0.068	
fluorene	86-73-7	E641A	0.050	mg/kg	0.116	<0.050	<0.050	<0.050	<0.068	
indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
methylnaphthalene, 1-	90-12-0	E641A	0.030	mg/kg	0.829	<0.030	<0.030	<0.030	0.069	
<b>methylnaphthalene, 1+2-</b>	----	E641A	0.050	mg/kg	2.16	<0.050	<0.050	<0.050	0.155	
methylnaphthalene, 2-	91-57-6	E641A	0.030	mg/kg	1.33	<0.030	<0.030	<0.030	0.086	
naphthalene	91-20-3	E641A	0.010	mg/kg	0.479	0.010	<0.010	<0.010	0.040	
phenanthrene	85-01-8	E641A	0.050	mg/kg	0.706	<0.050	<0.050	<0.050	0.099	
pyrene	129-00-0	E641A	0.050	mg/kg	0.081	<0.050	<0.050	<0.050	<0.068	
quinoline	91-22-5	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
<b>B(a)P total potency equivalents [B(a)P TPE]</b>	----	E641A	0.065	mg/kg	0.080	<0.065	<0.065	<0.065	0.082	
IACR (CCME)	----	E641A	0.60	-	1.75	<0.60	<0.60	<0.60	0.80	
IACR AB (coarse)	----	E641A	0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10	
IACR AB (fine)	----	E641A	0.10	-	0.12	<0.10	<0.10	<0.10	<0.10	
PAHs, total (BC Sched 3.4)	n/a	E641A	0.20	mg/kg	3.03	<0.20	<0.20	<0.20	<0.23	
PAHs, total (EPA 16)	n/a	E641A	0.20	mg/kg	1.98	<0.20	<0.20	<0.20	<0.26	
<b>Polycyclic Aromatic Hydrocarbons Surrogates</b>										
acridine-d9	34749-75-2	E641A	0.1	%	110	112	105	119	122	
chrysene-d12	1719-03-5	E641A	0.1	%	127	116	126	123	123	



## Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	RG_CORCK_SE-5_2022-09-14_N	RG_MI25_SE-1_2022-09-14_N	RG_MI25_SE-2_2022-09-14_N	RG_MI25_SE-3_2022-09-14_N	RG_AGCK_SE-1_2022-09-14_N
Client sampling date / time					14-Sep-2022 13:02	15-Sep-2022 11:25	15-Sep-2022 10:50	15-Sep-2022 09:50	15-Sep-2022 16:48	
Analyte	CAS Number	Method	LOR	Unit	CG2213078-012	CG2213078-014	CG2213078-015	CG2213078-016	CG2213078-017	
					Result	Result	Result	Result	Result	
<b>Polycyclic Aromatic Hydrocarbons Surrogates</b>										
naphthalene-d8	1146-65-2	E641A	0.1	%	118	121	113	120	125	
phenanthrene-d10	1517-22-2	E641A	0.1	%	116	123	116	119	127	

Please refer to the General Comments section for an explanation of any qualifiers detected.



## Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	RG_LE1_SE-1_ 2022-09-14_N	RG_LE1_SE-2_ 2022-09-14_N	RG_LE1_SE-3_ 2022-09-14_N	RG_MI5_SE-4_2 022-09-14_N	RG_MI5_SE-5_2 022-09-14_N
Client sampling date / time					16-Sep-2022 10:48	16-Sep-2022 09:58	16-Sep-2022 09:12	16-Sep-2022 12:00	16-Sep-2022 12:15	
Analyte	CAS Number	Method	LOR	Unit	CG2213078-018	CG2213078-019	CG2213078-020	CG2213078-021	CG2213078-022	
					Result	Result	Result	Result	Result	
<b>Physical Tests</b>										
Moisture	----	E144	0.25	%	44.5	46.9	33.9	72.4	81.2	
pH (1:2 soil:water)	----	E108	0.10	pH units	8.06	8.03	8.04	7.55	7.61	
<b>Particle Size</b>										
grain size curve	----	E185A	-	-	See Attached	See Attached	See Attached	See Attached	See Attached	
clay (<0.004mm)	----	EC184A	1.0	%	3.1	2.6	3.2	5.0	7.5	
silt (0.063mm - 0.0312mm)	----	EC184A	1.0	%	10.1	12.6	6.9	21.1	32.7	
silt (0.0312mm - 0.004mm)	----	EC184A	1.0	%	10.3	10.9	8.3	23.3	35.2	
sand (0.125mm - 0.063mm)	----	EC184A	1.0	%	13.6	21.2	10.0	4.7	9.1	
sand (0.25mm - 0.125mm)	----	EC184A	1.0	%	16.1	24.6	21.3	3.1	4.3	
sand (0.5mm - 0.25mm)	----	EC184A	1.0	%	18.9	14.5	29.6	3.5	1.8	
sand (1.0mm - 0.50mm)	----	EC184A	1.0	%	9.5	5.8	14.9	9.6	1.1	
sand (2.0mm - 1.0mm)	----	EC184A	1.0	%	7.1	2.5	2.9	16.6	1.9	
gravel (>2mm)	----	EC184A	1.0	%	11.3	5.3	2.9	13.1	6.4	
<b>Organic / Inorganic Carbon</b>										
carbon, total [TC]	----	E351	0.050	%	1.59	1.77	2.55	7.10	9.81	
carbon, inorganic [IC]	----	E354	0.050	%	0.174	0.136	0.115	1.66	2.88	
carbon, inorganic [IC], (as CaCO3 equivalent)	----	E354	0.40	%	1.45	1.13	0.96	13.8	24.0	
carbon, total organic [TOC]	----	EC356	0.050	%	1.42	1.63	2.44	5.44	6.93	
<b>Metals</b>										
aluminum	7429-90-5	E440	50	mg/kg	7700	7780	8320	6040	4520	
antimony	7440-36-0	E440	0.10	mg/kg	1.33	1.30	1.67	0.70	0.52	
arsenic	7440-38-2	E440	0.10	mg/kg	6.25	6.48	8.97	5.68	4.16	
barium	7440-39-3	E440	0.50	mg/kg	248	267	267	182	238	
beryllium	7440-41-7	E440	0.10	mg/kg	0.50	0.60	0.76	0.45	0.35	
bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	
boron	7440-42-8	E440	5.0	mg/kg	<5.0	<5.0	<5.0	6.9	7.6	
cadmium	7440-43-9	E440	0.020	mg/kg	1.65	1.64	2.07	2.38	1.61	
calcium	7440-70-2	E440	50	mg/kg	7400	5960	5350	54300	92200	
chromium	7440-47-3	E440	0.50	mg/kg	14.5	15.0	16.5	12.0	8.90	



## Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	RG_LE1_SE-1_ 2022-09-14_N	RG_LE1_SE-2_ 2022-09-14_N	RG_LE1_SE-3_ 2022-09-14_N	RG_MI5_SE-4_2 022-09-14_N	RG_MI5_SE-5_2 022-09-14_N
Client sampling date / time					16-Sep-2022 10:48	16-Sep-2022 09:58	16-Sep-2022 09:12	16-Sep-2022 12:00	16-Sep-2022 12:15	
Analyte	CAS Number	Method	LOR	Unit	CG2213078-018	CG2213078-019	CG2213078-020	CG2213078-021	CG2213078-022	
					Result	Result	Result	Result	Result	
<b>Metals</b>										
cobalt	7440-48-4	E440	0.10	mg/kg	6.43	6.51	7.12	6.78	7.00	
copper	7440-50-8	E440	0.50	mg/kg	17.2	15.4	17.6	12.7	9.99	
iron	7439-89-6	E440	50	mg/kg	16400	15900	20000	13200	10100	
lead	7439-92-1	E440	0.50	mg/kg	9.63	9.10	10.5	7.02	6.23	
lithium	7439-93-2	E440	2.0	mg/kg	8.2	8.6	8.9	7.4	5.6	
magnesium	7439-95-4	E440	20	mg/kg	3090	2450	2250	5490	5450	
manganese	7439-96-5	E440	1.0	mg/kg	272	240	312	196	198	
mercury	7439-97-6	E510	0.0050	mg/kg	0.0439	0.0459	0.0455	0.0416	0.0375	
molybdenum	7439-98-7	E440	0.10	mg/kg	1.54	1.52	2.22	1.23	1.04	
nickel	7440-02-0	E440	0.50	mg/kg	27.5	26.5	31.4	35.1	33.6	
phosphorus	7723-14-0	E440	50	mg/kg	1230	1220	1320	1210	1140	
potassium	7440-09-7	E440	100	mg/kg	1220	1160	1320	1140	950	
selenium	7782-49-2	E440	0.20	mg/kg	0.70	0.66	0.71	2.56	2.59	
silver	7440-22-4	E440	0.10	mg/kg	0.18	0.19	0.21	0.18	0.16	
sodium	7440-23-5	E440	50	mg/kg	<50	<50	<50	132	140	
strontium	7440-24-6	E440	0.50	mg/kg	36.5	36.6	41.5	92.2	125	
sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	<1000	<1000	1100	
thallium	7440-28-0	E440	0.050	mg/kg	0.222	0.196	0.219	0.220	0.191	
tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0	
titanium	7440-32-6	E440	1.0	mg/kg	34.0	30.6	40.4	30.4	14.4	
tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	
uranium	7440-61-1	E440	0.050	mg/kg	1.27	1.23	1.34	0.991	0.827	
vanadium	7440-62-2	E440	0.20	mg/kg	46.9	46.0	56.8	29.4	20.5	
zinc	7440-66-6	E440	2.0	mg/kg	119	115	133	117	102	
zirconium	7440-67-7	E440	1.0	mg/kg	<1.0	<1.0	<1.0	1.2	<1.0	
<b>Polycyclic Aromatic Hydrocarbons</b>										
acenaphthene	83-32-9	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
acenaphthylene	208-96-8	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
acridine	260-94-6	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
anthracene	120-12-7	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	



## Analytical Results

Sub-Matrix: Soil					Client sample ID	RG_LE1_SE-1_2022-09-14_N	RG_LE1_SE-2_2022-09-14_N	RG_LE1_SE-3_2022-09-14_N	RG_MI5_SE-4_2_022-09-14_N	RG_MI5_SE-5_2_022-09-14_N
(Matrix: Soil/Solid)					Client sampling date / time	16-Sep-2022 10:48	16-Sep-2022 09:58	16-Sep-2022 09:12	16-Sep-2022 12:00	16-Sep-2022 12:15
Analyte	CAS Number	Method	LOR	Unit	CG2213078-018	CG2213078-019	CG2213078-020	CG2213078-021	CG2213078-022	
					Result	Result	Result	Result	Result	
<b>Polycyclic Aromatic Hydrocarbons</b>										
benz(a)anthracene	56-55-3	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
benzo(a)pyrene	50-32-8	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
benzo(b+j)fluoranthene	n/a	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
benzo(b+j+k)fluoranthene	n/a	E641A	0.075	mg/kg	<0.075	<0.075	<0.075	<0.075	<0.096	
benzo(g,h,i)perylene	191-24-2	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
benzo(k)fluoranthene	207-08-9	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
chrysene	218-01-9	E641A	0.050	mg/kg	0.082	0.060	0.062	0.053	0.084	
dibenz(a,h)anthracene	53-70-3	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
fluoranthene	206-44-0	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
fluorene	86-73-7	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
methylnaphthalene, 1-	90-12-0	E641A	0.030	mg/kg	0.140	0.068	0.079	0.084	0.130	
methylnaphthalene, 1+2-	----	E641A	0.050	mg/kg	0.280	0.134	0.161	0.192	0.297	
methylnaphthalene, 2-	91-57-6	E641A	0.030	mg/kg	0.140	0.066	0.082	0.108	0.167	
naphthalene	91-20-3	E641A	0.010	mg/kg	0.068	0.033	0.038	0.057	0.084	
phenanthrene	85-01-8	E641A	0.050	mg/kg	0.262	0.143	0.162	0.141	0.188	
pyrene	129-00-0	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
quinoline	91-22-5	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.068	
B(a)P total potency equivalents [B(a)P TPE]	----	E641A	0.065	mg/kg	<0.065	<0.065	<0.065	<0.065	0.083	
IACR (CCME)	----	E641A	0.60	-	0.62	0.61	0.61	0.60	0.82	
IACR AB (coarse)	----	E641A	0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10	
IACR AB (fine)	----	E641A	0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10	
PAHs, total (BC Sched 3.4)	n/a	E641A	0.20	mg/kg	0.55	0.30	0.34	0.36	0.52	
PAHs, total (EPA 16)	n/a	E641A	0.20	mg/kg	0.41	0.24	0.26	0.25	0.36	
<b>Polycyclic Aromatic Hydrocarbons Surrogates</b>										
acridine-d9	34749-75-2	E641A	0.1	%	106	108	105	118	121	
chrysene-d12	1719-03-5	E641A	0.1	%	129	116	127	112	117	
naphthalene-d8	1146-65-2	E641A	0.1	%	119	120	119	126	122	
phenanthrene-d10	1517-22-2	E641A	0.1	%	118	118	115	126	129	



Please refer to the General Comments section for an explanation of any qualifiers detected.



## QUALITY CONTROL INTERPRETIVE REPORT

<p><b>Work Order</b> : <b>CG2213078</b></p> <p><b>Amendment</b> : <b>1</b></p> <p><b>Client</b> : <b>Teck Coal Limited</b></p> <p><b>Contact</b> : <b>Cybele Heddle</b></p> <p><b>Address</b> : <b>421 Pine Ave</b> Sparwood BC Canada</p> <p><b>Telephone</b> : <b>----</b></p> <p><b>Project</b> : <b>Regional Effects Program</b></p> <p><b>PO</b> : <b>VPO00816101</b></p> <p><b>C-O-C number</b> : <b>REP_LAEMP_CMm_2022-09_ALS</b></p> <p><b>Sampler</b> : <b>Jl</b></p> <p><b>Site</b> : <b>----</b></p> <p><b>Quote number</b> : <b>Teck Coal Master Quote</b></p> <p><b>No. of samples received</b> : <b>23</b></p> <p><b>No. of samples analysed</b> : <b>20</b></p>	<p><b>Page</b> : 1 of 22</p> <p><b>Laboratory</b> : <b>Calgary - Environmental</b></p> <p><b>Account Manager</b> : <b>Lyudmyla Shvets</b></p> <p><b>Address</b> : <b>2559 29th Street NE</b> Calgary, Alberta Canada T1Y 7B5</p> <p><b>Telephone</b> : <b>+1 403 407 1800</b></p> <p><b>Date Samples Received</b> : <b>17-Sep-2022 11:38</b></p> <p><b>Issue Date</b> : <b>12-Jan-2023 11:41</b></p>
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This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

**Key**

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO: Data Quality Objective.
- LOR: Limit of Reporting (detection limit).
- RPD: Relative Percent Difference.

### ***Workorder Comments***

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

### ***Summary of Outliers***

#### ***Outliers : Quality Control Samples***

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

#### ***Outliers: Reference Material (RM) Samples***

- No Reference Material (RM) Sample outliers occur.



### ***Outliers : Analysis Holding Time Compliance (Breaches)***

- No Analysis Holding Time Outliers exist.

### ***Outliers : Frequency of Quality Control Samples***

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.



## Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: Soil/Solid

Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>										
Glass soil jar/Teflon lined cap RG_LE1_SE-1_2022-09-14_N	E510	16-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	28 days	11 days	✓
<b>Metals : Mercury in Soil/Solid by CVAAS</b>										
Glass soil jar/Teflon lined cap RG_LE1_SE-2_2022-09-14_N	E510	16-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	28 days	11 days	✓
<b>Metals : Mercury in Soil/Solid by CVAAS</b>										
Glass soil jar/Teflon lined cap RG_LE1_SE-3_2022-09-14_N	E510	16-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	28 days	11 days	✓
<b>Metals : Mercury in Soil/Solid by CVAAS</b>										
Glass soil jar/Teflon lined cap RG_MI5_SE-4_2022-09-14_N	E510	16-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	28 days	11 days	✓
<b>Metals : Mercury in Soil/Solid by CVAAS</b>										
Glass soil jar/Teflon lined cap RG_MI5_SE-5_2022-09-14_N	E510	16-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	28 days	11 days	✓
<b>Metals : Mercury in Soil/Solid by CVAAS</b>										
Glass soil jar/Teflon lined cap RG_AGCK_SE-1_2022-09-14_N	E510	15-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	28 days	12 days	✓
<b>Metals : Mercury in Soil/Solid by CVAAS</b>										
Glass soil jar/Teflon lined cap RG_MI25_SE-1_2022-09-14_N	E510	15-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	28 days	12 days	✓



Matrix: Soil/Solid

Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
Glass soil jar/Teflon lined cap RG_MI25_SE-2_2022-09-14_N	E510	15-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	28 days	12 days	✓	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
Glass soil jar/Teflon lined cap RG_MI25_SE-3_2022-09-14_N	E510	15-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	28 days	12 days	✓	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
Glass soil jar/Teflon lined cap RG_CORCK_SE-1_2022-09-14_N	E510	14-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	28 days	13 days	✓	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
Glass soil jar/Teflon lined cap RG_CORCK_SE-3_2022-09-14_N	E510	14-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	28 days	13 days	✓	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
Glass soil jar/Teflon lined cap RG_CORCK_SE-4_2022-09-14_N	E510	14-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	28 days	13 days	✓	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
Glass soil jar/Teflon lined cap RG_CORCK_SE-5_2022-09-14_N	E510	14-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	28 days	13 days	✓	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
Glass soil jar/Teflon lined cap RG_MIUCO_SE-5_2022-09-14_N	E510	14-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	28 days	13 days	✓	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
Glass soil jar/Teflon lined cap RG_RIVER_SE-1_2022-09-14_N	E510	14-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	28 days	13 days	✓	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
Glass soil jar/Teflon lined cap RG_RIVER_SE-4_2022-09-14_N	E510	14-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	28 days	13 days	✓	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>LDPE bag</b> RG_MIUCO_SE-1_2022-09-14_N	E510	14-Sep-2022	01-Oct-2022	----	----		01-Oct-2022	28 days	17 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIUCO_SE-3_2022-09-14_N	E510	14-Sep-2022	01-Oct-2022	----	----		01-Oct-2022	28 days	17 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIUCO_SE-4_2022-09-14_N	E510	14-Sep-2022	01-Oct-2022	----	----		01-Oct-2022	28 days	17 days	✔	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_CORCK_SE-2_2022-09-14_N	E510	14-Sep-2022	01-Oct-2022	----	----		03-Oct-2022	28 days	19 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_LE1_SE-1_2022-09-14_N	E440	16-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	180 days	11 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_LE1_SE-2_2022-09-14_N	E440	16-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	180 days	11 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_LE1_SE-3_2022-09-14_N	E440	16-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	180 days	11 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MI5_SE-4_2022-09-14_N	E440	16-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	180 days	11 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MI5_SE-5_2022-09-14_N	E440	16-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	180 days	11 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
Glass soil jar/Teflon lined cap RG_AGCK_SE-1_2022-09-14_N	E440	15-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	180 days	12 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
Glass soil jar/Teflon lined cap RG_MI25_SE-1_2022-09-14_N	E440	15-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	180 days	12 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
Glass soil jar/Teflon lined cap RG_MI25_SE-2_2022-09-14_N	E440	15-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	180 days	12 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
Glass soil jar/Teflon lined cap RG_MI25_SE-3_2022-09-14_N	E440	15-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	180 days	12 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
Glass soil jar/Teflon lined cap RG_CORCK_SE-1_2022-09-14_N	E440	14-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	180 days	13 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
Glass soil jar/Teflon lined cap RG_CORCK_SE-3_2022-09-14_N	E440	14-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	180 days	13 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
Glass soil jar/Teflon lined cap RG_CORCK_SE-4_2022-09-14_N	E440	14-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	180 days	13 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
Glass soil jar/Teflon lined cap RG_CORCK_SE-5_2022-09-14_N	E440	14-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	180 days	13 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
Glass soil jar/Teflon lined cap RG_MIUCO_SE-5_2022-09-14_N	E440	14-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	180 days	13 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
Glass soil jar/Teflon lined cap RG_RIVER_SE-1_2022-09-14_N	E440	14-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	180 days	13 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
Glass soil jar/Teflon lined cap RG_RIVER_SE-4_2022-09-14_N	E440	14-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	180 days	13 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
LDPE bag RG_MIUCO_SE-1_2022-09-14_N	E440	14-Sep-2022	01-Oct-2022	----	----		01-Oct-2022	180 days	17 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
LDPE bag RG_MIUCO_SE-3_2022-09-14_N	E440	14-Sep-2022	01-Oct-2022	----	----		01-Oct-2022	180 days	17 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
LDPE bag RG_MIUCO_SE-4_2022-09-14_N	E440	14-Sep-2022	01-Oct-2022	----	----		01-Oct-2022	180 days	17 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
LDPE bag RG_CORCK_SE-2_2022-09-14_N	E440	14-Sep-2022	01-Oct-2022	----	----		03-Oct-2022	180 days	19 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_AGCK_SE-1_2022-09-14_N	E351	15-Sep-2022	06-Oct-2022	----	----		06-Oct-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_CORCK_SE-1_2022-09-14_N	E351	14-Sep-2022	30-Sep-2022	----	----		30-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_CORCK_SE-2_2022-09-14_N	E351	14-Sep-2022	30-Sep-2022	----	----		30-Sep-2022	180 days	0 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_CORCK_SE-3_2022-09-14_N	E351	14-Sep-2022	30-Sep-2022	----	----		30-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_CORCK_SE-4_2022-09-14_N	E351	14-Sep-2022	30-Sep-2022	----	----		30-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_CORCK_SE-5_2022-09-14_N	E351	14-Sep-2022	30-Sep-2022	----	----		30-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_LE1_SE-1_2022-09-14_N	E351	16-Sep-2022	30-Sep-2022	----	----		30-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_LE1_SE-2_2022-09-14_N	E351	16-Sep-2022	30-Sep-2022	----	----		30-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_LE1_SE-3_2022-09-14_N	E351	16-Sep-2022	29-Sep-2022	----	----		29-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_MI25_SE-1_2022-09-14_N	E351	15-Sep-2022	30-Sep-2022	----	----		30-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_MI25_SE-2_2022-09-14_N	E351	15-Sep-2022	30-Sep-2022	----	----		30-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_MI25_SE-3_2022-09-14_N	E351	15-Sep-2022	06-Oct-2022	----	----		06-Oct-2022	180 days	0 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_MI5_SE-4_2022-09-14_N	E351	16-Sep-2022	29-Sep-2022	----	----		29-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_MI5_SE-5_2022-09-14_N	E351	16-Sep-2022	29-Sep-2022	----	----		29-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_MIUCO_SE-1_2022-09-14_N	E351	14-Sep-2022	30-Sep-2022	----	----		30-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_MIUCO_SE-3_2022-09-14_N	E351	14-Sep-2022	30-Sep-2022	----	----		30-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_MIUCO_SE-4_2022-09-14_N	E351	14-Sep-2022	30-Sep-2022	----	----		30-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_MIUCO_SE-5_2022-09-14_N	E351	14-Sep-2022	30-Sep-2022	----	----		30-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_RIVER_SE-1_2022-09-14_N	E351	14-Sep-2022	30-Sep-2022	----	----		30-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_RIVER_SE-4_2022-09-14_N	E351	14-Sep-2022	30-Sep-2022	----	----		30-Sep-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>											
LDPE bag RG_AGCK_SE-1_2022-09-14_N	E354	15-Sep-2022	----	----	----		06-Oct-2022	----	----		





Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_CORCK_SE-1_2022-09-14_N	E354	14-Sep-2022	----	----	----		30-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_CORCK_SE-2_2022-09-14_N	E354	14-Sep-2022	----	----	----		30-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_CORCK_SE-3_2022-09-14_N	E354	14-Sep-2022	----	----	----		30-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_CORCK_SE-4_2022-09-14_N	E354	14-Sep-2022	----	----	----		30-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_CORCK_SE-5_2022-09-14_N	E354	14-Sep-2022	----	----	----		30-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_LE1_SE-1_2022-09-14_N	E354	16-Sep-2022	----	----	----		30-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_LE1_SE-2_2022-09-14_N	E354	16-Sep-2022	----	----	----		30-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_LE1_SE-3_2022-09-14_N	E354	16-Sep-2022	----	----	----		30-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MI25_SE-1_2022-09-14_N	E354	15-Sep-2022	----	----	----		30-Sep-2022	----	----	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MI25_SE-2_2022-09-14_N	E354	15-Sep-2022	----	----	----		30-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MI25_SE-3_2022-09-14_N	E354	15-Sep-2022	----	----	----		06-Oct-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MI5_SE-4_2022-09-14_N	E354	16-Sep-2022	----	----	----		30-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MI5_SE-5_2022-09-14_N	E354	16-Sep-2022	----	----	----		30-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MIUCO_SE-1_2022-09-14_N	E354	14-Sep-2022	----	----	----		30-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MIUCO_SE-3_2022-09-14_N	E354	14-Sep-2022	----	----	----		30-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MIUCO_SE-4_2022-09-14_N	E354	14-Sep-2022	----	----	----		30-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MIUCO_SE-5_2022-09-14_N	E354	14-Sep-2022	----	----	----		30-Sep-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_RIVER_SE-1_2022-09-14_N	E354	14-Sep-2022	----	----	----		30-Sep-2022	----	----	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_RIVER_SE-4_2022-09-14_N	E354	14-Sep-2022	----	----	----		30-Sep-2022	----	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_CORCK_SE-1_2022-09-14_N	E185A	14-Sep-2022	----	----	----		05-Oct-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_CORCK_SE-2_2022-09-14_N	E185A	14-Sep-2022	----	----	----		05-Oct-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_CORCK_SE-3_2022-09-14_N	E185A	14-Sep-2022	----	----	----		05-Oct-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_CORCK_SE-4_2022-09-14_N	E185A	14-Sep-2022	----	----	----		05-Oct-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_CORCK_SE-5_2022-09-14_N	E185A	14-Sep-2022	----	----	----		05-Oct-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_LE1_SE-1_2022-09-14_N	E185A	16-Sep-2022	----	----	----		05-Oct-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_LE1_SE-2_2022-09-14_N	E185A	16-Sep-2022	----	----	----		05-Oct-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_LE1_SE-3_2022-09-14_N	E185A	16-Sep-2022	----	----	----		05-Oct-2022	365 days	----	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_MI25_SE-1_2022-09-14_N	E185A	15-Sep-2022	----	----	----		05-Oct-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_MI25_SE-2_2022-09-14_N	E185A	15-Sep-2022	----	----	----		05-Oct-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_MI5_SE-4_2022-09-14_N	E185A	16-Sep-2022	----	----	----		05-Oct-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_MI5_SE-5_2022-09-14_N	E185A	16-Sep-2022	----	----	----		05-Oct-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_MIUCO_SE-1_2022-09-14_N	E185A	14-Sep-2022	----	----	----		05-Oct-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_MIUCO_SE-3_2022-09-14_N	E185A	14-Sep-2022	----	----	----		05-Oct-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_MIUCO_SE-4_2022-09-14_N	E185A	14-Sep-2022	----	----	----		05-Oct-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_MIUCO_SE-5_2022-09-14_N	E185A	14-Sep-2022	----	----	----		05-Oct-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_RIVER_SE-1_2022-09-14_N	E185A	14-Sep-2022	----	----	----		05-Oct-2022	365 days	----	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
<b>LDPE bag</b> RG_RIVER_SE-4_2022-09-14_N	E185A	14-Sep-2022	----	----	----		05-Oct-2022	365 days	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_AGCK_SE-1_2022-09-14_N	E144	15-Sep-2022	----	----	----		24-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_CORCK_SE-1_2022-09-14_N	E144	14-Sep-2022	----	----	----		24-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_CORCK_SE-3_2022-09-14_N	E144	14-Sep-2022	----	----	----		24-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_CORCK_SE-4_2022-09-14_N	E144	14-Sep-2022	----	----	----		24-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_CORCK_SE-5_2022-09-14_N	E144	14-Sep-2022	----	----	----		24-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_LE1_SE-1_2022-09-14_N	E144	16-Sep-2022	----	----	----		24-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_LE1_SE-2_2022-09-14_N	E144	16-Sep-2022	----	----	----		24-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
<b>Glass soil jar/Teflon lined cap</b> RG_LE1_SE-3_2022-09-14_N	E144	16-Sep-2022	----	----	----		24-Sep-2022	----	----	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_MI25_SE-1_2022-09-14_N	E144	15-Sep-2022	----	----	----		24-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_MI25_SE-2_2022-09-14_N	E144	15-Sep-2022	----	----	----		24-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_MI25_SE-3_2022-09-14_N	E144	15-Sep-2022	----	----	----		24-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_MI5_SE-4_2022-09-14_N	E144	16-Sep-2022	----	----	----		24-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_MI5_SE-5_2022-09-14_N	E144	16-Sep-2022	----	----	----		24-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_MIUCO_SE-5_2022-09-14_N	E144	14-Sep-2022	----	----	----		24-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_RIVER_SE-1_2022-09-14_N	E144	14-Sep-2022	----	----	----		24-Sep-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_RIVER_SE-4_2022-09-14_N	E144	14-Sep-2022	----	----	----		24-Sep-2022	----	----	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>										
Glass soil jar/Teflon lined cap RG_LE1_SE-1_2022-09-14_N	E108	16-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	30 days	11 days	✔



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
Glass soil jar/Teflon lined cap RG_LE1_SE-2_2022-09-14_N	E108	16-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	30 days	11 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
Glass soil jar/Teflon lined cap RG_LE1_SE-3_2022-09-14_N	E108	16-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	30 days	11 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
Glass soil jar/Teflon lined cap RG_MI5_SE-4_2022-09-14_N	E108	16-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	30 days	11 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
Glass soil jar/Teflon lined cap RG_MI5_SE-5_2022-09-14_N	E108	16-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	30 days	11 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
Glass soil jar/Teflon lined cap RG_AGCK_SE-1_2022-09-14_N	E108	15-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	30 days	12 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
Glass soil jar/Teflon lined cap RG_MI25_SE-1_2022-09-14_N	E108	15-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	30 days	12 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
Glass soil jar/Teflon lined cap RG_MI25_SE-2_2022-09-14_N	E108	15-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	30 days	12 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
Glass soil jar/Teflon lined cap RG_MI25_SE-3_2022-09-14_N	E108	15-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	30 days	12 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
Glass soil jar/Teflon lined cap RG_CORCK_SE-1_2022-09-14_N	E108	14-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	30 days	13 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
Glass soil jar/Teflon lined cap RG_CORCK_SE-3_2022-09-14_N	E108	14-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	30 days	13 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
Glass soil jar/Teflon lined cap RG_CORCK_SE-4_2022-09-14_N	E108	14-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	30 days	13 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
Glass soil jar/Teflon lined cap RG_CORCK_SE-5_2022-09-14_N	E108	14-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	30 days	13 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
Glass soil jar/Teflon lined cap RG_MIUCO_SE-5_2022-09-14_N	E108	14-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	30 days	13 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
Glass soil jar/Teflon lined cap RG_RIVER_SE-1_2022-09-14_N	E108	14-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	30 days	13 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
Glass soil jar/Teflon lined cap RG_RIVER_SE-4_2022-09-14_N	E108	14-Sep-2022	27-Sep-2022	----	----		27-Sep-2022	30 days	13 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
LDPE bag RG_CORCK_SE-2_2022-09-14_N	E108	14-Sep-2022	29-Sep-2022	----	----		30-Sep-2022	30 days	16 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
LDPE bag RG_MIUCO_SE-1_2022-09-14_N	E108	14-Sep-2022	29-Sep-2022	----	----		30-Sep-2022	30 days	16 days	✔	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
LDPE bag RG_MIUCO_SE-3_2022-09-14_N	E108	14-Sep-2022	29-Sep-2022	----	----		30-Sep-2022	30 days	16 days	✔	





Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>											
<b>LDPE bag</b> RG_MIUCO_SE-4_2022-09-14_N	E108	14-Sep-2022	29-Sep-2022	----	----		30-Sep-2022	30 days	16 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_CORCK_SE-1_2022-09-14_N	E641A	14-Sep-2022	24-Sep-2022	14 days	10 days	✔	25-Sep-2022	40 days	1 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_CORCK_SE-3_2022-09-14_N	E641A	14-Sep-2022	24-Sep-2022	14 days	10 days	✔	25-Sep-2022	40 days	1 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_CORCK_SE-4_2022-09-14_N	E641A	14-Sep-2022	24-Sep-2022	14 days	10 days	✔	25-Sep-2022	40 days	1 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_CORCK_SE-5_2022-09-14_N	E641A	14-Sep-2022	24-Sep-2022	14 days	10 days	✔	25-Sep-2022	40 days	1 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_MIUCO_SE-5_2022-09-14_N	E641A	14-Sep-2022	24-Sep-2022	14 days	10 days	✔	25-Sep-2022	40 days	1 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_RIVER_SE-1_2022-09-14_N	E641A	14-Sep-2022	24-Sep-2022	14 days	10 days	✔	25-Sep-2022	40 days	1 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_RIVER_SE-4_2022-09-14_N	E641A	14-Sep-2022	24-Sep-2022	14 days	10 days	✔	25-Sep-2022	40 days	1 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
<b>Glass soil jar/Teflon lined cap</b> RG_LE1_SE-1_2022-09-14_N	E641A	16-Sep-2022	24-Sep-2022	14 days	8 days	✔	25-Sep-2022	40 days	1 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
Glass soil jar/Teflon lined cap RG_LE1_SE-2_2022-09-14_N	E641A	16-Sep-2022	24-Sep-2022	14 days	8 days	✔	25-Sep-2022	40 days	1 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
Glass soil jar/Teflon lined cap RG_LE1_SE-3_2022-09-14_N	E641A	16-Sep-2022	24-Sep-2022	14 days	8 days	✔	25-Sep-2022	40 days	1 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
Glass soil jar/Teflon lined cap RG_MI5_SE-4_2022-09-14_N	E641A	16-Sep-2022	24-Sep-2022	14 days	8 days	✔	25-Sep-2022	40 days	1 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
Glass soil jar/Teflon lined cap RG_MI5_SE-5_2022-09-14_N	E641A	16-Sep-2022	24-Sep-2022	14 days	8 days	✔	25-Sep-2022	40 days	1 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
Glass soil jar/Teflon lined cap RG_AGCK_SE-1_2022-09-14_N	E641A	15-Sep-2022	24-Sep-2022	14 days	9 days	✔	25-Sep-2022	40 days	1 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
Glass soil jar/Teflon lined cap RG_MI25_SE-1_2022-09-14_N	E641A	15-Sep-2022	24-Sep-2022	14 days	9 days	✔	25-Sep-2022	40 days	1 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
Glass soil jar/Teflon lined cap RG_MI25_SE-2_2022-09-14_N	E641A	15-Sep-2022	24-Sep-2022	14 days	9 days	✔	25-Sep-2022	40 days	1 days	✔	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
Glass soil jar/Teflon lined cap RG_MI25_SE-3_2022-09-14_N	E641A	15-Sep-2022	24-Sep-2022	14 days	9 days	✔	25-Sep-2022	40 days	1 days	✔	

**Legend & Qualifier Definitions**

Rec. HT: ALS recommended hold time (see units).



## Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Soil/Solid**

Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<b>Analytical Methods</b>							
<b>Laboratory Duplicates (DUP)</b>							
Mercury in Soil/Solid by CVAAS	E510	667527	1	20	5.0	5.0	✔
Metals in Soil/Solid by CRC ICPMS	E440	667528	1	20	5.0	5.0	✔
Moisture Content by Gravimetry	E144	663864	1	16	6.2	5.0	✔
PAHs by Hex:Ace GC-MS	E641A	663863	1	16	6.2	5.0	✔
pH by Meter (1:2 Soil:Water Extraction)	E108	668546	2	34	5.8	5.0	✔
Total Carbon by Combustion	E351	671043	3	46	6.5	5.0	✔
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354	674355	3	43	6.9	5.0	✔
<b>Laboratory Control Samples (LCS)</b>							
Mercury in Soil/Solid by CVAAS	E510	667527	1	20	5.0	10.0	✖
Metals in Soil/Solid by CRC ICPMS	E440	667528	1	20	5.0	10.0	✖
Moisture Content by Gravimetry	E144	663864	1	16	6.2	5.0	✔
PAHs by Hex:Ace GC-MS	E641A	663863	1	16	6.2	5.0	✔
pH by Meter (1:2 Soil:Water Extraction)	E108	668546	4	34	11.7	10.0	✔
Total Carbon by Combustion	E351	671043	6	46	13.0	10.0	✔
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354	674355	6	43	13.9	10.0	✔
<b>Method Blanks (MB)</b>							
Mercury in Soil/Solid by CVAAS	E510	667527	1	20	5.0	5.0	✔
Metals in Soil/Solid by CRC ICPMS	E440	667528	1	20	5.0	5.0	✔
Moisture Content by Gravimetry	E144	663864	1	16	6.2	5.0	✔
PAHs by Hex:Ace GC-MS	E641A	663863	1	16	6.2	5.0	✔
Total Carbon by Combustion	E351	671043	3	46	6.5	5.0	✔
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354	674355	3	43	6.9	5.0	✔
<b>Matrix Spikes (MS)</b>							
PAHs by Hex:Ace GC-MS	E641A	663863	1	16	6.2	5.0	✔



## Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
pH by Meter (1:2 Soil:Water Extraction)	E108 Calgary - Environmental	Soil/Solid	BC Lab Manual	pH is determined by potentiometric measurement with a pH electrode at ambient laboratory temperature (normally $20 \pm 5^\circ\text{C}$ ), and is carried out in accordance with procedures described in the BC Lab Manual (prescriptive method). The procedure involves mixing the dried (at $<60^\circ\text{C}$ ) and sieved (10mesh/2mm) sample with ultra pure water at a 1:2 ratio of sediment to water. The pH is then measured by a standard pH probe.
Moisture Content by Gravimetry	E144 Calgary - Environmental	Soil/Solid	CCME PHC in Soil - Tier 1	Moisture is measured gravimetrically by drying the sample at $105^\circ\text{C}$ . Moisture content is calculated as the weight loss (due to water) divided by the wet weight of the sample, expressed as a percentage.
Grain Size Report (Attachment) Pipet/Sieve Method	E185A Saskatoon - Environmental	Soil/Solid	SSIR-51 Method 3.2.1	A grain size curve is a graphical representation of the particle sizing of a sample representing the percent passing against the effective particle size.
Total Carbon by Combustion	E351 Saskatoon - Environmental	Soil/Solid	CSSS (2008) 21.2 (mod)	Total Carbon is determined by the high temperature combustion method with measurement by an infrared detector.
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354 Saskatoon - Environmental	Soil/Solid	CSSS (2008) 20.2	Total Inorganic Carbon is determined by acetic acid pH standard curve, where a known quantity of acetic acid is consumed by reaction with carbonates in the soil. The pH of the resulting solution is measured and compared against a standard curve relating pH to weight of carbonate.
Metals in Soil/Solid by CRC ICPMS	E440 Calgary - Environmental	Soil/Solid	EPA 6020B (mod)	This method is intended to liberate metals that may be environmentally available. Samples are dried, then sieved through a 2 mm sieve, and digested with $\text{HNO}_3$ and $\text{HCl}$ .  Dependent on sample matrix, some metals may be only partially recovered, including Al, Ba, Be, Cr, Sr, Ti, Tl, V, W, and Zr. Silicate minerals are not solubilized. Volatile forms of sulfur (including sulfide) may not be captured, as they may be lost during sampling, storage, or digestion. This method does not adequately recover elemental sulfur, and is unsuitable for assessment of elemental sulfur standards or guidelines.  Analysis is by Collision/Reaction Cell ICPMS.
Mercury in Soil/Solid by CVAAS	E510 Calgary - Environmental	Soil/Solid	EPA 200.2/1631 Appendix (mod)	Samples are dried, then sieved through a 2 mm sieve, and digested with $\text{HNO}_3$ and $\text{HCl}$ , followed by CVAAS analysis.
PAHs by Hex:Ace GC-MS	E641A Calgary - Environmental	Soil/Solid	EPA 8270E (mod)	Polycyclic Aromatic Hydrocarbons (PAHs) are extracted with hexane/acetone and analyzed by GC-MS. If reported, IACR (index of additive cancer risk, unitless) and B(a)P toxic potency equivalent (in soil concentration units) are calculated as per CCME PAH Soil Quality Guidelines fact sheet (2010) or ABT1.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Particle Size Analysis (Pipette) - Wentworth Classification	EC184A Saskatoon - Environmental	Soil/Solid	Modified Wentworth	The particle size determination is performed by various methods to generate a Grain Size curve. The data from the curve is then used to produce particle size ranges based on the Modified Wentworth Classification system.
Total Organic Carbon (Calculated) in soil	EC356 Saskatoon - Environmental	Soil/Solid	CSSS (2008) 21.2	Total Organic Carbon (TOC) is calculated by the difference between total carbon (TC) and total inorganic carbon (TIC).

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Leach 1:2 Soil:Water for pH/EC	EP108 Calgary - Environmental	Soil/Solid	BC WLAP METHOD: PH, ELECTROMETRIC, SOIL	The procedure involves mixing the dried (at <60°C) and sieved (No. 10 / 2mm) sample with deionized/distilled water at a 1:2 ratio of sediment to water.
Digestion for Metals and Mercury	EP440 Calgary - Environmental	Soil/Solid	EPA 200.2 (mod)	Samples are dried, then sieved through a 2 mm sieve, and digested with HNO <sub>3</sub> and HCl. This method is intended to liberate metals that may be environmentally available.
PHCs and PAHs Hexane-Acetone Tumbler Extraction	EP601 Calgary - Environmental	Soil/Solid	CCME PHC in Soil - Tier 1 (mod)	Samples are subsampled and Petroleum Hydrocarbons (PHC) and PAHs are extracted with 1:1 hexane:acetone using a rotary extractor.
Dry and Grind in Soil/Solid <60°C	EPP442 Saskatoon - Environmental	Soil/Solid	Soil Sampling and Methods of Analysis, Carter 2008	After removal of any coarse fragments and reservation of wet subsamples a portion of homogenized sample is set in a tray and dried at less than 60°C until dry. The sample is then particle size reduced with an automated crusher or mortar and pestle, typically to <2 mm. Further size reduction may be needed for particular tests.

## QUALITY CONTROL REPORT

<b>Work Order</b>	: <b>CG2213078</b>	<b>Page</b>	: 1 of 17
<b>Amendment</b>	: <b>1</b>		
<b>Client</b>	: Teck Coal Limited	<b>Laboratory</b>	: Calgary - Environmental
<b>Contact</b>	: Cybele Heddle	<b>Account Manager</b>	: Lyudmyla Shvets
<b>Address</b>	: 421 Pine Ave Sparwood BC Canada	<b>Address</b>	: 2559 29th Street NE Calgary, Alberta Canada T1Y 7B5
<b>Telephone</b>	:	<b>Telephone</b>	: +1 403 407 1800
<b>Project</b>	: Regional Effects Program	<b>Date Samples Received</b>	: 17-Sep-2022 11:38
<b>PO</b>	: VPO00816101	<b>Date Analysis Commenced</b>	: 24-Sep-2022
<b>C-O-C number</b>	: REP_LAEMP_CMm_2022-09_ALS	<b>Issue Date</b>	: 12-Jan-2023 11:41
<b>Sampler</b>	: JI		
<b>Site</b>	: ----		
<b>Quote number</b>	: Teck Coal Master Quote		
<b>No. of samples received</b>	: 23		
<b>No. of samples analysed</b>	: 20		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Reference Material (RM) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

### Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Anthony Calero	Supervisor - Inorganic	Calgary Metals, Calgary, Alberta
Colby Bingham	Quality Systems Coordinator	Saskatoon Inorganics, Saskatoon, Saskatchewan
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Sorina Motea	Laboratory Analyst	Calgary Organics, Calgary, Alberta



## General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

### Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

# = Indicates a QC result that did not meet the ALS DQO.

## Workorder Comments

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Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

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### Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: Soil/Solid

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Physical Tests (QC Lot: 663864)</b>											
CG2213078-005	RG_MIUCO_SE-5_2022-09-14_N	Moisture	----	E144	0.25	%	37.9	38.0	0.0866%	20%	----
<b>Physical Tests (QC Lot: 668546)</b>											
CG2213010-001	Anonymous	pH (1:2 soil:water)	----	E108	0.10	pH units	8.02	8.05	0.373%	5%	----
<b>Physical Tests (QC Lot: 668547)</b>											
CG2213078-007	RG_RIVER_SE-4_2022-09-14_N	pH (1:2 soil:water)	----	E108	0.10	pH units	7.32	7.28	0.548%	5%	----
<b>Physical Tests (QC Lot: 671116)</b>											
CG2213078-001	RG_MIUCO_SE-1_2022-09-14_N	pH (1:2 soil:water)	----	E108	0.10	pH units	8.23	8.23	0.00%	10%	----
<b>Organic / Inorganic Carbon (QC Lot: 671043)</b>											
CG2211503-023	Anonymous	carbon, total [TC]	----	E351	0.050	%	2.04	1.92	5.97%	20%	----
<b>Organic / Inorganic Carbon (QC Lot: 672920)</b>											
CG2213078-005	RG_MIUCO_SE-5_2022-09-14_N	carbon, total [TC]	----	E351	0.050	%	3.37	3.18	5.57%	20%	----
<b>Organic / Inorganic Carbon (QC Lot: 674355)</b>											
CG2213078-001	RG_MIUCO_SE-1_2022-09-14_N	carbon, inorganic [IC]	----	E354	0.050	%	0.770	0.779	1.12%	20%	----
<b>Organic / Inorganic Carbon (QC Lot: 674356)</b>											
CG2213078-015	RG_MI25_SE-2_2022-09-14_N	carbon, inorganic [IC]	----	E354	0.050	%	0.543	0.530	2.42%	20%	----
<b>Organic / Inorganic Carbon (QC Lot: 683757)</b>											
CG2213078-016	RG_MI25_SE-3_2022-09-14_N	carbon, inorganic [IC]	----	E354	0.050	%	0.508	0.502	1.16%	20%	----
<b>Organic / Inorganic Carbon (QC Lot: 683981)</b>											
FC2202421-001	Anonymous	carbon, total [TC]	----	E351	0.050	%	1.27	1.22	3.86%	20%	----
<b>Metals (QC Lot: 667527)</b>											
CG2213031-001	Anonymous	mercury	7439-97-6	E510	0.0050	mg/kg	0.0624	0.0507	20.6%	40%	----
<b>Metals (QC Lot: 667528)</b>											
CG2213031-001	Anonymous	aluminum	7429-90-5	E440	50	mg/kg	14700	12800	13.5%	40%	----
		antimony	7440-36-0	E440	0.10	mg/kg	0.75	0.60	22.6%	30%	----
		arsenic	7440-38-2	E440	0.10	mg/kg	7.66	7.56	1.28%	30%	----
		barium	7440-39-3	E440	0.50	mg/kg	314	282	10.5%	40%	----
		beryllium	7440-41-7	E440	0.10	mg/kg	0.64	0.62	0.02	Diff <2x LOR	----





Sub-Matrix: Soil/Solid

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Metals (QC Lot: 667528) - continued</b>											
CG2213031-001	Anonymous	bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		boron	7440-42-8	E440	5.0	mg/kg	7.0	6.0	1.0	Diff <2x LOR	----
		cadmium	7440-43-9	E440	0.020	mg/kg	0.412	0.371	10.6%	30%	----
		calcium	7440-70-2	E440	50	mg/kg	42800	40200	6.28%	30%	----
		chromium	7440-47-3	E440	0.50	mg/kg	21.3	20.9	1.67%	30%	----
		cobalt	7440-48-4	E440	0.10	mg/kg	8.22	7.38	10.9%	30%	----
		copper	7440-50-8	E440	0.50	mg/kg	19.0	18.0	5.29%	30%	----
		iron	7439-89-6	E440	50	mg/kg	19400	18100	6.93%	30%	----
		lead	7439-92-1	E440	0.50	mg/kg	14.1	13.4	5.42%	40%	----
		lithium	7439-93-2	E440	2.0	mg/kg	12.0	11.9	0.04	Diff <2x LOR	----
		magnesium	7439-95-4	E440	20	mg/kg	10600	9890	7.34%	30%	----
		manganese	7439-96-5	E440	1.0	mg/kg	376	360	4.14%	30%	----
		molybdenum	7439-98-7	E440	0.10	mg/kg	1.29	1.27	1.79%	40%	----
		nickel	7440-02-0	E440	0.50	mg/kg	22.3	21.5	3.44%	30%	----
		phosphorus	7723-14-0	E440	50	mg/kg	557	568	2.02%	30%	----
		potassium	7440-09-7	E440	100	mg/kg	2100	1840	12.9%	40%	----
		selenium	7782-49-2	E440	0.20	mg/kg	0.51	0.34	0.16	Diff <2x LOR	----
		silver	7440-22-4	E440	0.10	mg/kg	0.13	0.11	0.02	Diff <2x LOR	----
		sodium	7440-23-5	E440	50	mg/kg	300	272	9.53%	40%	----
		strontium	7440-24-6	E440	0.50	mg/kg	82.1	75.8	8.02%	40%	----
		sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.050	mg/kg	0.203	0.179	0.024	Diff <2x LOR	----
		tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		titanium	7440-32-6	E440	1.0	mg/kg	72.1	51.0	34.3%	40%	----
		tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.050	mg/kg	0.992	0.908	8.92%	30%	----
		vanadium	7440-62-2	E440	0.20	mg/kg	36.2	32.0	12.4%	30%	----
		zinc	7440-66-6	E440	2.0	mg/kg	72.3	66.8	7.88%	30%	----
		zirconium	7440-67-7	E440	1.0	mg/kg	3.3	3.0	0.2	Diff <2x LOR	----
<b>Metals (QC Lot: 674126)</b>											
CG2213078-001	RG_MIUCO_SE-1_2022-09-14_N	mercury	7439-97-6	E510	0.0050	mg/kg	0.0284	0.0293	3.03%	40%	----
<b>Metals (QC Lot: 674127)</b>											
CG2213078-001	RG_MIUCO_SE-1_2022-09-14_N	aluminum	7429-90-5	E440	50	mg/kg	9400	9540	1.47%	40%	----



Sub-Matrix: Soil/Solid

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Metals (QC Lot: 674127) - continued</b>											
CG2213078-001	RG_MIUCO_SE-1_2022-09-14_N	antimony	7440-36-0	E440	0.10	mg/kg	0.39	0.38	0.02	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.10	mg/kg	7.23	7.28	0.644%	30%	----
		barium	7440-39-3	E440	0.50	mg/kg	558	528	5.53%	40%	----
		beryllium	7440-41-7	E440	0.10	mg/kg	0.66	0.65	0.004	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		boron	7440-42-8	E440	5.0	mg/kg	8.3	8.5	0.2	Diff <2x LOR	----
		cadmium	7440-43-9	E440	0.020	mg/kg	0.761	0.762	0.0962%	30%	----
		calcium	7440-70-2	E440	50	mg/kg	25300	24600	2.66%	30%	----
		chromium	7440-47-3	E440	0.50	mg/kg	12.8	13.3	4.12%	30%	----
		cobalt	7440-48-4	E440	0.10	mg/kg	7.15	7.38	3.08%	30%	----
		copper	7440-50-8	E440	0.50	mg/kg	17.9	17.8	0.564%	30%	----
		iron	7439-89-6	E440	50	mg/kg	21000	21200	0.738%	30%	----
		lead	7439-92-1	E440	0.50	mg/kg	12.4	12.4	0.123%	40%	----
		lithium	7439-93-2	E440	2.0	mg/kg	19.4	19.7	1.40%	30%	----
		magnesium	7439-95-4	E440	20	mg/kg	6470	6440	0.347%	30%	----
		manganese	7439-96-5	E440	1.0	mg/kg	302	282	6.92%	30%	----
		molybdenum	7439-98-7	E440	0.10	mg/kg	2.07	2.05	1.30%	40%	----
		nickel	7440-02-0	E440	0.50	mg/kg	21.3	22.2	3.88%	30%	----
		phosphorus	7723-14-0	E440	50	mg/kg	1320	1340	1.90%	30%	----
		potassium	7440-09-7	E440	100	mg/kg	1630	1570	3.59%	40%	----
		selenium	7782-49-2	E440	0.20	mg/kg	0.72	0.70	0.02	Diff <2x LOR	----
		silver	7440-22-4	E440	0.10	mg/kg	0.12	0.12	0.0004	Diff <2x LOR	----
		sodium	7440-23-5	E440	50	mg/kg	244	247	3	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.50	mg/kg	98.5	93.1	5.66%	40%	----
		sulfur	7704-34-9	E440	1000	mg/kg	1000	<1000	30	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.050	mg/kg	0.301	0.305	0.005	Diff <2x LOR	----
		tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		titanium	7440-32-6	E440	1.0	mg/kg	29.1	34.2	16.3%	40%	----
		tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.050	mg/kg	0.628	0.592	5.88%	30%	----
vanadium	7440-62-2	E440	0.20	mg/kg	20.8	21.0	1.02%	30%	----		
zinc	7440-66-6	E440	2.0	mg/kg	88.4	92.6	4.64%	30%	----		
zirconium	7440-67-7	E440	1.0	mg/kg	1.7	1.4	0.3	Diff <2x LOR	----		

Polycyclic Aromatic Hydrocarbons (QC Lot: 663863)



Sub-Matrix: Soil/Solid					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Polycyclic Aromatic Hydrocarbons (QC Lot: 663863) - continued</b>											
CG2213078-005	RG_MIUOCO_SE-5_2022-09-14_N	acenaphthene	83-32-9	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		acenaphthylene	208-96-8	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		acridine	260-94-6	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		anthracene	120-12-7	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benz(a)anthracene	56-55-3	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benzo(a)pyrene	50-32-8	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benzo(b+j)fluoranthene	n/a	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benzo(g,h,i)perylene	191-24-2	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benzo(k)fluoranthene	207-08-9	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		chrysene	218-01-9	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dibenz(a,h)anthracene	53-70-3	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		fluoranthene	206-44-0	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		fluorene	86-73-7	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		methylnaphthalene, 1-	90-12-0	E641A	0.030	mg/kg	0.054	0.048	0.006	Diff <2x LOR	----
		methylnaphthalene, 2-	91-57-6	E641A	0.030	mg/kg	0.071	0.063	0.008	Diff <2x LOR	----
		naphthalene	91-20-3	E641A	0.010	mg/kg	0.044	0.038	14.7%	50%	----
		phenanthrene	85-01-8	E641A	0.050	mg/kg	0.092	0.083	0.009	Diff <2x LOR	----
		pyrene	129-00-0	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		quinoline	91-22-5	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----



## Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: Soil/Solid

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Physical Tests (QCLot: 663864)</b>						
Moisture	---	E144	0.25	%	<0.25	---
<b>Organic / Inorganic Carbon (QCLot: 671043)</b>						
carbon, total [TC]	---	E351	0.05	%	<0.050	---
<b>Organic / Inorganic Carbon (QCLot: 672920)</b>						
carbon, total [TC]	---	E351	0.05	%	<0.050	---
<b>Organic / Inorganic Carbon (QCLot: 674355)</b>						
carbon, inorganic [IC]	---	E354	0.05	%	<0.050	---
<b>Organic / Inorganic Carbon (QCLot: 674356)</b>						
carbon, inorganic [IC]	---	E354	0.05	%	<0.050	---
<b>Organic / Inorganic Carbon (QCLot: 683757)</b>						
carbon, inorganic [IC]	---	E354	0.05	%	<0.050	---
<b>Organic / Inorganic Carbon (QCLot: 683981)</b>						
carbon, total [TC]	---	E351	0.05	%	<0.050	---
<b>Metals (QCLot: 667527)</b>						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	---
<b>Metals (QCLot: 667528)</b>						
aluminum	7429-90-5	E440	50	mg/kg	<50	---
antimony	7440-36-0	E440	0.1	mg/kg	<0.10	---
arsenic	7440-38-2	E440	0.1	mg/kg	<0.10	---
barium	7440-39-3	E440	0.5	mg/kg	<0.50	---
beryllium	7440-41-7	E440	0.1	mg/kg	<0.10	---
bismuth	7440-69-9	E440	0.2	mg/kg	<0.20	---
boron	7440-42-8	E440	5	mg/kg	<5.0	---
cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	---
calcium	7440-70-2	E440	50	mg/kg	<50	---
chromium	7440-47-3	E440	0.5	mg/kg	<0.50	---
cobalt	7440-48-4	E440	0.1	mg/kg	<0.10	---
copper	7440-50-8	E440	0.5	mg/kg	<0.50	---
iron	7439-89-6	E440	50	mg/kg	<50	---
lead	7439-92-1	E440	0.5	mg/kg	<0.50	---
lithium	7439-93-2	E440	2	mg/kg	<2.0	---
magnesium	7439-95-4	E440	20	mg/kg	<20	---



Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Metals (QCLot: 667528) - continued</b>						
manganese	7439-96-5	E440	1	mg/kg	<1.0	----
molybdenum	7439-98-7	E440	0.1	mg/kg	<0.10	----
nickel	7440-02-0	E440	0.5	mg/kg	<0.50	----
phosphorus	7723-14-0	E440	50	mg/kg	<50	----
potassium	7440-09-7	E440	100	mg/kg	<100	----
selenium	7782-49-2	E440	0.2	mg/kg	<0.20	----
silver	7440-22-4	E440	0.1	mg/kg	<0.10	----
sodium	7440-23-5	E440	50	mg/kg	<50	----
strontium	7440-24-6	E440	0.5	mg/kg	<0.50	----
sulfur	7704-34-9	E440	1000	mg/kg	<1000	----
thallium	7440-28-0	E440	0.05	mg/kg	<0.050	----
tin	7440-31-5	E440	2	mg/kg	<2.0	----
titanium	7440-32-6	E440	1	mg/kg	<1.0	----
tungsten	7440-33-7	E440	0.5	mg/kg	<0.50	----
uranium	7440-61-1	E440	0.05	mg/kg	<0.050	----
vanadium	7440-62-2	E440	0.2	mg/kg	<0.20	----
zinc	7440-66-6	E440	2	mg/kg	<2.0	----
zirconium	7440-67-7	E440	1	mg/kg	<1.0	----
<b>Metals (QCLot: 674126)</b>						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
<b>Metals (QCLot: 674127)</b>						
aluminum	7429-90-5	E440	50	mg/kg	<50	----
antimony	7440-36-0	E440	0.1	mg/kg	<0.10	----
arsenic	7440-38-2	E440	0.1	mg/kg	<0.10	----
barium	7440-39-3	E440	0.5	mg/kg	<0.50	----
beryllium	7440-41-7	E440	0.1	mg/kg	<0.10	----
bismuth	7440-69-9	E440	0.2	mg/kg	<0.20	----
boron	7440-42-8	E440	5	mg/kg	<5.0	----
cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	----
calcium	7440-70-2	E440	50	mg/kg	<50	----
chromium	7440-47-3	E440	0.5	mg/kg	<0.50	----
cobalt	7440-48-4	E440	0.1	mg/kg	<0.10	----
copper	7440-50-8	E440	0.5	mg/kg	<0.50	----
iron	7439-89-6	E440	50	mg/kg	<50	----
lead	7439-92-1	E440	0.5	mg/kg	<0.50	----



Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Metals (QCLot: 674127) - continued</b>						
lithium	7439-93-2	E440	2	mg/kg	<2.0	---
magnesium	7439-95-4	E440	20	mg/kg	<20	---
manganese	7439-96-5	E440	1	mg/kg	<1.0	---
molybdenum	7439-98-7	E440	0.1	mg/kg	<0.10	---
nickel	7440-02-0	E440	0.5	mg/kg	<0.50	---
phosphorus	7723-14-0	E440	50	mg/kg	<50	---
potassium	7440-09-7	E440	100	mg/kg	<100	---
selenium	7782-49-2	E440	0.2	mg/kg	<0.20	---
silver	7440-22-4	E440	0.1	mg/kg	<0.10	---
sodium	7440-23-5	E440	50	mg/kg	<50	---
strontium	7440-24-6	E440	0.5	mg/kg	<0.50	---
sulfur	7704-34-9	E440	1000	mg/kg	<1000	---
thallium	7440-28-0	E440	0.05	mg/kg	<0.050	---
tin	7440-31-5	E440	2	mg/kg	<2.0	---
titanium	7440-32-6	E440	1	mg/kg	<1.0	---
tungsten	7440-33-7	E440	0.5	mg/kg	<0.50	---
uranium	7440-61-1	E440	0.05	mg/kg	<0.050	---
vanadium	7440-62-2	E440	0.2	mg/kg	<0.20	---
zinc	7440-66-6	E440	2	mg/kg	<2.0	---
zirconium	7440-67-7	E440	1	mg/kg	<1.0	---
<b>Polycyclic Aromatic Hydrocarbons (QCLot: 663863)</b>						
acenaphthene	83-32-9	E641A	0.05	mg/kg	<0.050	---
acenaphthylene	208-96-8	E641A	0.05	mg/kg	<0.050	---
acridine	260-94-6	E641A	0.05	mg/kg	<0.050	---
anthracene	120-12-7	E641A	0.05	mg/kg	<0.050	---
benz(a)anthracene	56-55-3	E641A	0.05	mg/kg	<0.050	---
benzo(a)pyrene	50-32-8	E641A	0.05	mg/kg	<0.050	---
benzo(b+j)fluoranthene	n/a	E641A	0.05	mg/kg	<0.050	---
benzo(g,h,i)perylene	191-24-2	E641A	0.05	mg/kg	<0.050	---
benzo(k)fluoranthene	207-08-9	E641A	0.05	mg/kg	<0.050	---
chrysene	218-01-9	E641A	0.05	mg/kg	<0.050	---
dibenz(a,h)anthracene	53-70-3	E641A	0.05	mg/kg	<0.050	---
fluoranthene	206-44-0	E641A	0.05	mg/kg	<0.050	---
fluorene	86-73-7	E641A	0.05	mg/kg	<0.050	---
indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.05	mg/kg	<0.050	---



Sub-Matrix: **Soil/Solid**

<i>Analyte</i>	<i>CAS Number</i>	<i>Method</i>	<i>LOR</i>	<i>Unit</i>	<i>Result</i>	<i>Qualifier</i>
<b>Polycyclic Aromatic Hydrocarbons (QCLot: 663863) - continued</b>						
methylnaphthalene, 1-	90-12-0	E641A	0.03	mg/kg	<0.030	----
methylnaphthalene, 2-	91-57-6	E641A	0.03	mg/kg	<0.030	----
naphthalene	91-20-3	E641A	0.01	mg/kg	<0.010	----
phenanthrene	85-01-8	E641A	0.05	mg/kg	<0.050	----
pyrene	129-00-0	E641A	0.05	mg/kg	<0.050	----
quinoline	91-22-5	E641A	0.05	mg/kg	<0.050	----



## Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Soil/Solid

					Laboratory Control Sample (LCS) Report				
Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
<b>Physical Tests (QCLot: 663864)</b>									
Moisture	----	E144	0.25	%	50 %	97.6	90.0	110	----
<b>Physical Tests (QCLot: 668546)</b>									
pH (1:2 soil:water)	----	E108	----	pH units	7 pH units	101	97.0	103	----
<b>Physical Tests (QCLot: 668547)</b>									
pH (1:2 soil:water)	----	E108	----	pH units	7 pH units	100	97.0	103	----
<b>Physical Tests (QCLot: 671116)</b>									
pH (1:2 soil:water)	----	E108	----	pH units	7 pH units	101	97.0	103	----
<b>Organic / Inorganic Carbon (QCLot: 671043)</b>									
carbon, total [TC]	----	E351	0.05	%	48 %	101	90.0	110	----
<b>Organic / Inorganic Carbon (QCLot: 672920)</b>									
carbon, total [TC]	----	E351	0.05	%	48 %	98.6	90.0	110	----
<b>Organic / Inorganic Carbon (QCLot: 674355)</b>									
carbon, inorganic [IC]	----	E354	0.05	%	0.5 %	93.4	90.0	110	----
<b>Organic / Inorganic Carbon (QCLot: 674356)</b>									
carbon, inorganic [IC]	----	E354	0.05	%	0.5 %	94.1	90.0	110	----
<b>Organic / Inorganic Carbon (QCLot: 683757)</b>									
carbon, inorganic [IC]	----	E354	0.05	%	0.5 %	96.1	90.0	110	----
<b>Organic / Inorganic Carbon (QCLot: 683981)</b>									
carbon, total [TC]	----	E351	0.05	%	48 %	100	90.0	110	----
<b>Metals (QCLot: 667527)</b>									
mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	108	80.0	120	----
<b>Metals (QCLot: 667528)</b>									
aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	114	80.0	120	----
antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	104	80.0	120	----
arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	108	80.0	120	----
barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	112	80.0	120	----
beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	105	80.0	120	----
bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	107	80.0	120	----
boron	7440-42-8	E440	5	mg/kg	100 mg/kg	104	80.0	120	----
cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	108	80.0	120	----





Sub-Matrix: Soil/Solid

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
<b>Metals (QCLot: 667528) - continued</b>									
calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	112	80.0	120	----
chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	113	80.0	120	----
cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	111	80.0	120	----
copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	111	80.0	120	----
iron	7439-89-6	E440	50	mg/kg	100 mg/kg	110	80.0	120	----
lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	110	80.0	120	----
lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	100.0	80.0	120	----
magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	115	80.0	120	----
manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	118	80.0	120	----
molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	114	80.0	120	----
nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	110	80.0	120	----
phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	119	80.0	120	----
potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	109	80.0	120	----
selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	105	80.0	120	----
silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	95.5	80.0	120	----
sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	116	80.0	120	----
strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	111	80.0	120	----
sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	104	80.0	120	----
thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	108	80.0	120	----
tin	7440-31-5	E440	2	mg/kg	50 mg/kg	111	80.0	120	----
titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	112	80.0	120	----
tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	109	80.0	120	----
uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	113	80.0	120	----
vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	113	80.0	120	----
zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	110	80.0	120	----
zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	107	80.0	120	----
<b>Metals (QCLot: 674126)</b>									
mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	96.8	80.0	120	----
<b>Metals (QCLot: 674127)</b>									
aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	99.5	80.0	120	----
antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	104	80.0	120	----
arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	101	80.0	120	----
barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	100	80.0	120	----
beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	102	80.0	120	----
bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	102	80.0	120	----
boron	7440-42-8	E440	5	mg/kg	100 mg/kg	118	80.0	120	----



Sub-Matrix: Soil/Solid

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
<b>Metals (QCLot: 674127) - continued</b>									
cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	98.9	80.0	120	----
calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	103	80.0	120	----
chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	99.3	80.0	120	----
cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	101	80.0	120	----
copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	99.2	80.0	120	----
iron	7439-89-6	E440	50	mg/kg	100 mg/kg	102	80.0	120	----
lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	100	80.0	120	----
lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	103	80.0	120	----
magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	102	80.0	120	----
manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	100	80.0	120	----
molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	102	80.0	120	----
nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	97.2	80.0	120	----
phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	105	80.0	120	----
potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	103	80.0	120	----
selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	104	80.0	120	----
silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	94.9	80.0	120	----
sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	98.4	80.0	120	----
strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	105	80.0	120	----
sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	101	80.0	120	----
thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	97.9	80.0	120	----
tin	7440-31-5	E440	2	mg/kg	50 mg/kg	100	80.0	120	----
titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	101	80.0	120	----
tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	100.0	80.0	120	----
uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	98.3	80.0	120	----
vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	101	80.0	120	----
zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	103	80.0	120	----
zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	100	80.0	120	----
<b>Polycyclic Aromatic Hydrocarbons (QCLot: 663863)</b>									
acenaphthene	83-32-9	E641A	0.05	mg/kg	0.5 mg/kg	109	60.0	130	----
acenaphthylene	208-96-8	E641A	0.05	mg/kg	0.5 mg/kg	101	60.0	130	----
acridine	260-94-6	E641A	0.05	mg/kg	0.5 mg/kg	96.2	60.0	130	----
anthracene	120-12-7	E641A	0.05	mg/kg	0.5 mg/kg	94.2	60.0	130	----
benz(a)anthracene	56-55-3	E641A	0.05	mg/kg	0.5 mg/kg	102	60.0	130	----
benzo(a)pyrene	50-32-8	E641A	0.05	mg/kg	0.5 mg/kg	93.5	60.0	130	----
benzo(b+)fluoranthene	n/a	E641A	0.05	mg/kg	0.5 mg/kg	103	60.0	130	----



Sub-Matrix: Soil/Solid					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		Qualifier
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	
<b>Polycyclic Aromatic Hydrocarbons (QCLot: 663863) - continued</b>									
benzo(g,h,i)perylene	191-24-2	E641A	0.05	mg/kg	0.5 mg/kg	95.5	60.0	130	----
benzo(k)fluoranthene	207-08-9	E641A	0.05	mg/kg	0.5 mg/kg	108	60.0	130	----
chrysene	218-01-9	E641A	0.05	mg/kg	0.5 mg/kg	103	60.0	130	----
dibenz(a,h)anthracene	53-70-3	E641A	0.05	mg/kg	0.5 mg/kg	92.5	60.0	130	----
fluoranthene	206-44-0	E641A	0.05	mg/kg	0.5 mg/kg	104	60.0	130	----
fluorene	86-73-7	E641A	0.05	mg/kg	0.5 mg/kg	98.9	60.0	130	----
indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.05	mg/kg	0.5 mg/kg	97.5	60.0	130	----
methylnaphthalene, 1-	90-12-0	E641A	0.03	mg/kg	0.5 mg/kg	108	60.0	130	----
methylnaphthalene, 2-	91-57-6	E641A	0.03	mg/kg	0.5 mg/kg	106	60.0	130	----
naphthalene	91-20-3	E641A	0.01	mg/kg	0.5 mg/kg	111	50.0	130	----
phenanthrene	85-01-8	E641A	0.05	mg/kg	0.5 mg/kg	106	60.0	130	----
pyrene	129-00-0	E641A	0.05	mg/kg	0.5 mg/kg	105	60.0	130	----
quinoline	91-22-5	E641A	0.05	mg/kg	0.5 mg/kg	85.2	60.0	130	----



### Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Soil/Solid**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
<b>Polycyclic Aromatic Hydrocarbons (QCLot: 663863)</b>										
CG2213078-005	RG_MIUOCO_SE-5_2022-09-14_N	acenaphthene	83-32-9	E641A	0.401 mg/kg	0.5 mg/kg	113	50.0	140	----
		acenaphthylene	208-96-8	E641A	0.376 mg/kg	0.5 mg/kg	106	50.0	140	----
		acridine	260-94-6	E641A	0.351 mg/kg	0.5 mg/kg	99.1	50.0	140	----
		anthracene	120-12-7	E641A	0.355 mg/kg	0.5 mg/kg	100	50.0	140	----
		benz(a)anthracene	56-55-3	E641A	0.377 mg/kg	0.5 mg/kg	106	50.0	140	----
		benzo(a)pyrene	50-32-8	E641A	0.337 mg/kg	0.5 mg/kg	95.1	50.0	140	----
		benzo(b+j)fluoranthene	n/a	E641A	0.372 mg/kg	0.5 mg/kg	105	50.0	140	----
		benzo(g,h,i)perylene	191-24-2	E641A	0.325 mg/kg	0.5 mg/kg	91.6	50.0	140	----
		benzo(k)fluoranthene	207-08-9	E641A	0.388 mg/kg	0.5 mg/kg	110	50.0	140	----
		chrysene	218-01-9	E641A	0.364 mg/kg	0.5 mg/kg	103	50.0	140	----
		dibenz(a,h)anthracene	53-70-3	E641A	0.324 mg/kg	0.5 mg/kg	91.5	50.0	140	----
		fluoranthene	206-44-0	E641A	0.378 mg/kg	0.5 mg/kg	107	50.0	140	----
		fluorene	86-73-7	E641A	0.365 mg/kg	0.5 mg/kg	103	50.0	140	----
		indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.363 mg/kg	0.5 mg/kg	102	50.0	140	----
		methylnaphthalene, 1-	90-12-0	E641A	0.403 mg/kg	0.5 mg/kg	114	50.0	140	----
		methylnaphthalene, 2-	91-57-6	E641A	0.400 mg/kg	0.5 mg/kg	113	50.0	140	----
		naphthalene	91-20-3	E641A	0.421 mg/kg	0.5 mg/kg	119	50.0	140	----
		phenanthrene	85-01-8	E641A	0.388 mg/kg	0.5 mg/kg	110	50.0	140	----
		pyrene	129-00-0	E641A	0.390 mg/kg	0.5 mg/kg	110	50.0	140	----
		quinoline	91-22-5	E641A	0.335 mg/kg	0.5 mg/kg	94.6	50.0	140	----



## Reference Material (RM) Report

A Reference Material (RM) is a homogenous material with known and well-established analyte concentrations. RMs are processed in an identical manner to test samples, and are used to monitor and control the accuracy and precision of a test method for a typical sample matrix. RM results are expressed as percent recovery of the target analyte concentration. RM targets may be certified target concentrations provided by the RM supplier, or may be ALS long-term mean values (for empirical test methods).

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
<b>Physical Tests (QCLot: 668546)</b>									
	RM	pH (1:2 soil:water)	----	E108	8.06 pH units	98.8	96.0	104	----
<b>Physical Tests (QCLot: 668547)</b>									
	RM	pH (1:2 soil:water)	----	E108	8.06 pH units	99.5	96.0	104	----
<b>Physical Tests (QCLot: 671116)</b>									
	RM	pH (1:2 soil:water)	----	E108	8.13 pH units	101	96.0	104	----
<b>Organic / Inorganic Carbon (QCLot: 671043)</b>									
	RM	carbon, total [TC]	----	E351	1.4 %	95.7	80.0	120	----
<b>Organic / Inorganic Carbon (QCLot: 672920)</b>									
	RM	carbon, total [TC]	----	E351	1.4 %	102	80.0	120	----
<b>Organic / Inorganic Carbon (QCLot: 674355)</b>									
	RM	carbon, inorganic [IC]	----	E354	0.383 %	110	80.0	120	----
<b>Organic / Inorganic Carbon (QCLot: 674356)</b>									
	RM	carbon, inorganic [IC]	----	E354	0.383 %	112	80.0	120	----
<b>Organic / Inorganic Carbon (QCLot: 683757)</b>									
	RM	carbon, inorganic [IC]	----	E354	0.383 %	106	80.0	120	----
<b>Organic / Inorganic Carbon (QCLot: 683981)</b>									
	RM	carbon, total [TC]	----	E351	1.4 %	104	80.0	120	----
<b>Metals (QCLot: 674126)</b>									
	RM	mercury	7439-97-6	E510	0.059 mg/kg	95.1	70.0	130	----
<b>Metals (QCLot: 674127)</b>									
	RM	aluminum	7429-90-5	E440	9817 mg/kg	93.4	70.0	130	----
	RM	antimony	7440-36-0	E440	3.99 mg/kg	98.9	70.0	130	----
	RM	arsenic	7440-38-2	E440	3.73 mg/kg	93.1	70.0	130	----
	RM	barium	7440-39-3	E440	105 mg/kg	100	70.0	130	----
	RM	beryllium	7440-41-7	E440	0.349 mg/kg	98.0	70.0	130	----
	RM	boron	7440-42-8	E440	8.5 mg/kg	86.4	40.0	160	----
	RM	cadmium	7440-43-9	E440	0.91 mg/kg	97.9	70.0	130	----
	RM	calcium	7440-70-2	E440	31082 mg/kg	96.4	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
<b>Metals (QCLot: 674127) - continued</b>									
RM		chromium	7440-47-3	E440	101 mg/kg	92.0	70.0	130	----
RM		cobalt	7440-48-4	E440	6.9 mg/kg	98.3	70.0	130	----
RM		copper	7440-50-8	E440	123 mg/kg	95.2	70.0	130	----
RM		iron	7439-89-6	E440	23558 mg/kg	98.4	70.0	130	----
RM		lead	7439-92-1	E440	267 mg/kg	109	70.0	130	----
RM		lithium	7439-93-2	E440	9.5 mg/kg	104	70.0	130	----
RM		magnesium	7439-95-4	E440	5509 mg/kg	98.1	70.0	130	----
RM		manganese	7439-96-5	E440	269 mg/kg	93.9	70.0	130	----
RM		molybdenum	7439-98-7	E440	1.03 mg/kg	115	70.0	130	----
RM		nickel	7440-02-0	E440	26.7 mg/kg	99.9	70.0	130	----
RM		phosphorus	7723-14-0	E440	752 mg/kg	101	70.0	130	----
RM		potassium	7440-09-7	E440	1587 mg/kg	95.4	70.0	130	----
RM		silver	7440-22-4	E440	4.06 mg/kg	89.5	70.0	130	----
RM		sodium	7440-23-5	E440	797 mg/kg	106	70.0	130	----
RM		strontium	7440-24-6	E440	86.1 mg/kg	109	70.0	130	----
RM		thallium	7440-28-0	E440	0.0786 mg/kg	89.5	40.0	160	----
RM		tin	7440-31-5	E440	10.6 mg/kg	94.0	70.0	130	----
RM		titanium	7440-32-6	E440	839 mg/kg	87.2	70.0	130	----
RM		uranium	7440-61-1	E440	0.52 mg/kg	90.9	70.0	130	----
RM		vanadium	7440-62-2	E440	32.7 mg/kg	93.7	70.0	130	----
RM		zinc	7440-66-6	E440	297 mg/kg	101	70.0	130	----
RM		zirconium	7440-67-7	E440	5.73 mg/kg	103	70.0	130	----

COC ID: **REP\_LAEMP\_CMm\_2022-09\_ALS**      TURNAROUND TIME: 2-3 Business Days      RUSH: Priority

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO				
Facility Name / Job#	Regional Effects Program			Lab Name	ALS Calgary			Report Format / Distribution		Excel	PDF	EDD
Project Manager	Cybele Heddle			Lab Contact	Lyudnyla Shvets			Email 1:	AquaSciLab@Teck.com	X	X	X
Email	Cybele.Heddle@teck.com			Email	Lyudnyla.Shvets@ALSGlobal.com			Email 2:	teckcoal@equisonline.com			X
Address	421 Pine Avenue			Address	2559 29 Street NE			Email 3:	Teck.Lab.Results@teck.com	X	X	X
City	Sparwood	Provinc	BC	City	Calgary	Provinc	AB	Email 4:	Lisa.Bowron@minnow.ca	X	X	X
Postal Code	V0B 2G0	Country	Canada	Postal Code	T1Y 7B5	Country	Canada	Email 5:	Tyler.Mehler@minnow.ca	X	X	X
Phone Number	1-250-865-3048			Phone Number	403 407 1794			PO number	VPO00816101			

Sample ID	Sample Location (sys loc code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Com p	# Of Cont.	ANALYSIS REQUESTED					Filtered - F: Field, L: Lab, FL: Field & Lab, N: None						
								ANALYSIS	PRESERV.	N	N	N	N	N					
								C-TOC-SK	MET-CCME+FULL-CL	MOISTURE-CL - % Moisture	PSA-PIPET-DETAIL-SK Particle Size	PAH-TMB-D/A-MS-CL- PAHs							
1 RG_MIUCO_SE-1_2022-09-14_N	RG_MIUCO	SE		2022/09/14	10:57	G	2	1	1	1	1	1							
2 RG_MIUCO_SE-2_2022-09-14_N	RG_MIUCO	SE		2022/09/14	10:09	G	1	1	1	1	1	1							
3 RG_MIUCO_SE-3_2022-09-14_N	RG_MIUCO	SE		2022/09/14	9:44	G	2	1	1	1	1	1							
4 RG_MIUCO_SE-4_2022-09-14_N	RG_MIUCO	SE		2022/09/14	11:22	G	2	1	1	1	1	1							
5 RG_MIUCO_SE-5_2022-09-14_N	RG_MIUCO	SE		2022/09/14	9:22	G	2	1	1	1	1	1							
6 RG_RIVER_SE-1_2022-09-14_N	RG_RIVER	SE		2022/09/14	10:57	G	2	1	1	1	1	1							
7 RG_RIVER_SE-4_2022-09-14_N	RG_RIVER	SE		2022/09/14	11:22	G	2	1	1	1	1	1							
8 RG_CORCK_SE-1_2022-09-14_N	RG_CORCK	SE		2022/09/14	14:24	G	2	1	1	1	1	1							
9 RG_CORCK_SE-2_2022-09-14_N	RG_CORCK	SE		2022/09/14	14:03	G	2	1	1	1	1	1							
10 RG_CORCK_SE-3_2022-09-14_N	RG_CORCK	SE		2022/09/14	13:13	G	2	1	1	1	1	1							

Environmental Division  
Calgary  
Work Order Reference  
**CG2213078**



Telephone : +1 403 407 1800

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
For samples with only a jar, please prioritize in the following order: metals, TOC/Part size, PAHs	Jennifer Ings/Minnow	#####	<i>Jeanne</i>	09-17 1138AM

SERVICE REQUEST (rush - subject to availability)	Regular (default)	Priority (2-3 business days) - 50% surcharge	Emergency (1 Business Day) - 100% surcharge	For Emergency <1 Day, ASAP or Weekend - Contact ALS
		X		

Sampler's Name	Jennifer Ings	Mobile #	519-500-3444
Sampler's Signature	<i>Jennifer Ings</i>	Date/Time	September 16, 2022

5c.

COC ID: **REP\_LAEMP\_CmM\_2022-09\_ALS**      TURNAROUND TIME: **2-3 Business Days**      RUSH Priority

PROJECT/CLIENT INFO		LABORATORY		OTHER INFO	
Facility Name / Job#	Regional Effects Program	Lab Name	ALS Calgary	Report Format / Distribution	Excel    PDF    EDD
Project Manager	Cybele Heddle	Lab Contract	Lynnamya Siverts	Email 1:	Aussell@teck.com    X
Email	Cybele.Heddle@teck.com	Email	Lynnamya.Siverts@alsglobal.com	Email 2:	leakcal@ausonline.com    X
Address	421 Pine Avenue	Address	2559 29 Street NE	Email 3:	Teck Lab Results@teck.com    X
City	Sparwood	City	Calgary	Email 4:	USA.Bowen@minnow.ca    X
Postal Code	V0B 2G0	Postal Code	T1Y 7B5	Email 5:	Alex.McDermott@minnow.ca    X
Phone Number	1-250-865-3048	Phone Number	403 407 1794	Email 6:	Hannah.Perrig@teck.com    X
		Country	Canada	Province	AB
		Country	Canada	Country	Canada
		PO number			

Sample ID	Sample Location (sys loc code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Com P	# Of Cont.	ANALYSIS REQUESTED					
								ANALYSIS	PRESERV.	FIN.			
RG_CORCK_SE-4_2022-09-14_N	RG_CORCK	SE		2022/09/14	13:45	G	2	C-TOC-SK	NONE	N	N		
RG_CORCK_SE-5_2022-09-14_N	RG_CORCK	SE		2022/09/14	13:02	G	2	MET-CCME+FULL-CL	NONE	N	N		
RG_RIVER_SE-6_2022-09-14_N	RG_RIVER	SE		2022/09/14	13:02	G	2	MOISTURE-CL - % Moisture	NONE	N	N		
RG_MI25_SE-1_2022-09-14_N	RG_MI25	SE		2022/09/15	11:25	G	2	PSA-PIPET-DETAIL-SK Particle Size	NONE	N	N		
RG_MI25_SE-2_2022-09-14_N	RG_MI25	SE		2022/09/15	10:50	G	2	PAH-TMB-D/A-MS-CL-PAHs	NONE	N	N		
RG_MI25_SE-3_2022-09-14_N	RG_MI25	SE		2022/09/15	9:50	G	1						
RG_AGCK_SE-1_2022-09-14_N	RG_AGCK	SE		2022/09/15	16:48	G	1						
RG_LE1_SE-1_2022-09-14_N	RG_LE1	SE		2022/09/16	10:48	G	2						
RG_LE1_SE-2_2022-09-14_N	RG_LE1	SE		2022/09/16	9:58	G	2						
RG_LE1_SE-3_2022-09-14_N	RG_LE1	SE		2022/09/16	9:12	G	2						

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS		REINQUISHED BY/AFFILIATION		DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME	
For samples with only a jar, please prioritize in the following order: metals, TOC/Part size, PAHs		Jennifer Ings/Minnow		#####					
SERVICE REQUEST (rush - subject to availability)									
Regular (default)		Sampler's Name		Jennifer Ings		Mobile #		519-500-3444	
Emergency (1 Business Day) - 100% surcharge		Sampler's Signature		<i>Jennifer Ings</i>		Date/Time		September 16, 2022	
For Emergency <1 Day, ASAP or Weekend - Contact ALS									



<b>COC ID:</b> REP_LAEMP_CMm_2022-09_ALS		<b>TURNAROUND TIME:</b> 2-3 Business Days		<b>RUSH:</b> Priority						
<b>PROJECT/CLIENT INFO</b>			<b>LABORATORY</b>			<b>OTHER INFO</b>				
Facility Name / Job# Regional Effects Program			Lab Name ALS Calgary		Report Format / Distribution			Excel	PDF	EDD
Project Manager Cybele Heddle			Lab Contact Lyudmyla Shvets		Email 1: AquaSciLab@Teck.com		X	X	X	
Email Cybele.Heddle@teck.com			Email Lyudmyla.Shvets@ALSGlobal.com		Email 2: teckcoal@equisonline.com				X	
Address 421 Pine Avenue			Address 2559 29 Street NE		Email 3: Teck.Lab.Results@teck.com		X	X	X	
City Sparwood			City Calgary		Email 4: Lisa.Bowron@minnow.ca		X	X	X	
Postal Code V0B 2G0			Postal Code T1Y 7B5		Email 5: Alex.McCrimmon@minnow.ca		X	X	X	
Phone Number 1-250-865-3048			Phone Number 403 407 1794		Email 6: Hannah.Penner@Teck.com		X	X	X	
			PO number			VPO00816101				

SAMPLE DETAILS								ANALYSIS REQUESTED					Filtered: F: Field, L: Lab, FL: Field & Lab, N: None						
Sample ID	Sample Location (sys loc code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Com p	# Of Cont.	ANALYSIS	PRESEV.	1	2	3	4	5	6	7	8	9	10
								C-TOC-SK	MET-CCME+FULL-CL	MOISTURE-CL - % Moisture	PSA-PIPET-DETAIL-SK Particle Size	PAH-TMB-D/A-MS-CL-PAHs							
21 RG_MI5_SE-4_2022-09-14_N	RG_MI5	SE		2022/09/16	12:00	G	2	1	1	1	1	1							
22 RG_MI5_SE-5_2022-09-14_N	RG_MI5	SE		2022/09/16	12:15	G	2	1	1	1	1	1							
23 RG_RIVER_SE-4_2022-09-14_N	RG_RIVER	SE		2022/09/16	12:00	G	2	1	1	1	1	1							

<b>ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS</b>	<b>RELINQUISHED BY/AFFILIATION</b>	<b>DATE/TIME</b>	<b>ACCEPTED BY/AFFILIATION</b>	<b>DATE/TIME</b>
For samples with only a jar, please prioritize in the following order: metals, TOC/Part size, PAHs	Jennifer Ings/Minnow	#####		

<b>SERVICE REQUEST (rush - subject to availability)</b>			
Regular (default)	<b>Sampler's Name</b>	Jennifer Ings	<b>Mobile #</b>
Priority (2-3 business days) - 50% surcharge X	<b>Sampler's Signature</b>	<i>Jennifer Ings</i>	519-500-3444
Emergency (1 Business Day) - 100% surcharge			<b>Date/Time</b>
For Emergency <1 Day, ASAP or Weekend - Contact ALS			September 16, 2022



## CERTIFICATE OF ANALYSIS

<p><b>Work Order</b> : <b>CG2214921</b></p> <p><b>Client</b> : <b>Teck Coal Limited</b></p> <p><b>Contact</b> : Cybele Heddle</p> <p><b>Address</b> : 421 Pine Ave Sparwood BC Canada</p> <p><b>Telephone</b> : ----</p> <p><b>Project</b> : Regional Effects Program</p> <p><b>PO</b> : VPO00816101</p> <p><b>C-O-C number</b> : REP_LAEMP_CMm_2022-09_ALS</p> <p><b>Sampler</b> : Emily Dutton</p> <p><b>Site</b> : ----</p> <p><b>Quote number</b> : Teck Coal Master Quote</p> <p><b>No. of samples received</b> : 6</p> <p><b>No. of samples analysed</b> : 6</p>	<p><b>Page</b> : 1 of 10</p> <p><b>Laboratory</b> : Calgary - Environmental</p> <p><b>Account Manager</b> : Lyudmyla Shvets</p> <p><b>Address</b> : 2559 29th Street NE Calgary AB Canada T1Y 7B5</p> <p><b>Telephone</b> : +1 403 407 1800</p> <p><b>Date Samples Received</b> : 26-Oct-2022 09:00</p> <p><b>Date Analysis Commenced</b> : 26-Oct-2022</p> <p><b>Issue Date</b> : 01-Nov-2022 12:02</p>
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This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

### Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Amber Sheikh	Laboratory Assistant	Organics, Calgary, Alberta
Anthony Calero	Supervisor - Inorganic	Metals, Calgary, Alberta
Hedy Lai	Team Leader - Inorganics	Inorganics, Saskatoon, Saskatchewan
Hedy Lai	Team Leader - Inorganics	Sask Soils, Saskatoon, Saskatchewan
Victoria Piguing	Laboratory Analyst	Organics, Calgary, Alberta
Vishnu Patel		Inorganics, Calgary, Alberta



## General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances  
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
-	No Unit
%	percent
mg/kg	milligrams per kilogram
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.



## Analytical Results

Sub-Matrix: Sediment

Client sample ID

(Matrix: Soil/Solid)

					RG_MIUCO_SE-1_2022-10-22_N	RG_MIUCO_SE-2_2022-10-22_N	RG_MIUCO_SE-3_2022-10-22_N	RG_MIUCO_SE-4_2022-10-22_N	RG_RIVER_SE-1_2022-10-22_N
Client sampling date / time					22-Oct-2022 12:53	22-Oct-2022 12:59	22-Oct-2022 13:02	22-Oct-2022 13:13	22-Oct-2022 12:53
Analyte	CAS Number	Method	LOR	Unit	CG2214921-001	CG2214921-002	CG2214921-003	CG2214921-004	CG2214921-005
					Result	Result	Result	Result	Result
<b>Physical Tests</b>									
moisture	----	E144	0.25	%	33.9	41.6	45.8	37.6	33.1
pH (1:2 soil:water)	----	E108	0.10	pH units	8.33	8.23	8.57	8.29	8.25
<b>Particle Size</b>									
grain size curve	----	E185A	-	-	See Attached	See Attached	See Attached	See Attached	See Attached
clay (<0.004mm)	----	EC184A	1.0	%	5.9	6.4	7.0	6.3	5.6
silt (0.063mm - 0.0312mm)	----	EC184A	1.0	%	10.3	11.0	19.1	11.6	9.3
silt (0.0312mm - 0.004mm)	----	EC184A	1.0	%	11.2	14.6	22.1	12.3	10.4
sand (0.125mm - 0.063mm)	----	EC184A	1.0	%	16.2	10.6	20.5	20.0	15.8
sand (0.25mm - 0.125mm)	----	EC184A	1.0	%	20.7	14.8	13.6	24.6	22.3
sand (0.5mm - 0.25mm)	----	EC184A	1.0	%	14.1	15.6	6.6	14.9	15.0
sand (1.0mm - 0.50mm)	----	EC184A	1.0	%	10.9	16.4	3.3	6.8	11.7
sand (2.0mm - 1.0mm)	----	EC184A	1.0	%	7.7	8.4	3.2	2.8	7.6
gravel (>2mm)	----	EC184A	1.0	%	3.0	2.2	4.6	<1.0	2.3
<b>Organic / Inorganic Carbon</b>									
carbon, total [TC]	----	E351	0.050	%	2.65	6.74	3.40	2.35	2.47
carbon, inorganic [IC]	----	E354	0.050	%	0.405	0.357	0.904	0.334	0.416
carbon, inorganic [IC], (as CaCO3 equivalent)	----	E354	0.40	%	3.38	2.98	7.53	2.79	3.47
carbon, total organic [TOC]	----	EC356	0.050	%	2.24	6.38	2.50	2.02	2.05
<b>Metals</b>									
aluminum	7429-90-5	E440	50	mg/kg	12600	11700	9320	11800	12200
antimony	7440-36-0	E440	0.10	mg/kg	0.33	0.35	0.32	0.38	0.36
arsenic	7440-38-2	E440	0.10	mg/kg	8.01	6.41	6.51	8.04	7.73
barium	7440-39-3	E440	0.50	mg/kg	156	148	610	191	145
beryllium	7440-41-7	E440	0.10	mg/kg	0.87	0.84	0.66	0.81	0.84
bismuth	7440-69-9	E440	0.20	mg/kg	0.22	0.21	<0.20	<0.20	0.21
boron	7440-42-8	E440	5.0	mg/kg	10.1	8.7	9.2	9.0	9.4
cadmium	7440-43-9	E440	0.020	mg/kg	0.583	0.695	0.650	0.692	0.600



## Analytical Results

Sub-Matrix: Sediment

(Matrix: Soil/Solid)

Client sample ID

					RG_MIUCO_SE-1_2022-10-22_N	RG_MIUCO_SE-2_2022-10-22_N	RG_MIUCO_SE-3_2022-10-22_N	RG_MIUCO_SE-4_2022-10-22_N	RG_RIVER_SE-1_2022-10-22_N
Client sampling date / time					22-Oct-2022 12:53	22-Oct-2022 12:59	22-Oct-2022 13:02	22-Oct-2022 13:13	22-Oct-2022 12:53
Analyte	CAS Number	Method	LOR	Unit	CG2214921-001	CG2214921-002	CG2214921-003	CG2214921-004	CG2214921-005
					Result	Result	Result	Result	Result
<b>Metals</b>									
calcium	7440-70-2	E440	50	mg/kg	14800	13900	26500	13000	14200
chromium	7440-47-3	E440	0.50	mg/kg	14.7	14.1	11.7	14.7	14.7
cobalt	7440-48-4	E440	0.10	mg/kg	7.09	6.97	5.35	7.15	7.43
copper	7440-50-8	E440	0.50	mg/kg	16.8	18.0	14.4	17.4	17.5
iron	7439-89-6	E440	50	mg/kg	20200	17600	16900	19400	20600
lead	7439-92-1	E440	0.50	mg/kg	12.3	12.5	10.3	12.4	12.5
lithium	7439-93-2	E440	2.0	mg/kg	24.6	23.5	19.8	22.3	24.1
magnesium	7439-95-4	E440	20	mg/kg	6120	5490	6620	5580	6050
manganese	7439-96-5	E440	1.0	mg/kg	431	298	213	420	450
mercury	7439-97-6	E510	0.0050	mg/kg	0.0193	0.0275	0.0217	0.0215	0.0191
molybdenum	7439-98-7	E440	0.10	mg/kg	1.94	1.72	1.67	2.35	2.00
nickel	7440-02-0	E440	0.50	mg/kg	19.7	20.4	16.0	20.7	20.1
phosphorus	7723-14-0	E440	50	mg/kg	1260	1140	1080	1360	1260
potassium	7440-09-7	E440	100	mg/kg	2260	2030	1710	2130	2170
selenium	7782-49-2	E440	0.20	mg/kg	0.48	0.55	0.42	0.55	0.54
silver	7440-22-4	E440	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10
sodium	7440-23-5	E440	50	mg/kg	86	74	170	67	82
strontium	7440-24-6	E440	0.50	mg/kg	37.9	44.8	89.6	37.9	37.4
sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	<1000	<1000	<1000
thallium	7440-28-0	E440	0.050	mg/kg	0.304	0.283	0.269	0.342	0.306
tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0
titanium	7440-32-6	E440	1.0	mg/kg	7.6	7.8	9.2	8.3	9.2
tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
uranium	7440-61-1	E440	0.050	mg/kg	0.579	0.534	0.504	0.603	0.526
vanadium	7440-62-2	E440	0.20	mg/kg	24.7	22.4	19.8	24.4	23.6
zinc	7440-66-6	E440	2.0	mg/kg	88.4	92.3	77.9	91.9	89.4
zirconium	7440-67-7	E440	1.0	mg/kg	1.0	1.2	<1.0	1.2	<1.0
<b>Polycyclic Aromatic Hydrocarbons</b>									
acenaphthene	83-32-9	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050



## Analytical Results

Sub-Matrix: Sediment

Client sample ID

(Matrix: Soil/Solid)

					RG_MIUCO_SE-1_2022-10-22_N	RG_MIUCO_SE-2_2022-10-22_N	RG_MIUCO_SE-3_2022-10-22_N	RG_MIUCO_SE-4_2022-10-22_N	RG_RIVER_SE-1_2022-10-22_N
					N	N	N	N	
Client sampling date / time					22-Oct-2022 12:53	22-Oct-2022 12:59	22-Oct-2022 13:02	22-Oct-2022 13:13	22-Oct-2022 12:53
Analyte	CAS Number	Method	LOR	Unit	CG2214921-001	CG2214921-002	CG2214921-003	CG2214921-004	CG2214921-005
					Result	Result	Result	Result	Result
<b>Polycyclic Aromatic Hydrocarbons</b>									
acenaphthylene	208-96-8	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
acridine	260-94-6	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
anthracene	120-12-7	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
benz(a)anthracene	56-55-3	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
benzo(a)pyrene	50-32-8	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
benzo(b+j)fluoranthene	n/a	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
benzo(b+j+k)fluoranthene	n/a	E641A	0.075	mg/kg	<0.075	<0.075	<0.075	<0.075	<0.075
benzo(g,h,i)perylene	191-24-2	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
benzo(k)fluoranthene	207-08-9	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
chrysene	218-01-9	E641A	0.050	mg/kg	<0.050	0.060	<0.050	<0.050	<0.050
dibenz(a,h)anthracene	53-70-3	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
fluoranthene	206-44-0	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
fluorene	86-73-7	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
methylnaphthalene, 1-	90-12-0	E641A	0.030	mg/kg	<0.030	0.078	<0.030	<0.030	<0.030
methylnaphthalene, 1+2-	----	E641A	0.050	mg/kg	<0.050	0.181	<0.050	<0.050	<0.050
methylnaphthalene, 2-	91-57-6	E641A	0.030	mg/kg	<0.030	0.103	<0.030	<0.030	<0.030
naphthalene	91-20-3	E641A	0.010	mg/kg	<0.010	0.029	<0.010	<0.010	<0.010
phenanthrene	85-01-8	E641A	0.050	mg/kg	<0.050	0.132	<0.050	<0.050	<0.050
pyrene	129-00-0	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
quinoline	91-22-5	E641A	0.050	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050
B(a)P total potency equivalents [B(a)P TPE]	----	E641A	0.065	mg/kg	<0.065	<0.065	<0.065	<0.065	<0.065
IACR (CCME)	----	E641A	0.60	-	<0.60	0.61	<0.60	<0.60	<0.60
IACR AB (coarse)	----	E641A	0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10
IACR AB (fine)	----	E641A	0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10
PAHs, total (BC Sched 3.4)	n/a	E641A	0.20	mg/kg	<0.20	0.32	<0.20	<0.20	<0.20
PAHs, total (EPA 16)	n/a	E641A	0.20	mg/kg	<0.20	0.22	<0.20	<0.20	<0.20
<b>Polycyclic Aromatic Hydrocarbons Surrogates</b>									
acridine-d9	34749-75-2	E641A	0.1	%	97.4	86.9	85.4	90.0	88.6



## Analytical Results

Sub-Matrix: Sediment

(Matrix: Soil/Solid)

					Client sample ID	RG_MIUCO_SE-1_2022-10-22_N	RG_MIUCO_SE-2_2022-10-22_N	RG_MIUCO_SE-3_2022-10-22_N	RG_MIUCO_SE-4_2022-10-22_N	RG_RIVER_SE-1_2022-10-22_N
					Client sampling date / time	22-Oct-2022 12:53	22-Oct-2022 12:59	22-Oct-2022 13:02	22-Oct-2022 13:13	22-Oct-2022 12:53
Analyte	CAS Number	Method	LOR	Unit	CG2214921-001	CG2214921-002	CG2214921-003	CG2214921-004	CG2214921-005	
					Result	Result	Result	Result	Result	
<b>Polycyclic Aromatic Hydrocarbons Surrogates</b>										
chrysene-d12	1719-03-5	E641A	0.1	%	99.4	90.4	92.7	93.3	95.2	
naphthalene-d8	1146-65-2	E641A	0.1	%	102	94.3	95.1	96.5	99.4	
phenanthrene-d10	1517-22-2	E641A	0.1	%	111	99.9	99.6	100	104	

Please refer to the General Comments section for an explanation of any qualifiers detected.



## Analytical Results

Sub-Matrix: Sediment

Client sample ID

RG_RIVER_SE-2 _2022-10-22_N	----	----	----	----
--------------------------------	------	------	------	------

(Matrix: Soil/Solid)

Client sampling date / time

22-Oct-2022 12:59	----	----	----	----
----------------------	------	------	------	------

Analyte	CAS Number	Method	LOR	Unit	CG2214921-006	-----	-----	-----	-----
					Result	----	----	----	----

### Physical Tests

moisture	---	E144	0.25	%	42.1	---	---	---	---
pH (1:2 soil:water)	---	E108	0.10	pH units	8.10	---	---	---	---

### Particle Size

grain size curve	---	E185A	-	-	See Attached	---	---	---	---
clay (<0.004mm)	---	EC184A	1.0	%	5.3	---	---	---	---
silt (0.063mm - 0.0312mm)	---	EC184A	1.0	%	9.6	---	---	---	---
silt (0.0312mm - 0.004mm)	---	EC184A	1.0	%	12.6	---	---	---	---
sand (0.125mm - 0.063mm)	---	EC184A	1.0	%	10.0	---	---	---	---
sand (0.25mm - 0.125mm)	---	EC184A	1.0	%	15.3	---	---	---	---
sand (0.5mm - 0.25mm)	---	EC184A	1.0	%	17.4	---	---	---	---
sand (1.0mm - 0.50mm)	---	EC184A	1.0	%	19.1	---	---	---	---
sand (2.0mm - 1.0mm)	---	EC184A	1.0	%	8.9	---	---	---	---
gravel (>2mm)	---	EC184A	1.0	%	1.8	---	---	---	---

### Organic / Inorganic Carbon

carbon, total [TC]	---	E351	0.050	%	5.25	---	---	---	---
carbon, inorganic [IC]	---	E354	0.050	%	0.385	---	---	---	---
carbon, inorganic [IC], (as CaCO3 equivalent)	---	E354	0.40	%	3.21	---	---	---	---
carbon, total organic [TOC]	---	EC356	0.050	%	4.86	---	---	---	---

### Metals

aluminum	7429-90-5	E440	50	mg/kg	11400	---	---	---	---
antimony	7440-36-0	E440	0.10	mg/kg	0.37	---	---	---	---
arsenic	7440-38-2	E440	0.10	mg/kg	6.58	---	---	---	---
barium	7440-39-3	E440	0.50	mg/kg	153	---	---	---	---
beryllium	7440-41-7	E440	0.10	mg/kg	0.84	---	---	---	---
bismuth	7440-69-9	E440	0.20	mg/kg	0.21	---	---	---	---
boron	7440-42-8	E440	5.0	mg/kg	10.0	---	---	---	---
cadmium	7440-43-9	E440	0.020	mg/kg	0.690	---	---	---	---
calcium	7440-70-2	E440	50	mg/kg	12600	---	---	---	---
chromium	7440-47-3	E440	0.50	mg/kg	13.9	---	---	---	---





## Analytical Results

Sub-Matrix: Sediment

Client sample ID

(Matrix: Soil/Solid)

					RG_RIVER_SE-2 _2022-10-22_N	----	----	----	----	
					Client sampling date / time	22-Oct-2022 12:59	---	---	---	---
Analyte	CAS Number	Method	LOR	Unit	CG2214921-006	-----	-----	-----	-----	
					Result	---	---	---	---	
<b>Metals</b>										
cobalt	7440-48-4	E440	0.10	mg/kg	7.19	---	---	---	---	
copper	7440-50-8	E440	0.50	mg/kg	17.0	---	---	---	---	
iron	7439-89-6	E440	50	mg/kg	17800	---	---	---	---	
lead	7439-92-1	E440	0.50	mg/kg	12.3	---	---	---	---	
lithium	7439-93-2	E440	2.0	mg/kg	22.2	---	---	---	---	
magnesium	7439-95-4	E440	20	mg/kg	5100	---	---	---	---	
manganese	7439-96-5	E440	1.0	mg/kg	298	---	---	---	---	
mercury	7439-97-6	E510	0.0050	mg/kg	0.0275	---	---	---	---	
molybdenum	7439-98-7	E440	0.10	mg/kg	1.51	---	---	---	---	
nickel	7440-02-0	E440	0.50	mg/kg	19.7	---	---	---	---	
phosphorus	7723-14-0	E440	50	mg/kg	1220	---	---	---	---	
potassium	7440-09-7	E440	100	mg/kg	2060	---	---	---	---	
selenium	7782-49-2	E440	0.20	mg/kg	0.63	---	---	---	---	
silver	7440-22-4	E440	0.10	mg/kg	<0.10	---	---	---	---	
sodium	7440-23-5	E440	50	mg/kg	74	---	---	---	---	
strontium	7440-24-6	E440	0.50	mg/kg	42.2	---	---	---	---	
sulfur	7704-34-9	E440	1000	mg/kg	<1000	---	---	---	---	
thallium	7440-28-0	E440	0.050	mg/kg	0.290	---	---	---	---	
tin	7440-31-5	E440	2.0	mg/kg	<2.0	---	---	---	---	
titanium	7440-32-6	E440	1.0	mg/kg	7.8	---	---	---	---	
tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	---	---	---	---	
uranium	7440-61-1	E440	0.050	mg/kg	0.625	---	---	---	---	
vanadium	7440-62-2	E440	0.20	mg/kg	23.1	---	---	---	---	
zinc	7440-66-6	E440	2.0	mg/kg	88.8	---	---	---	---	
zirconium	7440-67-7	E440	1.0	mg/kg	1.3	---	---	---	---	
<b>Polycyclic Aromatic Hydrocarbons</b>										
acenaphthene	83-32-9	E641A	0.050	mg/kg	<0.050	---	---	---	---	
acenaphthylene	208-96-8	E641A	0.050	mg/kg	<0.050	---	---	---	---	
acridine	260-94-6	E641A	0.050	mg/kg	<0.050	---	---	---	---	
anthracene	120-12-7	E641A	0.050	mg/kg	<0.050	---	---	---	---	



## Analytical Results

Sub-Matrix: Sediment

Client sample ID

(Matrix: Soil/Solid)

					RG_RIVER_SE-2 _2022-10-22_N	----	----	----	----	
					Client sampling date / time	22-Oct-2022 12:59	---	---	---	---
Analyte	CAS Number	Method	LOR	Unit	CG2214921-006	-----	-----	-----	-----	
					Result	---	---	---	---	
<b>Polycyclic Aromatic Hydrocarbons</b>										
benz(a)anthracene	56-55-3	E641A	0.050	mg/kg	<0.050	---	---	---	---	
benzo(a)pyrene	50-32-8	E641A	0.050	mg/kg	<0.050	---	---	---	---	
benzo(b+j)fluoranthene	n/a	E641A	0.050	mg/kg	<0.050	---	---	---	---	
benzo(b+j+k)fluoranthene	n/a	E641A	0.075	mg/kg	<0.075	---	---	---	---	
benzo(g,h,i)perylene	191-24-2	E641A	0.050	mg/kg	<0.050	---	---	---	---	
benzo(k)fluoranthene	207-08-9	E641A	0.050	mg/kg	<0.050	---	---	---	---	
chrysene	218-01-9	E641A	0.050	mg/kg	<0.050	---	---	---	---	
dibenz(a,h)anthracene	53-70-3	E641A	0.050	mg/kg	<0.050	---	---	---	---	
fluoranthene	206-44-0	E641A	0.050	mg/kg	<0.050	---	---	---	---	
fluorene	86-73-7	E641A	0.050	mg/kg	<0.050	---	---	---	---	
indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.050	mg/kg	<0.050	---	---	---	---	
methylnaphthalene, 1-	90-12-0	E641A	0.030	mg/kg	0.070	---	---	---	---	
methylnaphthalene, 1+2-	----	E641A	0.050	mg/kg	0.163	---	---	---	---	
methylnaphthalene, 2-	91-57-6	E641A	0.030	mg/kg	0.093	---	---	---	---	
naphthalene	91-20-3	E641A	0.010	mg/kg	0.025	---	---	---	---	
phenanthrene	85-01-8	E641A	0.050	mg/kg	0.112	---	---	---	---	
pyrene	129-00-0	E641A	0.050	mg/kg	<0.050	---	---	---	---	
quinoline	91-22-5	E641A	0.050	mg/kg	<0.050	---	---	---	---	
B(a)P total potency equivalents [B(a)P TPE]	----	E641A	0.065	mg/kg	<0.065	---	---	---	---	
IACR (CCME)	----	E641A	0.60	-	<0.60	---	---	---	---	
IACR AB (coarse)	----	E641A	0.10	-	<0.10	---	---	---	---	
IACR AB (fine)	----	E641A	0.10	-	<0.10	---	---	---	---	
PAHs, total (BC Sched 3.4)	n/a	E641A	0.20	mg/kg	0.23	---	---	---	---	
PAHs, total (EPA 16)	n/a	E641A	0.20	mg/kg	<0.20	---	---	---	---	
<b>Polycyclic Aromatic Hydrocarbons Surrogates</b>										
acridine-d9	34749-75-2	E641A	0.1	%	80.9	---	---	---	---	
chrysene-d12	1719-03-5	E641A	0.1	%	89.0	---	---	---	---	
naphthalene-d8	1146-65-2	E641A	0.1	%	93.5	---	---	---	---	
phenanthrene-d10	1517-22-2	E641A	0.1	%	95.7	---	---	---	---	



Please refer to the General Comments section for an explanation of any qualifiers detected.




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## QUALITY CONTROL INTERPRETIVE REPORT

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<p><b>Work Order</b> : <b>CG2214921</b></p> <p><b>Client</b> : <b>Teck Coal Limited</b></p> <p><b>Contact</b> : Cybele Heddle</p> <p><b>Address</b> : 421 Pine Ave Sparwood BC Canada</p> <p><b>Telephone</b> : ----</p> <p><b>Project</b> : Regional Effects Program</p> <p><b>PO</b> : VPO00816101</p> <p><b>C-O-C number</b> : REP_LAEMP_CMm_2022-09_ALS</p> <p><b>Sampler</b> : Emily Dutton</p> <p><b>Site</b> : ----</p> <p><b>Quote number</b> : Teck Coal Master Quote</p> <p><b>No. of samples received</b> : 6</p> <p><b>No. of samples analysed</b> : 6</p>	<p><b>Page</b> : 1 of 11</p> <p><b>Laboratory</b> : Calgary - Environmental</p> <p><b>Account Manager</b> : Lyudmyla Shvets</p> <p><b>Address</b> : 2559 29th Street NE Calgary, Alberta Canada T1Y 7B5</p> <p><b>Telephone</b> : +1 403 407 1800</p> <p><b>Date Samples Received</b> : 26-Oct-2022 09:00</p> <p><b>Issue Date</b> : 01-Nov-2022 12:02</p>
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This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

**Key**

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
  - CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
  - DQO: Data Quality Objective.
  - LOR: Limit of Reporting (detection limit).
  - RPD: Relative Percent Difference.
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### ***Workorder Comments***

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Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

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### ***Summary of Outliers***

#### ***Outliers : Quality Control Samples***

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

#### ***Outliers: Reference Material (RM) Samples***

- No Reference Material (RM) Sample outliers occur.

### ***Outliers : Analysis Holding Time Compliance (Breaches)***

- No Analysis Holding Time Outliers exist.

### ***Outliers : Frequency of Quality Control Samples***

- No Quality Control Sample Frequency Outliers occur.



## Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: Soil/Solid

Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Metals : Mercury in Soil/Solid by CVAAS</b>										
Glass soil jar/Teflon lined cap RG_MIUCO_SE-1_2022-10-22_N	E510	22-Oct-2022	27-Oct-2022	----	----		27-Oct-2022	28 days	5 days	✓
<b>Metals : Mercury in Soil/Solid by CVAAS</b>										
Glass soil jar/Teflon lined cap RG_MIUCO_SE-2_2022-10-22_N	E510	22-Oct-2022	27-Oct-2022	----	----		27-Oct-2022	28 days	5 days	✓
<b>Metals : Mercury in Soil/Solid by CVAAS</b>										
Glass soil jar/Teflon lined cap RG_MIUCO_SE-3_2022-10-22_N	E510	22-Oct-2022	27-Oct-2022	----	----		27-Oct-2022	28 days	5 days	✓
<b>Metals : Mercury in Soil/Solid by CVAAS</b>										
Glass soil jar/Teflon lined cap RG_MIUCO_SE-4_2022-10-22_N	E510	22-Oct-2022	27-Oct-2022	----	----		27-Oct-2022	28 days	5 days	✓
<b>Metals : Mercury in Soil/Solid by CVAAS</b>										
Glass soil jar/Teflon lined cap RG_RIVER_SE-1_2022-10-22_N	E510	22-Oct-2022	27-Oct-2022	----	----		27-Oct-2022	28 days	5 days	✓
<b>Metals : Mercury in Soil/Solid by CVAAS</b>										
Glass soil jar/Teflon lined cap RG_RIVER_SE-2_2022-10-22_N	E510	22-Oct-2022	27-Oct-2022	----	----		27-Oct-2022	28 days	5 days	✓
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>										
Glass soil jar/Teflon lined cap RG_MIUCO_SE-1_2022-10-22_N	E440	22-Oct-2022	27-Oct-2022	----	----		27-Oct-2022	180 days	5 days	✓



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
Glass soil jar/Teflon lined cap RG_MIUCO_SE-2_2022-10-22_N	E440	22-Oct-2022	27-Oct-2022	----	----		27-Oct-2022	180 days	5 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
Glass soil jar/Teflon lined cap RG_MIUCO_SE-3_2022-10-22_N	E440	22-Oct-2022	27-Oct-2022	----	----		27-Oct-2022	180 days	5 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
Glass soil jar/Teflon lined cap RG_MIUCO_SE-4_2022-10-22_N	E440	22-Oct-2022	27-Oct-2022	----	----		27-Oct-2022	180 days	5 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
Glass soil jar/Teflon lined cap RG_RIVER_SE-1_2022-10-22_N	E440	22-Oct-2022	27-Oct-2022	----	----		27-Oct-2022	180 days	5 days	✔	
<b>Metals : Metals in Soil/Solid by CRC ICPMS</b>											
Glass soil jar/Teflon lined cap RG_RIVER_SE-2_2022-10-22_N	E440	22-Oct-2022	27-Oct-2022	----	----		27-Oct-2022	180 days	5 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_MIUCO_SE-1_2022-10-22_N	E351	22-Oct-2022	29-Oct-2022	----	----		29-Oct-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_MIUCO_SE-2_2022-10-22_N	E351	22-Oct-2022	29-Oct-2022	----	----		29-Oct-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_MIUCO_SE-3_2022-10-22_N	E351	22-Oct-2022	29-Oct-2022	----	----		29-Oct-2022	180 days	0 days	✔	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>											
LDPE bag RG_MIUCO_SE-4_2022-10-22_N	E351	22-Oct-2022	29-Oct-2022	----	----		29-Oct-2022	180 days	0 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>										
LDPE bag RG_RIVER_SE-1_2022-10-22_N	E351	22-Oct-2022	29-Oct-2022	----	----		29-Oct-2022	180 days	0 days	✔
<b>Organic / Inorganic Carbon : Total Carbon by Combustion</b>										
LDPE bag RG_RIVER_SE-2_2022-10-22_N	E351	22-Oct-2022	29-Oct-2022	----	----		29-Oct-2022	180 days	0 days	✔
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MIUCO_SE-1_2022-10-22_N	E354	22-Oct-2022	----	----	----		29-Oct-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MIUCO_SE-2_2022-10-22_N	E354	22-Oct-2022	----	----	----		29-Oct-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MIUCO_SE-3_2022-10-22_N	E354	22-Oct-2022	----	----	----		29-Oct-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_MIUCO_SE-4_2022-10-22_N	E354	22-Oct-2022	----	----	----		29-Oct-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_RIVER_SE-1_2022-10-22_N	E354	22-Oct-2022	----	----	----		29-Oct-2022	----	----	
<b>Organic / Inorganic Carbon : Total Inorganic Carbon by Acetic Acid pH Standard Curve</b>										
LDPE bag RG_RIVER_SE-2_2022-10-22_N	E354	22-Oct-2022	----	----	----		29-Oct-2022	----	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_MIUCO_SE-1_2022-10-22_N	E185A	22-Oct-2022	----	----	----		01-Nov-2022	365 days	----	





Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_MIUCO_SE-2_2022-10-22_N	E185A	22-Oct-2022	----	----	----		01-Nov-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_MIUCO_SE-3_2022-10-22_N	E185A	22-Oct-2022	----	----	----		01-Nov-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_MIUCO_SE-4_2022-10-22_N	E185A	22-Oct-2022	----	----	----		01-Nov-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_RIVER_SE-1_2022-10-22_N	E185A	22-Oct-2022	----	----	----		01-Nov-2022	365 days	----	
<b>Particle Size : Grain Size Report (Attachment) Pipet/Sieve Method</b>										
LDPE bag RG_RIVER_SE-2_2022-10-22_N	E185A	22-Oct-2022	----	----	----		01-Nov-2022	365 days	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_MIUCO_SE-1_2022-10-22_N	E144	22-Oct-2022	----	----	----		26-Oct-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_MIUCO_SE-2_2022-10-22_N	E144	22-Oct-2022	----	----	----		26-Oct-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_MIUCO_SE-3_2022-10-22_N	E144	22-Oct-2022	----	----	----		26-Oct-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_MIUCO_SE-4_2022-10-22_N	E144	22-Oct-2022	----	----	----		26-Oct-2022	----	----	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_RIVER_SE-1_2022-10-22_N	E144	22-Oct-2022	----	----	----		26-Oct-2022	----	----	
<b>Physical Tests : Moisture Content by Gravimetry</b>										
Glass soil jar/Teflon lined cap RG_RIVER_SE-2_2022-10-22_N	E144	22-Oct-2022	----	----	----		26-Oct-2022	----	----	
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>										
Glass soil jar/Teflon lined cap RG_MIUCO_SE-1_2022-10-22_N	E108	22-Oct-2022	27-Oct-2022	----	----		27-Oct-2022	30 days	5 days	✔
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>										
Glass soil jar/Teflon lined cap RG_MIUCO_SE-2_2022-10-22_N	E108	22-Oct-2022	27-Oct-2022	----	----		27-Oct-2022	30 days	5 days	✔
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>										
Glass soil jar/Teflon lined cap RG_MIUCO_SE-3_2022-10-22_N	E108	22-Oct-2022	27-Oct-2022	----	----		27-Oct-2022	30 days	5 days	✔
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>										
Glass soil jar/Teflon lined cap RG_MIUCO_SE-4_2022-10-22_N	E108	22-Oct-2022	27-Oct-2022	----	----		27-Oct-2022	30 days	5 days	✔
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>										
Glass soil jar/Teflon lined cap RG_RIVER_SE-1_2022-10-22_N	E108	22-Oct-2022	27-Oct-2022	----	----		27-Oct-2022	30 days	5 days	✔
<b>Physical Tests : pH by Meter (1:2 Soil:Water Extraction)</b>										
Glass soil jar/Teflon lined cap RG_RIVER_SE-2_2022-10-22_N	E108	22-Oct-2022	27-Oct-2022	----	----		27-Oct-2022	30 days	5 days	✔
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>										
Glass soil jar/Teflon lined cap RG_MIUCO_SE-1_2022-10-22_N	E641A	22-Oct-2022	26-Oct-2022	14 days	4 days	✔	27-Oct-2022	40 days	1 days	✔



Matrix: Soil/Solid

Evaluation: \* = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
Glass soil jar/Teflon lined cap RG_MIUCO_SE-2_2022-10-22_N	E641A	22-Oct-2022	26-Oct-2022	14 days	4 days	✓	27-Oct-2022	40 days	1 days	✓	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
Glass soil jar/Teflon lined cap RG_MIUCO_SE-3_2022-10-22_N	E641A	22-Oct-2022	26-Oct-2022	14 days	4 days	✓	27-Oct-2022	40 days	1 days	✓	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
Glass soil jar/Teflon lined cap RG_MIUCO_SE-4_2022-10-22_N	E641A	22-Oct-2022	26-Oct-2022	14 days	4 days	✓	27-Oct-2022	40 days	1 days	✓	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
Glass soil jar/Teflon lined cap RG_RIVER_SE-1_2022-10-22_N	E641A	22-Oct-2022	26-Oct-2022	14 days	4 days	✓	27-Oct-2022	40 days	1 days	✓	
<b>Polycyclic Aromatic Hydrocarbons : PAHs by Hex:Ace GC-MS</b>											
Glass soil jar/Teflon lined cap RG_RIVER_SE-2_2022-10-22_N	E641A	22-Oct-2022	26-Oct-2022	14 days	4 days	✓	27-Oct-2022	40 days	1 days	✓	

**Legend & Qualifier Definitions**

Rec. HT: ALS recommended hold time (see units).



## Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Soil/Solid**

Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
<b>Analytical Methods</b>							
<b>Laboratory Duplicates (DUP)</b>							
Mercury in Soil/Solid by CVAAS	E510	717131	1	17	5.8	5.0	✔
Metals in Soil/Solid by CRC ICPMS	E440	717130	1	17	5.8	5.0	✔
Moisture Content by Gravimetry	E144	715751	1	15	6.6	5.0	✔
PAHs by Hex:Ace GC-MS	E641A	715750	1	11	9.0	5.0	✔
pH by Meter (1:2 Soil:Water Extraction)	E108	717915	1	7	14.2	5.0	✔
Total Carbon by Combustion	E351	721442	2	30	6.6	5.0	✔
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354	721422	1	19	5.2	5.0	✔
<b>Laboratory Control Samples (LCS)</b>							
Mercury in Soil/Solid by CVAAS	E510	717131	2	17	11.7	10.0	✔
Metals in Soil/Solid by CRC ICPMS	E440	717130	2	17	11.7	10.0	✔
Moisture Content by Gravimetry	E144	715751	1	15	6.6	5.0	✔
PAHs by Hex:Ace GC-MS	E641A	715750	1	11	9.0	5.0	✔
pH by Meter (1:2 Soil:Water Extraction)	E108	717915	2	7	28.5	10.0	✔
Total Carbon by Combustion	E351	721442	4	30	13.3	10.0	✔
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354	721422	2	19	10.5	10.0	✔
<b>Method Blanks (MB)</b>							
Mercury in Soil/Solid by CVAAS	E510	717131	1	17	5.8	5.0	✔
Metals in Soil/Solid by CRC ICPMS	E440	717130	1	17	5.8	5.0	✔
Moisture Content by Gravimetry	E144	715751	1	15	6.6	5.0	✔
PAHs by Hex:Ace GC-MS	E641A	715750	1	11	9.0	5.0	✔
Total Carbon by Combustion	E351	721442	2	30	6.6	5.0	✔
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354	721422	1	19	5.2	5.0	✔
<b>Matrix Spikes (MS)</b>							
PAHs by Hex:Ace GC-MS	E641A	715750	1	11	9.0	5.0	✔



## Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
pH by Meter (1:2 Soil:Water Extraction)	E108 Calgary - Environmental	Soil/Solid	BC Lab Manual	pH is determined by potentiometric measurement with a pH electrode at ambient laboratory temperature (normally 20 ± 5°C), and is carried out in accordance with procedures described in the BC Lab Manual (prescriptive method). The procedure involves mixing the dried (at <60 °C) and sieved (10mesh/2mm) sample with ultra pure water at a 1:2 ratio of sediment to water. The pH is then measured by a standard pH probe.
Moisture Content by Gravimetry	E144 Calgary - Environmental	Soil/Solid	CCME PHC in Soil - Tier 1	Moisture is measured gravimetrically by drying the sample at 105°C. Moisture content is calculated as the weight loss (due to water) divided by the wet weight of the sample, expressed as a percentage.
Grain Size Report (Attachment) Pipet/Sieve Method	E185A Saskatoon - Environmental	Soil/Solid	SSIR-51 Method 3.2.1	A grain size curve is a graphical representation of the particle sizing of a sample representing the percent passing against the effective particle size.
Total Carbon by Combustion	E351 Saskatoon - Environmental	Soil/Solid	CSSS (2008) 21.2 (mod)	Total Carbon is determined by the high temperature combustion method with measurement by an infrared detector.
Total Inorganic Carbon by Acetic Acid pH Standard Curve	E354 Saskatoon - Environmental	Soil/Solid	CSSS (2008) 20.2	Total Inorganic Carbon is determined by acetic acid pH standard curve, where a known quantity of acetic acid is consumed by reaction with carbonates in the soil. The pH of the resulting solution is measured and compared against a standard curve relating pH to weight of carbonate.
Metals in Soil/Solid by CRC ICPMS	E440 Calgary - Environmental	Soil/Solid	EPA 6020B (mod)	This method is intended to liberate metals that may be environmentally available. Samples are dried, then sieved through a 2 mm sieve, and digested with HNO <sub>3</sub> and HCl.  Dependent on sample matrix, some metals may be only partially recovered, including Al, Ba, Be, Cr, Sr, Ti, Tl, V, W, and Zr. Silicate minerals are not solubilized. Volatile forms of sulfur (including sulfide) may not be captured, as they may be lost during sampling, storage, or digestion. This method does not adequately recover elemental sulfur, and is unsuitable for assessment of elemental sulfur standards or guidelines.  Analysis is by Collision/Reaction Cell ICPMS.
Mercury in Soil/Solid by CVAAS	E510 Calgary - Environmental	Soil/Solid	EPA 200.2/1631 Appendix (mod)	Samples are dried, then sieved through a 2 mm sieve, and digested with HNO <sub>3</sub> and HCl, followed by CVAAS analysis.
PAHs by Hex:Ace GC-MS	E641A Calgary - Environmental	Soil/Solid	EPA 8270E (mod)	Polycyclic Aromatic Hydrocarbons (PAHs) are extracted with hexane/acetone and analyzed by GC-MS. If reported, IACR (index of additive cancer risk, unitless) and B(a)P toxic potency equivalent (in soil concentration units) are calculated as per CCME PAH Soil Quality Guidelines fact sheet (2010) or ABT1.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Particle Size Analysis (Pipette) - Wentworth Classification	EC184A Saskatoon - Environmental	Soil/Solid	Modified Wentworth	The particle size determination is performed by various methods to generate a Grain Size curve. The data from the curve is then used to produce particle size ranges based on the Modified Wentworth Classification system.
Total Organic Carbon (Calculated) in soil	EC356 Saskatoon - Environmental	Soil/Solid	CSSS (2008) 21.2	Total Organic Carbon (TOC) is calculated by the difference between total carbon (TC) and total inorganic carbon (TIC).

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Leach 1:2 Soil:Water for pH/EC	EP108 Calgary - Environmental	Soil/Solid	BC WLAP METHOD: PH, ELECTROMETRIC, SOIL	The procedure involves mixing the dried (at <60°C) and sieved (No. 10 / 2mm) sample with deionized/distilled water at a 1:2 ratio of sediment to water.
Digestion for Metals and Mercury	EP440 Calgary - Environmental	Soil/Solid	EPA 200.2 (mod)	Samples are dried, then sieved through a 2 mm sieve, and digested with HNO <sub>3</sub> and HCl. This method is intended to liberate metals that may be environmentally available.
PHCs and PAHs Hexane-Acetone Tumbler Extraction	EP601 Calgary - Environmental	Soil/Solid	CCME PHC in Soil - Tier 1 (mod)	Samples are subsampled and Petroleum Hydrocarbons (PHC) and PAHs are extracted with 1:1 hexane:acetone using a rotary extractor.
Dry and Grind in Soil/Solid <60°C	EPP442 Calgary - Environmental	Soil/Solid	Soil Sampling and Methods of Analysis, Carter 2008	After removal of any coarse fragments and reservation of wet subsamples a portion of homogenized sample is set in a tray and dried at less than 60°C until dry. The sample is then particle size reduced with an automated crusher or mortar and pestle, typically to <2 mm. Further size reduction may be needed for particular tests.

## QUALITY CONTROL REPORT

<p><b>Work Order</b> : <b>CG2214921</b></p> <p>Client : Teck Coal Limited</p> <p>Contact : Cybele Heddle</p> <p>Address : 421 Pine Ave Sparwood BC Canada</p> <p>Telephone :</p> <p>Project : Regional Effects Program</p> <p>PO : VPO00816101</p> <p>C-O-C number : REP_LAEMP_CMm_2022-09_ALS</p> <p>Sampler : Emily Dutton ____</p> <p>Site : ----</p> <p>Quote number : Teck Coal Master Quote</p> <p>No. of samples received : 6</p> <p>No. of samples analysed : 6</p>	<p>Page : 1 of 14</p> <p>Laboratory : Calgary - Environmental</p> <p>Account Manager : Lyudmyla Shvets</p> <p>Address : 2559 29th Street NE Calgary, Alberta Canada T1Y 7B5</p> <p>Telephone : +1 403 407 1800</p> <p>Date Samples Received : 26-Oct-2022 09:00</p> <p>Date Analysis Commenced : 26-Oct-2022</p> <p>Issue Date : 01-Nov-2022 12:02</p>
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This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Reference Material (RM) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

### Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Amber Sheikh	Laboratory Assistant	Calgary Organics, Calgary, Alberta
Anthony Calero	Supervisor - Inorganic	Calgary Metals, Calgary, Alberta
Hedy Lai	Team Leader - Inorganics	Saskatoon Inorganics, Saskatoon, Saskatchewan
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Work Order : CG2214921  
Client : Teck Coal Limited  
Project : Regional Effects Program

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## **General Comments**

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

### **Key :**

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

# = Indicates a QC result that did not meet the ALS DQO.

## **Workorder Comments**

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Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

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### Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: Soil/Solid

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Physical Tests (QC Lot: 715751)</b>											
CG2214912-001	Anonymous	moisture	----	E144	0.25	%	46.4	44.5	4.11%	20%	----
<b>Physical Tests (QC Lot: 717915)</b>											
CG2214915-005	Anonymous	pH (1:2 soil:water)	----	E108	0.10	pH units	8.26	8.30	0.483%	5%	----
<b>Organic / Inorganic Carbon (QC Lot: 718009)</b>											
CG2214906-003	Anonymous	carbon, total [TC]	----	E351	0.050	%	13.5	13.5	0.402%	20%	----
<b>Organic / Inorganic Carbon (QC Lot: 721422)</b>											
CG2214915-003	Anonymous	carbon, inorganic [IC]	----	E354	0.050	%	2.08	2.16	3.60%	20%	----
<b>Organic / Inorganic Carbon (QC Lot: 721442)</b>											
VA22C5796-001	Anonymous	carbon, total [TC]	----	E351	0.050	%	8.64	8.90	2.88%	20%	----
<b>Metals (QC Lot: 717130)</b>											
CG2214325-006	Anonymous	aluminum	7429-90-5	E440	50	mg/kg	4250	4170	1.82%	40%	----
		antimony	7440-36-0	E440	0.10	mg/kg	1.10	1.01	8.20%	30%	----
		arsenic	7440-38-2	E440	0.10	mg/kg	4.28	3.88	9.93%	30%	----
		barium	7440-39-3	E440	0.50	mg/kg	336	366	8.34%	40%	----
		beryllium	7440-41-7	E440	0.10	mg/kg	0.66	0.66	0.006	Diff <2x LOR	----
		bismuth	7440-69-9	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		boron	7440-42-8	E440	5.0	mg/kg	6.4	5.8	0.6	Diff <2x LOR	----
		cadmium	7440-43-9	E440	0.020	mg/kg	1.27	1.36	6.72%	30%	----
		calcium	7440-70-2	E440	50	mg/kg	38000	31400	19.2%	30%	----
		chromium	7440-47-3	E440	0.50	mg/kg	11.8	10.8	9.19%	30%	----
		cobalt	7440-48-4	E440	0.10	mg/kg	4.87	4.91	0.866%	30%	----
		copper	7440-50-8	E440	0.50	mg/kg	25.8	25.0	3.11%	30%	----
		iron	7439-89-6	E440	50	mg/kg	13700	10200	29.8%	30%	----
		lead	7439-92-1	E440	0.50	mg/kg	9.52	9.86	3.51%	40%	----
		lithium	7439-93-2	E440	2.0	mg/kg	7.1	6.2	0.9	Diff <2x LOR	----
		magnesium	7439-95-4	E440	20	mg/kg	7530	7020	7.06%	30%	----
		manganese	7439-96-5	E440	1.0	mg/kg	222	167	28.0%	30%	----
molybdenum	7439-98-7	E440	0.10	mg/kg	32.6	32.7	0.412%	40%	----		
nickel	7440-02-0	E440	0.50	mg/kg	20.2	20.1	0.922%	30%	----		
phosphorus	7723-14-0	E440	50	mg/kg	1110	1160	4.31%	30%	----		



Sub-Matrix: Soil/Solid					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
<b>Metals (QC Lot: 717130) - continued</b>											
CG2214325-006	Anonymous	potassium	7440-09-7	E440	100	mg/kg	1440	1390	3.02%	40%	----
		selenium	7782-49-2	E440	0.20	mg/kg	1.90	1.82	4.35%	30%	----
		silver	7440-22-4	E440	0.10	mg/kg	0.27	0.29	0.02	Diff <2x LOR	----
		sodium	7440-23-5	E440	50	mg/kg	90	82	9	Diff <2x LOR	----
		strontium	7440-24-6	E440	0.50	mg/kg	107	107	0.0326%	40%	----
		sulfur	7704-34-9	E440	1000	mg/kg	1100	1000	60	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.050	mg/kg	0.126	0.120	0.006	Diff <2x LOR	----
		tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		titanium	7440-32-6	E440	1.0	mg/kg	7.3	7.1	3.08%	40%	----
		tungsten	7440-33-7	E440	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.050	mg/kg	1.23	1.26	2.37%	30%	----
		vanadium	7440-62-2	E440	0.20	mg/kg	26.5	25.2	5.03%	30%	----
		zinc	7440-66-6	E440	2.0	mg/kg	105	108	2.33%	30%	----
zirconium	7440-67-7	E440	1.0	mg/kg	2.3	2.4	0.1	Diff <2x LOR	----		
<b>Metals (QC Lot: 717131)</b>											
CG2214325-006	Anonymous	mercury	7439-97-6	E510	0.0050	mg/kg	0.0482	0.0425	12.7%	40%	----
<b>Polycyclic Aromatic Hydrocarbons (QC Lot: 715750)</b>											
CG2214915-001	Anonymous	acenaphthene	83-32-9	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		acenaphthylene	208-96-8	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		acridine	260-94-6	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		anthracene	120-12-7	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benz(a)anthracene	56-55-3	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benzo(a)pyrene	50-32-8	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benzo(b+j)fluoranthene	n/a	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benzo(g,h,i)perylene	191-24-2	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benzo(k)fluoranthene	207-08-9	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		chrysene	218-01-9	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dibenz(a,h)anthracene	53-70-3	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		fluoranthene	206-44-0	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		fluorene	86-73-7	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		methylnaphthalene, 1-	90-12-0	E641A	0.030	mg/kg	0.106	0.109	0.003	Diff <2x LOR	----
		methylnaphthalene, 2-	91-57-6	E641A	0.030	mg/kg	0.158	0.162	2.63%	50%	----
naphthalene	91-20-3	E641A	0.010	mg/kg	0.051	0.054	5.29%	50%	----		

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 Work Order : CG2214921  
 Client : Teck Coal Limited  
 Project : Regional Effects Program



Sub-Matrix: **Soil/Solid**

*Laboratory Duplicate (DUP) Report*

<i>Laboratory sample ID</i>	<i>Client sample ID</i>	<i>Analyte</i>	<i>CAS Number</i>	<i>Method</i>	<i>LOR</i>	<i>Unit</i>	<i>Original Result</i>	<i>Duplicate Result</i>	<i>RPD(%) or Difference</i>	<i>Duplicate Limits</i>	<i>Qualifier</i>
<b>Polycyclic Aromatic Hydrocarbons (QC Lot: 715750) - continued</b>											
CG2214915-001	Anonymous	phenanthrene	85-01-8	E641A	0.050	mg/kg	0.124	0.120	0.004	Diff <2x LOR	----
		pyrene	129-00-0	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		quinoline	91-22-5	E641A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----



## Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: Soil/Solid

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Physical Tests (QCLot: 715751)</b>						
moisture	---	E144	0.25	%	<0.25	---
<b>Organic / Inorganic Carbon (QCLot: 718009)</b>						
carbon, total [TC]	---	E351	0.05	%	<0.050	---
<b>Organic / Inorganic Carbon (QCLot: 721422)</b>						
carbon, inorganic [IC]	---	E354	0.05	%	<0.050	---
<b>Organic / Inorganic Carbon (QCLot: 721442)</b>						
carbon, total [TC]	---	E351	0.05	%	<0.050	---
<b>Metals (QCLot: 717130)</b>						
aluminum	7429-90-5	E440	50	mg/kg	<50	---
antimony	7440-36-0	E440	0.1	mg/kg	<0.10	---
arsenic	7440-38-2	E440	0.1	mg/kg	<0.10	---
barium	7440-39-3	E440	0.5	mg/kg	<0.50	---
beryllium	7440-41-7	E440	0.1	mg/kg	<0.10	---
bismuth	7440-69-9	E440	0.2	mg/kg	<0.20	---
boron	7440-42-8	E440	5	mg/kg	<5.0	---
cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	---
calcium	7440-70-2	E440	50	mg/kg	<50	---
chromium	7440-47-3	E440	0.5	mg/kg	<0.50	---
cobalt	7440-48-4	E440	0.1	mg/kg	<0.10	---
copper	7440-50-8	E440	0.5	mg/kg	<0.50	---
iron	7439-89-6	E440	50	mg/kg	<50	---
lead	7439-92-1	E440	0.5	mg/kg	<0.50	---
lithium	7439-93-2	E440	2	mg/kg	<2.0	---
magnesium	7439-95-4	E440	20	mg/kg	<20	---
manganese	7439-96-5	E440	1	mg/kg	<1.0	---
molybdenum	7439-98-7	E440	0.1	mg/kg	<0.10	---
nickel	7440-02-0	E440	0.5	mg/kg	<0.50	---
phosphorus	7723-14-0	E440	50	mg/kg	<50	---
potassium	7440-09-7	E440	100	mg/kg	<100	---
selenium	7782-49-2	E440	0.2	mg/kg	<0.20	---
silver	7440-22-4	E440	0.1	mg/kg	<0.10	---
sodium	7440-23-5	E440	50	mg/kg	<50	---



Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
<b>Metals (QCLot: 717130) - continued</b>						
strontium	7440-24-6	E440	0.5	mg/kg	<0.50	---
sulfur	7704-34-9	E440	1000	mg/kg	<1000	---
thallium	7440-28-0	E440	0.05	mg/kg	<0.050	---
tin	7440-31-5	E440	2	mg/kg	<2.0	---
titanium	7440-32-6	E440	1	mg/kg	<1.0	---
tungsten	7440-33-7	E440	0.5	mg/kg	<0.50	---
uranium	7440-61-1	E440	0.05	mg/kg	<0.050	---
vanadium	7440-62-2	E440	0.2	mg/kg	<0.20	---
zinc	7440-66-6	E440	2	mg/kg	<2.0	---
zirconium	7440-67-7	E440	1	mg/kg	<1.0	---
<b>Metals (QCLot: 717131)</b>						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	---
<b>Polycyclic Aromatic Hydrocarbons (QCLot: 715750)</b>						
acenaphthene	83-32-9	E641A	0.05	mg/kg	<0.050	---
acenaphthylene	208-96-8	E641A	0.05	mg/kg	<0.050	---
acridine	260-94-6	E641A	0.05	mg/kg	<0.050	---
anthracene	120-12-7	E641A	0.05	mg/kg	<0.050	---
benz(a)anthracene	56-55-3	E641A	0.05	mg/kg	<0.050	---
benzo(a)pyrene	50-32-8	E641A	0.05	mg/kg	<0.050	---
benzo(b+j)fluoranthene	n/a	E641A	0.05	mg/kg	<0.050	---
benzo(g,h,i)perylene	191-24-2	E641A	0.05	mg/kg	<0.050	---
benzo(k)fluoranthene	207-08-9	E641A	0.05	mg/kg	<0.050	---
chrysene	218-01-9	E641A	0.05	mg/kg	<0.050	---
dibenz(a,h)anthracene	53-70-3	E641A	0.05	mg/kg	<0.050	---
fluoranthene	206-44-0	E641A	0.05	mg/kg	<0.050	---
fluorene	86-73-7	E641A	0.05	mg/kg	<0.050	---
indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.05	mg/kg	<0.050	---
methylnaphthalene, 1-	90-12-0	E641A	0.03	mg/kg	<0.030	---
methylnaphthalene, 2-	91-57-6	E641A	0.03	mg/kg	<0.030	---
naphthalene	91-20-3	E641A	0.01	mg/kg	<0.010	---
phenanthrene	85-01-8	E641A	0.05	mg/kg	<0.050	---
pyrene	129-00-0	E641A	0.05	mg/kg	<0.050	---
quinoline	91-22-5	E641A	0.05	mg/kg	<0.050	---





## Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Soil/Solid

					Laboratory Control Sample (LCS) Report				
Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
<b>Physical Tests (QCLot: 715751)</b>									
moisture	----	E144	0.25	%	50 %	101	90.0	110	----
<b>Physical Tests (QCLot: 717915)</b>									
pH (1:2 soil:water)	----	E108	----	pH units	7 pH units	100	97.0	103	----
<b>Organic / Inorganic Carbon (QCLot: 718009)</b>									
carbon, total [TC]	----	E351	0.05	%	48 %	101	90.0	110	----
<b>Organic / Inorganic Carbon (QCLot: 721422)</b>									
carbon, inorganic [IC]	----	E354	0.05	%	0.5 %	94.3	90.0	110	----
<b>Organic / Inorganic Carbon (QCLot: 721442)</b>									
carbon, total [TC]	----	E351	0.05	%	48 %	100.0	90.0	110	----
<b>Metals (QCLot: 717130)</b>									
aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	99.4	80.0	120	----
antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	102	80.0	120	----
arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	99.6	80.0	120	----
barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	102	80.0	120	----
beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	98.2	80.0	120	----
bismuth	7440-69-9	E440	0.2	mg/kg	100 mg/kg	97.6	80.0	120	----
boron	7440-42-8	E440	5	mg/kg	100 mg/kg	101	80.0	120	----
cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	99.6	80.0	120	----
calcium	7440-70-2	E440	50	mg/kg	5000 mg/kg	98.3	80.0	120	----
chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	94.8	80.0	120	----
cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	88.8	80.0	120	----
copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	95.8	80.0	120	----
iron	7439-89-6	E440	50	mg/kg	100 mg/kg	104	80.0	120	----
lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	99.3	80.0	120	----
lithium	7439-93-2	E440	2	mg/kg	25 mg/kg	106	80.0	120	----
magnesium	7439-95-4	E440	20	mg/kg	5000 mg/kg	100	80.0	120	----
manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	95.4	80.0	120	----
molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	98.2	80.0	120	----
nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	85.4	80.0	120	----
phosphorus	7723-14-0	E440	50	mg/kg	1000 mg/kg	97.0	80.0	120	----
potassium	7440-09-7	E440	100	mg/kg	5000 mg/kg	99.6	80.0	120	----



Sub-Matrix: Soil/Solid

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Concentration	LCS	Low	High	
<b>Metals (QCLot: 717130) - continued</b>									
selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	102	80.0	120	----
silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	92.2	80.0	120	----
sodium	7440-23-5	E440	50	mg/kg	5000 mg/kg	103	80.0	120	----
strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	97.6	80.0	120	----
sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	92.0	80.0	120	----
thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	98.9	80.0	120	----
tin	7440-31-5	E440	2	mg/kg	50 mg/kg	97.9	80.0	120	----
titanium	7440-32-6	E440	1	mg/kg	25 mg/kg	82.6	80.0	120	----
tungsten	7440-33-7	E440	0.5	mg/kg	10 mg/kg	96.6	80.0	120	----
uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	94.8	80.0	120	----
vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	100	80.0	120	----
zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	95.4	80.0	120	----
zirconium	7440-67-7	E440	1	mg/kg	10 mg/kg	100	80.0	120	----
<b>Metals (QCLot: 717131)</b>									
mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	108	80.0	120	----
<b>Polycyclic Aromatic Hydrocarbons (QCLot: 715750)</b>									
acenaphthene	83-32-9	E641A	0.05	mg/kg	0.5 mg/kg	94.6	60.0	130	----
acenaphthylene	208-96-8	E641A	0.05	mg/kg	0.5 mg/kg	95.8	60.0	130	----
acridine	260-94-6	E641A	0.05	mg/kg	0.5 mg/kg	91.3	60.0	130	----
anthracene	120-12-7	E641A	0.05	mg/kg	0.5 mg/kg	104	60.0	130	----
benz(a)anthracene	56-55-3	E641A	0.05	mg/kg	0.5 mg/kg	98.9	60.0	130	----
benzo(a)pyrene	50-32-8	E641A	0.05	mg/kg	0.5 mg/kg	103	60.0	130	----
benzo(b+j)fluoranthene	n/a	E641A	0.05	mg/kg	0.5 mg/kg	112	60.0	130	----
benzo(g,h,i)perylene	191-24-2	E641A	0.05	mg/kg	0.5 mg/kg	98.6	60.0	130	----
benzo(k)fluoranthene	207-08-9	E641A	0.05	mg/kg	0.5 mg/kg	101	60.0	130	----
chrysene	218-01-9	E641A	0.05	mg/kg	0.5 mg/kg	93.2	60.0	130	----
dibenz(a,h)anthracene	53-70-3	E641A	0.05	mg/kg	0.5 mg/kg	90.4	60.0	130	----
fluoranthene	206-44-0	E641A	0.05	mg/kg	0.5 mg/kg	96.3	60.0	130	----
fluorene	86-73-7	E641A	0.05	mg/kg	0.5 mg/kg	98.2	60.0	130	----
indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.05	mg/kg	0.5 mg/kg	104	60.0	130	----
methylnaphthalene, 1-	90-12-0	E641A	0.03	mg/kg	0.5 mg/kg	93.2	60.0	130	----
methylnaphthalene, 2-	91-57-6	E641A	0.03	mg/kg	0.5 mg/kg	99.3	60.0	130	----
naphthalene	91-20-3	E641A	0.01	mg/kg	0.5 mg/kg	99.8	50.0	130	----
phenanthrene	85-01-8	E641A	0.05	mg/kg	0.5 mg/kg	105	60.0	130	----
pyrene	129-00-0	E641A	0.05	mg/kg	0.5 mg/kg	98.7	60.0	130	----



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 Work Order : CG2214921  
 Client : Teck Coal Limited  
 Project : Regional Effects Program



Sub-Matrix: **Soil/Solid**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
<b>Polycyclic Aromatic Hydrocarbons (QCLot: 715750) - continued</b>									
quinoline	91-22-5	E641A	0.05	mg/kg	0.5 mg/kg	81.2	60.0	130	----



### Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: Soil/Solid

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
<b>Polycyclic Aromatic Hydrocarbons (QCLot: 715750)</b>										
CG2214915-001	Anonymous	acenaphthene	83-32-9	E641A	0.386 mg/kg	0.5 mg/kg	102	50.0	140	----
		acenaphthylene	208-96-8	E641A	0.391 mg/kg	0.5 mg/kg	103	50.0	140	----
		acridine	260-94-6	E641A	0.336 mg/kg	0.5 mg/kg	88.8	50.0	140	----
		anthracene	120-12-7	E641A	0.407 mg/kg	0.5 mg/kg	108	50.0	140	----
		benz(a)anthracene	56-55-3	E641A	0.421 mg/kg	0.5 mg/kg	111	50.0	140	----
		benzo(a)pyrene	50-32-8	E641A	0.417 mg/kg	0.5 mg/kg	110	50.0	140	----
		benzo(b+j)fluoranthene	n/a	E641A	0.449 mg/kg	0.5 mg/kg	119	50.0	140	----
		benzo(g,h,i)perylene	191-24-2	E641A	0.390 mg/kg	0.5 mg/kg	103	50.0	140	----
		benzo(k)fluoranthene	207-08-9	E641A	0.409 mg/kg	0.5 mg/kg	108	50.0	140	----
		chrysene	218-01-9	E641A	0.387 mg/kg	0.5 mg/kg	102	50.0	140	----
		dibenz(a,h)anthracene	53-70-3	E641A	0.363 mg/kg	0.5 mg/kg	95.8	50.0	140	----
		fluoranthene	206-44-0	E641A	0.394 mg/kg	0.5 mg/kg	104	50.0	140	----
		fluorene	86-73-7	E641A	0.386 mg/kg	0.5 mg/kg	102	50.0	140	----
		indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.425 mg/kg	0.5 mg/kg	112	50.0	140	----
		methylnaphthalene, 1-	90-12-0	E641A	0.372 mg/kg	0.5 mg/kg	98.3	50.0	140	----
		methylnaphthalene, 2-	91-57-6	E641A	0.396 mg/kg	0.5 mg/kg	105	50.0	140	----
		naphthalene	91-20-3	E641A	0.411 mg/kg	0.5 mg/kg	108	50.0	140	----
		phenanthrene	85-01-8	E641A	0.408 mg/kg	0.5 mg/kg	108	50.0	140	----
		pyrene	129-00-0	E641A	0.408 mg/kg	0.5 mg/kg	108	50.0	140	----
		quinoline	91-22-5	E641A	0.356 mg/kg	0.5 mg/kg	94.0	50.0	140	----



## Reference Material (RM) Report

A Reference Material (RM) is a homogenous material with known and well-established analyte concentrations. RMs are processed in an identical manner to test samples, and are used to monitor and control the accuracy and precision of a test method for a typical sample matrix. RM results are expressed as percent recovery of the target analyte concentration. RM targets may be certified target concentrations provided by the RM supplier, or may be ALS long-term mean values (for empirical test methods).

Sub-Matrix:

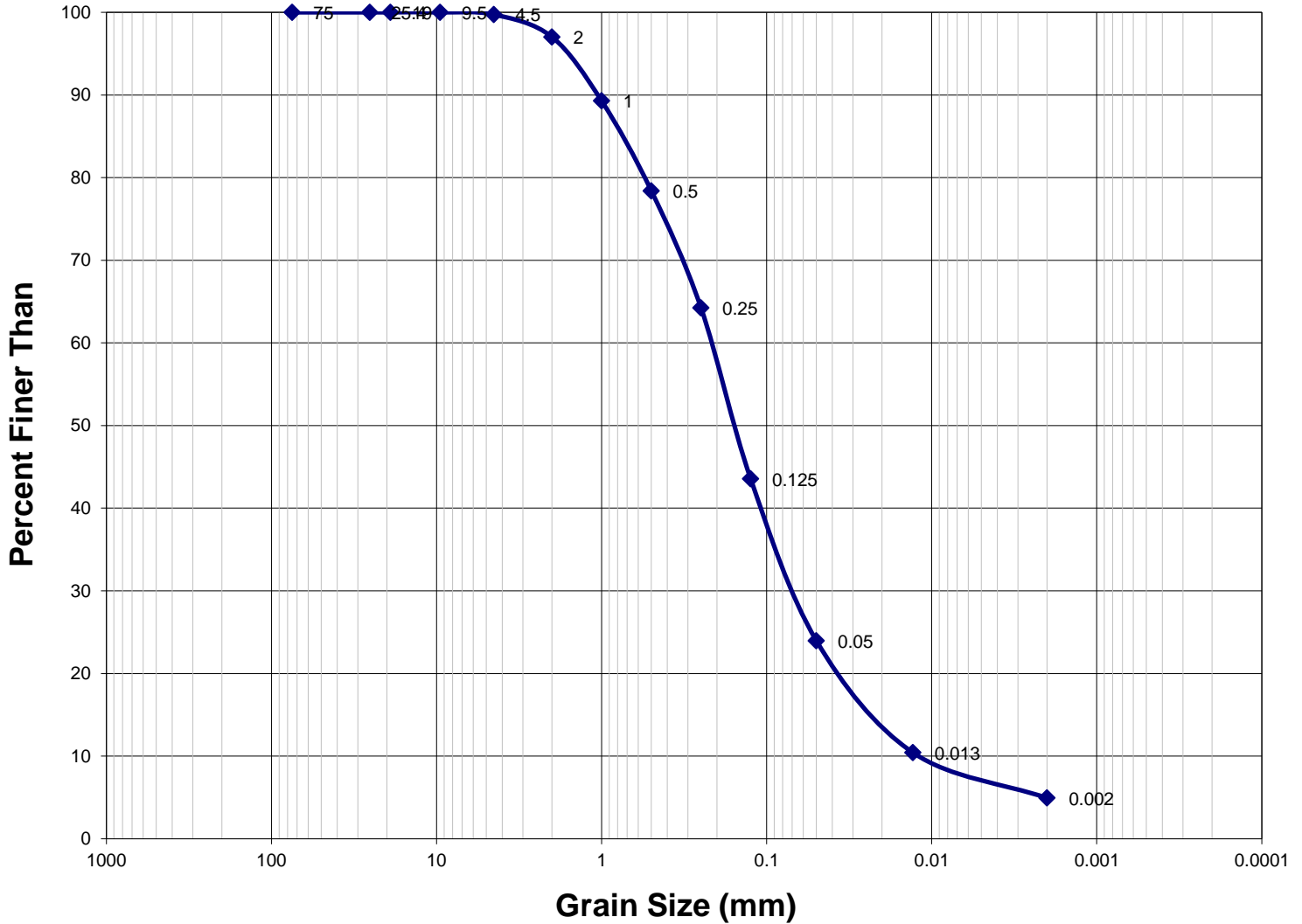
Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
<b>Physical Tests (QCLot: 717915)</b>									
	RM	pH (1:2 soil:water)	----	E108	8.06 pH units	99.1	96.0	104	----
<b>Organic / Inorganic Carbon (QCLot: 718009)</b>									
	RM	carbon, total [TC]	----	E351	1.4 %	97.7	80.0	120	----
<b>Organic / Inorganic Carbon (QCLot: 721422)</b>									
	RM	carbon, inorganic [IC]	----	E354	0.383 %	106	80.0	120	----
<b>Organic / Inorganic Carbon (QCLot: 721442)</b>									
	RM	carbon, total [TC]	----	E351	1.4 %	98.3	80.0	120	----
<b>Metals (QCLot: 717130)</b>									
	RM	aluminum	7429-90-5	E440	9817 mg/kg	96.2	70.0	130	----
	RM	antimony	7440-36-0	E440	3.99 mg/kg	98.7	70.0	130	----
	RM	arsenic	7440-38-2	E440	3.73 mg/kg	102	70.0	130	----
	RM	barium	7440-39-3	E440	105 mg/kg	99.4	70.0	130	----
	RM	beryllium	7440-41-7	E440	0.349 mg/kg	106	70.0	130	----
	RM	boron	7440-42-8	E440	8.5 mg/kg	120	40.0	160	----
	RM	cadmium	7440-43-9	E440	0.91 mg/kg	90.7	70.0	130	----
	RM	calcium	7440-70-2	E440	31082 mg/kg	100	70.0	130	----
	RM	chromium	7440-47-3	E440	101 mg/kg	91.8	70.0	130	----
	RM	cobalt	7440-48-4	E440	6.9 mg/kg	88.6	70.0	130	----
	RM	copper	7440-50-8	E440	123 mg/kg	94.9	70.0	130	----
	RM	iron	7439-89-6	E440	23558 mg/kg	88.4	70.0	130	----
	RM	lead	7439-92-1	E440	267 mg/kg	101	70.0	130	----
	RM	lithium	7439-93-2	E440	9.5 mg/kg	118	70.0	130	----
	RM	magnesium	7439-95-4	E440	5509 mg/kg	99.0	70.0	130	----
	RM	manganese	7439-96-5	E440	269 mg/kg	91.8	70.0	130	----
	RM	molybdenum	7439-98-7	E440	1.03 mg/kg	100	70.0	130	----
	RM	nickel	7440-02-0	E440	26.7 mg/kg	88.3	70.0	130	----
	RM	phosphorus	7723-14-0	E440	752 mg/kg	92.8	70.0	130	----
	RM	potassium	7440-09-7	E440	1587 mg/kg	94.7	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
<b>Metals (QCLot: 717130) - continued</b>									
	RM	silver	7440-22-4	E440	4.06 mg/kg	93.8	70.0	130	----
	RM	sodium	7440-23-5	E440	797 mg/kg	98.4	70.0	130	----
	RM	strontium	7440-24-6	E440	86.1 mg/kg	98.8	70.0	130	----
	RM	thallium	7440-28-0	E440	0.0786 mg/kg	96.4	40.0	160	----
	RM	tin	7440-31-5	E440	10.6 mg/kg	102	70.0	130	----
	RM	titanium	7440-32-6	E440	839 mg/kg	76.8	70.0	130	----
	RM	uranium	7440-61-1	E440	0.52 mg/kg	94.4	70.0	130	----
	RM	vanadium	7440-62-2	E440	32.7 mg/kg	95.3	70.0	130	----
	RM	zinc	7440-66-6	E440	297 mg/kg	95.7	70.0	130	----
	RM	zirconium	7440-67-7	E440	5.73 mg/kg	94.4	70.0	130	----
<b>Metals (QCLot: 717131)</b>									
	RM	mercury	7439-97-6	E510	0.062 mg/kg	104	70.0	130	----

## Particle Size Distribution Curve



### Summary of Results

#### Unified Soil Classification System (USCS)

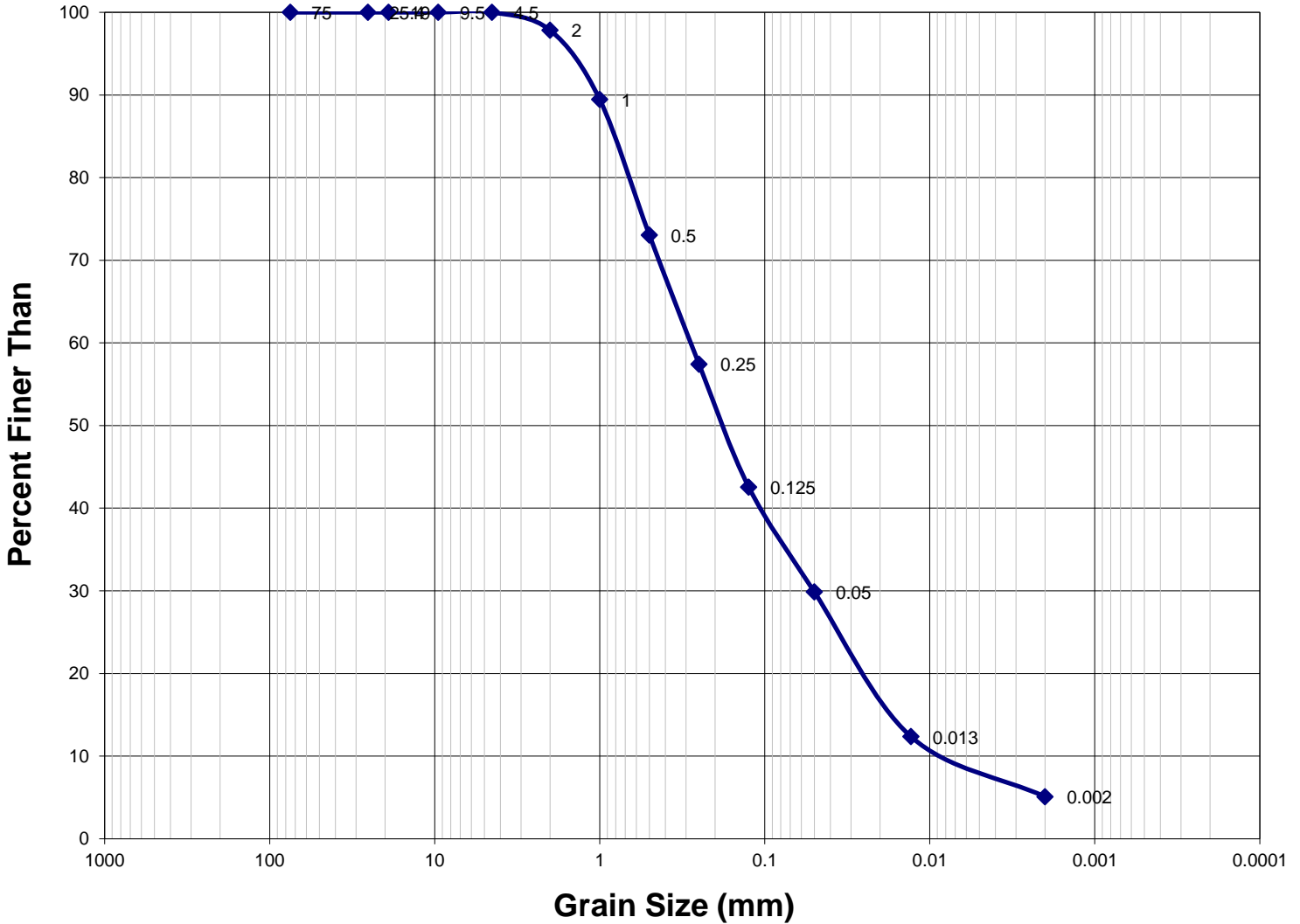
Size Class	Size Range	Wt. (%)
Cobbles	> 3"	0
Gravel	4.75mm - 3"	0
Coarse Sand	2.0mm - 4.75mm	3
Medium Sand	0.425mm - 2.0mm	19
Fine Sand	0.075mm - 0.425mm	48
Fines	< 0.075mm	31

#### Canadian Soil Survey Committee (CSSC)

Size Class	Size Range	Wt. (%)
Cobbles	> 3"	0
Gravel	2mm - 3"	3
Sand	0.05mm - 2mm	73
Silt	0.002mm - 0.05mm	19
Clay	< 0.002mm	5

Texture Sample contains material greater than 4.75mm. T

## Particle Size Distribution Curve



### Summary of Results

#### Unified Soil Classification System (USCS)

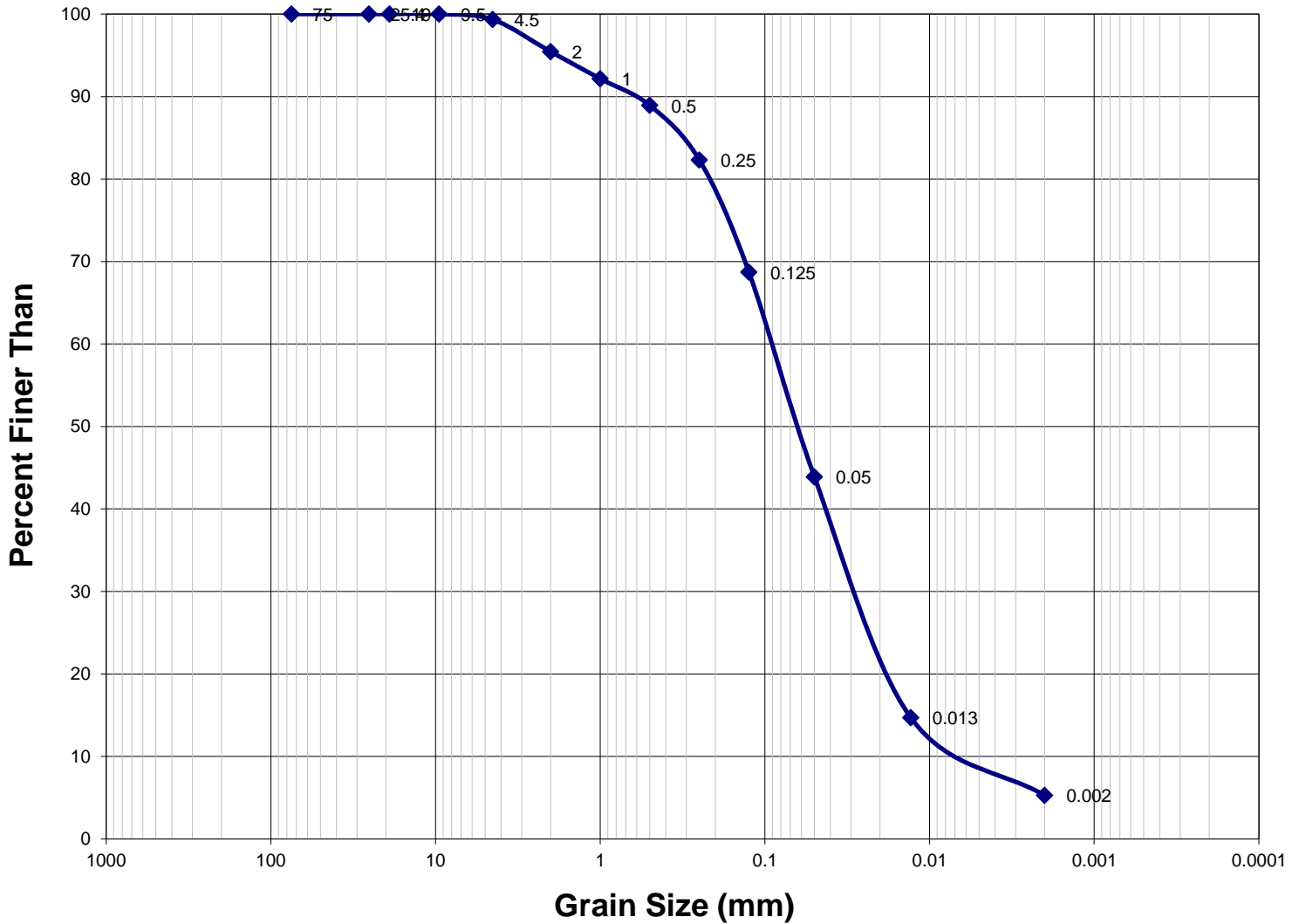
Size Class	Size Range	Wt. (%)
Cobbles	> 3"	0
Gravel	4.75mm - 3"	0
Coarse Sand	2.0mm - 4.75mm	2
Medium Sand	0.425mm - 2.0mm	25
Fine Sand	0.075mm - 0.425mm	39
Fines	< 0.075mm	34

#### Canadian Soil Survey Committee (CSSC)

Size Class	Size Range	Wt. (%)
Cobbles	> 3"	0
Gravel	2mm - 3"	2
Sand	0.05mm - 2mm	68
Silt	0.002mm - 0.05mm	25
Clay	< 0.002mm	5

Texture: Sandy loam

## Particle Size Distribution Curve



### Summary of Results

#### Unified Soil Classification System (USCS)

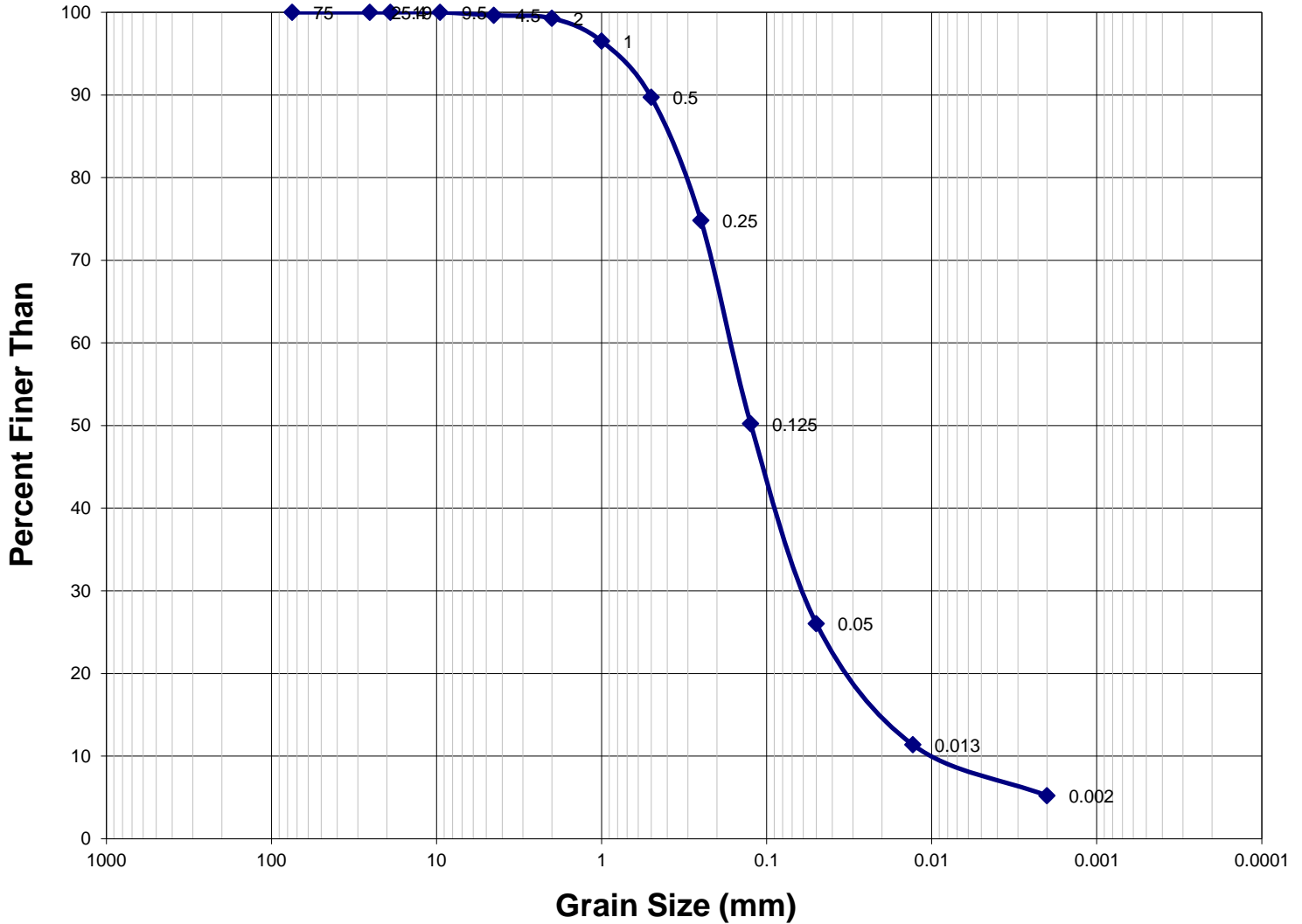
Size Class	Size Range	Wt. (%)
Cobbles	> 3"	0
Gravel	4.75mm - 3"	1
Coarse Sand	2.0mm - 4.75mm	4
Medium Sand	0.425mm - 2.0mm	7
Fine Sand	0.075mm - 0.425mm	37
Fines	< 0.075mm	52

#### Canadian Soil Survey Committee (CSSC)

Size Class	Size Range	Wt. (%)
Cobbles	> 3"	0
Gravel	2mm - 3"	5
Sand	0.05mm - 2mm	52
Silt	0.002mm - 0.05mm	39
Clay	< 0.002mm	5

Texture Sample contains material greater than 4.75mm. T

## Particle Size Distribution Curve



### Summary of Results

#### Unified Soil Classification System (USCS)

Size Class	Size Range	Wt. (%)
Cobbles	> 3"	0
Gravel	4.75mm - 3"	0
Coarse Sand	2.0mm - 4.75mm	0
Medium Sand	0.425mm - 2.0mm	10
Fine Sand	0.075mm - 0.425mm	56
Fines	< 0.075mm	34

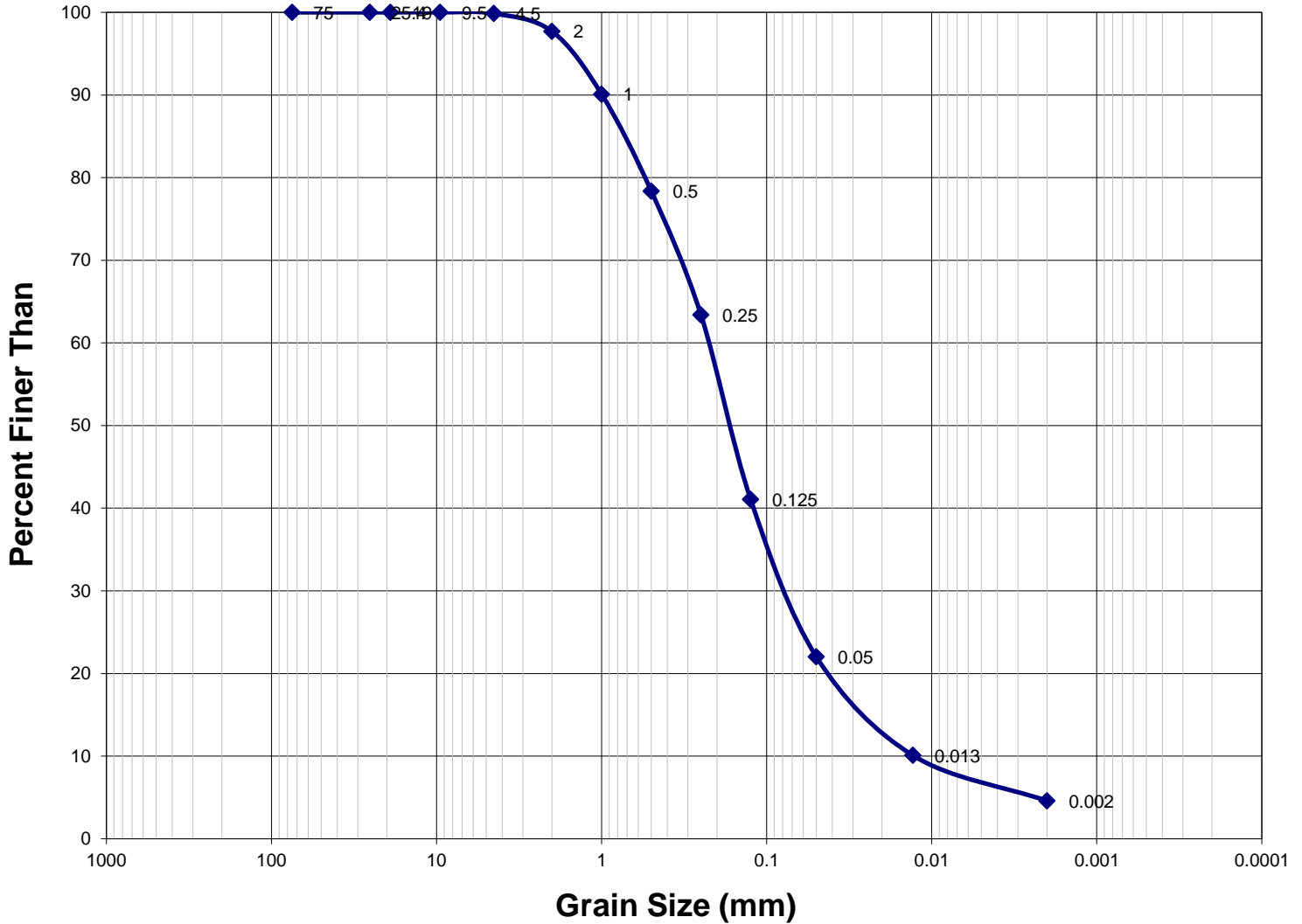
#### Canadian Soil Survey Committee (CSSC)

Size Class	Size Range	Wt. (%)
Cobbles	> 3"	0
Gravel	2mm - 3"	1
Sand	0.05mm - 2mm	73
Silt	0.002mm - 0.05mm	21
Clay	< 0.002mm	5

Texture Sample contains material greater than 4.75mm. T



## Particle Size Distribution Curve



### Summary of Results

#### Unified Soil Classification System (USCS)

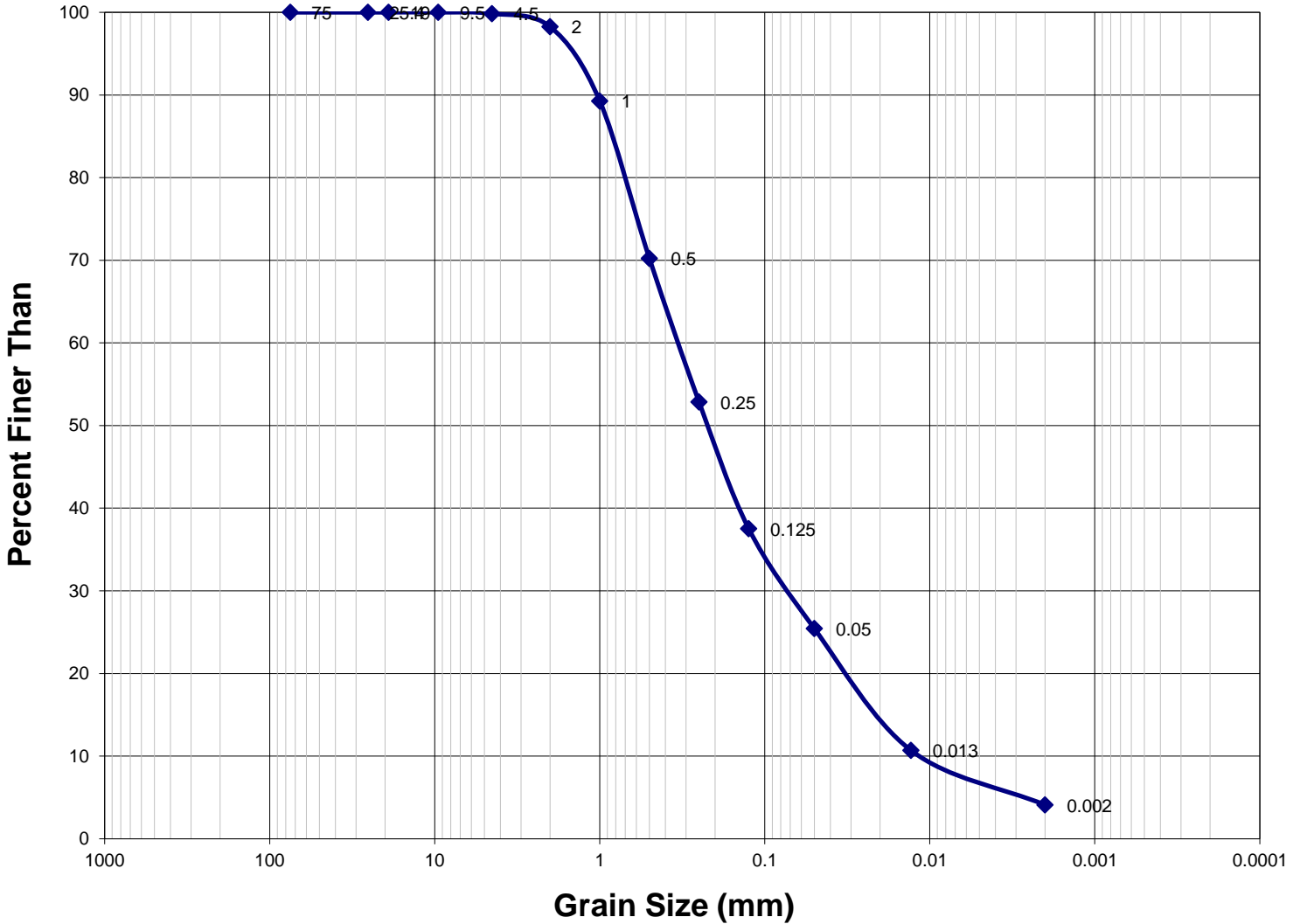
Size Class	Size Range	Wt. (%)
Cobbles	> 3"	0
Gravel	4.75mm - 3"	0
Coarse Sand	2.0mm - 4.75mm	2
Medium Sand	0.425mm - 2.0mm	19
Fine Sand	0.075mm - 0.425mm	50
Fines	< 0.075mm	28

#### Canadian Soil Survey Committee (CSSC)

Size Class	Size Range	Wt. (%)
Cobbles	> 3"	0
Gravel	2mm - 3"	2
Sand	0.05mm - 2mm	76
Silt	0.002mm - 0.05mm	17
Clay	< 0.002mm	5

Texture Sample contains material greater than 4.75mm. T

## Particle Size Distribution Curve



### Summary of Results

#### Unified Soil Classification System (USCS)

Size Class	Size Range	Wt. (%)
Cobbles	> 3"	0
Gravel	4.75mm - 3"	0
Coarse Sand	2.0mm - 4.75mm	2
Medium Sand	0.425mm - 2.0mm	28
Fine Sand	0.075mm - 0.425mm	41
Fines	< 0.075mm	29

#### Canadian Soil Survey Committee (CSSC)

Size Class	Size Range	Wt. (%)
Cobbles	> 3"	0
Gravel	2mm - 3"	2
Sand	0.05mm - 2mm	73
Silt	0.002mm - 0.05mm	21
Clay	< 0.002mm	4

Texture Sample contains material greater than 4.75mm. T

COC ID: REP\_LAEMP\_CMm\_2022-09\_ALS

TURNAROUND TIME:

2-3 Business Days

RUSH: Priority

PROJECT/CLIENT INFO

LABORATORY

OTHER INFO

Facility Name / Job# Regional Effects Program

Lab Name ALS Calgary

Report Format / Distribution

Excel PDF PDD

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Postal Code: V0B 2G0 Country: Canada

City: Calgary Prov: AB  
Postal Code: T1Y 7B5 Country: Canada

Phone Number: 1-250-865-3048  
Phone Number: 403 407 1794  
PO number: VPO00816101

SAMPLE DETAILS

ANALYSIS REQUESTED

Filtered - F: Field, L: Lab, FL: Field & Lab, N: None

Sample ID	Sample Location (sys_loc_code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	G=Grab C=Com p	# Of Cont.
RG_MIUCO_SE-1_2022-10-22_N	RG_MIUCO	SE	no	10/22/2022	12:53	G	3
RG_MIUCO_SE-2_2022-10-22_N	RG_MIUCO	SE	no	10/22/2022	12:59	G	3
RG_MIUCO_SE-3_2022-10-22_N	RG_MIUCO	SE	no	10/22/2022	13:02	G	3
RG_MIUCO_SE-4_2022-10-22_N	RG_MIUCO	SE	no	10/22/2022	13:13	G	3
RG_RIVER_SE-1_2022-10-22_N	RG_RIVER	SE	no	10/22/2022	12:53	G	3
RG_RIVER_SE-2_2022-10-22_N	RG_RIVER	SE	no	10/22/2022	12:59	G	3

ANALYSIS	PRESERV.	N	N	N	N	N
C-TOC-SK	NONE	1	1	1	1	1
MET-CCMP-FULL-CL	NONE	1	1	1	1	1
MOISTURE-CL - % Moisture	NONE	1	1	1	1	1
PSA-PIPET-DETAIL-SK Particle Size	NONE	1	1	1	1	1
PAH-TMB-D/A-MS-CL PAHs	NONE	1	1	1	1	1

Environmental Division  
Calgary  
Work Order Reference  
**CG2214921**



Telephone: +1 403 407 1800

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS

RELINQUISHED BY/AFFILIATION

DATE/TIME

ACCEPTED BY/AFFILIATION

DATE/TIME

Alex McClymont

October 25, 2022

*[Signature]*

10/26  
9:00

SERVICE REQUEST (rush - subject to availability)

Regular (default)

Priority (2-3 business days) - 50% surcharge X

Emergency (1 Business Day) - 100% surcharge

For Emergency <1 Day, ASAP or Weekend - Contact ALS

Sampler's Name

Emily Dutton

Mobile #

647-704-3697

Sampler's Signature

*ED*

Date/Time

October 22, 2022

10c

# Methods and QC Report 2023

Project ID: CMM LAEMP (22-11)



Client: Minnow Environmental

---

**Prepared by:**

Cordillera Consulting Inc.

Summerland, BC

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## Sample Reception

On September 30, 2022, Cordillera Consulting received 29 benthic samples from Minnow Environmental. When samples arrived to Cordillera Consulting, exterior packaging was initially inspected for damage or wet spots that would have indicated damage to the interior containers.

Samples were logged into a proprietary software database (INSTAR1) where the clients assigned sample name was recorded along with a Cordillera Consulting (CC) number for cross-reference. Each sample was checked to ensure that all sites and replicates recorded on field sheets or packing lists were delivered intact and with adequate preservative. Any missing, mislabelled or extra samples were reported to the client immediately to confirm the total numbers and correct names on the sample jars. The client representative was notified of the arrival of the shipment and provided a sample inventory once intake was completed.

See table below for sample inventory:

**Table 1: Summary of sample information including Cordillera Consulting (CC) number**

Sample	CC#	Date	Size	# of Jars
RG_AGCK_BIC-1_2022-09-15_N	CC230922	9/15/2022	400µM	1
RG_AGCK_BIC-2_2022-09-15_N	CC230923	9/15/2022	400µM	1
RG_AGCK_BIC-3_2022-09-15_N	CC230924	9/15/2022	400µM	1
RG_CORCK_BIC-1_2022-09-14_N	CC230925	9/14/2022	400µM	1
RG_CORCK_BIC-2_2022-09-14_N	CC230926	9/14/2022	400µM	2
RG_CORCK_BIC-2_2022-09-14_N	CC230927	9/14/2022	400µM	1
RG_MI25_BIC-1_2022-09-15_N	CC230928	9/15/2022	400µM	1
RG_MI25_BIC-2_2022-09-15_N	CC230929	9/15/2022	400µM	1
RG_MI25_BIC-3_2022-09-15_N	CC230930	9/15/2022	400µM	1
RG_MI5_BIC-1_2022-09-12_N	CC230931	9/12/2022	400µM	1
RG_MI5_BIC-2_2022-09-12_N	CC230932	9/12/2022	400µM	1
RG_MI5_BIC-3_2022-09-12_N	CC230933	9/12/2022	400µM	1
RG_MIDAG_BIC-1_2022-09-13_N	CC230934	9/13/2022	400µM	1
RG_MIDAG_BIC-2_2022-09-13_N	CC230935	9/13/2022	400µM	1
RG_MIDAG_BIC-3_2022-09-13_N	CC230936	9/13/2022	400µM	1
RG_MIDCO_BIC-1_2022-09-13_N	CC230937	9/13/2022	400µM	1
RG_MIDCO_BIC-2_2022-09-13_N	CC230938	9/13/2022	400µM	1
RG_MIDCO_BIC-3_2022-09-13_N	CC230939	9/13/2022	400µM	1
RG_MIDCO_BIC-4_2022-09-13_N	CC230940	9/13/2022	400µM	1
RG_MIDCO_BIC-5_2022-09-13_N	CC230941	9/13/2022	400µM	1
RG_MIUCO_BIC-1_2022-09-14_N	CC230942	9/14/2022	400µM	1
RG_MIUCO_BIC-2_2022-09-14_N	CC230943	9/14/2022	400µM	1
RG_MIUCO_BIC-3_2022-09-14_N	CC230944	9/14/2022	400µM	1
RG_MIULE_BIC-1_2022-09-12_N	CC230945	9/12/2022	400µM	1
RG_MIULE_BIC-2_2022-09-12_N	CC230946	9/12/2022	400µM	1
RG_MIULE_BIC-3_2022-09-12_N	CC230947	9/12/2022	400µM	1
RG_LE1_BIC-1_2022-09-16_N	CC230948	9/16/2022	400µM	1

RG_LE1_BIC-2_2022-09-16_N	CC230949	9/16/2022	400µM	1
RG_LE1_BIC-3_2022-09-16_N	CC230950	9/16/2022	400µM	1

## Sample Sorting

- Using a gridded Petri dish, fine forceps and a low power stereo-microscope (Olympus, Nikon, Leica) the sorting technicians removed the invertebrates and sorted them into family/orders.
- The sorting technician kept a running tally of total numbers excluding organisms from Porifera, Nemata, Platyhelminthes, Ostracoda, Copepoda, Cladocera and terrestrial drop-ins such as aphids. These organisms were marked for their presence (given a value of 1) only and left in the sample. They were not included towards the 300-organism subsample count.
- Where specimens are broken or damaged, only heads were counted.
- Subsampling was conducted with the use of a Marchant Box.
- When using the Marchant box, cells were extracted at the same time in the order indicated by a random number table. If the 300<sup>th</sup> organism was found part way into sorting a cell then the balance of that cell was sorted. If the organism count had not reached 300 by the 50<sup>th</sup> cell then the entire sample was sorted.
- The total number of cells sorted and the number of organisms removed were recorded manually on a bench sheet and then recorded into INSTAR1
- Organisms were stored in vials containing 80% ethanol and an interior label indicating the site names, date of sampling, site code numbers and portion subsampled. This information was also recorded on the laboratory bench sheet and on INSTAR1.
- The sorted portion of the debris was preserved and labeled separately from the unsorted portion and was tested for sorting efficiency (Sorting Quality Control – Sorting Efficiency). The unsorted portion was also labeled and preserved in separate jars.

Percent sub-sampled and total countable invertebrates pulled from the samples were summarized in the table below.

**Table 2: Percent sub-sample and invertebrate count for each sample**

Sample	Date	CC#	400 micron fraction	
			% Sampled	# Invertebrates
RG_AGCK_BIC-1_2022-09-15_N	15-Sep-22	CC230922	5%	810
RG_AGCK_BIC-2_2022-09-15_N	15-Sep-22	CC230923	5%	802
RG_AGCK_BIC-3_2022-09-15_N	15-Sep-22	CC230924	5%	764
RG_CORCK_BIC-1_2022-09-14_N	14-Sep-22	CC230925	20%	361
RG_CORCK_BIC-2_2022-09-14_N	14-Sep-22	CC230926	6%	369
RG_CORCK_BIC-2_2022-09-14_N	14-Sep-22	CC230927	5%	359

RG_MI25_BIC-1_2022-09-15_N	15-Sep-22	CC230928	5%	363
RG_MI25_BIC-2_2022-09-15_N	15-Sep-22	CC230929	5%	335
RG_MI25_BIC-3_2022-09-15_N	15-Sep-22	CC230930	5%	628
RG_MI5_BIC-1_2022-09-12_N	12-Sep-22	CC230931	5%	359
RG_MI5_BIC-2_2022-09-12_N	12-Sep-22	CC230932	5%	331
RG_MI5_BIC-3_2022-09-12_N	12-Sep-22	CC230933	5%	327
RG_MIDAG_BIC-1_2022-09-13_N	13-Sep-22	CC230934	5%	491
RG_MIDAG_BIC-2_2022-09-13_N	13-Sep-22	CC230935	5%	410
RG_MIDAG_BIC-3_2022-09-13_N	13-Sep-22	CC230936	5%	489
RG_MIDCO_BIC-1_2022-09-13_N	13-Sep-22	CC230937	5%	498
RG_MIDCO_BIC-2_2022-09-13_N	13-Sep-22	CC230938	5%	409
RG_MIDCO_BIC-3_2022-09-13_N	13-Sep-22	CC230939	5%	576
RG_MIDCO_BIC-4_2022-09-13_N	13-Sep-22	CC230940	5%	381
RG_MIDCO_BIC-5_2022-09-13_N	13-Sep-22	CC230941	5%	450
RG_MIUCO_BIC-1_2022-09-14_N	14-Sep-22	CC230942	12%	368
RG_MIUCO_BIC-2_2022-09-14_N	14-Sep-22	CC230943	11%	356
RG_MIUCO_BIC-3_2022-09-14_N	14-Sep-22	CC230944	20%	501
RG_MIULE_BIC-1_2022-09-12_N	12-Sep-22	CC230945	5%	629
RG_MIULE_BIC-2_2022-09-12_N	12-Sep-22	CC230946	5%	636
RG_MIULE_BIC-3_2022-09-12_N	12-Sep-22	CC230947	5%	405
RG_LE1_BIC-1_2022-09-16_N	16-Sep-22	CC230948	5%	326
RG_LE1_BIC-2_2022-09-16_N	16-Sep-22	CC230949	5%	577
RG_LE1_BIC-3_2022-09-16_N	16-Sep-22	CC230950	9%	375

### Sorting Quality Control - Sorting Efficiency

As a part of Cordillera’s laboratory policy, all projects undergo sorting efficiency checks.

- As sorting progresses, 10% of samples were randomly chosen by senior members of the sorting team for resorting.
- All sorters working on a project had at least 1 sample resorted by another sorter.
- An efficiency of 90 % was expected (95% for CABIN samples).
- If 90/95% efficiency was not met, samples from that sorter were resorted.
- To calculated sorting efficiency the following formula was used:

$$\frac{\#OrganismsMissed}{TotalOrganismsFound} * 100 = \% OM$$



**Table 3 Summary of sorting efficiency**

		<b>Total from Sample</b>	<b>Percent Efficiency</b>
<b>Site - QC, Sample - QC 1, CC# - CC230930, Percent sampled = 5%, Sieve size = 400</b>			
Heptageniidae	1		
Plecoptera	3		
Chironomidae	5		
<b>Total:</b>	<b>9</b>	<b>628</b>	<b>99%</b>
<b>Site - QC, Sample - QC 2, CC# - CC230935, Percent sampled = 5%, Sieve size = 400</b>			
Ephemerellidae	3		
Plecoptera	2		
<b>Total:</b>	<b>5</b>	<b>410</b>	<b>99%</b>
<b>Site - QC, Sample - QC 3, CC# - CC230939, Percent sampled = 5%, Sieve size = 400</b>			
Trombidiformes	1		
Oligochaeta	1		
Ephemerellidae	2		
<b>Total:</b>	<b>4</b>	<b>576</b>	<b>99%</b>

### **Sorting Quality Control - Sub-Sampling QC**

Certain Provincial and Mining projects require additional sorting checks in the form of sub-sampling QC, (Environmental Effects Monitoring (EEM) protocol). This ensured that any fraction of the total sample that was examined was actually an accurate representation of the number of total organisms. Organisms from the additional sub-samples were not identified; rather total organism count only was compared.

Sub-Sampling efficiency was measured on 10% of the number of sub-sampled samples in the project. Ex. In a project where 50 of 100 total samples were processed through subsampling using a Marchant box, then 10% of 50; or 5 samples were used for sub sampling efficiency.

Sub-Sampling efficiency was performed by fractioning the entire sample into sub-sample percentages. On each sub-sampled portion, a total organism count was

recorded and compared to the rest of the sub-samples. In order to pass, all fractions were required to be within 20% of total organism count.

Example: If 300 organisms are found in 10% of the sample, the sorter will continue to sample in 10% fractions until the entire sample is separated. They will then count the total number of organisms in each of the 10 fractions of 10% and compare the organism count.

When divergence is >20% the sorting manager examines for the source of the problem and takes steps to correct it. With the Marchant box, the problem typically rested with how the box is flipped back to the upright position. For this reason, subsampling was performed by experienced employees only. Another common source of error would be the type of debris in the sample. Samples with algae or heavy with periphyton have a higher incident of failure due to clumping than clear samples.

**Table 4 Summary of Sub Sample efficiency**

Station ID		Organisms in Subsample																				Sorter		Actual Total	Precision		Accuracy						
CC#	Sample Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	By	Time		Percent Range		Min	Max					
230944	RG_MIUCO_BIC-3_2022-09-14_N	491	458	450	458	474																MP	210	2331	0.00	8.35	1.67	5.32					
230929	RG_MI25_BIC-2_2022-09-15_	333	298	302	312	309																CB	160						1554	0.96	10.51	0.39	7.14
230948	RG_LE1_BIC-1_2022-09-16_N	325	307	349	313	319																TS	200										

## Taxonomic Effort

The next procedure was the identification to genus-species level where possible of all the organisms in the sample.

- Identifications were made at the genus/species level for all insect organisms found including Chironomidae (Based on CABIN protocol).
- Non-insect organisms (except those not included in CABIN count) were identified to genus/species where possible and to a minimum of family level with intact and mature specimens.
- The Standard Taxonomic Effort lists compiled by the CABIN manual<sup>1</sup>, SAFIT<sup>2</sup>, and PNAMP<sup>3</sup> were used as a guide line for what level of identification to achieve where the condition and maturity of the organism enabled.
- Organisms from the same families/order were kept in separate vials with 80% ethanol and an interior label of printed laser paper.
- Chironomidae was identified to genus/species level where possible and was aided by slide mounts. CMC-10 was used to clear and mount the slide.
- Oligochaetes was identified to family/genus level with the aid of slide mounts. CMC-10 was used to clear and mount the slide.
- Other Annelida (leeches, polychaetes) were identified to the family/genus/species level with undamaged, mature specimens.
- Mollusca was identified to family and genus/species where possible
- Decapoda, Amphipoda and Isopoda were identified at family/genus/species level where possible.
- Bryozoans and Nemata remained at the phylum level
- Hydrachnidae and Cnidaria were identified at the family/genus level where possible.
- When requested, reference collections were made containing at least one individual from each taxa listed. Organisms represented will have been identified to the lowest practical level.
- Reference collection specimens were stored in 55 mm glass vials with screw-cap lids with polyseal inserts (museum quality). They were labeled with taxa name, site code, date identified and taxonomist name. The same information was applied to labels on the slide mounts.

## Taxonomists

The taxonomists for this project were certified by the Society of Freshwater Science (SFS) Taxonomic Certification Program at level 2 which is the required certification for CABIN projects:

**Scott Finlayson:** Group 1 General Arthropods (East/West); Group 2 EPT (East/West);  
Group 3 Chironomidae (East/West); Group 4 Oligochaeta

**Adam Bliss:** Group 1 General Arthropods (East/West); Group 2 EPT (East/West); Group 3 Chironomidae

**Rita Avery:** Group 1 General Arthropods (East/West); Group 2 EPT (East/West)

## Taxonomic QC

Taxonomic QC was performed in house by someone other than the original taxonomist.

- Quality control protocol involved complete, blind re-identification and re-enumeration of at least 10% of samples by a second SFS-certified taxonomist.
- Samples for taxonomic quality control were randomly selected and quality control procedures were conducted as the project progresses through the laboratories.
- The second (QC) taxonomist will calculate and record four types of errors:
  1. Misidentification error
  2. Enumeration error
  3. Questionable taxonomic resolution error
  4. Insufficient taxonomic resolution error

The QC coordinator then calculates the following estimates of taxonomic precision.

1. The percent total identification error rate is calculated as:

$$\frac{\text{Sum of incorrect identifications}}{\text{total organisms counted in audit}} * (100)$$

The average total identification error rate of audited samples did not exceed 5%. All samples that exceed a 5% error rate were re-evaluated to determine whether repeated errors or patterns in error contributed.

2. The percent difference in enumeration (PDE) to quantify the consistency of specimen counts.

$$PDE = \frac{|n_1 - n_2|}{n_1 + n_2} \times 100$$

3. The percent taxonomic disagreement (PTD) to quantify the shared precision between two sets of identifications.

$$PTD = \left(1 - \left[\frac{a}{N}\right]\right) \times 100$$

4. Bray Curtis dissimilarity Index to quantify the differences in identifications.

$$BC_{ij} = 1 - \frac{2C_{ij}}{S_j + S_i}$$

## Error Summary

All samples report errors within the acceptable limits for CABIN Laboratory methods (less than 5% error).

Table 5 Summary of taxonomic error following QC

Site	Taxa Identified	% Error	PDE	PTD	Bray - Curtis Dissimilarity index
Site - 2022, Sample - RG_AGCK_BIC-2_2022-09-15_N, CC# - CC230923, Percent sampled = 5%, Sieve size = 400	803	0.00	0.0623053	0.373599	0.00311526
Site - 2022, Sample - RG_MIUCO_BIC-2_2022-09-14_N, CC# - CC230943, Percent sampled = 11%, Sieve size = 400	355	0.00	0.14064698	0.56179775	0.00421941
Site - 2022, Sample - RG_LE1_BIC-1_2022-09-16_N, CC# - CC230948, Percent sampled = 5%, Sieve size = 400	326	0.00	0	0.30674847	0.00306748

There will always be disagreements between taxonomists regarding the degree of taxonomic resolution in immature specimens and when laboratories make use of different keys for certain groups (Mollusks is an especially disputed group). It is always possible that some taxa found by the original taxonomist were overlooked in QC.

All of the Taxonomic QC samples that were observed passed testing according to the CABIN misidentification protocols. See the tables below for results from taxonomic QC audit.

## Error Rationale

Site - 2022, Sample - RG_AGCK_BIC-2_2022-09-15_N, CC# - CC230923, Percent sampled = 5%, Sieve size = 400	Laboratory Count	QC Audit Count	Agreement	Misidentification	Questionable Taxonomic Resolution	Enumeration	Insufficient Taxonomic Resolution	Comments
Ameletus	19	19						
Apatania	2	2						

Baetidae	2	1	No			X		
Baetis rhodani group	2	3	No			X		
Chironomidae	2	2						
Cinygmula	340	341	No			X		
Diamesa	21	21						
Drunella doddsii	7	7						
Epeorus	10	10						
EphemereIIidae	154	155	No			X		
Eukiefferiella	2	2						
Glossosoma	1	1						
Haploperla	1	1						
Heptageniidae	12	11	No			X		
Hydrobaenus	1	1						
Hydropsychidae	8	8						
Mallochohelea	1	1						
Nemouridae	2	2						
Oligophlebodes	2	2						
Orthocladius complex	40	40						
Pagastia	3	3						
Parorthocladius	2	2						
Pericoma/Telmatoscopus	2	2						
Perlodidae	1	1						
Plecoptera	1	1						
Rheocricotopus	2	2						
Rhithrogena	12	12						
Rhyacophila	1	1						
Rhyacophila betteni group	1	1						
Simulium	8	8						
Sweltsa	6	6						
Taeniopterygidae	91	91						
Trichoptera	2	2						
Tvetenia	6	6						
Zapada	32	32						
Zapada cinctipes	1	1						
Zapada columbiana	2	2						
<b>Total:</b>	<b>802</b>	<b>803</b>						
						0	5	0
% Total Misidentification Rate =	misidentifications total number	x100 =	0.00	<b>Pass</b>				

Site - 2022, Sample - RG_MIUCO_BIC-2_2022-09- 14_N, CC# - CC230943, Percent sampled = 11%, Sieve size = 400	Laboratory Count	QC Audit Count	Agreement	Misidentification	Questionable Taxonomic Resolution	Enumeration	Insufficient Taxonomic Resolution	Comments
Baetidae	29	28	No			X		
Baetis	1	2	No			X		
Baetis rhodani group	14	14						
Bezzia/ Palpomyia	1	1						
Brachycentrus	1	1						
Cinygmula	27	27						
Constempellina sp. C	1	1						
Dipheter hageni	3	3						
Drunella doddsii	10	10						
Elmidae	1	1						
Elmidae	2	2						
Epeorus	3	3						
Ephemerellidae	29	29						
Glossosoma	2	2						
Heptageniidae	4	4						
Heterlimnius	22	22						
Hygrobates	1	1						
Kogotus	8	8						
Lebertia	1	1						
Leptophlebiidae	1	1						
Mallochohelea	1	1						
Megarcys	3	3						
Oligophlebodes	1	1						
Orthocladius complex	1	1						
Pagastia	2	2						
Parapsyche	2	2						
Parapsyche elsis	1	1						
Pericoma/Telmatoscopus	69	68	No			X		
Plecoptera	1	1						
Rhithrogena	13	13						
Rhyacophila	25	25						
Rhyacophila atrata complex	5	5						
Rhyacophila betteni group	3	3						
Rhyacophila vofixa group	1	1						
Sperchon	1	1						



Sweltsa	1	1						
Taeniopterygidae	31	31						
Testudacarus	1	1						
Thienemannimyia group	1	1						
Zapada	16	16						
Zapada cinctipes	12	12						
Zapada columbiana	2	2						
Zapada oregonensis group	2	2						
<b>Total:</b>	<b>356</b>	<b>355</b>						
					0	3	0	
% Total Misidentification Rate =	misidentifications	x100	0.00	Pass				
	total number	=						
Site - 2022, Sample - RG_LE1_BIC-1_2022-09-16_N, CC# - CC230948, Percent sampled = 5%, Sieve size = 400	Laboratory Count	QC Audit Count	Agreement	Misidentification	Questionable Taxonomic Resolution	Enumeration	Insufficient Taxonomic Resolution	Comments
Baetidae	15	16	No			X		
Baetis fuscatus gr.	2	2						
Baetis rhodani group	16	15	No			X		
Capniidae	2	2						
Cinygmula	43	43						
Cricotopus (Nostococladius)	1	1						
Drunella doddsii	11	11						
Epeorus	3	3						
Ephemerella	1	1						
Ephemerellidae	60	60						
Eucapnopsis brevicauda	2	2						
Glossosoma	1	1						
Heptageniidae	2	2						
Heterlimnius	1	1						
Heterlimnius	7	7						
Hexatoma	2	2						
Kogotus	17	17						
Lebertia	2	2						
Pericoma/Telmatoscopus	34	34						
Perlidae	2	2						
Rhithrogena	1	1						

Rhyacophila	17	17						
Rhyacophila brunnea/vemna group	1	1						
Rhyacophila narvae	2	2						
Roederiodes	1	1						
Skwala	2	2						
Sweltsa	5	5						
Taeniopterygidae	55	55						
Thienemannimyia group	1	1						
Torrenticola	1	1						
Zapada	6	6						
Zapada cinctipes	10	10						
<b>Total:</b>	<b>326</b>	<b>326</b>						
					0	2	0	
% Total Misidentification Rate =	misidentifications total number	x100 =	0.00	<b>Pass</b>				

## References

<sup>1</sup> McDermott, H., Paull, T., Strachan, S. (May 2014). Laboratory Methods: Processing, Taxonomy, and Quality Control of Benthic Macroinvertebrate Samples, Environment Canada. ISBN: 978-1-100-25417-3

<sup>2</sup> Southwest Association of Freshwater Invertebrate Taxonomists. (2015). [www.safit.org](http://www.safit.org)

<sup>3</sup> Pacific Northwest Aquatic Monitoring Partnership (Accessed 2015). [www.pnamp.org](http://www.pnamp.org)

## Taxonomic Keys

Below is a reference list of taxonomic keys utilized by taxonomists at Cordillera Consulting. Cordillera taxonomists routinely seek out new literature to ensure the most accurate identification keys are being utilized. This is not reflective of the exhaustive list of resources that we use for identification. A more complete list of taxonomic resources can be found at Southwest Association of Freshwater Invertebrate Taxonomists. (2015).

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# TrichAnalytics Inc.

## Tissue Microchemistry Analysis Report

<b>Client:</b> Cybele Heddle Project Manager Teck Coal Ltd	<b>Date Received:</b> 20 Sep 2022
<b>Phone:</b> (250) 865-3048	<b>Date of Analysis:</b> 06 Oct 2022
<b>Email:</b> aquascilab@teck.com; teckcoal@equisonline.com; teck.lab.results@teck.com; lisa.bowron@minnow.ca; alex.mcclymont@minnow.ca; hannah.penner@teck.com; cybele.heddle@teck.com	<b>Final Report Date:</b> 27 Oct 2022
	<b>Project No.:</b> 2022-399
	<b>Method No.:</b> MET-002.06

**Client Project:** REP\_LAEMP\_CMm\_2022-09 Regional Effects Program (PO 818999)

**Analytical Request:** Composite Benthic Invertebrate Tissue Microchemistry (total metals & moisture) - 32 samples.  
See chain of custody form provided for sample identification numbers.

### Notes:

Analytical results are expressed in parts per million (ppm) dry weight (equivalent to mg/kg).  
Samples quantified using DORM-4, NIST-1566b, and NIST-2976 certified reference standards.  
Aluminum concentrations above 1,000 ppm are outside linear range of the calibration curve.  
RPD values calculated according to the British Columbia Environmental Laboratory Manual (2020) criteria.  
Client specific DQO for Selenium accuracy is 90-110% of the certified value; result achieved 98% (ranging from 92-103%).  
The reported moisture contents for sample ID 497 and 498 are not accurate. During sample preparation, distilled water was added to the sample to remove it from the container as it was smeared/stuck on the container wall and could not be removed without this additional workup.  
This report provides the analytical results only for tissue samples noted above as received from the Client.

Reviewed and Approved by Jennie Christensen, PhD, RPBio

27 Oct 2022

Date

[The analytical report shall not be reproduced except in full under the expressed written consent of TrichAnalytics Inc.]

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**CALA**  
Testing  
Accreditation No. A4196

Teck Coal Limited  
Tissue Analysis Results

			RG_AGCK_COMP	RG_AGCK_COMP	RG_AGCK_COMP	RG_CORCK_INV-	RG_CORCK_INV-
Client ID			NOLI-1_2022-09-	NOLI-2_2022-09-	NOLI-3_2022-09-	1_2022-09-14_N	2_2022-09-14_N
Lab ID			15_N	15_N	15_N	470	471
Wet Weight (g)			0.2239	0.1140	0.0736	0.1976	0.1658
Dry Weight (g)			0.0391	0.0227	0.0180	0.0588	0.0408
Moisture (%)			82.5	80.1	75.5	70.2	75.4
Parameter	DL (ppm)	LOQ (ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
7Li	0.022	0.073	0.300	0.274	0.139	0.257	0.261
11B	0.071	0.237	0.645	0.469	0.313	0.997	1.0
23Na	4.3	14	3,534	5,278	3,121	2,649	4,101
24Mg	0.057	0.190	1,056	1,460	937	1,132	1,796
27Al	0.052	0.173	224	147	113	113	116
31P	65	217	13,320	14,049	9,099	8,222	12,064
39K	3.1	10	10,379	15,678	8,567	8,371	9,000
44Ca	3.4	11	1,833	2,007	2,425	2,541	4,134
49Ti	0.001	0.003	11	7.4	6.5	6.0	6.3
51V	0.025	0.083	0.566	0.455	0.432	0.224	0.291
52Cr	0.052	0.173	3.0	9.3	7.8	4.4	6.8
55Mn	0.009	0.030	12	12	7.0	68	51
57Fe	0.769	2.6	217	235	219	147	217
59Co	0.016	0.053	0.124	0.430	0.452	12	7.5
60Ni	0.019	0.063	5.2	13	11	14	13
63Cu	0.029	0.097	9.3	12	12	11	16
66Zn	0.281	0.937	135	217	179	119	167
75As	0.401	1.3	1.2	1.8	1.2	<0.401	<0.401
77Se	0.329	1.1	4.4	7.4	7.0	4.6	5.2
88Sr	0.001	0.003	3.7	4.7	4.5	9.5	16
95Mo	0.001	0.003	0.199	0.284	0.370	0.142	0.171
107Ag	0.001	0.003	0.093	0.156	0.141	0.030	0.059
111Cd	0.051	0.170	0.334	1.3	1.2	0.301	0.451
118Sn	0.023	0.077	0.426	0.728	0.776	0.070	0.221
121Sb	0.003	0.010	0.024	0.026	0.022	0.033	0.021
137Ba	0.001	0.003	21	11	5.7	3.9	5.0
202Hg	0.022	0.073	0.050	0.071	0.042	0.024	0.030
205Tl	0.001	0.003	0.226	0.224	0.128	0.021	0.027
208Pb	0.001	0.003	0.096	0.079	0.063	0.040	0.054
238U	0.001	0.003	0.031	0.031	0.026	0.029	0.031

**Notes:**

- ppm = parts per million
- DL = detection limit
- LOQ = limit of quantitation
- < = less than detection limit
- g = grams
- % = percent

Teck Coal Limited  
Tissue Analysis Results

			Client ID	RG_CORCK_INV- 3_2022-09-14_N	RG_LE1_INV- 1_2022-09-16_N	RG_LE1_INV- 2_2022-09-16_N	RG_LE1_INV- 3_2022-09-16_N	RG_MI25_INV- 1_2022-09-15_N
			Lab ID	472	473	474	475	476
			Wet Weight (g)	0.1355	0.1286	0.1060	0.0864	0.3531
			Dry Weight (g)	0.0338	0.0251	0.0206	0.0165	0.0697
			Moisture (%)	75.1	80.5	80.6	80.9	80.3
Parameter	DL (ppm)	LOQ (ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
7Li	0.022	0.073	0.261	0.165	0.252	0.692	0.661	
11B	0.071	0.237	1.0	0.391	0.762	1.5	2.7	
23Na	4.3	14	2,839	4,026	3,448	3,495	4,051	
24Mg	0.057	0.190	1,571	1,292	1,043	1,531	1,246	
27Al	0.052	0.173	131	164	392	1,374	1,241	
31P	65	217	9,860	11,918	9,933	12,983	12,573	
39K	3.1	10	9,403	10,484	8,942	13,443	14,139	
44Ca	3.4	11	3,421	1,649	1,525	2,726	1,828	
49Ti	0.001	0.003	7.2	7.9	9.0	80	81	
51V	0.025	0.083	0.246	0.522	0.682	3.4	1.7	
52Cr	0.052	0.173	3.5	9.0	7.7	19	6.8	
55Mn	0.009	0.030	61	42	58	49	56	
57Fe	0.769	2.6	155	329	553	1,075	590	
59Co	0.016	0.053	7.5	0.777	0.388	1.9	1.2	
60Ni	0.019	0.063	11	12	10	30	10	
63Cu	0.029	0.097	12	17	19	20	18	
66Zn	0.281	0.937	150	165	144	143	134	
75As	0.401	1.3	<0.401	0.791	0.465	1.9	1.3	
77Se	0.329	1.1	4.5	6.7	7.2	8.9	4.2	
88Sr	0.001	0.003	15	2.9	2.6	4.5	5.8	
95Mo	0.001	0.003	0.199	0.512	0.398	0.569	0.597	
107Ag	0.001	0.003	0.037	0.319	0.230	0.245	0.067	
111Cd	0.051	0.170	0.768	6.0	3.9	13	3.5	
118Sn	0.023	0.077	0.262	0.421	0.448	1.0	0.685	
121Sb	0.003	0.010	0.027	0.026	0.044	0.113	0.038	
137Ba	0.001	0.003	6.8	74	108	72	45	
202Hg	0.022	0.073	0.042	0.119	0.125	0.125	0.068	
205Tl	0.001	0.003	0.016	0.019	0.023	0.040	0.054	
208Pb	0.001	0.003	0.042	0.144	0.162	0.359	0.477	
238U	0.001	0.003	0.026	0.021	0.031	0.074	0.053	

**Notes:**

- ppm = parts per million
- DL = detection limit
- LOQ = limit of quantitation
- < = less than detection limit
- g = grams
- % = percent

Teck Coal Limited  
Tissue Analysis Results

			Client ID	RG_MI25_INV- 2_2022-09-15_N	RG_MI25_INV- 3_2022-09-15_N	RG_MI5_INV- 1_2022-09-12_N	RG_MI5_INV- 2_2022-09-12_N	RG_MI5_INV- 3_2022-09-12_N
			Lab ID	477	478	479	480	481
			Wet Weight (g)	0.2826	0.2282	0.2900	0.3396	0.2075
			Dry Weight (g)	0.0574	0.0592	0.0697	0.0579	0.0369
			Moisture (%)	79.7	74.1	76.0	83.0	82.2
Parameter	DL (ppm)	LOQ (ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
7Li	0.022	0.073	1.0	0.244	0.183	0.270	0.252	
11B	0.071	0.237	3.7	0.899	0.762	1.6	1.4	
23Na	4.3	14	4,090	3,490	2,671	2,869	3,313	
24Mg	0.057	0.190	1,396	1,494	1,131	1,112	1,105	
27Al	0.052	0.173	1,499	316	176	364	317	
31P	65	217	13,333	11,670	10,038	11,057	11,822	
39K	3.1	10	13,868	10,835	10,757	11,288	12,532	
44Ca	3.4	11	2,397	1,526	1,197	2,293	2,883	
49Ti	0.001	0.003	83	16	9.3	22	18	
51V	0.025	0.083	2.0	0.510	0.358	1.1	0.686	
52Cr	0.052	0.173	14	5.2	3.5	13	4.8	
55Mn	0.009	0.030	73	33	66	70	72	
57Fe	0.769	2.6	880	217	162	444	338	
59Co	0.016	0.053	2.0	0.634	1.9	2.4	3.2	
60Ni	0.019	0.063	20	5.5	8.3	28	15	
63Cu	0.029	0.097	19	20	11	13	13	
66Zn	0.281	0.937	115	140	144	128	163	
75As	0.401	1.3	1.7	0.667	0.620	0.620	0.775	
77Se	0.329	1.1	4.8	3.6	6.3	7.2	9.3	
88Sr	0.001	0.003	6.7	3.3	3.1	10	7.3	
95Mo	0.001	0.003	0.640	0.284	0.171	0.284	0.341	
107Ag	0.001	0.003	0.059	0.119	0.089	0.082	0.145	
111Cd	0.051	0.170	3.7	1.4	1.1	1.5	2.9	
118Sn	0.023	0.077	0.400	0.166	0.261	0.362	0.394	
121Sb	0.003	0.010	0.048	0.017	0.020	0.036	0.040	
137Ba	0.001	0.003	53	28	35	93	90	
202Hg	0.022	0.073	0.065	0.059	0.083	0.089	0.071	
205Tl	0.001	0.003	0.058	0.017	0.031	0.037	0.040	
208Pb	0.001	0.003	0.467	0.146	0.138	0.200	0.206	
238U	0.001	0.003	0.085	0.021	0.019	0.061	0.073	

**Notes:**

- ppm = parts per million
- DL = detection limit
- LOQ = limit of quantitation
- < = less than detection limit
- g = grams
- % = percent



Teck Coal Limited  
Tissue Analysis Results

			Client ID	RG_MIDAG_INV-1_2022-09-13_N	RG_MIDAG_INV-2_2022-09-13_N	RG_MIDAG_INV-3_2022-09-13_N	RG_MIDCO_INV-1_2022-09-13_N	RG_MIDCO_INV-2_2022-09-13_N
			Lab ID	482	483	484	485	486
			Wet Weight (g)	0.4586	0.2719	0.2313	0.2061	0.2981
			Dry Weight (g)	0.1027	0.0557	0.0426	0.0489	0.0741
			Moisture (%)	77.6	79.5	81.6	76.3	75.1
Parameter	DL (ppm)	LOQ (ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
7Li	0.022	0.073	0.444	0.844	0.245	1.4	0.368	
11B	0.071	0.237	1.2	2.5	0.795	4.9	1.4	
23Na	4.3	14	3,437	4,027	5,445	5,070	3,745	
24Mg	0.057	0.190	1,140	1,940	1,656	1,628	1,320	
27Al	0.052	0.173	571	1,314	343	3,084	641	
31P	65	217	10,500	13,247	15,453	12,290	11,070	
39K	3.1	10	10,872	12,015	13,085	12,697	10,407	
44Ca	3.4	11	1,571	3,651	2,012	3,845	2,703	
49Ti	0.001	0.003	44	114	23	223	34	
51V	0.025	0.083	1.2	2.3	0.615	4.0	0.826	
52Cr	0.052	0.173	5.2	7.2	4.3	7.4	4.8	
55Mn	0.009	0.030	105	69	57	115	84	
57Fe	0.769	2.6	441	822	250	1,386	371	
59Co	0.016	0.053	9.8	20	10	55	17	
60Ni	0.019	0.063	16	25	12	37	17	
63Cu	0.029	0.097	15	15	19	14	15	
66Zn	0.281	0.937	160	189	244	139	152	
75As	0.401	1.3	0.713	1.8	0.746	0.811	<0.401	
77Se	0.329	1.1	7.9	12	8.8	4.3	3.5	
88Sr	0.001	0.003	4.7	9.1	7.0	12	9.0	
95Mo	0.001	0.003	0.455	0.412	0.243	0.307	0.230	
107Ag	0.001	0.003	0.104	0.096	0.131	0.048	0.069	
111Cd	0.051	0.170	1.0	2.2	1.3	1.1	0.495	
118Sn	0.023	0.077	0.187	0.703	0.848	0.582	0.617	
121Sb	0.003	0.010	0.040	0.067	0.025	0.058	0.028	
137Ba	0.001	0.003	28	32	21	36	17	
202Hg	0.022	0.073	0.065	0.059	0.077	0.043	0.049	
205Tl	0.001	0.003	0.054	0.092	0.085	0.147	0.045	
208Pb	0.001	0.003	0.286	0.452	0.191	0.883	0.304	
238U	0.001	0.003	0.059	0.083	0.039	0.111	0.041	

**Notes:**

- ppm = parts per million
- DL = detection limit
- LOQ = limit of quantitation
- < = less than detection limit
- g = grams
- % = percent

Teck Coal Limited  
Tissue Analysis Results

			Client ID	RG_MIDCO_INV-3_2022-09-13_N	RG_MIDCO_INV-4_2022-09-13_N	RG_MIDCO_INV-5_2022-09-13_N	RG_MIUCO_INV-1_2022-09-14_N	RG_MIUCO_INV-2_2022-09-14_N
			Lab ID	487	488	489	490	491
			Wet Weight (g)	0.4211	0.2986	0.4723	0.4235	0.2736
			Dry Weight (g)	0.0886	0.0637	0.1028	0.0797	0.0523
			Moisture (%)	79.0	78.7	78.2	81.2	80.9
Parameter	DL (ppm)	LOQ (ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
7Li	0.022	0.073	0.429	0.400	0.400	0.384	0.809	
11B	0.071	0.237	1.5	1.6	1.5	0.874	2.9	
23Na	4.3	14	3,151	4,013	3,089	6,004	5,079	
24Mg	0.057	0.190	1,211	1,065	1,149	1,273	1,290	
27Al	0.052	0.173	887	522	629	572	1,144	
31P	65	217	8,882	11,360	9,377	13,014	12,860	
39K	3.1	10	8,739	10,617	8,848	11,338	12,558	
44Ca	3.4	11	1,824	2,075	1,710	647	1,649	
49Ti	0.001	0.003	57	30	39	34	44	
51V	0.025	0.083	1.1	0.756	0.822	0.787	1.2	
52Cr	0.052	0.173	7.2	4.2	4.8	2.4	7.9	
55Mn	0.009	0.030	74	108	80	66	146	
57Fe	0.769	2.6	500	276	380	332	920	
59Co	0.016	0.053	21	19	16	0.405	1.5	
60Ni	0.019	0.063	21	25	18	4.1	13	
63Cu	0.029	0.097	11	12	12	16	21	
66Zn	0.281	0.937	122	142	149	128	171	
75As	0.401	1.3	0.422	0.454	0.486	0.486	1.6	
77Se	0.329	1.1	3.0	2.9	3.7	3.2	4.7	
88Sr	0.001	0.003	6.9	7.2	6.4	1.9	5.1	
95Mo	0.001	0.003	0.154	0.205	0.154	0.294	0.435	
107Ag	0.001	0.003	0.041	0.048	0.041	0.038	0.089	
111Cd	0.051	0.170	0.457	0.457	0.495	0.419	2.5	
118Sn	0.023	0.077	0.283	0.531	0.234	0.134	0.756	
121Sb	0.003	0.010	0.021	0.030	0.024	0.016	0.034	
137Ba	0.001	0.003	20	17	16	36	61	
202Hg	0.022	0.073	0.043	0.031	0.031	0.056	0.068	
205Tl	0.001	0.003	0.048	0.064	0.053	0.039	0.070	
208Pb	0.001	0.003	0.314	0.247	0.258	0.184	0.680	
238U	0.001	0.003	0.046	0.036	0.037	0.015	0.056	

**Notes:**

- ppm = parts per million
- DL = detection limit
- LOQ = limit of quantitation
- < = less than detection limit
- g = grams
- % = percent

Teck Coal Limited  
Tissue Analysis Results

			Client ID	RG_MIUCO_INV- 3_2022-09-14_N	RG_MIULE_INV- 1_2022-09-12_N	RG_MIULE_INV- 2_2022-09-12_N	RG_MIULE_INV- 3_2022-09-12_N	RG_AGCK_INVOL I-1_2022-09- 15_N
			Lab ID	492	493	494	495	496
			Wet Weight (g)	0.1910	0.3021	0.1565	0.1159	0.0078
			Dry Weight (g)	0.0442	0.0575	0.0313	0.0223	0.0037
			Moisture (%)	76.9	81.0	80.0	80.8	52.6
Parameter	DL (ppm)	LOQ (ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
7Li	0.022	0.073	0.302	0.188	0.777	0.482	0.727	
11B	0.071	0.237	1.3	0.755	2.7	1.9	1.7	
23Na	4.3	14	3,045	3,494	3,530	2,620	2,226	
24Mg	0.057	0.190	1,099	1,220	1,342	976	1,113	
27Al	0.052	0.173	791	401	1,589	1,162	697	
31P	65	217	9,944	10,553	10,740	8,111	12,315	
39K	3.1	10	7,861	8,922	9,968	7,045	7,609	
44Ca	3.4	11	1,356	1,881	4,785	2,537	5,320	
49Ti	0.001	0.003	66	29	95	63	66	
51V	0.025	0.083	0.989	0.631	2.9	1.7	2.7	
52Cr	0.052	0.173	4.7	4.6	17	9.1	1.6	
55Mn	0.009	0.030	63	39	65	54	16	
57Fe	0.769	2.6	485	363	969	651	519	
59Co	0.016	0.053	0.670	6.1	13	11	0.550	
60Ni	0.019	0.063	7.4	13	34	20	6.0	
63Cu	0.029	0.097	13	13	13	10	5.1	
66Zn	0.281	0.937	92	196	164	147	571	
75As	0.401	1.3	0.649	0.681	1.1	0.843	6.5	
77Se	0.329	1.1	3.4	7.3	8.9	6.4	4.6	
88Sr	0.001	0.003	2.6	6.6	14	7.6	38	
95Mo	0.001	0.003	0.269	0.230	0.333	0.294	0.205	
107Ag	0.001	0.003	0.048	0.140	0.082	0.069	0.045	
111Cd	0.051	0.170	0.876	1.1	2.1	1.8	2.7	
118Sn	0.023	0.077	0.315	0.459	0.676	0.774	0.296	
121Sb	0.003	0.010	0.018	0.040	0.067	0.040	0.183	
137Ba	0.001	0.003	17	22	55	35	466	
202Hg	0.022	0.073	0.056	0.059	0.056	0.056	0.275	
205Tl	0.001	0.003	0.039	0.061	0.143	0.086	2.1	
208Pb	0.001	0.003	0.212	0.245	0.546	0.393	0.424	
238U	0.001	0.003	0.020	0.029	0.081	0.051	0.066	

**Notes:**

- ppm = parts per million
- DL = detection limit
- LOQ = limit of quantitation
- < = less than detection limit
- g = grams
- % = percent

Teck Coal Limited  
Tissue Analysis Results

Parameter	DL (ppm)	LOQ (ppm)	RG_AGCK_INVOL	RG_AGCK_INVOL
			I-2_2022-09-15_N	I-3_2022-09-15_N
Client ID			15_N	15_N
Lab ID			497	498
Wet Weight (g)			1.2831	1.0453
Dry Weight (g)			0.0045	0.0053
Moisture (%)			99.6	99.5
Parameter	DL (ppm)	LOQ (ppm)	(ppm)	(ppm)
7Li	0.022	0.073	0.548	1.5
11B	0.071	0.237	1.1	3.6
23Na	4.3	14	1,759	5,929
24Mg	0.057	0.190	406	1,212
27Al	0.052	0.173	560	1,720
31P	65	217	4,936	16,989
39K	3.1	10	4,256	22,575
44Ca	3.4	11	2,273	4,837
49Ti	0.001	0.003	44	85
51V	0.025	0.083	2.1	3.4
52Cr	0.052	0.173	1.8	2.1
55Mn	0.009	0.030	7.0	14
57Fe	0.769	2.6	380	869
59Co	0.016	0.053	0.231	0.709
60Ni	0.019	0.063	3.5	8.6
63Cu	0.029	0.097	2.7	8.2
66Zn	0.281	0.937	290	438
75As	0.401	1.3	2.1	7.0
77Se	0.329	1.1	1.6	4.6
88Sr	0.001	0.003	16	32
95Mo	0.001	0.003	0.128	0.320
107Ag	0.001	0.003	0.027	0.076
111Cd	0.051	0.170	1.2	2.4
118Sn	0.023	0.077	7.2	15
121Sb	0.003	0.010	0.097	0.412
137Ba	0.001	0.003	157	224
202Hg	0.022	0.073	0.136	0.222
205Tl	0.001	0.003	0.876	3.0
208Pb	0.001	0.003	0.349	0.938
238U	0.001	0.003	0.046	0.118

**Notes:**

- ppm = parts per million
- DL = detection limit
- LOQ = limit of quantitation
- < = less than detection limit
- g = grams
- % = percent

Teck Coal Limited  
Tissue QA/QC Relative Percent Difference Results

Client ID		RG_CORCK_INV-2_2022-09-14_N			RG_MI25_INV-1_2022-09-15_N			RG_MIDCO_INV-5_2022-09-13_N		
Lab ID		471			476			489		
Parameter	DL (ppm)	Sample (ppm)	Sample Duplicate (ppm)	RPD (%)	Sample (ppm)	Sample Duplicate (ppm)	RPD (%)	Sample (ppm)	Sample Duplicate (ppm)	RPD (%)
7Li	0.022	0.261	0.313	18	0.661	0.940	35	0.400	0.286	33
11B	0.071	1.0	1.3	26	2.7	2.7	0.0	1.5	1.2	22
23Na	4.3	4,101	3,641	12	4,051	4,064	0.3	3,089	3,117	0.9
24Mg	0.057	1,796	1,614	11	1,246	1,346	7.7	1,149	1,067	7.4
27Al	0.052	116	166	36	1,241	1,390	11	629	429	38
31P	65	12,064	10,873	10	12,573	12,784	1.7	9,377	9,180	2.1
39K	3.1	9,000	9,610	6.6	14,139	13,898	1.7	8,848	9,393	6.0
44Ca	3.4	4,134	4,144	0.2	1,828	1,693	7.7	1,710	1,906	11
49Ti	0.001	6.3	8.0	24	81	95	16	39	28	33
51V	0.025	0.291	0.298	2.4	1.7	1.8	5.7	0.822	0.683	19
52Cr	0.052	6.8	4.6	39	6.8	5.4	23	4.8	4.2	13
55Mn	0.009	51	62	20	56	76	30	80	94	16
57Fe	0.769	217	184	17	590	769	26	380	302	23
59Co	0.016	7.5	8.4	11	1.2	1.2	0.0	16	19	17
60Ni	0.019	13	12	8.0	10	7.1	34	18	19	5.4
63Cu	0.029	16	14	13	18	20	11	12	12	0.0
66Zn	0.281	167	157	6.2	134	148	9.9	149	149	0.0
75As	0.401	<0.401	<0.401	-	1.3	1.1	-	0.486	<0.401	-
77Se	0.329	5.2	5.0	3.9	4.2	4.7	11	3.7	3.5	5.6
88Sr	0.001	16	15	6.5	5.8	4.5	25	6.4	6.1	4.8
95Mo	0.001	0.171	0.142	19	0.597	0.540	10	0.154	0.154	0.0
107Ag	0.001	0.059	0.069	16	0.067	0.074	9.9	0.041	0.041	0.0
111Cd	0.051	0.451	0.401	-	3.5	4.5	25	0.495	0.609	-
118Sn	0.023	0.221	0.304	-	0.685	0.490	33	0.234	0.230	1.7
121Sb	0.003	0.021	0.030	-	0.038	0.036	5.4	0.024	0.023	-
137Ba	0.001	5.0	7.0	33	45	56	22	16	16	0.0
202Hg	0.022	0.030	0.030	-	0.068	0.083	-	0.031	0.043	-
205Tl	0.001	0.027	0.028	3.6	0.054	0.052	3.8	0.053	0.044	19
208Pb	0.001	0.054	0.065	19	0.477	0.542	13	0.258	0.253	2.0
238U	0.001	0.031	0.035	12	0.053	0.059	11	0.037	0.039	5.3

**Notes:**

- ppm = parts per million
- RPD = relative percent difference
- DL = detection limit
- < = less than detection limit
- % = percent

**Data Quality Objectives:**

Laboratory Duplicates - RPD ≤40% for all elements, except Ca and Sr, which are ≤60%  
Minimum DQOs apply to individual samples at concentrations above 10x DL

Teck Coal Limited  
Tissue QA/QC Relative Percent Difference Results

Parameter	DL (ppm)	Sample (ppm)	Sample Duplicate (ppm)	RPD (%)
7Li	0.022	0.188	0.261	-
11B	0.071	0.755	0.934	21
23Na	4.3	3,494	3,634	3.9
24Mg	0.057	1,220	1,372	12
27Al	0.052	401	460	14
31P	65	10,553	11,210	6.0
39K	3.1	8,922	9,197	3.0
44Ca	3.4	1,881	2,249	18
49Ti	0.001	29	26	11
51V	0.025	0.631	0.713	12
52Cr	0.052	4.6	4.6	0.0
55Mn	0.009	39	51	27
57Fe	0.769	363	428	16
59Co	0.016	6.1	7.0	14
60Ni	0.019	13	14	7.4
63Cu	0.029	13	17	27
66Zn	0.281	196	219	11
75As	0.401	0.681	0.681	-
77Se	0.329	7.3	8.4	14
88Sr	0.001	6.6	7.0	5.9
95Mo	0.001	0.230	0.333	37
107Ag	0.001	0.140	0.158	12
111Cd	0.051	1.1	1.6	37
118Sn	0.023	0.459	0.594	26
121Sb	0.003	0.040	0.040	0.0
137Ba	0.001	22	24	8.7
202Hg	0.022	0.059	0.077	-
205Tl	0.001	0.061	0.080	27
208Pb	0.001	0.245	0.309	23
238U	0.001	0.029	0.042	37

**Notes:**

ppm = parts per million  
 RPD = relative percent difference  
 DL = detection limit  
 < = less than detection limit  
 % = percent

**Data Quality Objectives:**

Laboratory Duplicates - RPD ≤40% for all elements, except Ca and Sr, which are ≤60%  
 Minimum DQOs apply to individual samples at concentrations above 10x DL

Teck Coal Limited  
Tissue QA/QC Accuracy and Precision Results

Parameter	DL (ppm)	Certified Conc. (ppm)	01			02		
			Mean Estimated Conc. (ppm)	Accuracy (%)	Precision RSD (%)	Mean Estimated Conc. (ppm)	Accuracy (%)	Precision RSD (%)
7Li	0.022	1.21	1.2	99	8.3	1.1	94	4.8
11B	0.071	4.5	4.9	108	4.9	4.6	102	2.4
23Na	4.3	14,000	14,617	104	4.1	13,459	96	1.9
24Mg	0.057	910	927	102	6.7	914	100	2.4
27Al	0.052	197.2	212	108	7.2	219	111	6.3
31P	65	8,000	8,047	101	3.9	7,634	95	1.1
39K	3.1	15,500	15,759	102	7.5	14,696	95	2.1
44Ca	3.4	2,360	2,357	100	8.0	2,340	99	1.6
49Ti	0.001	12.24	14	114	10	12	101	4.4
51V	0.025	1.57	1.6	103	12	1.7	106	9.1
52Cr	0.052	1.87	1.9	100	12	1.7	92	2.6
55Mn	0.009	3.17	3.2	100	10	3.2	100	5.6
57Fe	0.769	343	352	102	7.4	342	100	1.5
59Co	0.016	0.25	0.251	100	15	0.243	97	5.5
60Ni	0.019	1.34	1.5	109	9.2	1.4	102	8.4
63Cu	0.029	15.7	17	106	5.4	16	103	2.8
66Zn	0.281	51.6	52	100	10	49	95	3.8
75As	0.401	6.87	6.8	99	4.4	6.9	100	1.4
77Se	0.329	3.45	3.5	103	9.1	3.2	92	5.7
88Sr	0.001	10.1	11	106	10	9.8	97	3.1
95Mo	0.001	0.29	0.296	102	8.6	0.261	90	4.3
107Ag	0.001	0.0252	0.026	103	18	0.023	93	14
111Cd	0.051	0.299	0.319	107	13	0.295	99	12
118Sn	0.023	0.061	0.055	90	9.9	0.059	97	17
121Sb	0.003	0.011	0.013	114	9.0	0.012	113	7.2
137Ba	0.001	8.6	9.0	105	3.0	9.2	107	2.6
202Hg	0.022	0.412	0.435	106	6.1	0.427	104	6.6
205Tl	0.001	0.0013	-	-	-	-	-	-
208Pb	0.001	0.404	0.445	110	15	0.384	95	8.0
238U	0.001	0.05	0.051	103	9.1	0.050	99	7.6

**Notes:**

ppm = parts per million; % = percent; DL = detection limit; RSD = relative standard deviation

**Data Quality Objectives:**

Accuracy: DQO of 60 - 140% of the certified values for B, Ti, Ag, Sn, Sb, and Ba.

Accuracy: DQO of 90 - 110% of the certified values for Se.

Accuracy: DQO of 70 - 130% of the certified values for all other elements provided.

Precision: DQO of ≤20% for all elements.

DORM-4 used for all parameters except B, Ti, Sb, Ba, and Al where NIST-1566b was used.

Tl certified concentration from NIST-2976.

Accuracy and precision for Tl are not reported as the certified concentration is too close to the reportable detection limit.

Teck Coal Limited  
Sample Group Information

Sample Group ID	Client ID	Lab ID	Date of Analysis
01	RG_AGCK_COMPNOLI-1_2022-09-15_N	467	06 Oct 2022
	RG_AGCK_COMPNOLI-2_2022-09-15_N	468	
	RG_AGCK_COMPNOLI-3_2022-09-15_N	469	
	RG_CORCK_INV-1_2022-09-14_N	470	
	RG_CORCK_INV-2_2022-09-14_N	471	
	RG_CORCK_INV-3_2022-09-14_N	472	
	RG_LE1_INV-1_2022-09-16_N	473	
	RG_LE1_INV-2_2022-09-16_N	474	
	RG_LE1_INV-3_2022-09-16_N	475	
	RG_MI25_INV-1_2022-09-15_N	476	
	RG_MI25_INV-2_2022-09-15_N	477	
	RG_MI25_INV-3_2022-09-15_N	478	
	RG_MI5_INV-1_2022-09-12_N	479	
	RG_MI5_INV-2_2022-09-12_N	480	
	RG_MI5_INV-3_2022-09-12_N	481	
	RG_MIDAG_INV-1_2022-09-13_N	482	
	RG_MIDAG_INV-2_2022-09-13_N	483	
	RG_MIDAG_INV-3_2022-09-13_N	484	
	02	RG_MIDCO_INV-1_2022-09-13_N	
RG_MIDCO_INV-2_2022-09-13_N		486	
RG_MIDCO_INV-3_2022-09-13_N		487	
RG_MIDCO_INV-4_2022-09-13_N		488	
RG_MIDCO_INV-5_2022-09-13_N		489	
RG_MIUCO_INV-1_2022-09-14_N		490	
RG_MIUCO_INV-2_2022-09-14_N		491	
RG_MIUCO_INV-3_2022-09-14_N		492	
RG_MIULE_INV-1_2022-09-12_N		493	
RG_MIULE_INV-2_2022-09-12_N		494	
RG_MIULE_INV-3_2022-09-12_N		495	
RG_AGCK_INVOLI-1_2022-09-15_N		496	
RG_AGCK_INVOLI-2_2022-09-15_N		497	
RG_AGCK_INVOLI-3_2022-09-15_N		498	





COC ID: REP\_LAEMP\_CMm\_202  
2-09 TRICH

TURNAROUND TIME:

RUSH:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO				
Facility Name / Job#	Regional Effects Program			Lab Name	TrichAnalytics Inc.			Report Format / Distribution	Excel	PDF	EDD	
Project Manager	Cybele Heddle			Lab Contact	Jennie Christensen			Email 1:	AquaSciLab@Teck.com	X	X	X
Email	Cybele.Heddle@teck.com			Email	jennie.christensen@trichanalytics			Email 2:	teckcoal@equisonline.com			X
Address	421 Pine Ave			Address	207-1753 Sean Heights			Email 3:	Teck Lab Results@teck.com	X	X	X
City	Sparwood	Province	BC	City	Saanichton	Province	BC	Email 4:	Lisa.Bowron@minnow.ca	X	X	X
Postal Code	V0B 2G0	Country	Canada	Postal Code				Email 5:	alex.mcclymont@minnow.ca	X	X	X
Phone Number	1-250-865-3048			Phone Number				Email 6:	Hannah.Penner@Teck.com	X	X	X
								PO number	VPO00818999			

SAMPLE DETAILS								ANALYSIS REQUESTED					
Sample ID	Sample Location (sys loc code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	Tissue type	Tissue Species	Sample Structure	Number of Containers	Metals in Biota by CRC ICPMS (wet and dry)	Mercury in Biota by CVAAS (wet, dry & routine)	Moisture Content by Gravimetry	Filtered - F: Field, L: Lab, FL: Field & Lab, N: None
167	RG_AGCK	TA		15-Sep-22	9:00	INV	COMPNOLI	Composite	1	X	X	X	
168	RG_AGCK	TA		15-Sep-22	10:00	INV	COMPNOLI	Composite	1	X	X	X	
169	RG_AGCK	TA		15-Sep-22	11:00	INV	COMPNOLI	Composite	1	X	X	X	
170	RG_CORCK	TA		14-Sep-22	9:00	INV	Composite	Composite	1	X	X	X	
171	RG_CORCK	TA		14-Sep-22	10:00	INV	Composite	Composite	1	X	X	X	
172	RG_CORCK	TA		14-Sep-22	11:00	INV	Composite	Composite	1	X	X	X	
173	RG_LE1	TA		16-Sep-22	9:00	INV	Composite	Composite	1	X	X	X	
174	RG_LE1	TA		16-Sep-22	10:00	INV	Composite	Composite	1	X	X	X	
175	RG_LE1	TA		16-Sep-22	11:00	INV	Composite	Composite	1	X	X	X	

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
PO 818999	Jennifer Ings	#####	Alex Wade	21 Sep 2022 / 14:15
				(Project #: 2022-399)

SERVICE REQUEST (rush - subject to availability)				
Regular (default)	Sampler's Name	Jennifer Ings	Mobile #	5195003444
Priority (2-3 business days) - 50% surcharge	Sampler's Signature	<i>Jennifer Ings</i>	Date/Time	September 19, 2022
Emergency (1 Business Day) - 100% surcharge				
For Emergency <1 Day, ASAP or Weekend				



COC ID: **REP\_LAEMP\_CMm\_202  
2-09 TRICH**

TURNAROUND TIME:

RUSH:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO						
Facility Name / Job#		Regional Effects Program		Lab Name		TrichAnalytics Inc.		Report Format / Distribution		Excel	PDF	EDD		
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Address		421 Pine Ave		Address		207-1753 Sean Heights		Email 3:		<a href="mailto:Teck.Lab.Results@teck.com">Teck.Lab.Results@teck.com</a>	X	X	X	
City		Sparwood		City		Saanichton		Email 4:		<a href="mailto:Lisa.Boaron@minnow.ca">Lisa.Boaron@minnow.ca</a>	X	X	X	
Province		BC		Province		BC		Email 5:		<a href="mailto:alex.mccoy@minnow.ca">alex.mccoy@minnow.ca</a>	X	X	X	
Postal Code		V0B 2G0		Country		Canada		Email 6:		<a href="mailto:Hannah.Peters@Teck.com">Hannah.Peters@Teck.com</a>	X	X	X	
Phone Number		1-250-865-3048		Phone Number				PO number		<b>VPO00818999</b>				
SAMPLE DETAILS									ANALYSIS REQUESTED					
Sample ID	Sample Location (sys loc code)	Field Matrix	Hazardous Maternal (Yes/No)	Date	Time (24hr)	Tissue type	Tissue Species	Sample Structure	PHL	PRESERV.	ANALYSIS			
											Number of Containers			
											Metals in Biotas by CRC ICPMS (wet and dry)			
											Mercury in Biotas by CVAAS (wet, dry & routine)			
											Moisture Content by Gravimetry			
RG_MI25_INV-1_2022-09-15_N ✓	RG_MI25	TA		15-Sep-22	9:00	INV	Composite	Composite			1	X	X	X
RG_MI25_INV-2_2022-09-15_N ✓	RG_MI25	TA		15-Sep-22	10:00	INV	Composite	Composite			1	X	X	X
RG_MI25_INV-3_2022-09-15_N ✓	RG_MI25	TA		15-Sep-22	11:00	INV	Composite	Composite			1	X	X	X
RG_MI5_INV-1_2022-09-12_N ✓	RG_MI5	TA		12-Sep-22	9:00	INV	Composite	Composite			1	X	X	X
RG_MI5_INV-2_2022-09-12_N ✓	RG_MI5	TA		12-Sep-22	10:00	INV	Composite	Composite			1	X	X	X
RG_MI5_INV-3_2022-09-12_N ✓	RG_MI5	TA		12-Sep-22	11:00	INV	Composite	Composite			1	X	X	X
RG_MIDAG_INV-1_2022-09-13_N ✓	RG_MIDAG	TA		13-Sep-22	9:00	INV	Composite	Composite			1	X	X	X
RG_MIDAG_INV-2_2022-09-13_N ✓	RG_MIDAG	TA		13-Sep-22	10:00	INV	Composite	Composite			1	X	X	X
RG_MIDAG_INV-3_2022-09-13_N ✓	RG_MIDAG	TA		13-Sep-22	11:00	INV	Composite	Composite			1	X	X	X
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS				RELINQUISHED BY/AFFILIATION				DATE/TIME	ACCEPTED BY/AFFILIATION		DATE/TIME			
PO 818999				Jennifer Ings				*****	Alex Wade		21 Sep 2022 / 14:15			
											(Project #: 2022-399)			
SERVICE REQUEST (rush - subject to availability)				Sampler's Name		Sampler's Signature		Mobile #	Date/Time					
Regular (default) Priority (2-3 business days) - 50% surcharge Emergency (1 Business Day) - 100% surcharge For Emergency <1 Day, ASAP or Weekend				Jennifer Ings					September 19, 2022					





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2-09 TRICH**

TURNAROUND TIME:

RUSH:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO					
Facility Name / Job# Regional Effects Program				Lab Name TrichAnalytics Inc.				Report Format / Distribution					
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Address 421 Pine Ave				Address 207-1753 Sean Heights				Email 2: teckcoal@equisonline.com X X X					
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City Sparwood Province BC				City Saanichton Province BC				Email 5: alex.mcclymont@minnow.ca X X X					
Postal Code V0B 2G0 Country Canada				Postal Code				Email 6: Hannah.Penner@Teck.com X X X					
Phone Number 1-250-865-3048				Phone Number				PO number VPO00818999					
SAMPLE DETAILS								ANALYSIS REQUESTED					
Sample ID	Sample Location (sys loc code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	Tissue type	Tissue Species	Sample Structure	Number of Containers	Metals in Biota by CRC ICPMS (wet and dry)	Mercury in Biota by CVAAS (wet, dry & routine)	Moisture Content by Gravimetry	Filtered - F: Field, L: Lab, FL: Field & Lab, N: None
485 RG_MIDCO_INV-1_2022-09-13_N ✓	RG_MIDCO	TA		13-Sep-22	9:00	INV	Composite	Composite	1	X	X	X	
486 RG_MIDCO_INV-2_2022-09-13_N ✓	RG_MIDCO	TA		13-Sep-22	10:00	INV	Composite	Composite	1	X	X	X	
487 RG_MIDCO_INV-3_2022-09-13_N ✓	RG_MIDCO	TA		13-Sep-22	11:00	INV	Composite	Composite	1	X	X	X	
488 RG_MIDCO_INV-4_2022-09-13_N ✓	RG_MIDCO	TA		13-Sep-22	9:00	INV	Composite	Composite	1	X	X	X	
489 RG_MIDCO_INV-5_2022-09-13_N ✓	RG_MIDCO	TA		13-Sep-22	10:00	INV	Composite	Composite	1	X	X	X	
490 RG_MIUCO_INV-1_2022-09-14_N ✓	RG_MIUCO	TA		14-Sep-22	11:00	INV	Composite	Composite	1	X	X	X	
491 RG_MIUCO_INV-2_2022-09-14_N ✓	RG_MIUCO	TA		14-Sep-22	12:00	INV	Composite	Composite	1	X	X	X	
492 RG_MIUCO_INV-3_2022-09-14_N ✓	RG_MIUCO	TA		14-Sep-22	13:00	INV	Composite	Composite	1	X	X	X	
493 RG_MIULE_INV-1_2022-09-12_N ✓	RG_MIULE	TA		12-Sep-22	9:00	INV	Composite	Composite	1	X	X	X	
ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS			RELINQUISHED BY/AFFILIATION			DATE/TIME		ACCEPTED BY/AFFILIATION		DATE/TIME			
PO 818999			Jennifer Ings			#####		Alex Wade		21 Sep 2022 / 14:15			
										(Project #: 2022-399)			
SERVICE REQUEST (rush - subject to availability)				SAMPLER INFORMATION				CONTACT INFORMATION					
Regular (default) Priority (2-3 business days) - 50% surcharge Emergency (1 Business Day) - 100% surcharge For Emergency <1 Day, ASAP or Weekend				Sampler's Name Jennifer Ings				Mobile # 5195003444					
				Sampler's Signature				Date/Time September 19, 2022					

Trich ID



# Teck

COC ID: **REP\_LAEMP\_CMm\_202  
2-09 TRICH**

TURNAROUND TIME:

RUSH:

PROJECT/CLIENT INFO				LABORATORY				OTHER INFO				
Facility Name / Job#	Regional Effects Program			Lab Name	TrichAnalytics Inc.			Report Format / Distribution		Excel	PDF	EDD
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								Email 4:	Lisa.Rosmond@minnow.ca	X	X	X
City	Sparwood	Province	BC	City	Saanichton	Province	BC	Email 5:	alex.mclayton@minnow.ca	X	X	X
Postal Code	V0B 2G0	Country	Canada	Postal Code				Email 6:	Hannah.Perron@Teck.com	X	X	X
Phone Number	1-250-865-3048			Phone Number				PO number	VPO00818999			

SAMPLE DETAILS									ANALYSIS REQUESTED				Filtered - F: Field L: Lab, FL: Field & Lab, N: None			
Sample ID	Sample Location (sys loc code)	Field Matrix	Hazardous Material (Yes/No)	Date	Time (24hr)	Tissue type	Tissue Species	Sample Structure	Number of Containers	Metals in Biota by CRC (CPMS (wet and dry))	Mercury in Biota by CVAAS (wet, dry & routine)	Moisture Content by Gravimetry				
194 RG_MIULE_INV-2_2022-09-12_N ✓	RG_MIULE	TA		12-Sep-22	10:00	INV	Composite	Composite	1	X	X	X				
195 RG_MIULE_INV-3_2022-09-12_N ✓	RG_MIULE	TA		12-Sep-22	11:00	INV	Composite	Composite	1	X	X	X				
196 RG_AGCK_INVOLI-1_2022-09-15_N ✓	RG_AGCK	TA		15-Sep-22	9:00	INV	INVOLI	Composite	1	X	X	X				
197 RG_AGCK_INVOLI-2_2022-09-15_N ✓	RG_AGCK	TA		15-Sep-22	10:00	INV	INVOLI	Composite	1	X	X	X				
198 RG_AGCK_INVOLI-3_2022-09-15_N ✓	RG_AGCK	TA		15-Sep-22	11:00	INV	INVOLI	Composite	1	X	X	X				
		TA														
		TA														
		TA														
		TA														

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS	RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
PO 818999	Jennifer Ings	#####	Alex Wada <i>[Signature]</i>	21 Sep 2022 / 14:15
				(Project # 2022-399)

SERVICE REQUEST (rush - subject to availability)			
Regular (default)	Priority (2-3 business days) - 50% surcharge	Emergency (1 Business Day) - 100% surcharge	For Emergency <1 Day, ASAP or Weekend
Sampler's Name	Jennifer Ings	Mobile #	5195003444
Sampler's Signature	<i>[Signature]</i>	Date/Time	September 19, 2022

**APPENDIX G**

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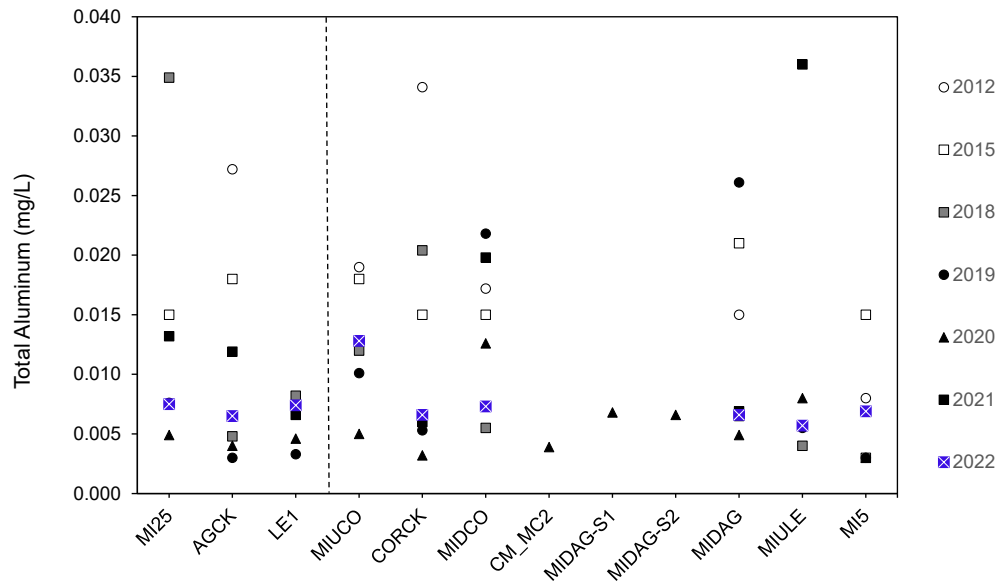
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## G SUPPLEMENTARY FIGURES

### G1.0 WATER QUALITY

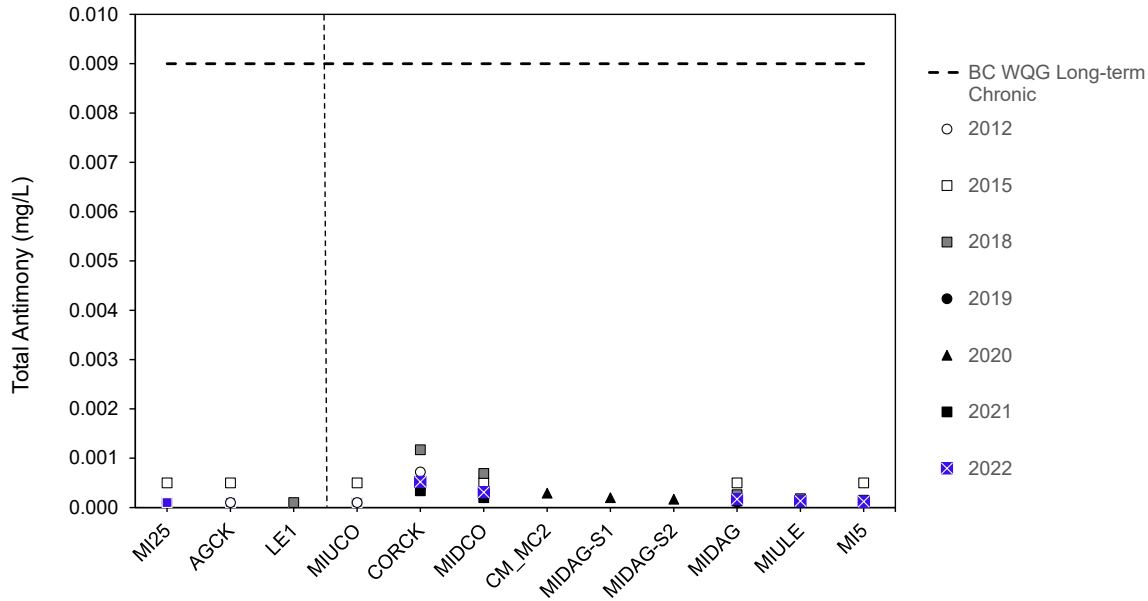
#### G1.1 Spatial Trends

**Figure G1.1-1: Spatial Variation in Aqueous Aluminum Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



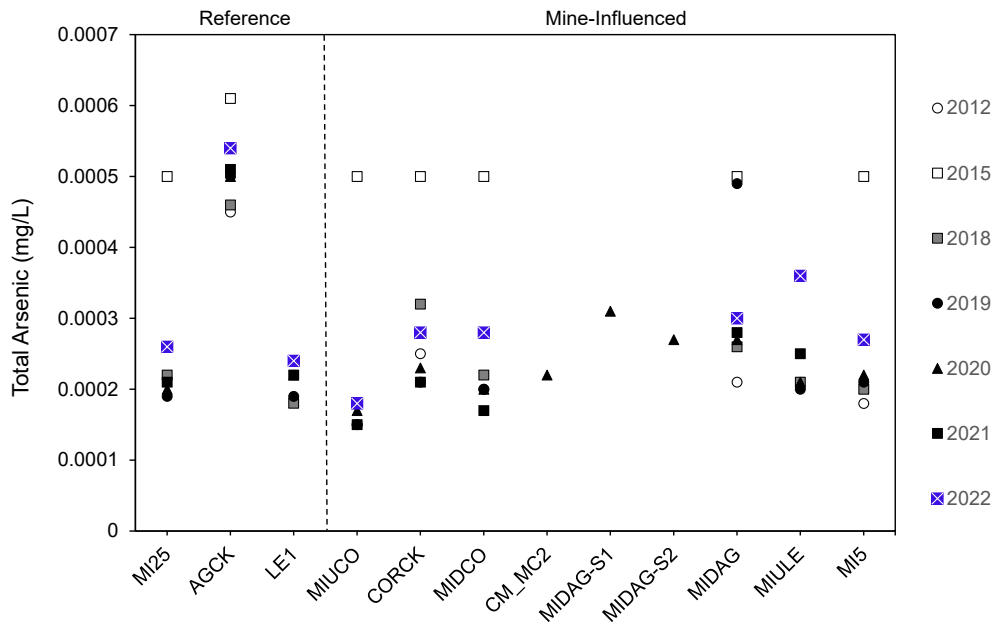
Note: Long-term BC WQG not shown (0.083 to 0.105 mg/L).  
 mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-2: Spatial Variation in Aqueous Antimony Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



mg/L = milligrams per litre; BC WQG = British Columbia water quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

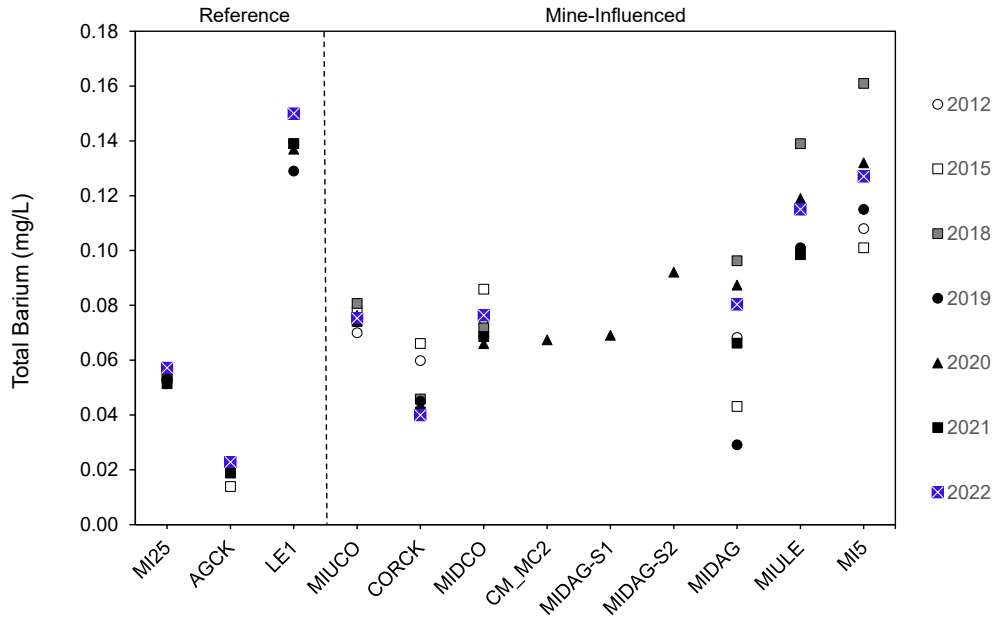
**Figure G1.1-3: Spatial Variation in Aqueous Arsenic Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Short-term BC WQG not shown (0.005 mg/L).

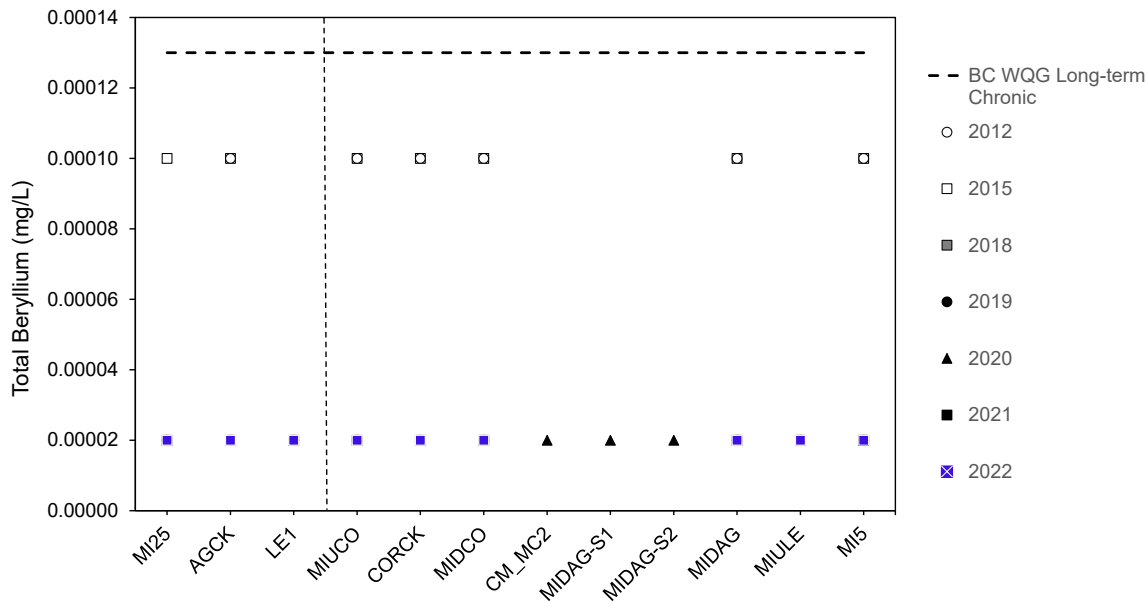
mg/L = milligrams per litre; BC WQG = British Columbia water quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-4: Spatial Variation in Aqueous Barium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



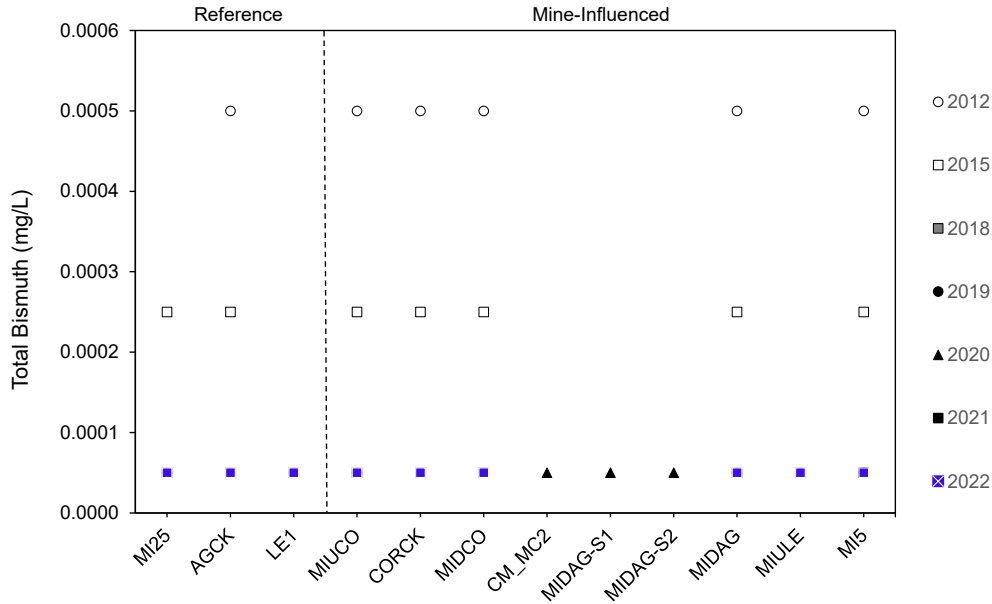
Note: Long-term BC WQG (1.0 mg/L) not shown.  
 mg/L = milligrams per litre; BC WQG = British Columbia water quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-5: Spatial Variation in Aqueous Beryllium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



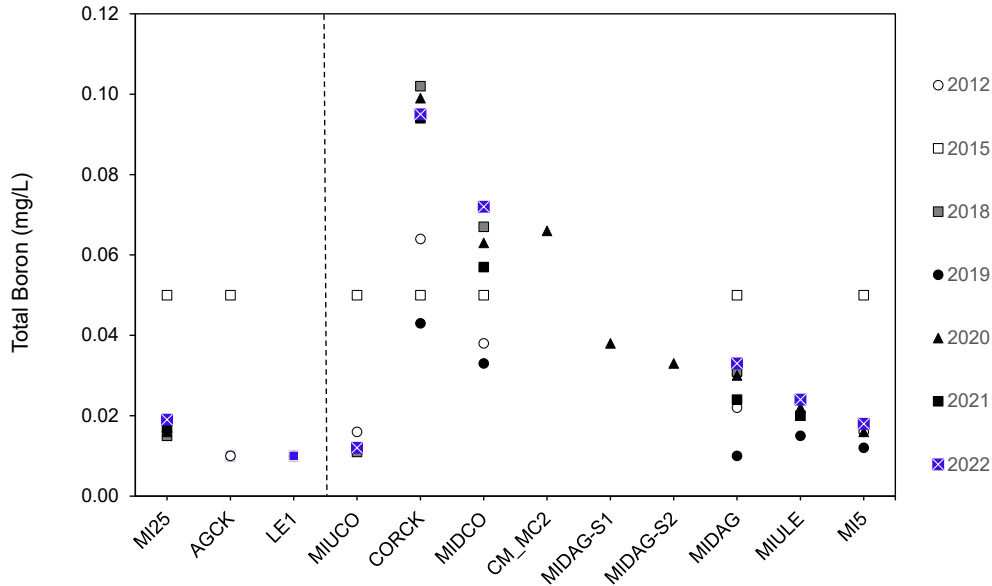
Note: mg/L = milligrams per litre; BC WQG = British Columbia water quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-6: Spatial Variation in Aqueous Bismuth Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Environment and Climate Change Canada Federal Environmental Quality Guideline (0.0005 mg/L) not shown. mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

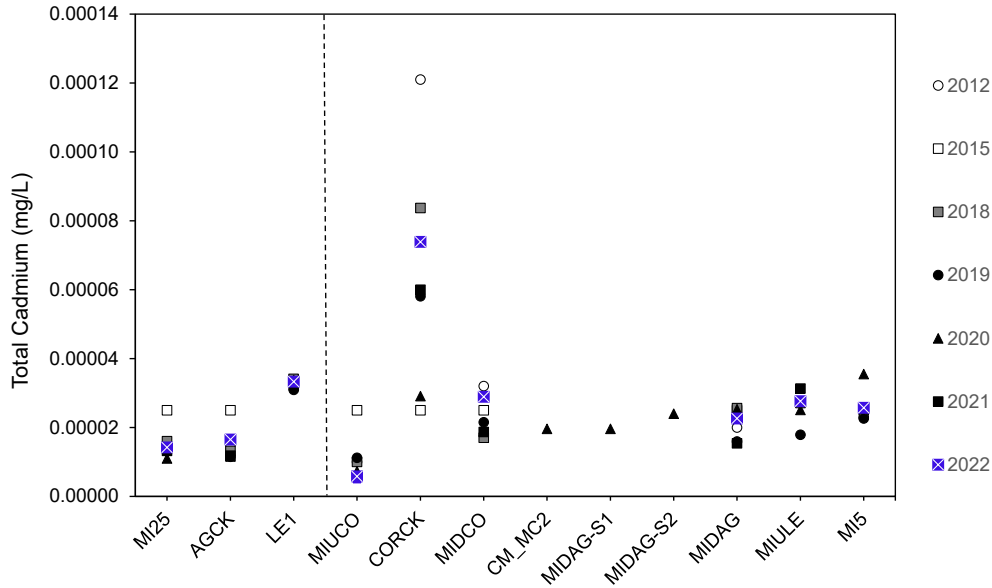
**Figure G1.1-7: Spatial Variation in Aqueous Boron Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Long-term BC WQG not shown (1.2 mg/L). mg/L = milligrams per litre; BC WQG = British Columbia water quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

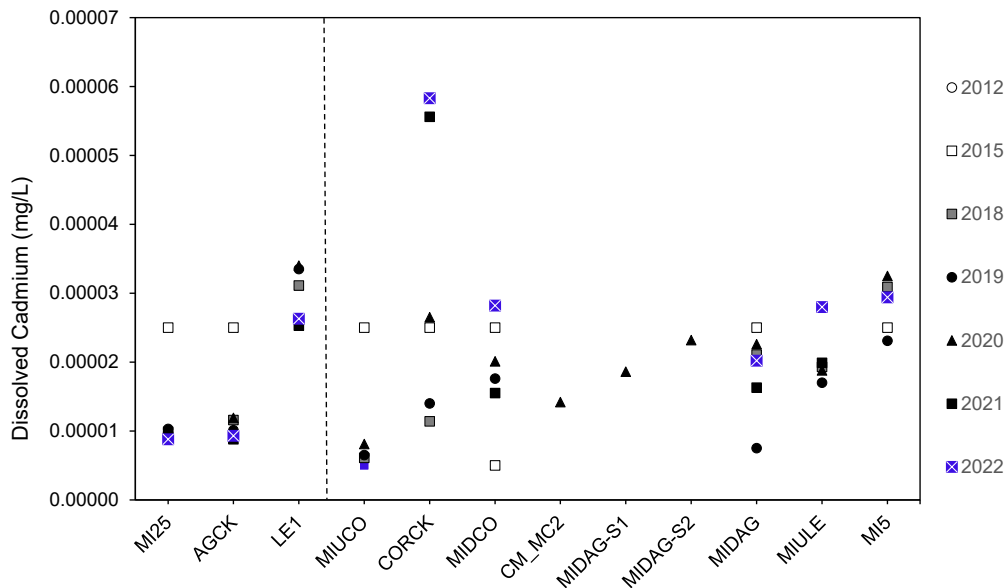


**Figure G1.1-8: Spatial Variation in Aqueous Cadmium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

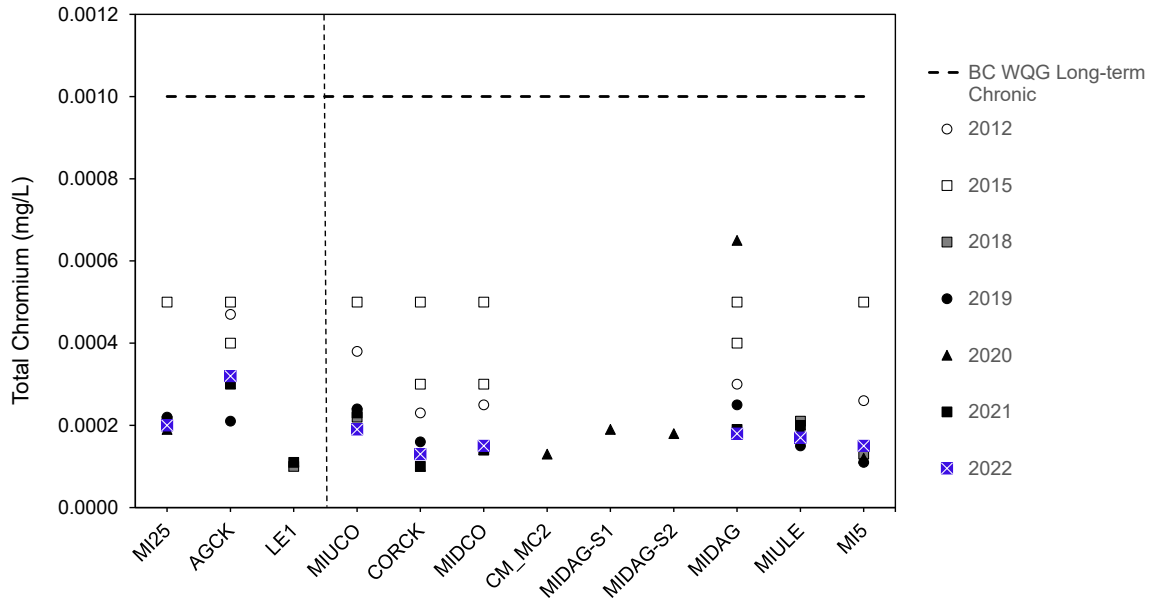
**Figure G1.1-9: Spatial Variation in Aqueous Dissolved Cadmium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Elk Valley Water Quality Plan benchmark for dissolved cadmium (i.e., invertebrate benchmark equal to 0.00015 to 0.00032 mg/L) not shown.

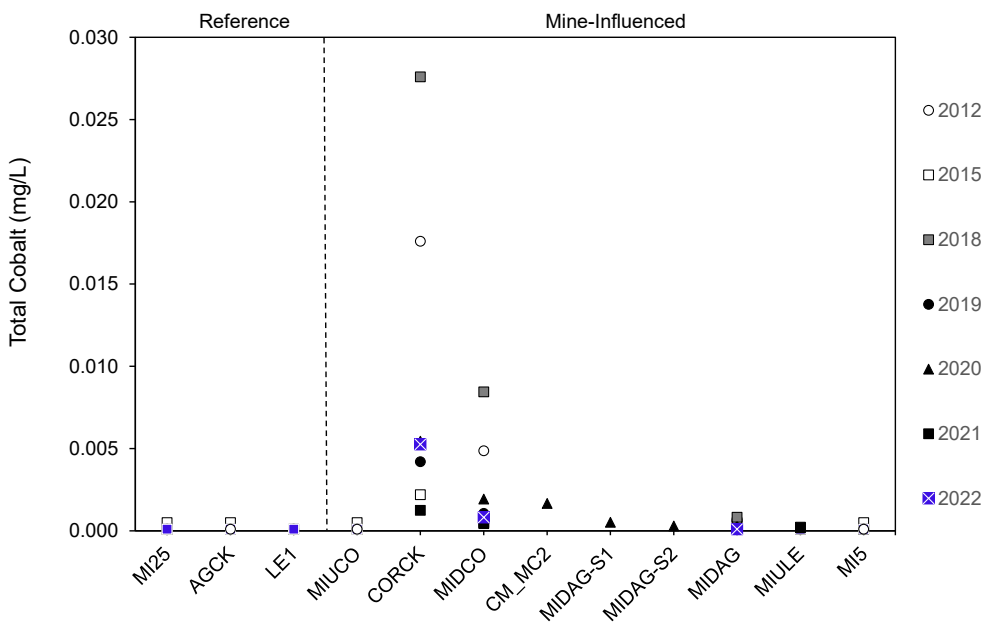
mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-10: Spatial Variation in Aqueous Chromium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



mg/L = milligrams per litre; BC WQG = British Columbia water quality guideline; EVWQP = Elk Valley Water Quality Plan; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

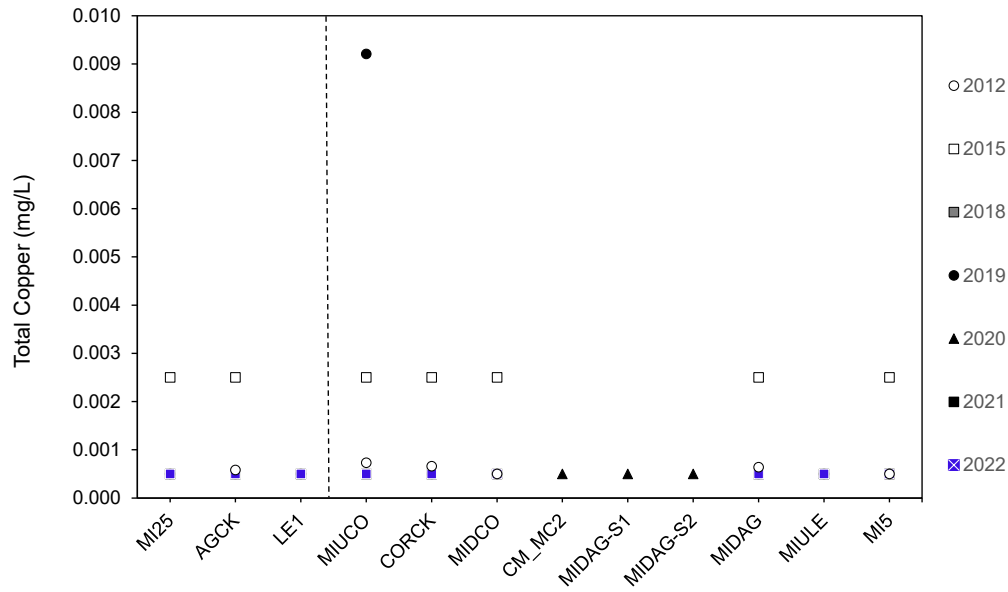
**Figure G1.1-11: Spatial Variation in Aqueous Cobalt Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2021**



Notes: Short-term BC WQG not shown (0.11 mg/L).

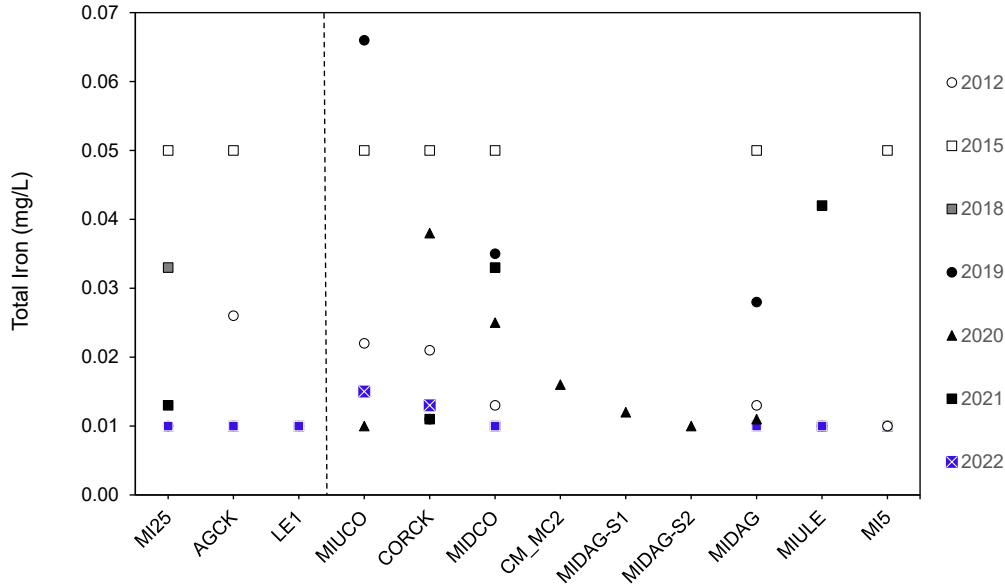
mg/L = milligrams per litre; BC WQG = British Columbia water quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-12: Spatial Variation in Aqueous Copper Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



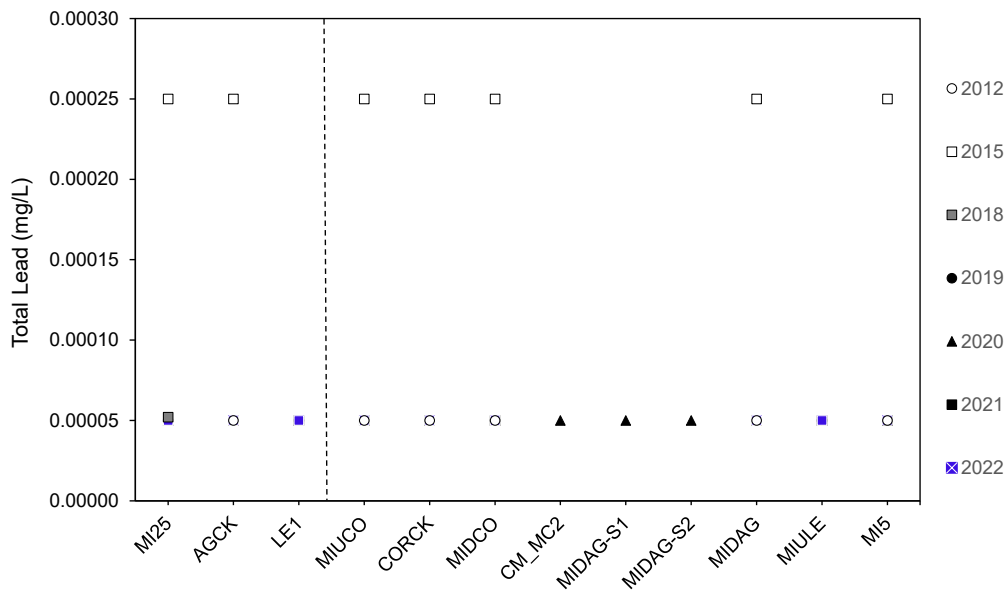
mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-13: Spatial Variation in Aqueous Iron Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



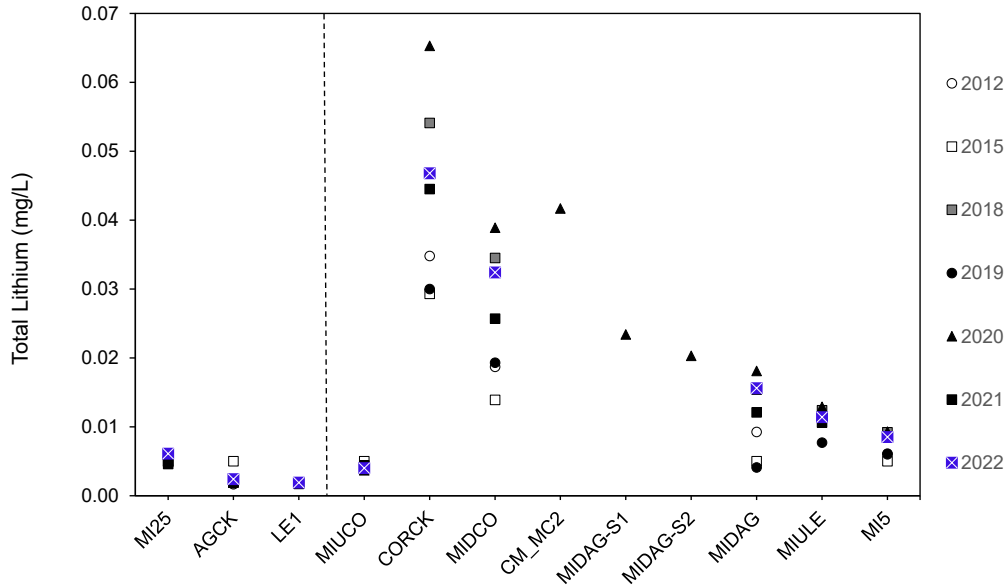
Note: Short-term BC WQG not shown (1.0 mg/L).  
 mg/L = milligrams per litre; BC WQG = British Columbia water quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-14: Spatial Variation in Aqueous Lead Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



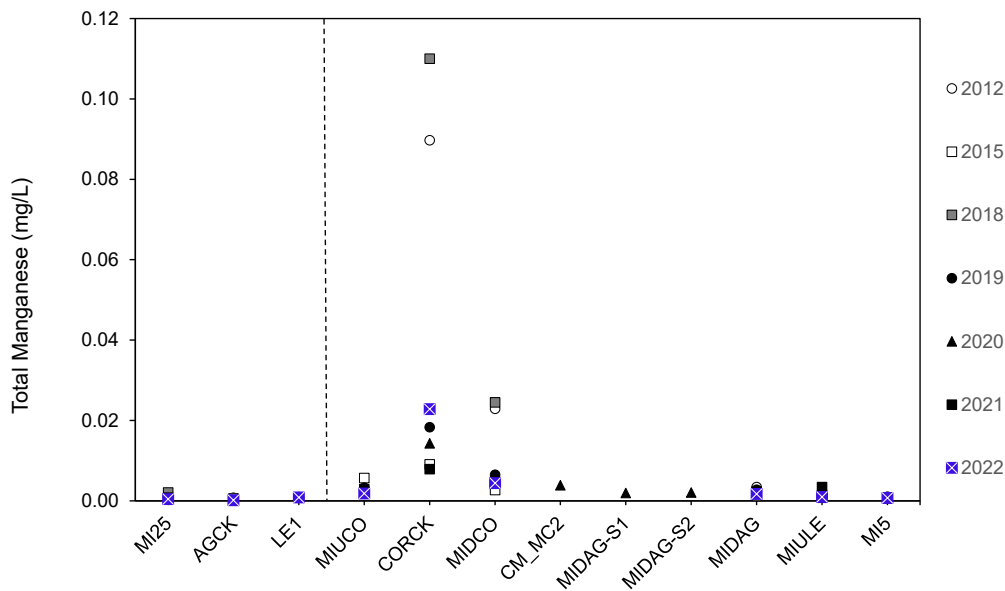
Note: Long-term BC WQG (hardness dependent; 0.007 to 0.020 mg/L) and the short-term BC WQG (0.093 to 0.417 mg/L) not shown.  
 mg/L = milligrams per litre; BC WQG = British Columbia water quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-15: Spatial Variation in Aqueous Lithium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



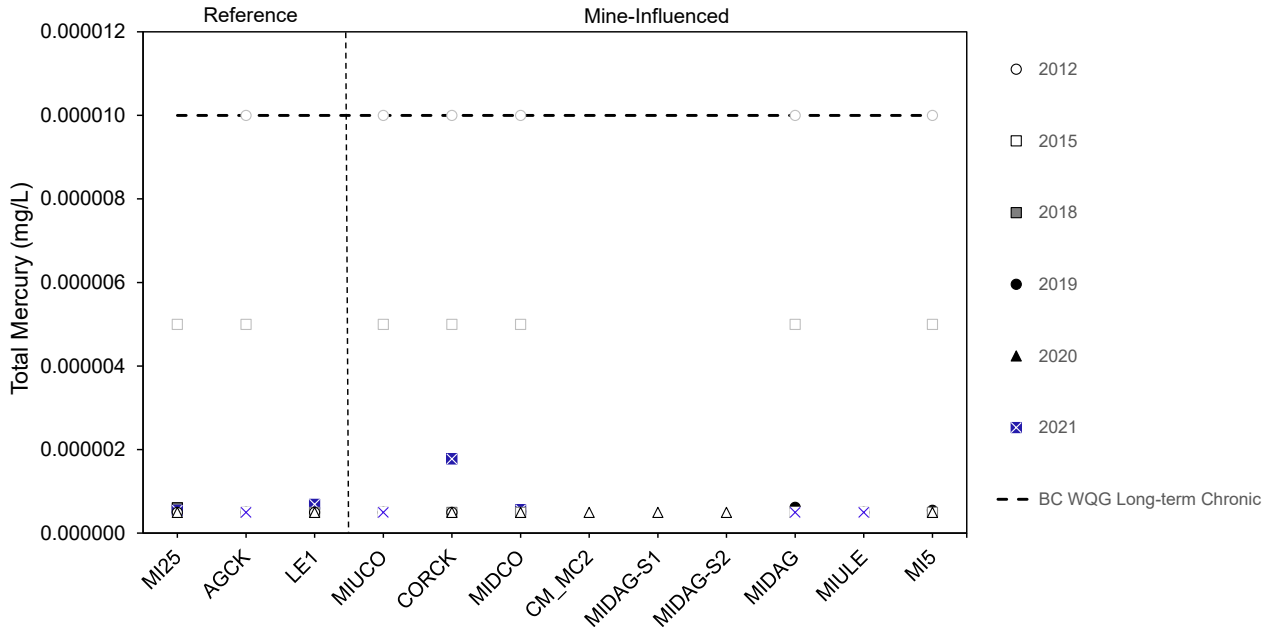
Note: Environment and Climate Change Canada predicted no effect concentration (0.12 mg/L) not shown. mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-16: Spatial Variation in Aqueous Manganese Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



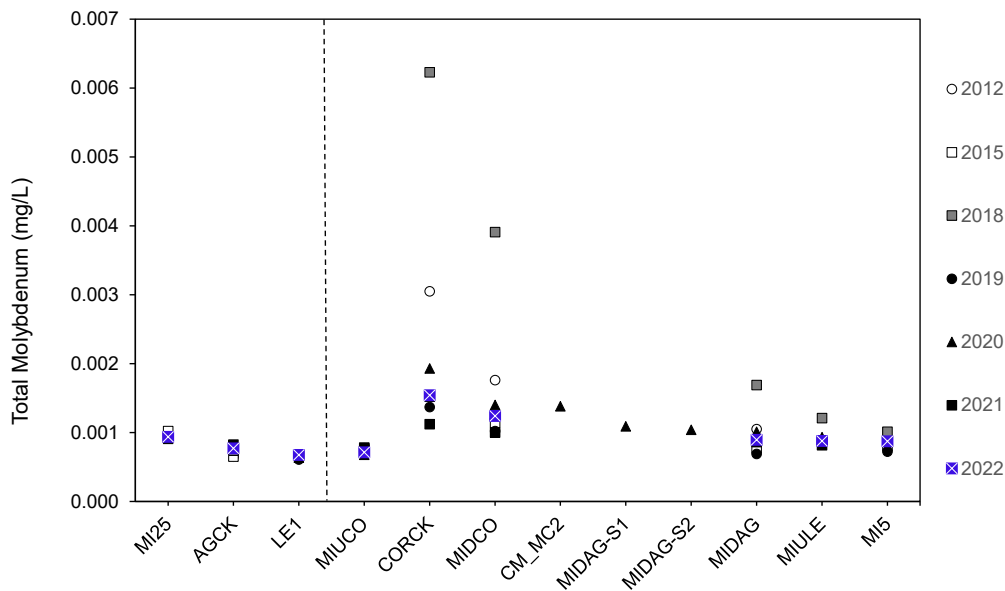
Note: Long-term BC WQG (hardness dependent; 1.1 to 2.6 mg/L) and short-term BC WQG (1.8 to 3.4 mg/L) not shown. mg/L = milligrams per litre; BC WQG = British Columbia water quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-17: Spatial Variation in Aqueous Mercury Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



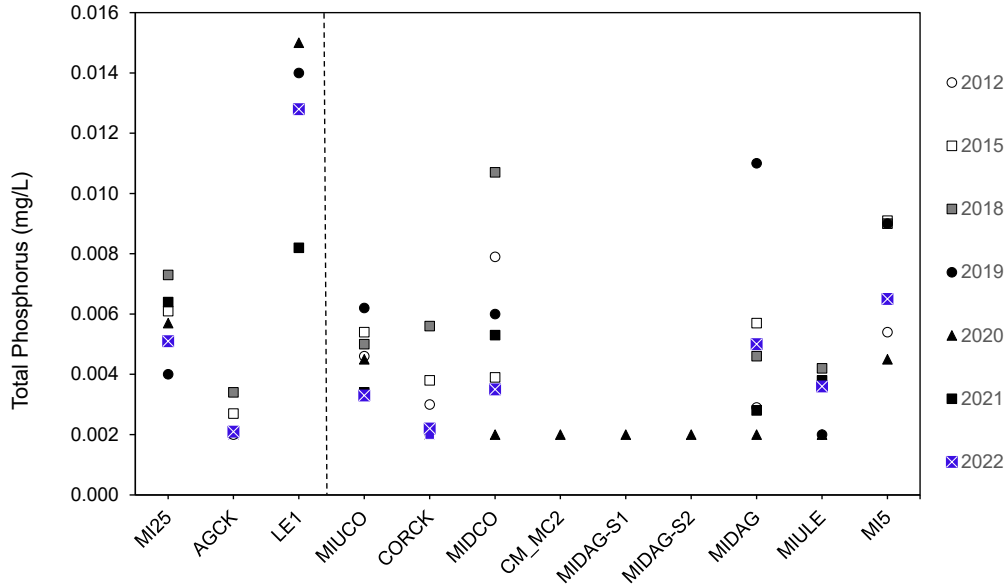
Note: Long-term BC WQG (0.00001 mg/L) not shown.  
 mg/L = milligrams per litre; BC WQG = British Columbia water quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-18: Spatial Variation in Aqueous Molybdenum Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



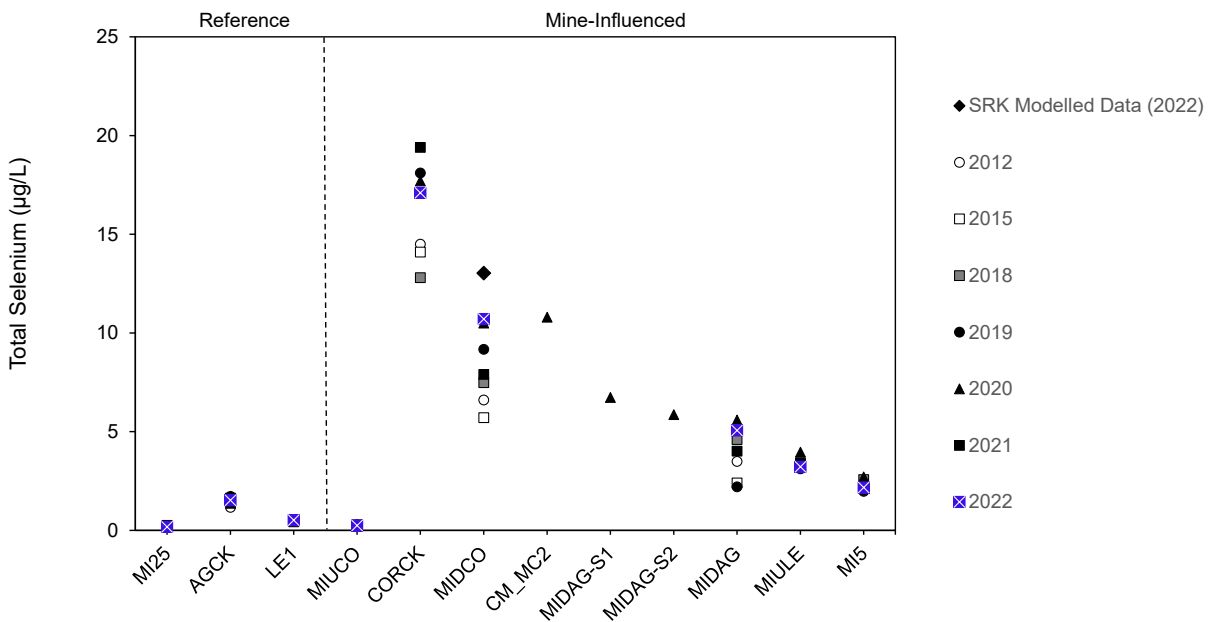
Notes: BC long-term WQG (7.6 mg/L) and BC short-term WQG (46 mg/L) not shown.  
 mg/L = milligrams per litre; BC WQG = British Columbia water quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-19: Spatial Variation in Aqueous Phosphorus Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



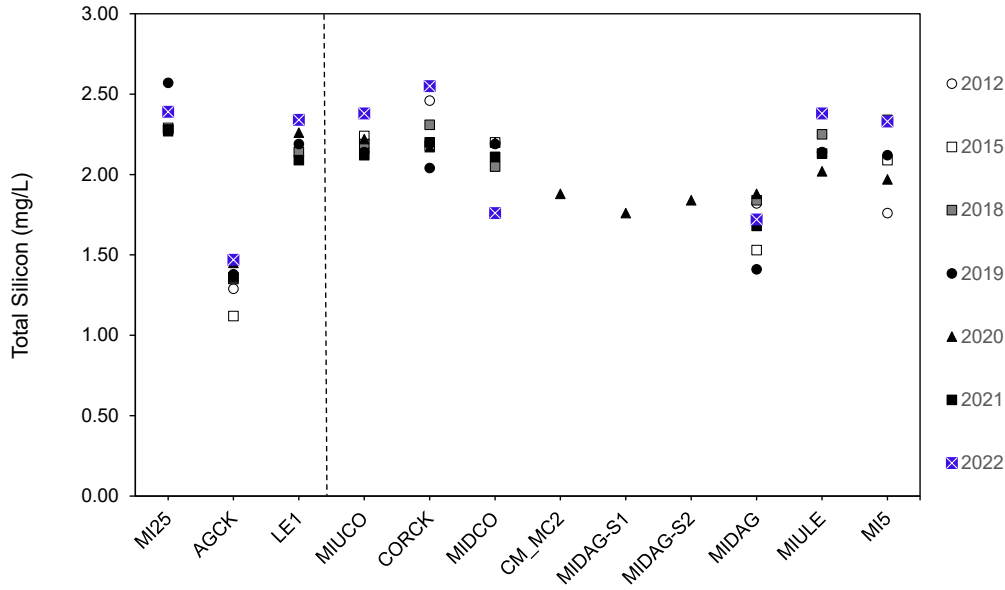
mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-20: Spatial Variation in Total Selenium Concentrations Collected from the CMm, 2012 to 2022**



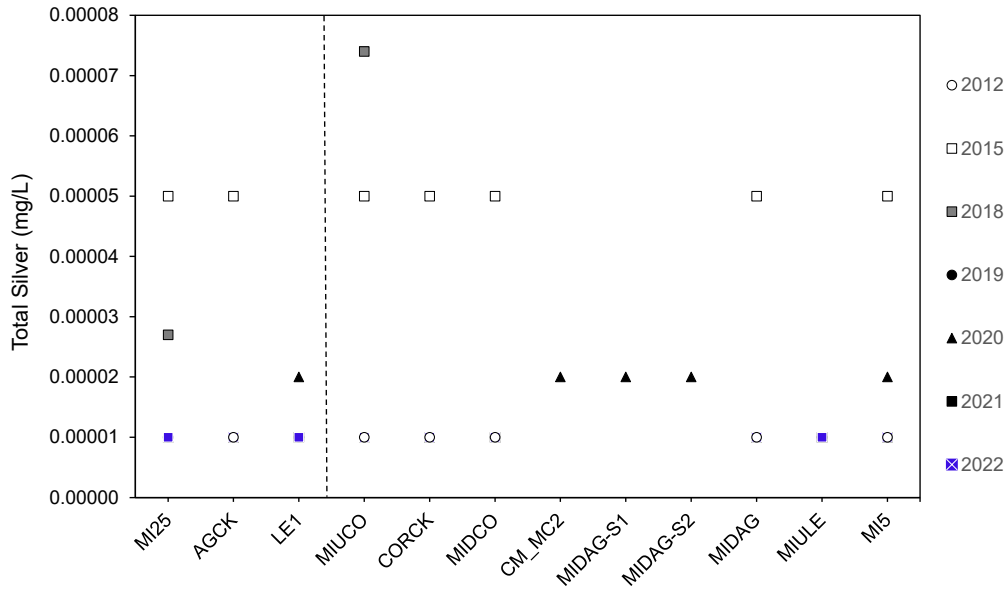
Notes: CMm = Coal Mountain Mine; µg/L = micrograms per litre; BC WQG = British Columbia water quality guideline.

**Figure G1.1-21: Spatial Variation in Aqueous Silicon Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

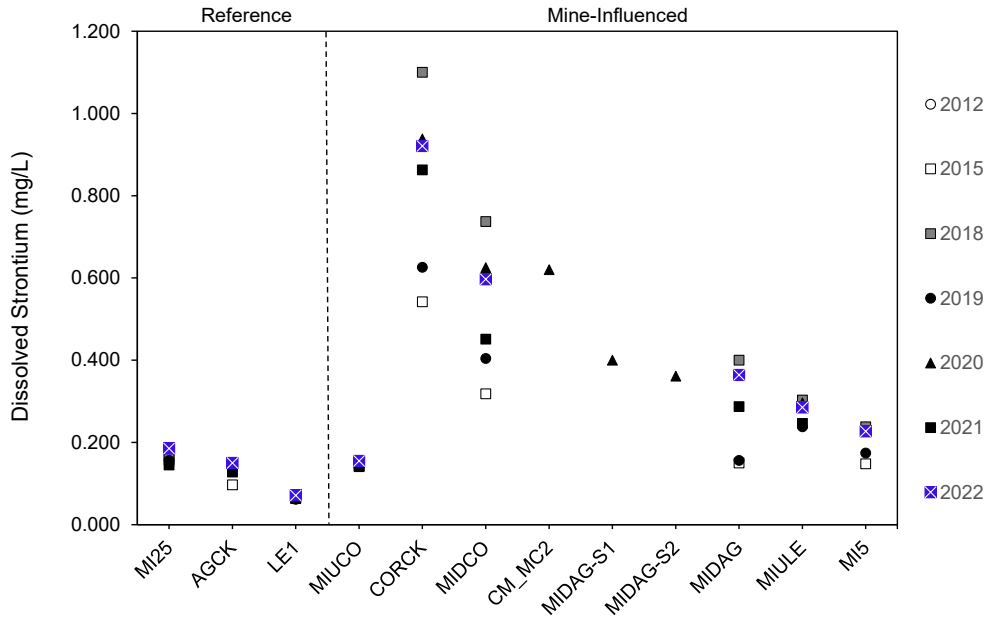
**Figure G1.1-22: Spatial Variation in Aqueous Silver Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Long-term BC WQG (0.0015 mg/L) and short-term BC WQG (0.003 mg/L) not shown.  
 mg/L = milligrams per litre; BC WQG = British Columbia water quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

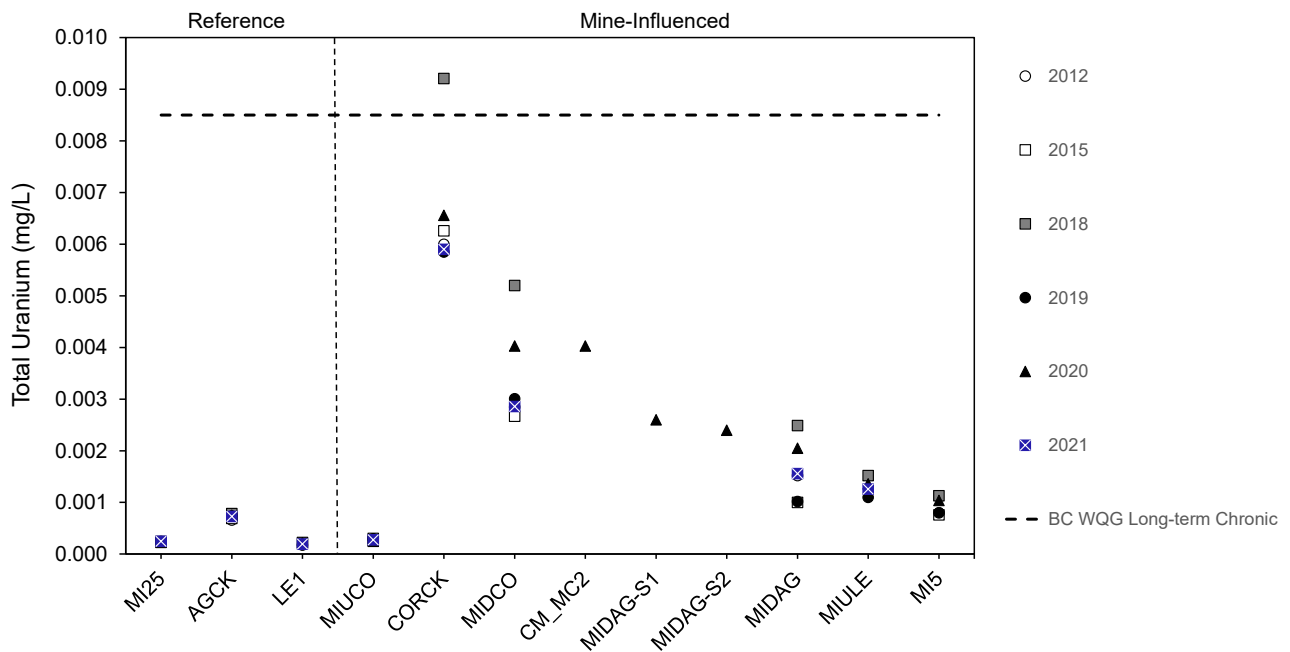


**Figure G1.1-23: Spatial Variation in Aqueous Strontium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



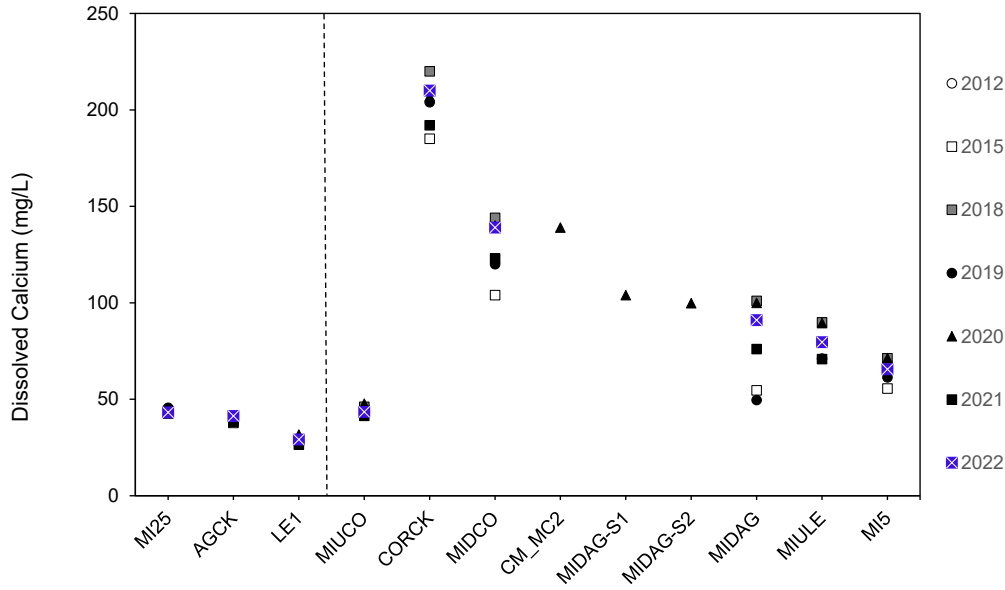
Note: Environment and Climate Change Canada predicted no effect concentration (2.5 mg/L) not shown.  
 mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-24: Spatial Variation in Aqueous Uranium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2020**



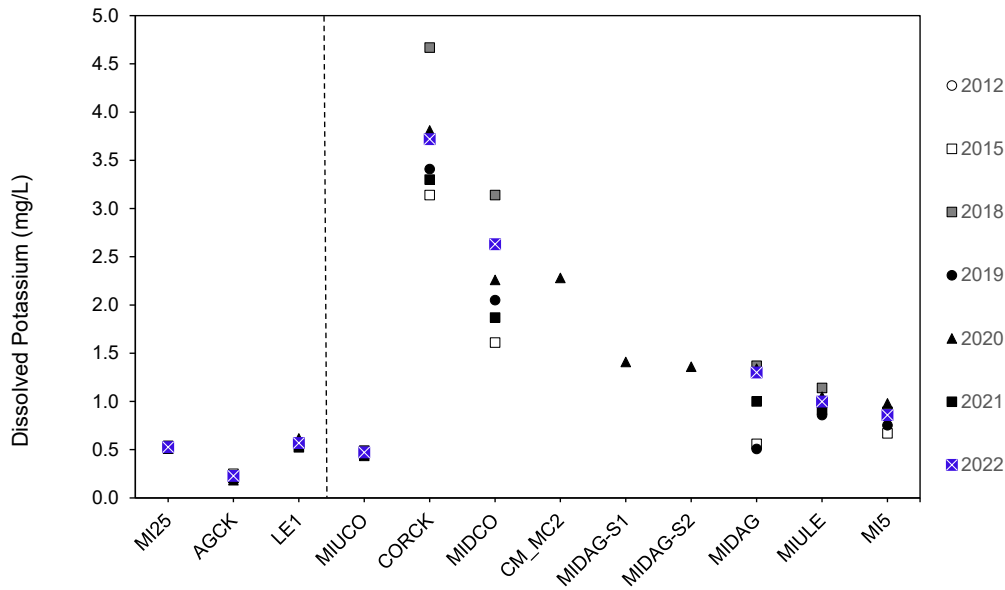
mg/L = milligrams per litre; BC WQG = British Columbia water quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-25: Spatial Variation in Aqueous Calcium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



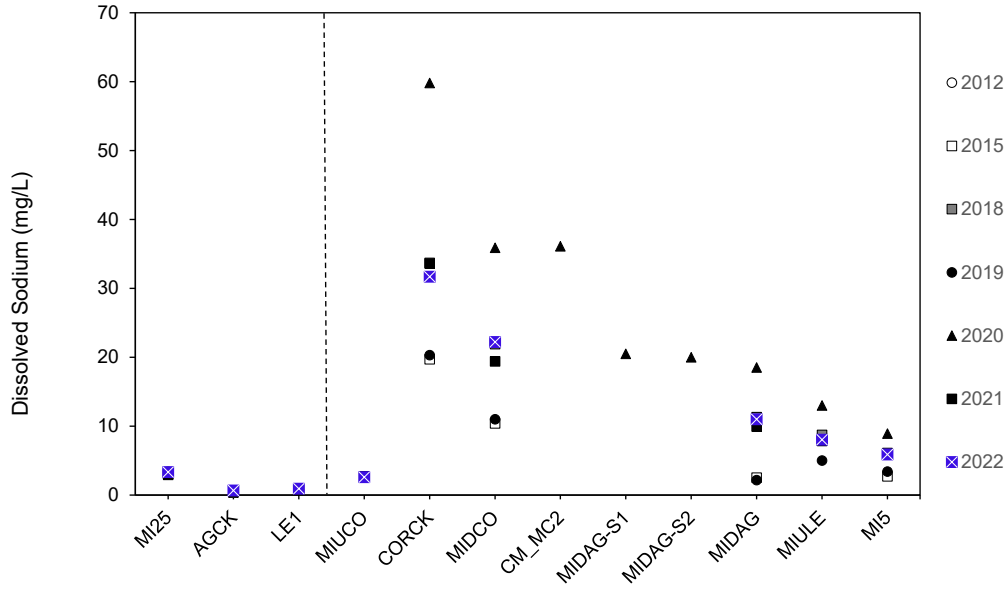
mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-26: Spatial Variation in Aqueous Potassium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



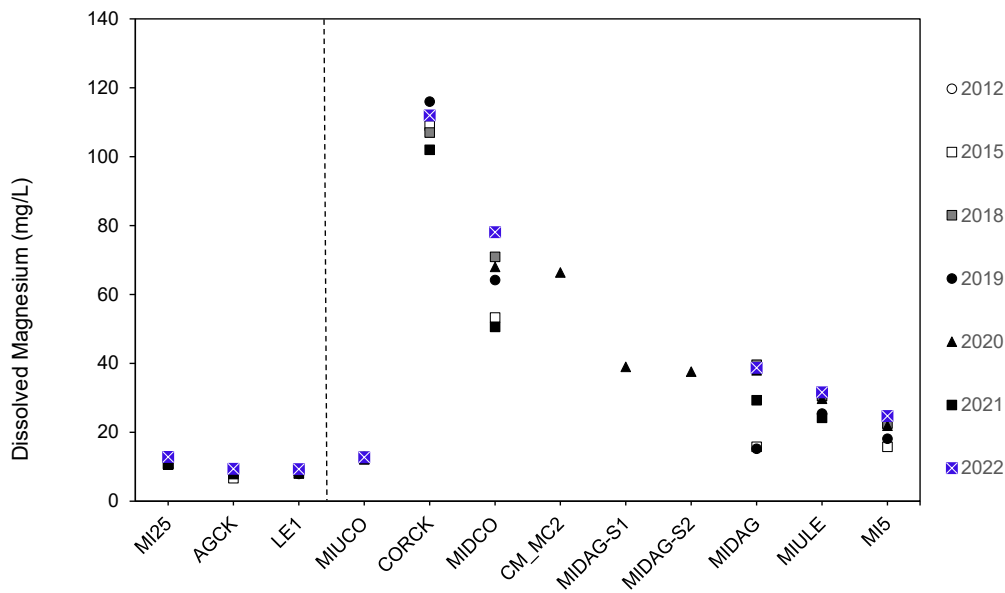
mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-27: Spatial Variation in Aqueous Sodium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



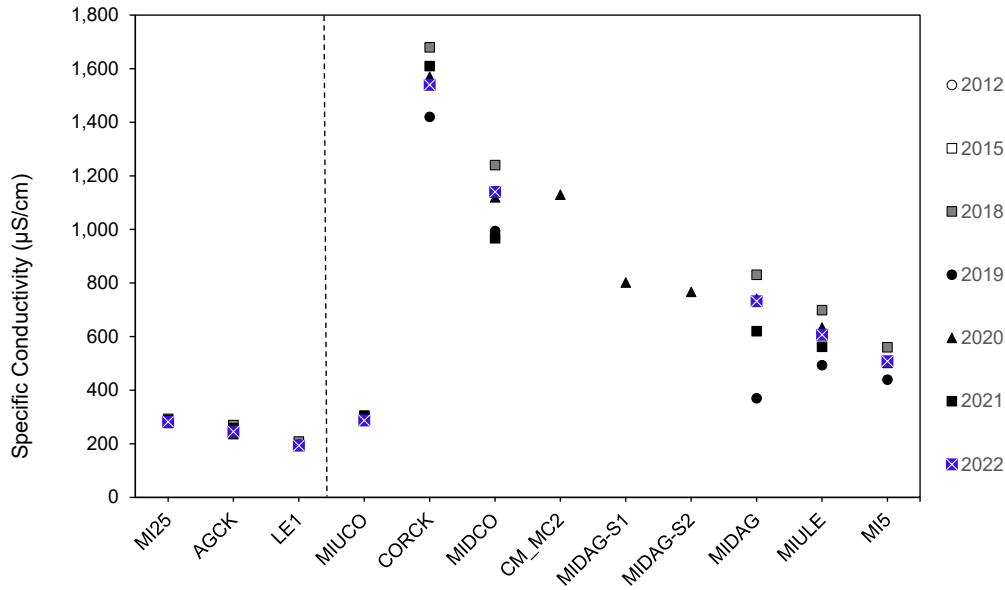
mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-28: Spatial Variation in Aqueous Magnesium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



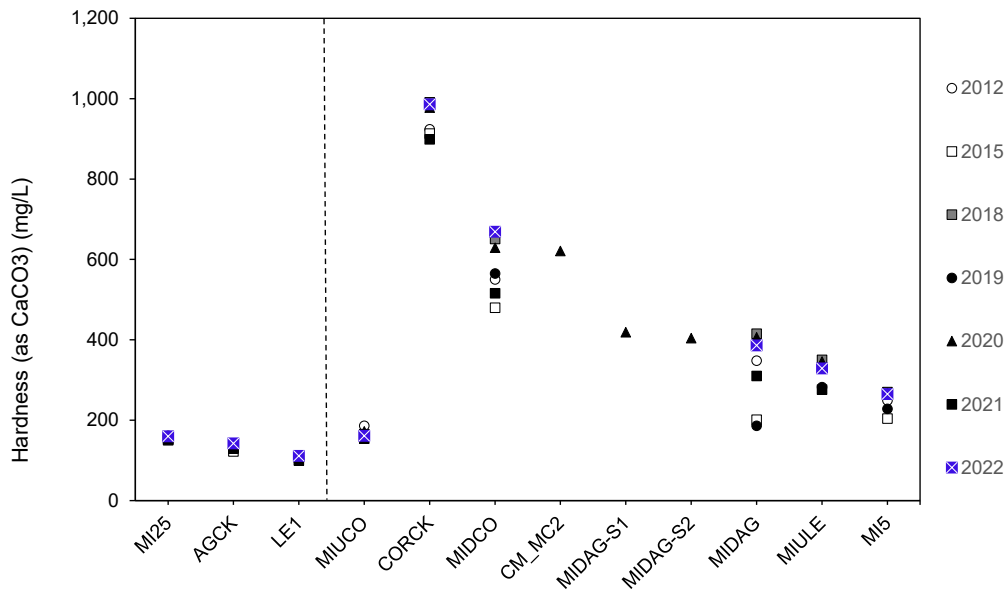
mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-29: Spatial Variation in Specific Conductivity in Samples Collected from the CMm LAEMP, 2012 to 2022**



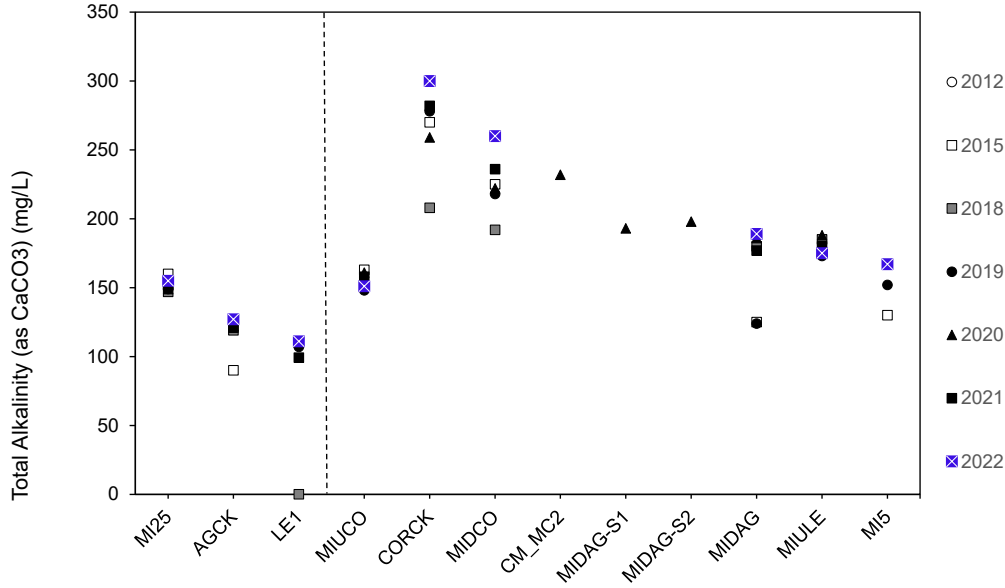
µS/cm = microsiemens per centimeter; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-30: Spatial Variation in Hardness in samples collected from the CMm LAEMP, 2012 to 2022**



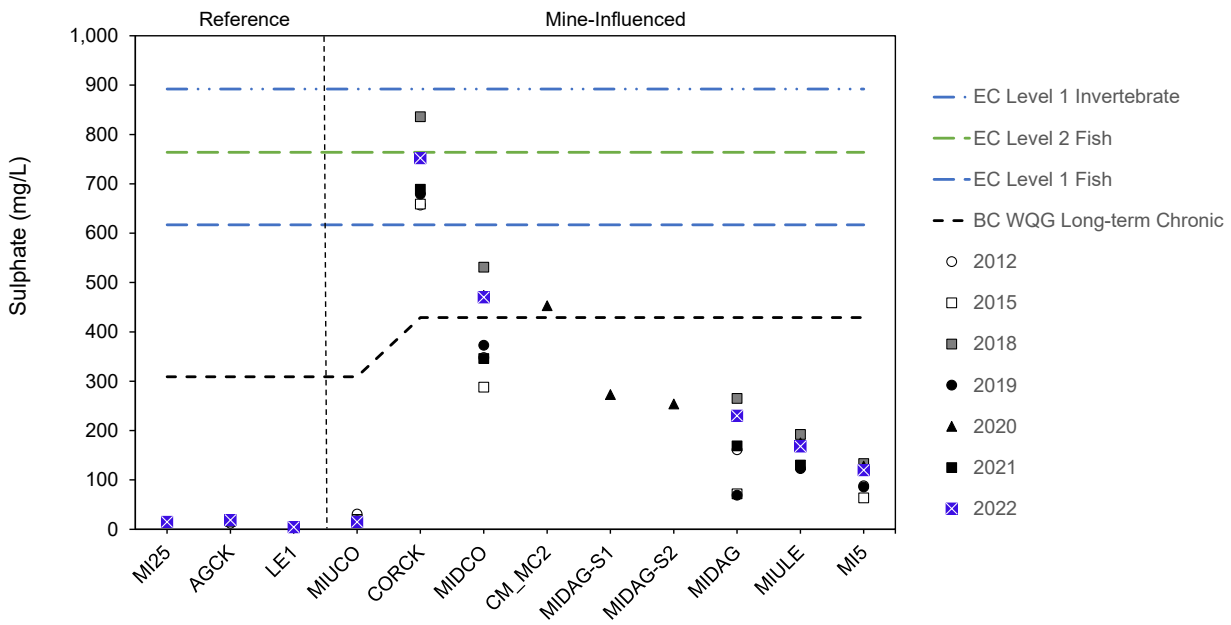
mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-31: Spatial Variation in Alkalinity in Samples Collected from the CMm LAEMP, 2012 to 2022**



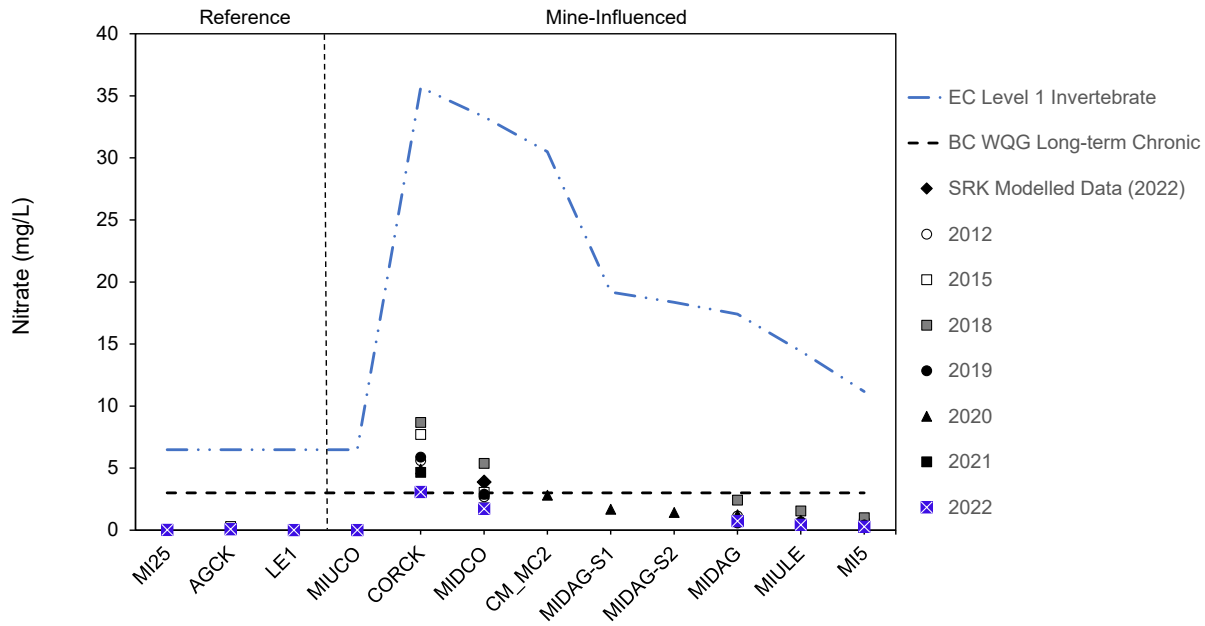
mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.1-32: Spatial Variation in Sulphate Concentrations Collected from the CMm LAEMP, 2012 to 2022**



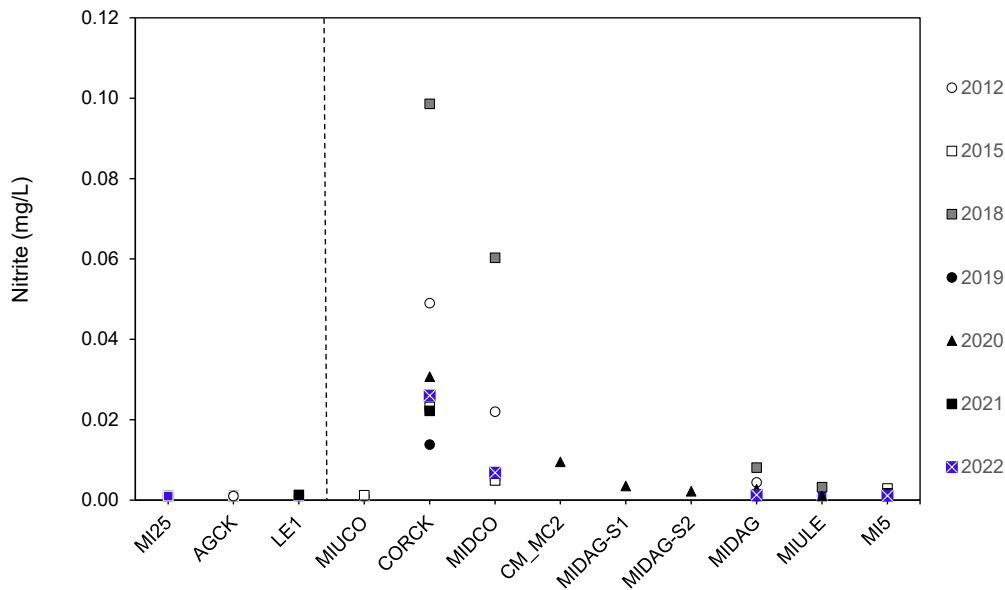
Notes: The sulphate WQG guideline is hardness-dependent and calculated based on hardness observed in 2022. CMm = Coal Mountain Mine; EC = effects concentration; mg/L = milligrams per litre; BC WQG = British Columbia water quality guideline.

**Figure G1.1-33: Spatial Variation in Nitrate Concentrations Collected from the CMm LAEMP, 2012 to 2022**



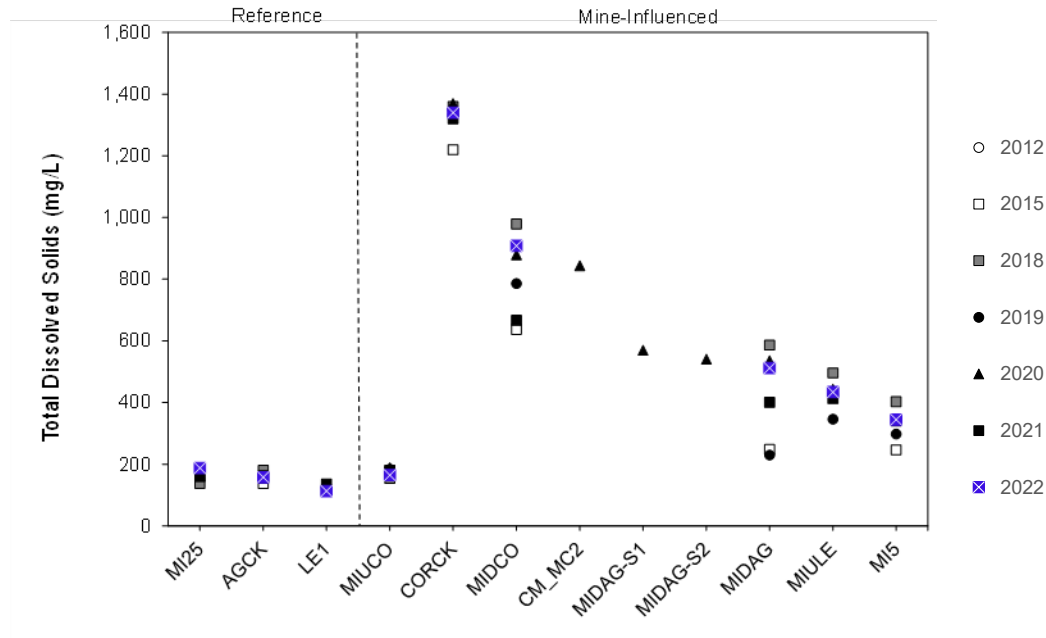
Notes: The nitrate effect concentrations are hardness-dependent and calculated based on hardness observed in 2022. CMm = Coal Mountain Mine; EC = effects concentrations; mg/L = milligrams per litre; WQG = water quality guideline.

**Figure G1.1-34: Spatial Variation in Nitrite in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Long-term BC WQG (0.02 mg/L) and short-term BC WQG (0.06 mg/L) not shown. mg/L = milligrams per litre; BC WQG = British Columbia water quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

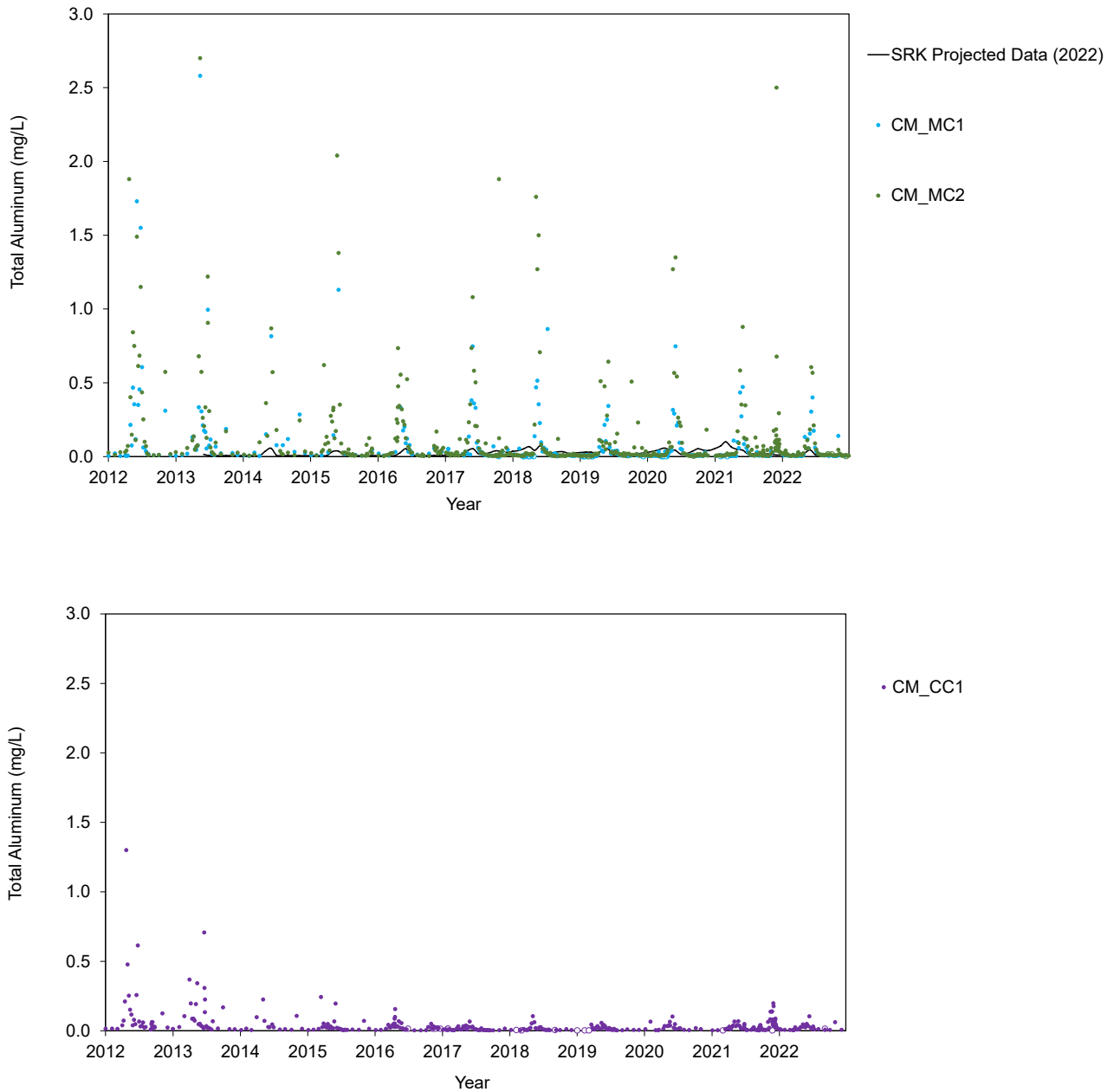
**Figure G1.1-35: Spatial Variation in Total Dissolved Solids in Samples Collected from the CMm LAEMP, 2012 to 2022**



mg/L = milligrams per litre; BC WQG = British Columbia water quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

## G1.2 Temporal Trends

**Figure G1.2-1: Temporal Variation in Aqueous Aluminum Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**

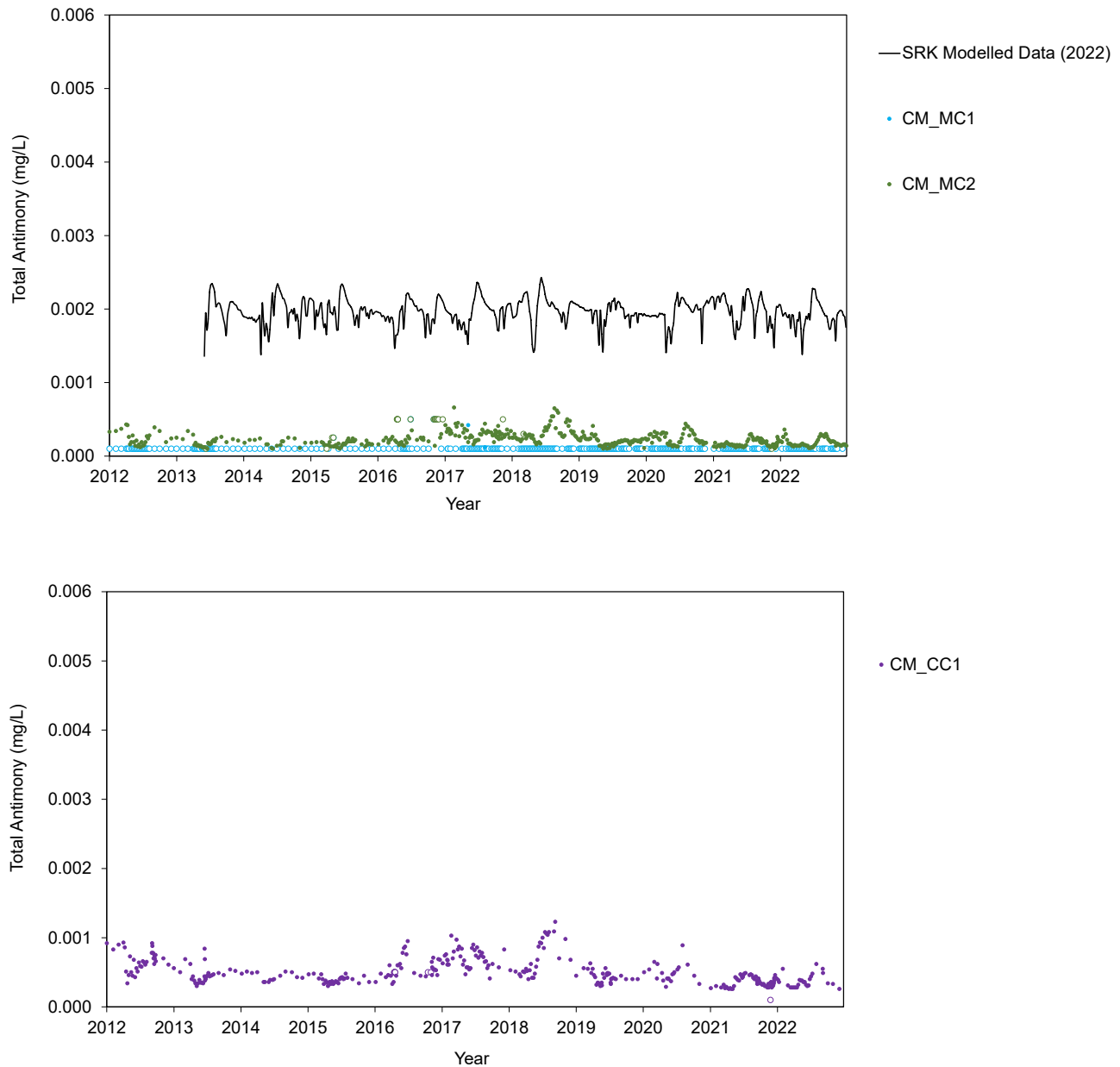


Note: Open symbols represent non-detects. SRK modelled projections for dissolved aluminum are included for comparison (SRK 2023). Two points not shown in the bottom panel (6.3 and 15.2 mg/L in June 2013). SRK modelled data are represented by the solid black line in the upper panel.

mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.



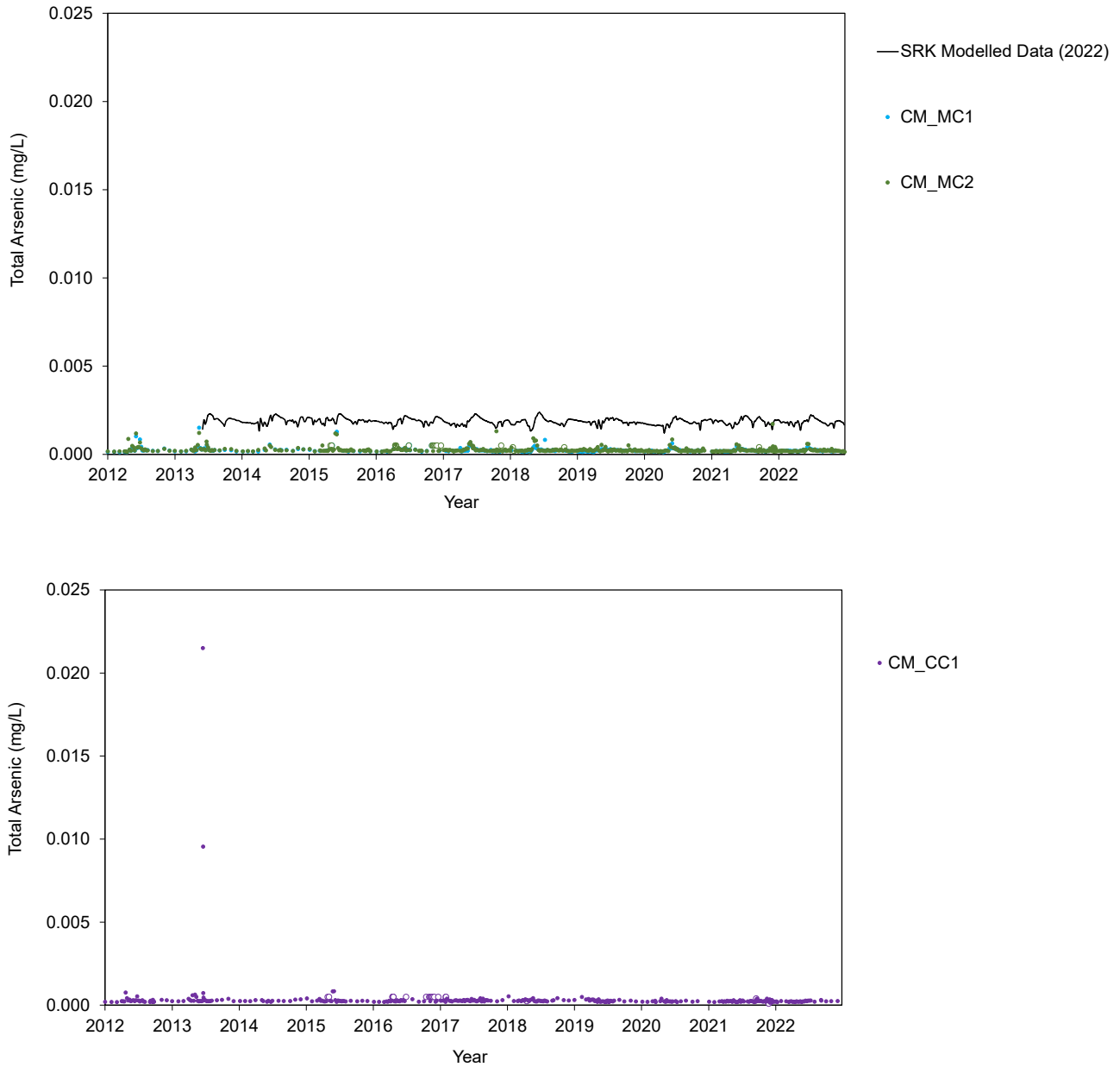
**Figure G1.2-2: Temporal Variation in Aqueous Antimony Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Notes: Open symbols represent non-detects. Long-term BC WQG not shown (0.009 mg/L). SRK modelled are included for comparison (SRK 2023).

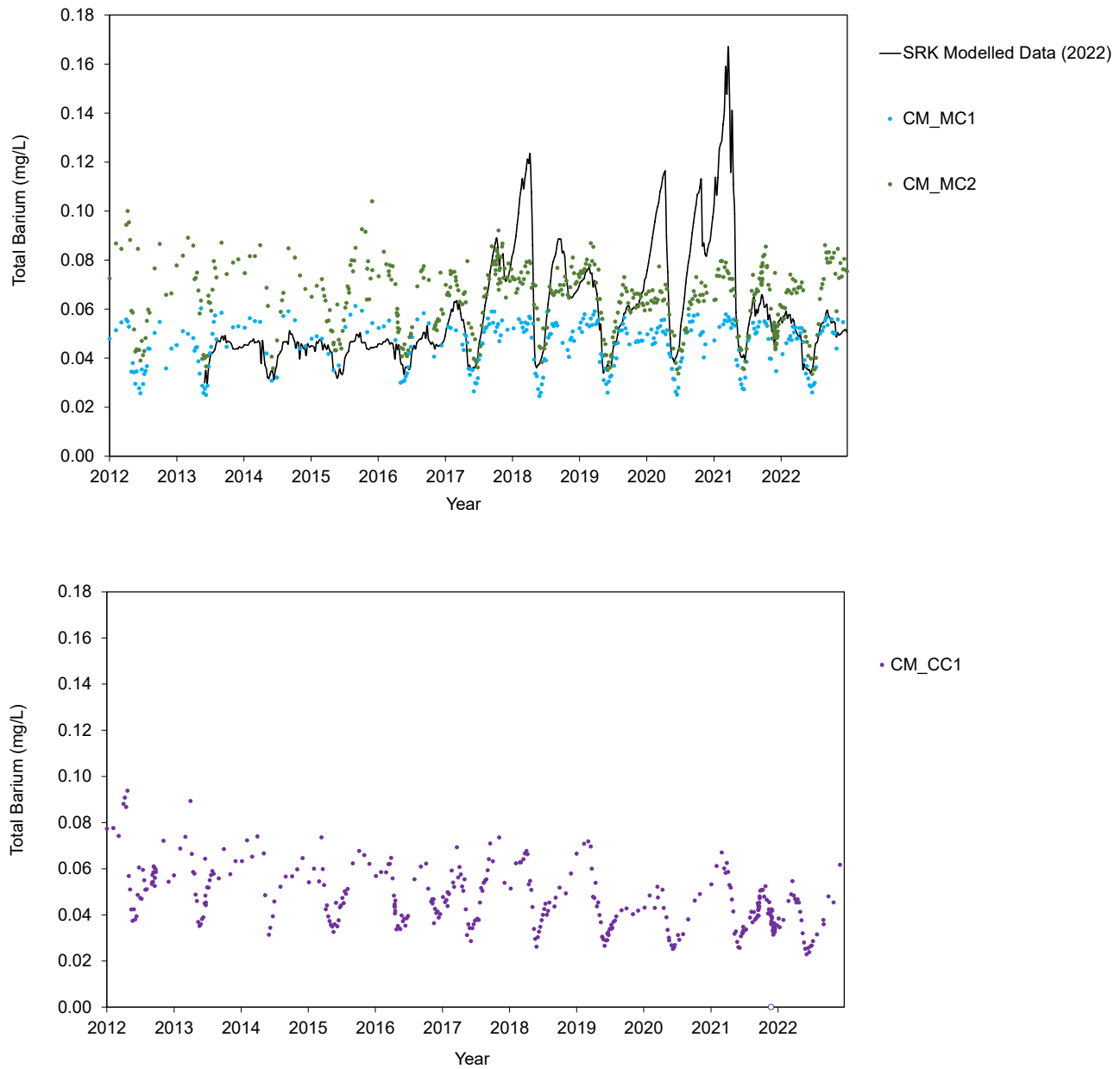
mg/L = milligrams per litre; BC WQG = British Columbia water quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.2-3: Temporal Variation in Aqueous Arsenic Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects. SRK modelled projections for dissolved arsenic are included for comparison (SRK 2023). SRK modelled data are represented by the solid black line in the upper panel. mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

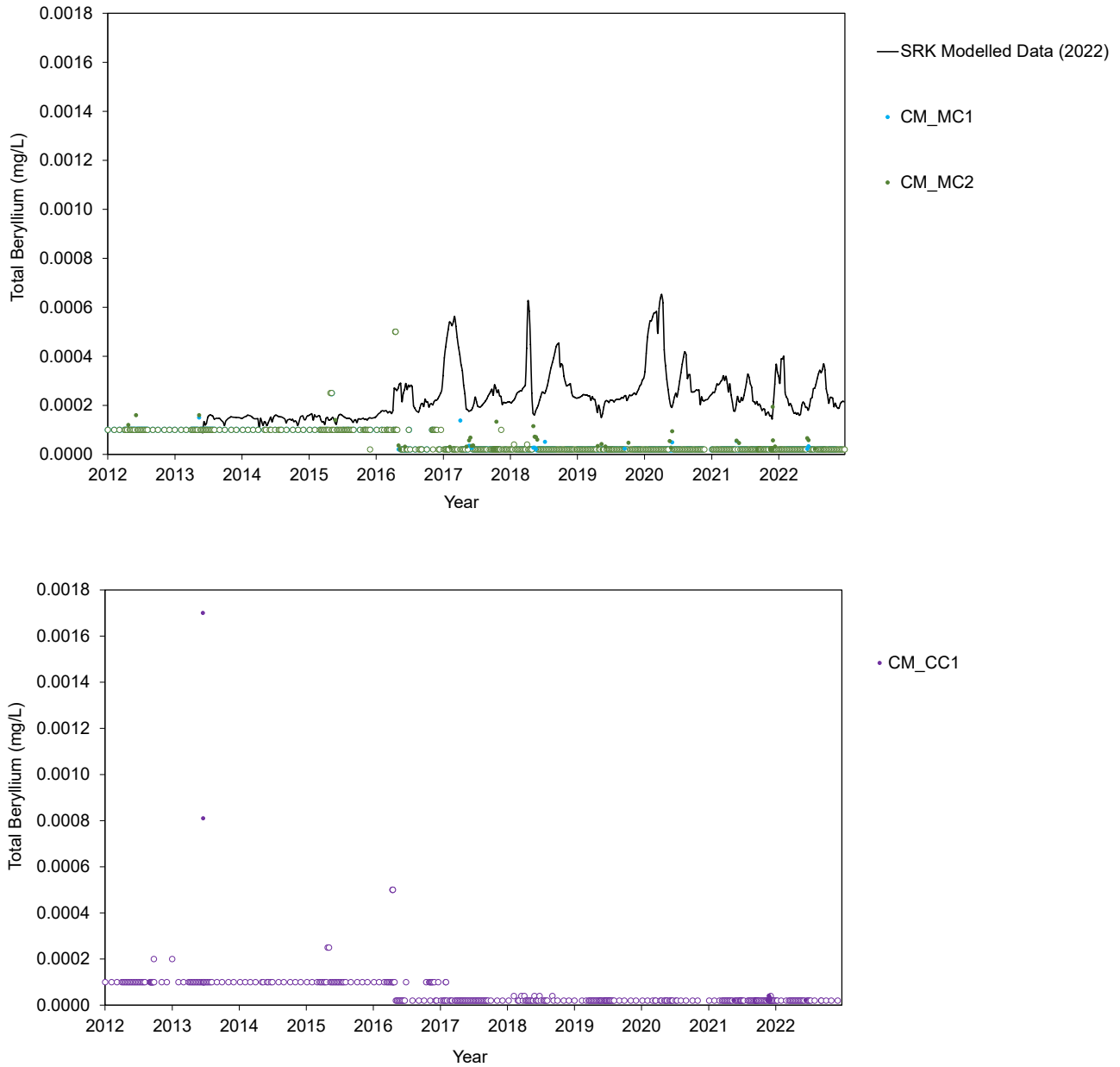
**Figure G1.2-4: Temporal Variation in Aqueous Barium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects. SRK modelled projections for dissolved barium are included for comparison (SRK 2023). Two points not shown in the bottom panel (0.52 and 1.57 mg/L in June 2013). SRK modelled data are represented by the solid black line in the upper panel.

mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

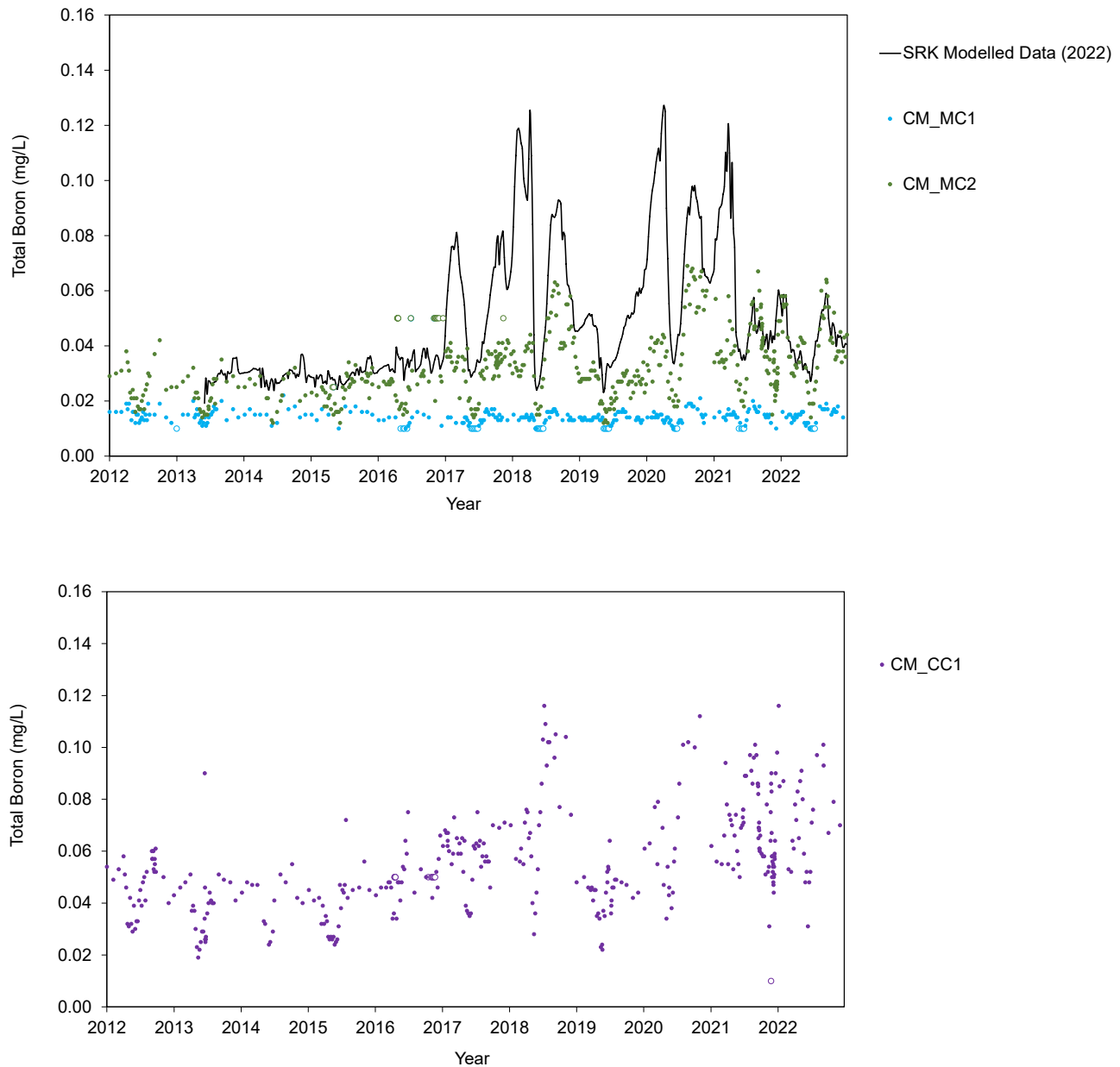
**Figure G1.2-5: Temporal Variation in Aqueous Beryllium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects. SRK modelled projections for dissolved beryllium are included for comparison (SRK 2023). One point not shown in the bottom panel (0.0017 mg/L in June 2013). SRK modelled data are represented by the solid black line in the upper panel.

mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

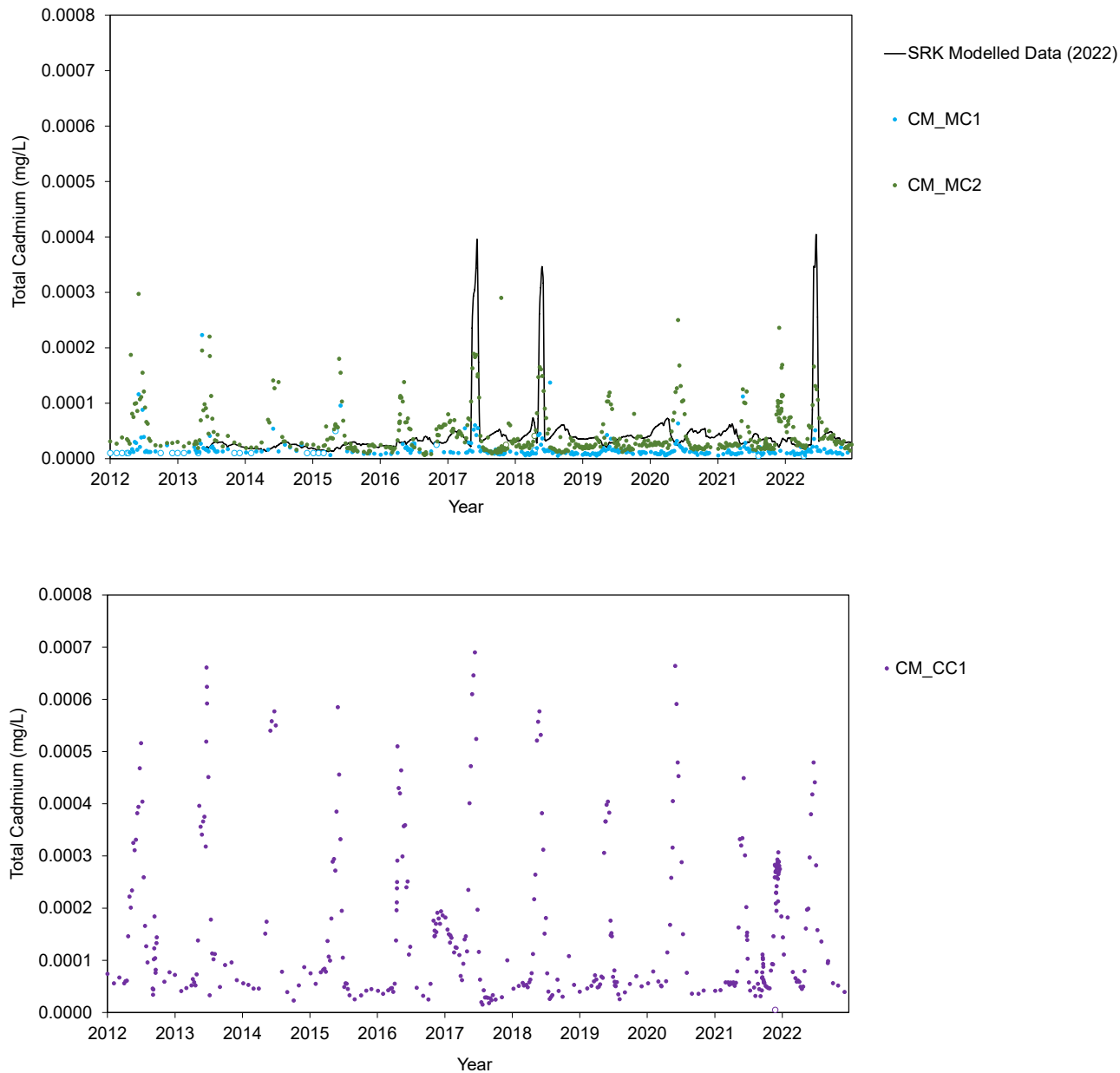
**Figure G1.2-6: Temporal Variation in Aqueous Boron Concentrations in Samples Collected from the CMM LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects. SRK modelled projections for dissolved boron are included for comparison (SRK 2023). SRK modelled data are represented by the solid black line in the upper panel.

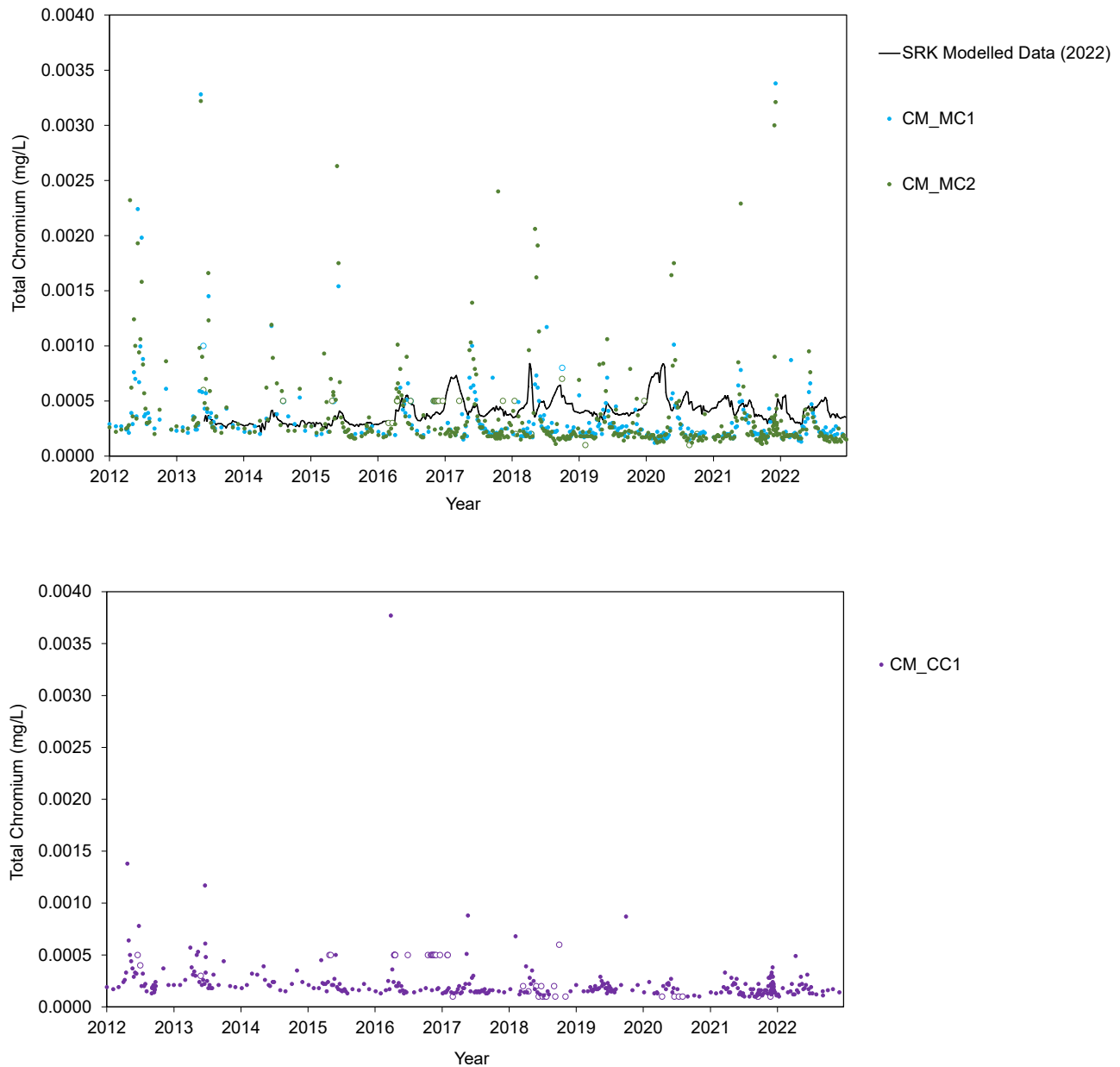
mg/L = milligrams per litre; CMM = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.2-7: Temporal Variation in Aqueous Cadmium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



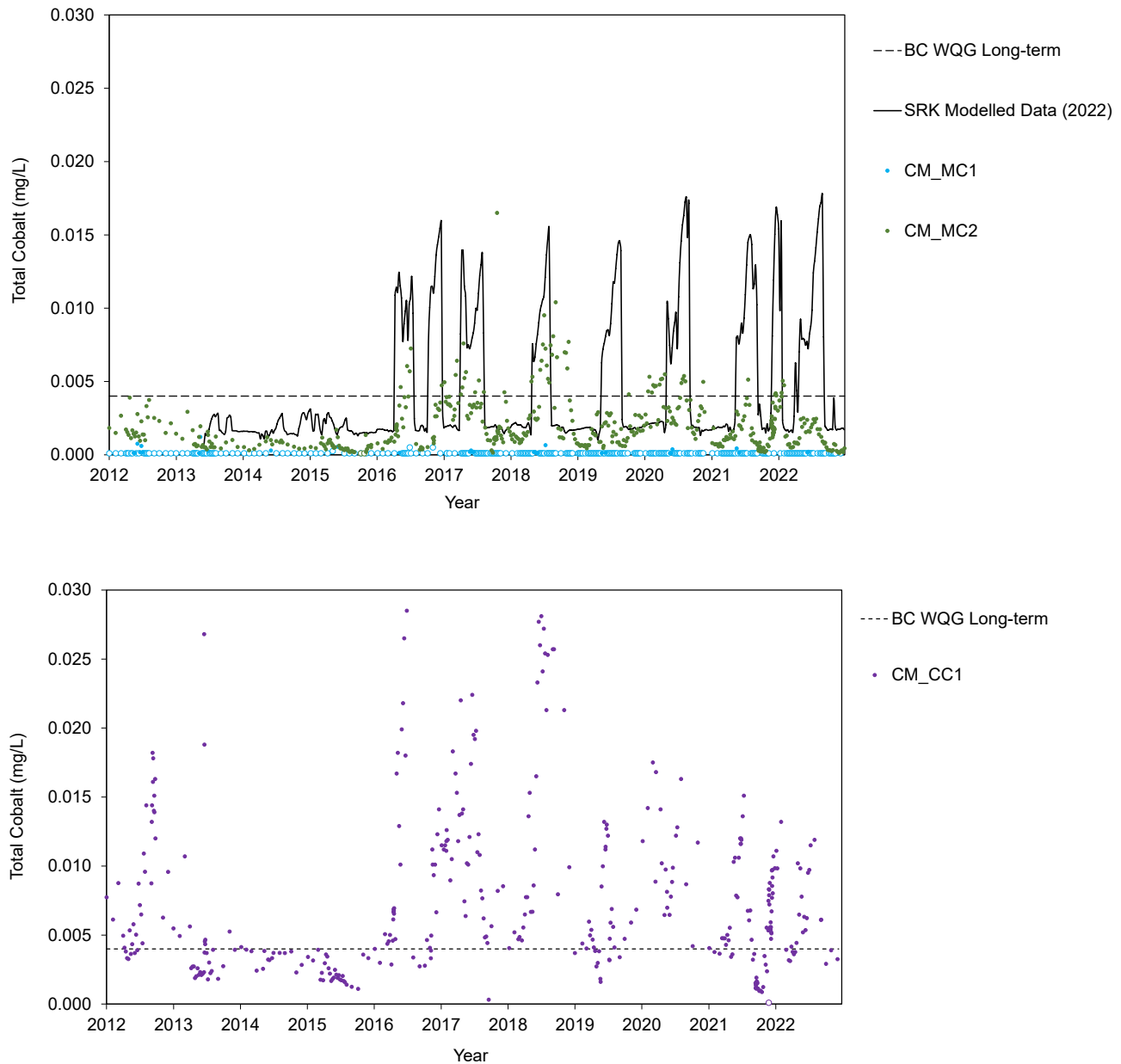
Note: Open symbols represent non-detects. SRK modelled projections for dissolved cadmium are included for comparison (SRK 2023). Two points not shown in the bottom panel (0.00169 and 0.00219 mg/L in June 2013). SRK modelled data are represented by the solid black line in the upper panel.  
 mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.2-8: Temporal Variation in Aqueous Chromium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects. SRK modelled projections for dissolved chromium are included for comparison (SRK 2023). Two points not shown in the bottom panel (0.0108 and 0.0251 mg/L in June 2013). SRK modelled data are represented by the solid black line in the upper panel.  
mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.2-9: Temporal Variation in Aqueous Cobalt Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**

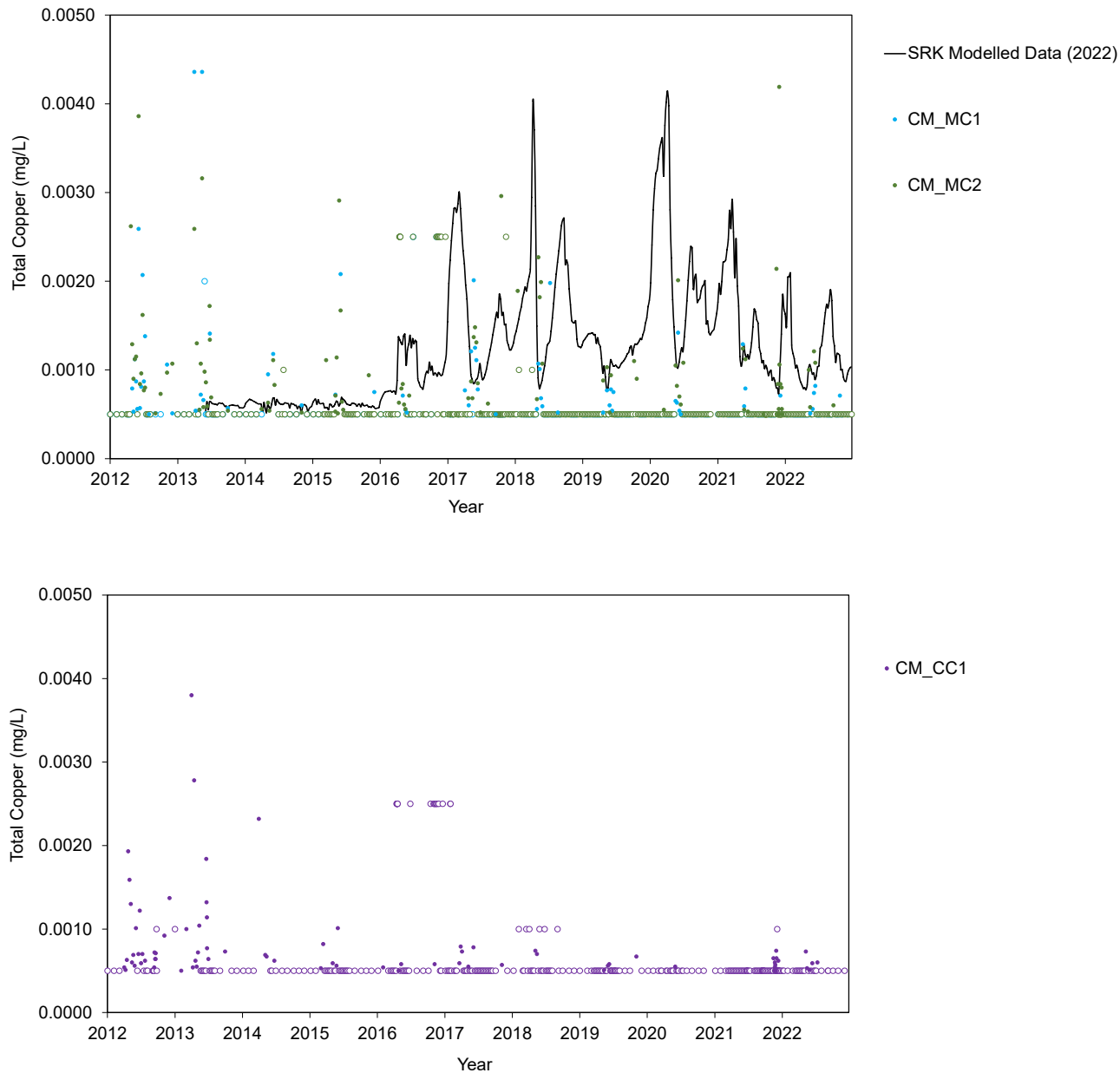


Notes: Open symbols indicate non-detects. SRK modelled projections for dissolved cobalt were included for comparisons to total cobalt (SRK 2023). SRK modelled data are represented by the solid black line in the upper panel.

BC WQG = British Columbia water quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

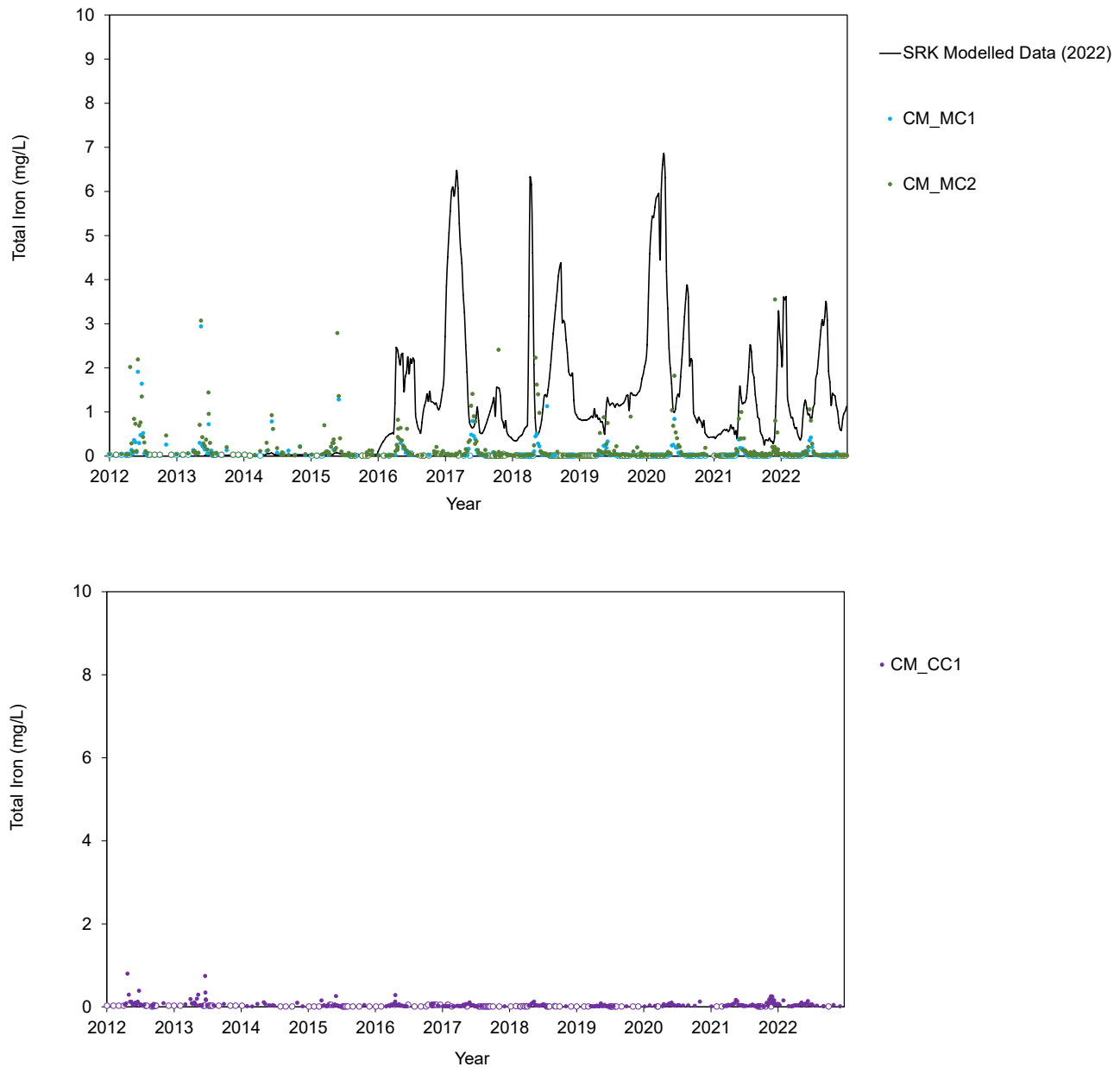


**Figure G1.2-10: Temporal Variation in Aqueous Copper Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**

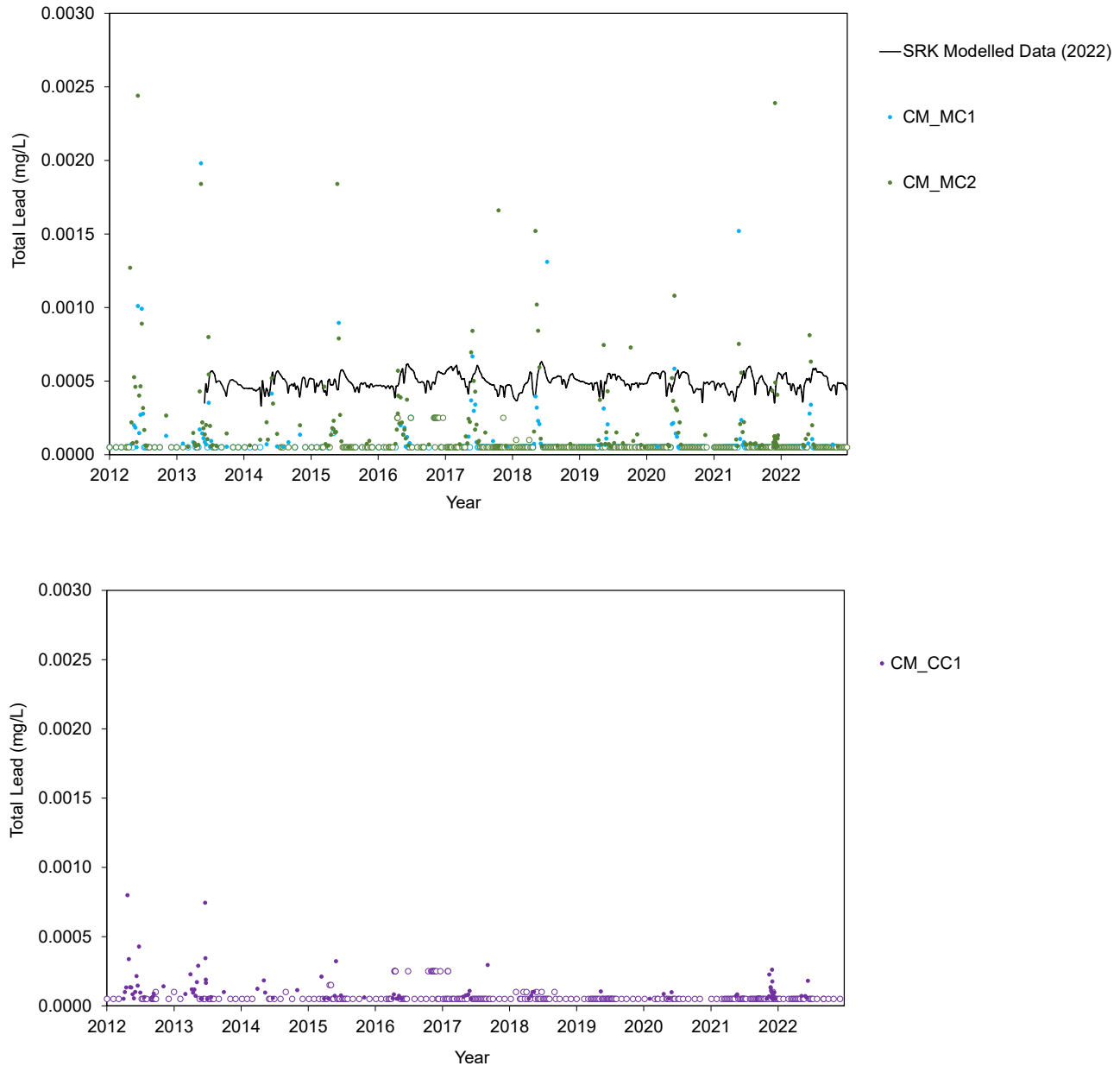


Note: Open symbols represent non-detects. SRK modelled projections for dissolved copper are included for comparison (SRK 2023). Two points not shown in the bottom panel (0.0255 and 0.0593 mg/L in June 2013). SRK modelled data are represented by the solid black line in the upper panel.

mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.2-11: Temporal Variation in Aqueous Iron Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**

Note: Open symbols represent non-detects. SRK modelled projections for dissolved iron are included for comparison (SRK 2023). Two points not shown in the bottom panel (12.4 and 25 mg/L in June 2013). SRK modelled data are represented by the solid black line in the upper panel.  
mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

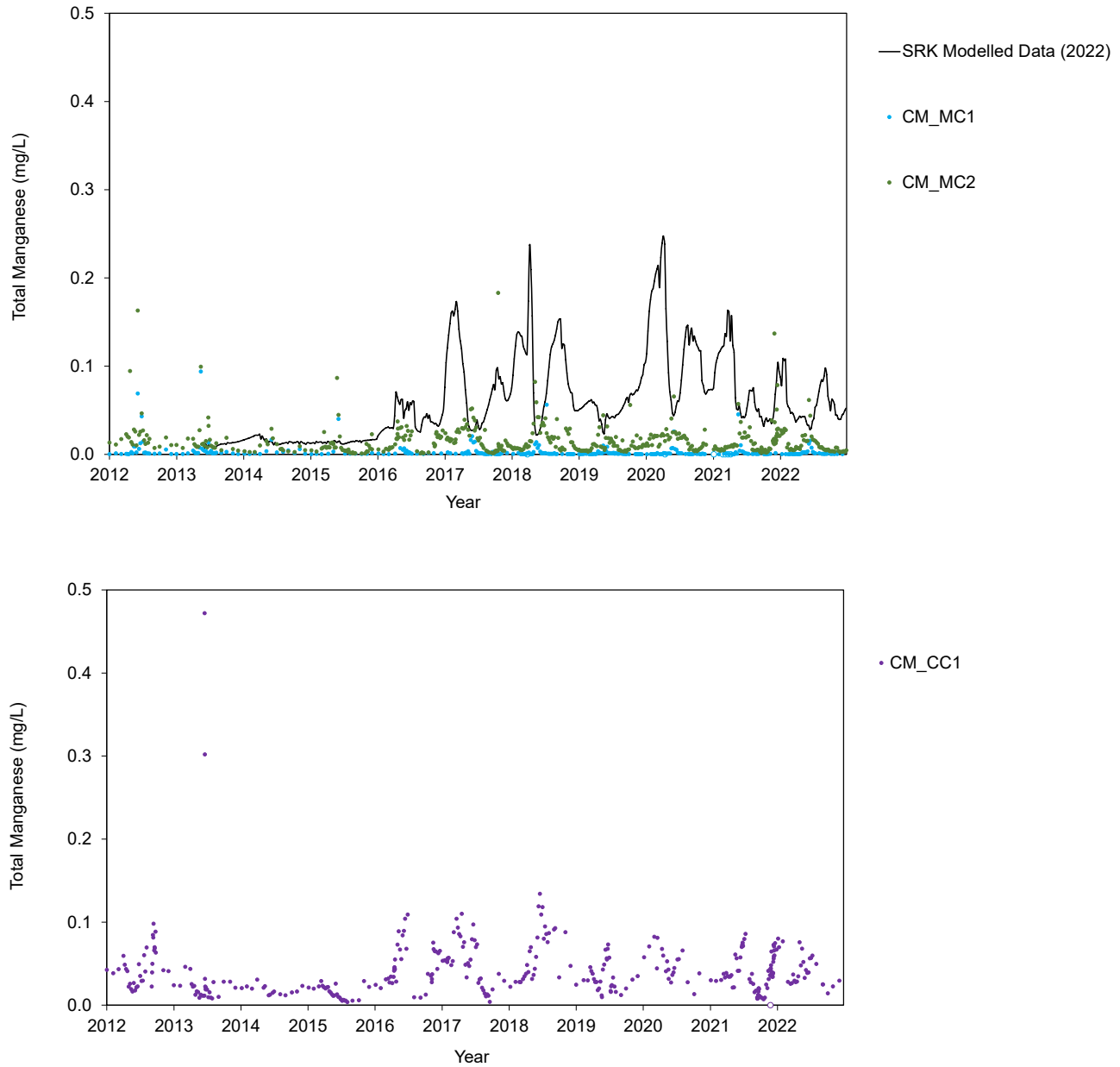
**Figure G1.2-12: Temporal Variation in Aqueous Lead Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**

Note: Open symbols represent non-detects. SRK modelled projections for dissolved lead are included for comparison (SRK 2023).

Two points not shown in the bottom panel (0.0132 and 0.0284 mg/L in June 2013). SRK modelled data are represented by the solid black line in the upper panel.

mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

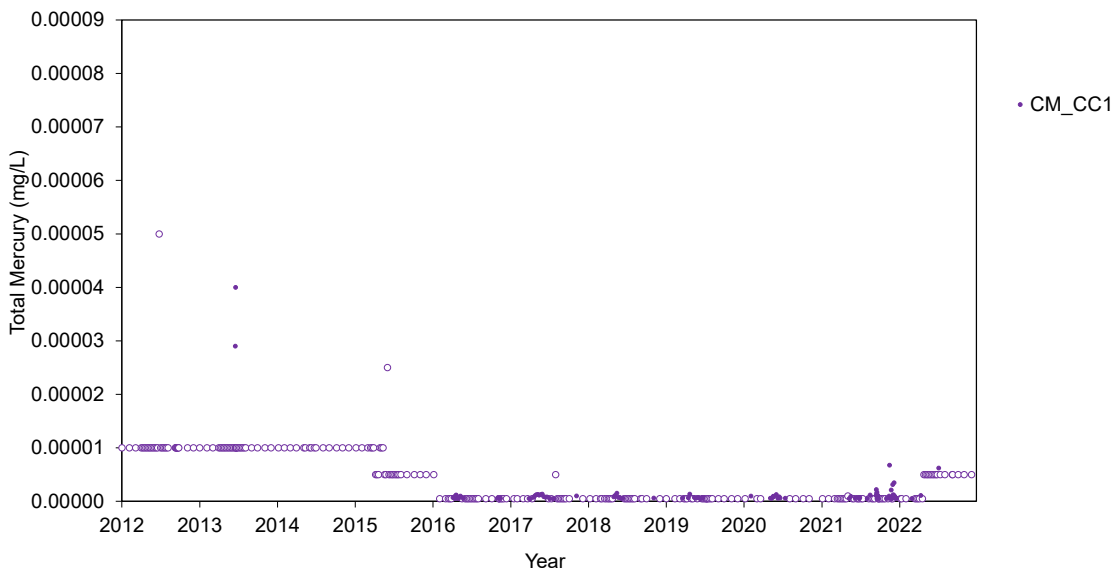
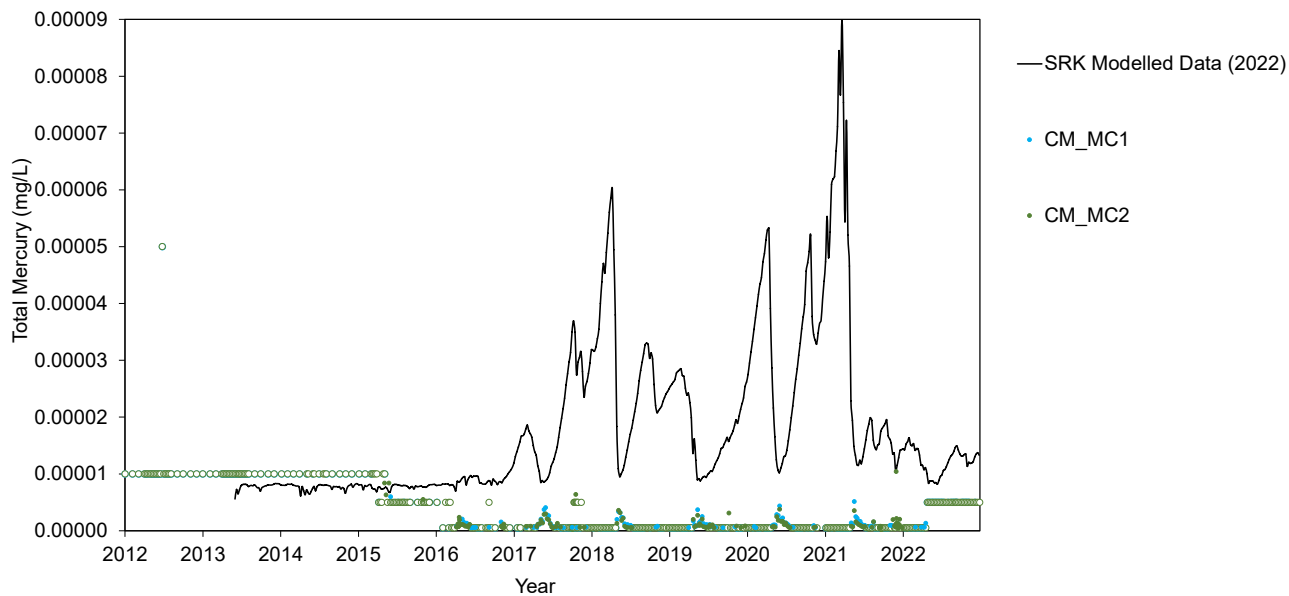
**Figure G1.2-13: Temporal Variation in Aqueous Manganese Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects. SRK modelled projections for dissolved manganese are included for comparison (SRK 2023). SRK modelled data are represented by the solid black line in the upper panel.

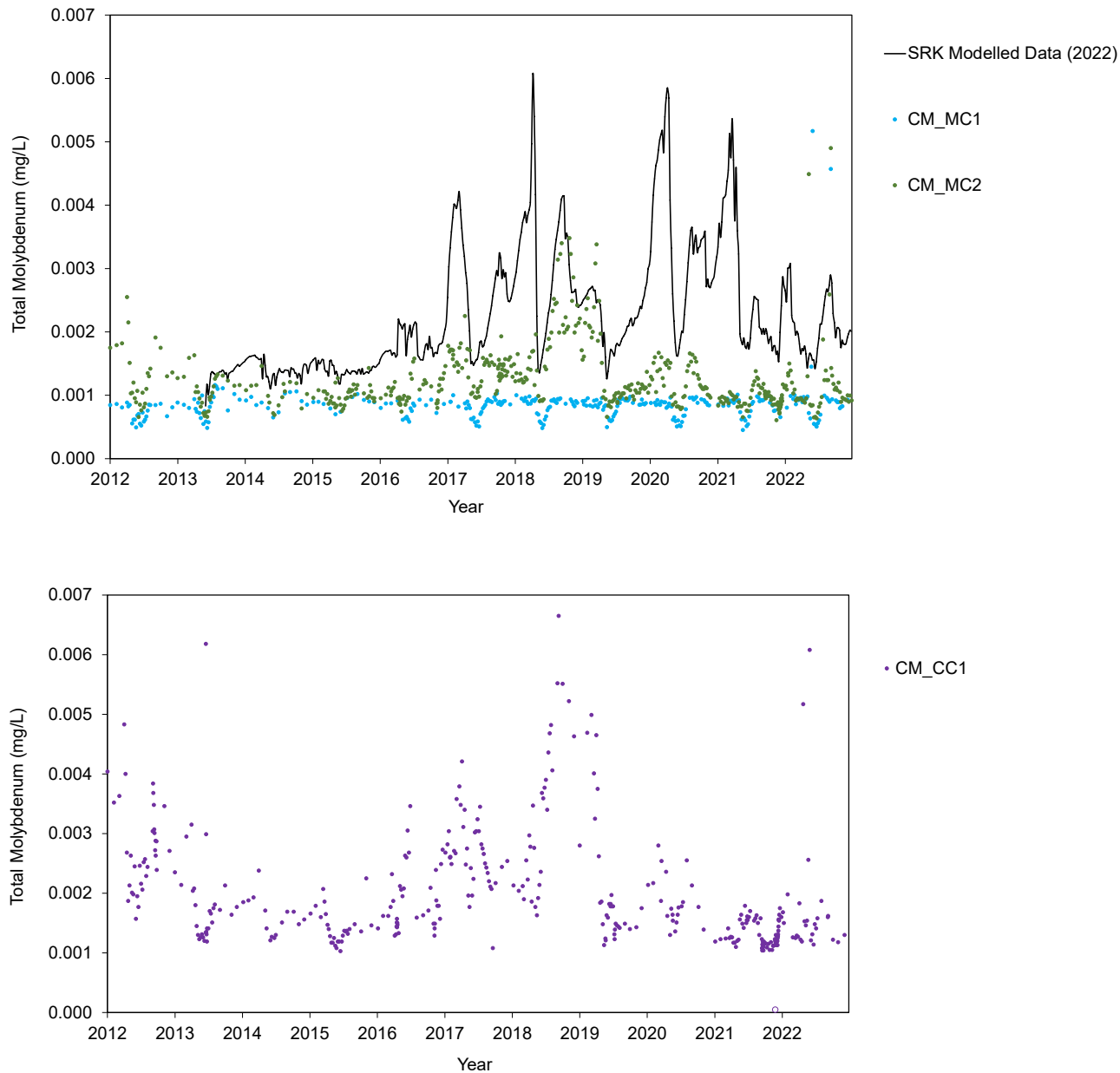
mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.2-14: Temporal Variation in Aqueous Mercury Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



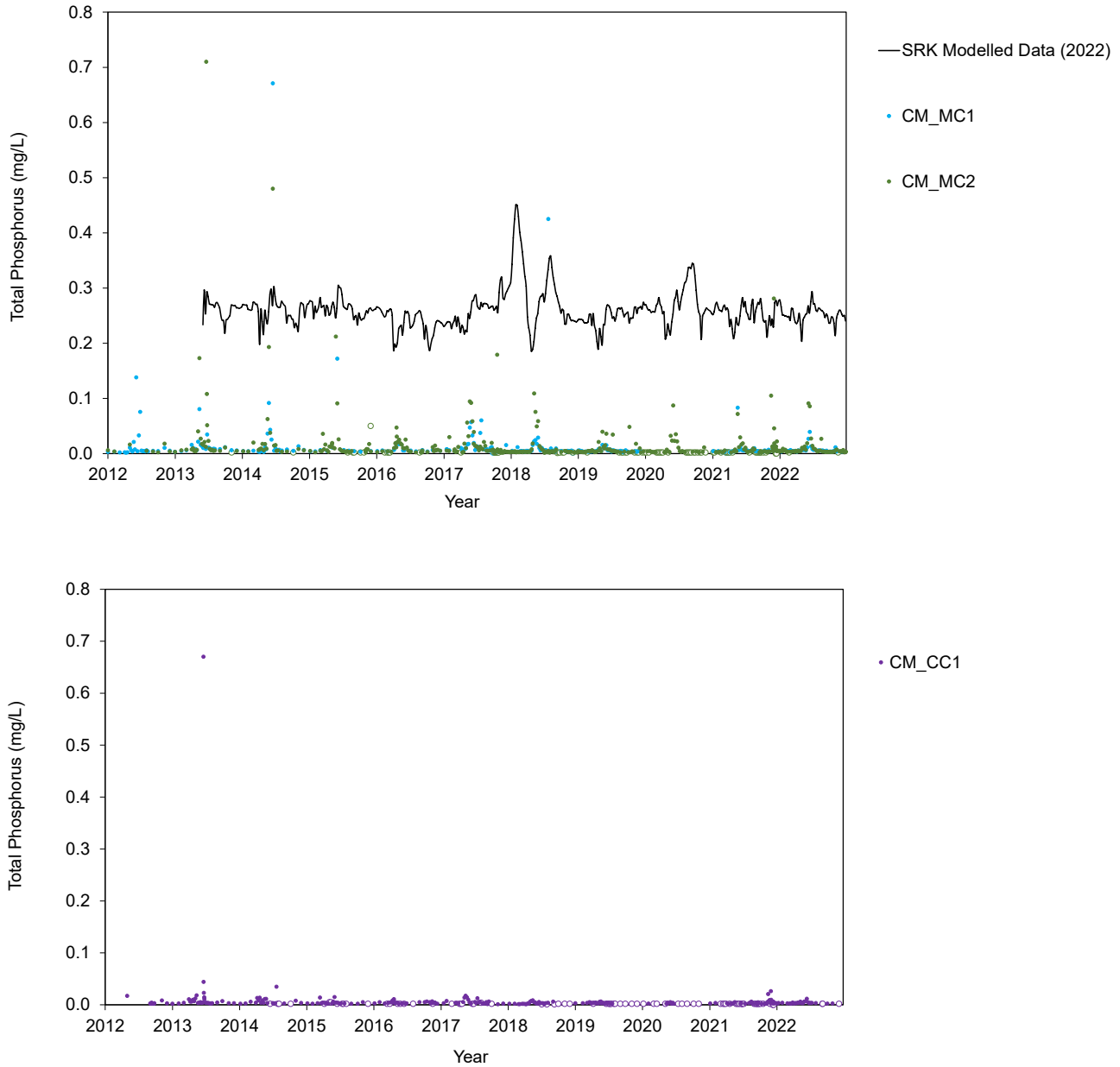
Note: Open symbols represent non-detects. SRK modelled projections are included for comparison (SRK 2023).  
 mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.2-15: Temporal Variation in Aqueous Molybdenum Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects. SRK modelled projections for dissolved molybdenum are included for comparison (SRK 2023). SRK modelled data are represented by the solid black line in the upper panel.  
 mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

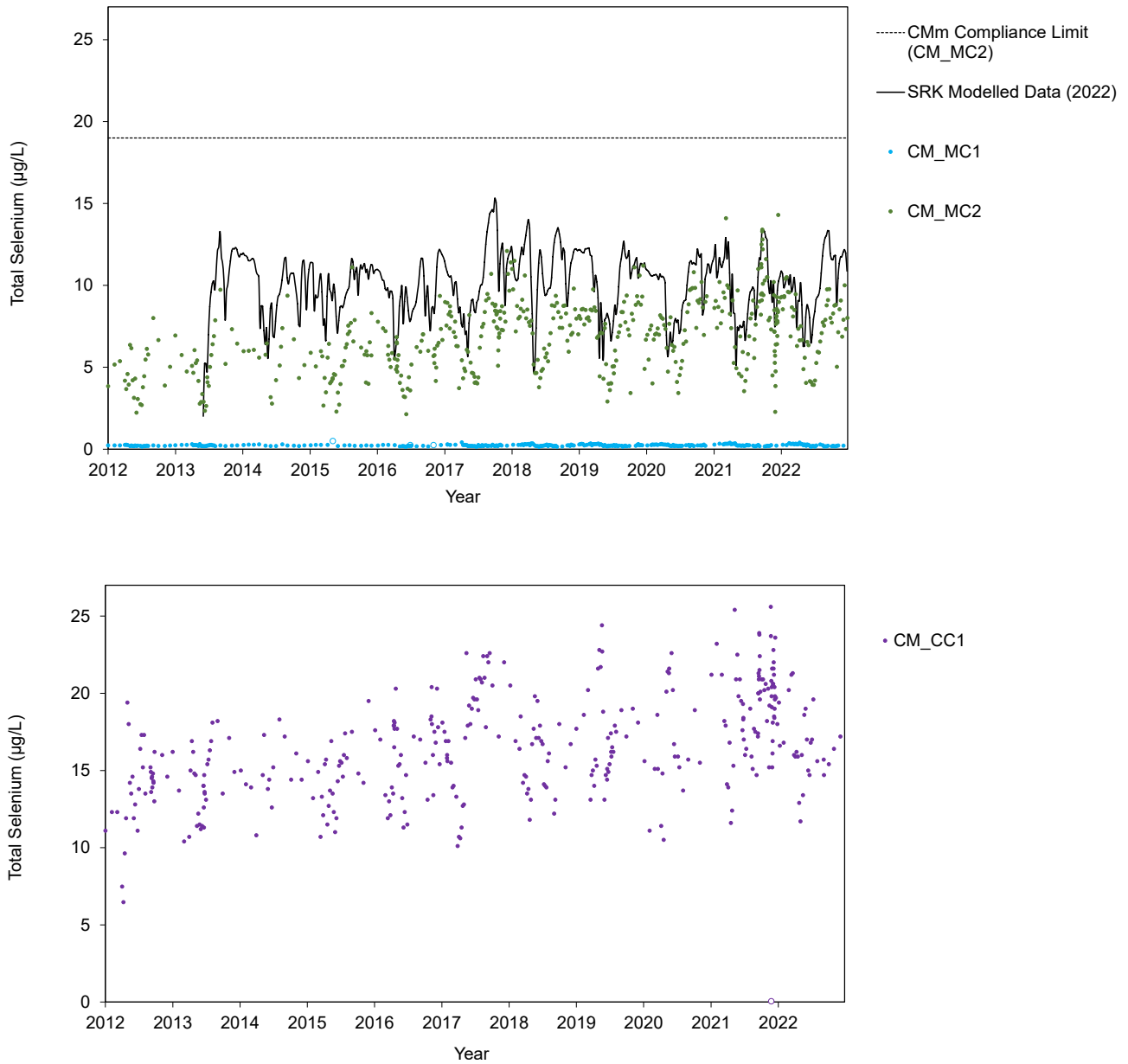
**Figure G1.2-16: Temporal Variation in Aqueous Phosphorus Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects. One point not shown in the bottom panel (1.52 mg/L in June 2013). SRK modelled projections are included for comparison (SRK 2023).

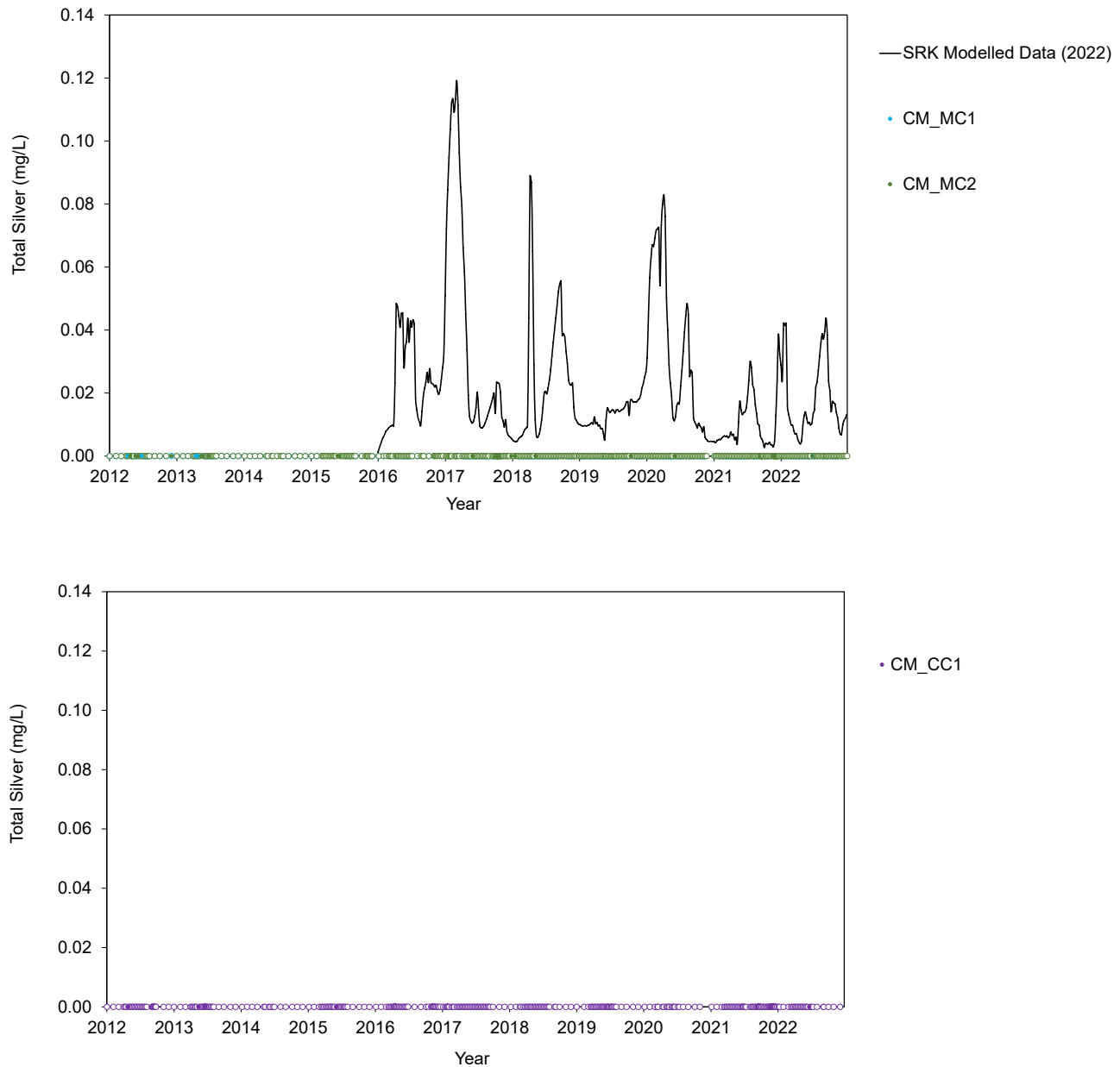
mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.2-17: Temporal Variation in Aqueous Selenium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Notes: SRK modelled projections for dissolved selenium (SRK 2023). These projections were included for comparisons to total selenium. Measured concentrations for CM\_MC1, CM\_MC2 and CM\_CC1 are shown as blue, green, and purple circles and SRK modelled data are represented by the solid black line in the upper panel.  
mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

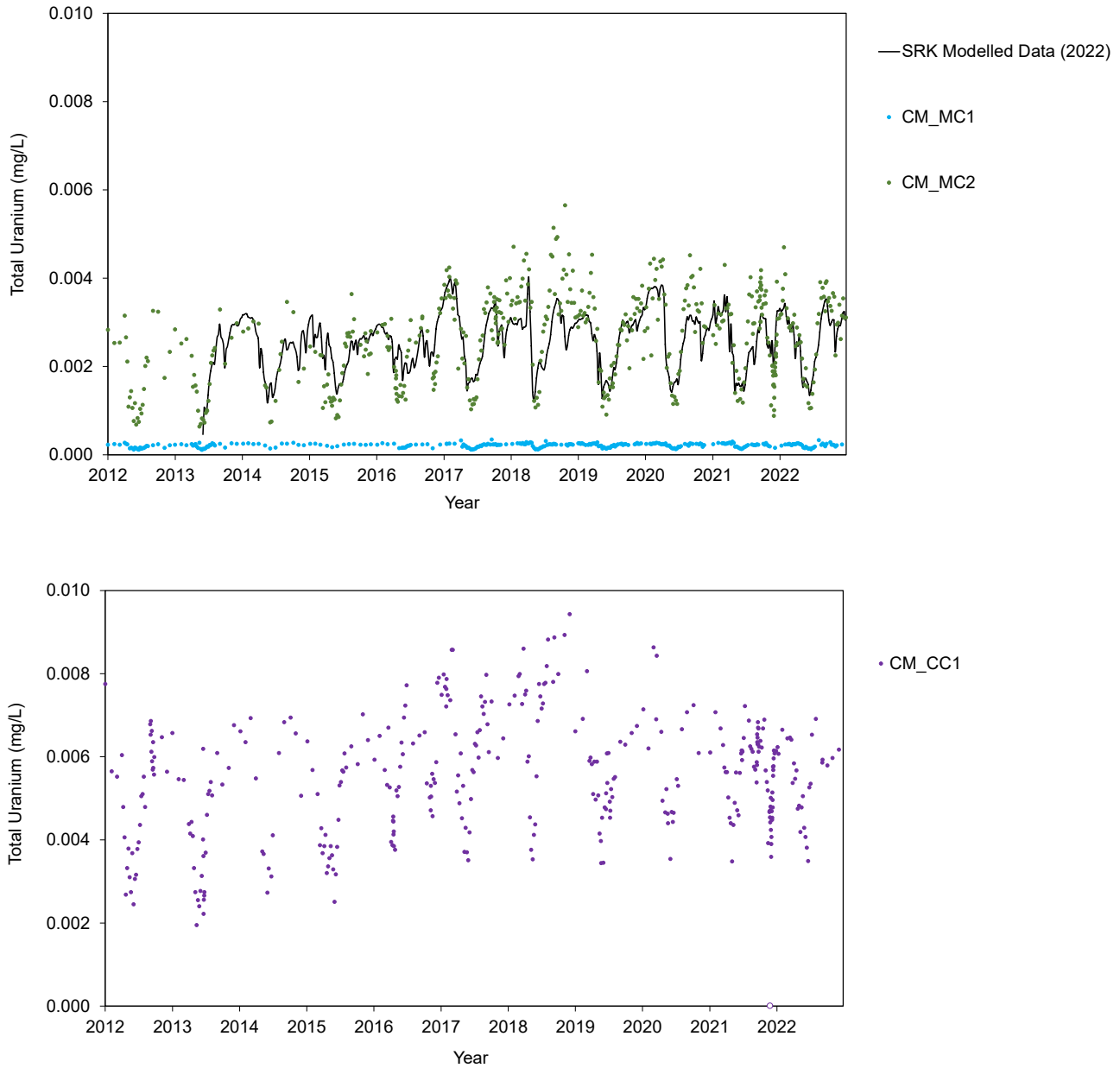


**Figure G1.2-18: Temporal Variation in Aqueous Silver Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**

Note: Open symbols represent non-detects. SRK modelled projections for dissolved silver are included for comparison (SRK 2023). SRK modelled data are represented by the solid black line in the upper panel.

mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

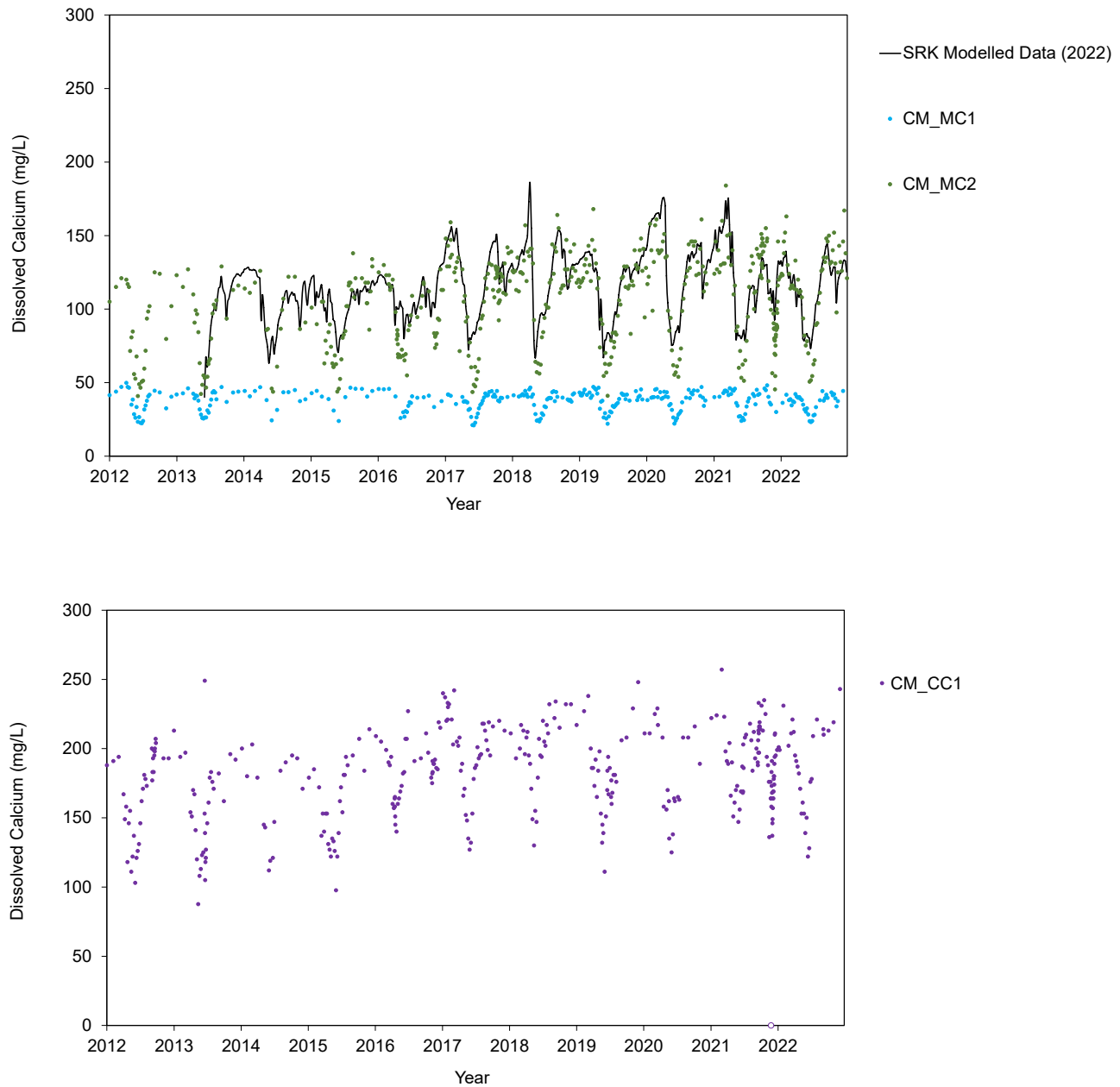
**Figure G1.2-19: Temporal Variation in Aqueous Uranium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects. SRK modelled projections for dissolved uranium are included for comparison (SRK 2023). SRK modelled data are represented by the solid black line in the upper panel.

mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

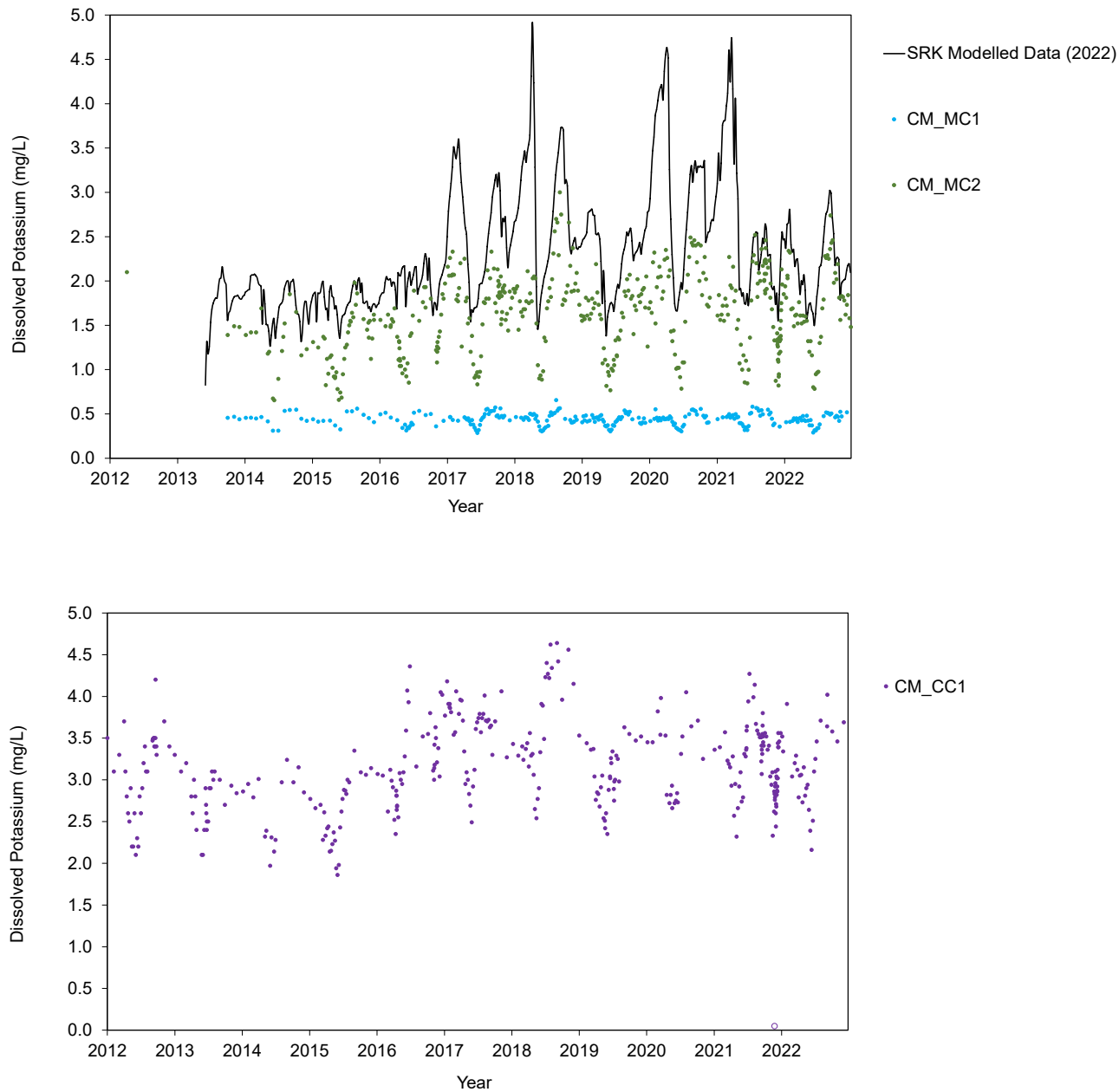
**Figure G1.2-20: Temporal Variation in Aqueous Calcium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects. SRK modelled projections for dissolved calcium are included for comparison (SRK 2023). SRK modelled data are represented by the solid black line in the upper panel.

mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

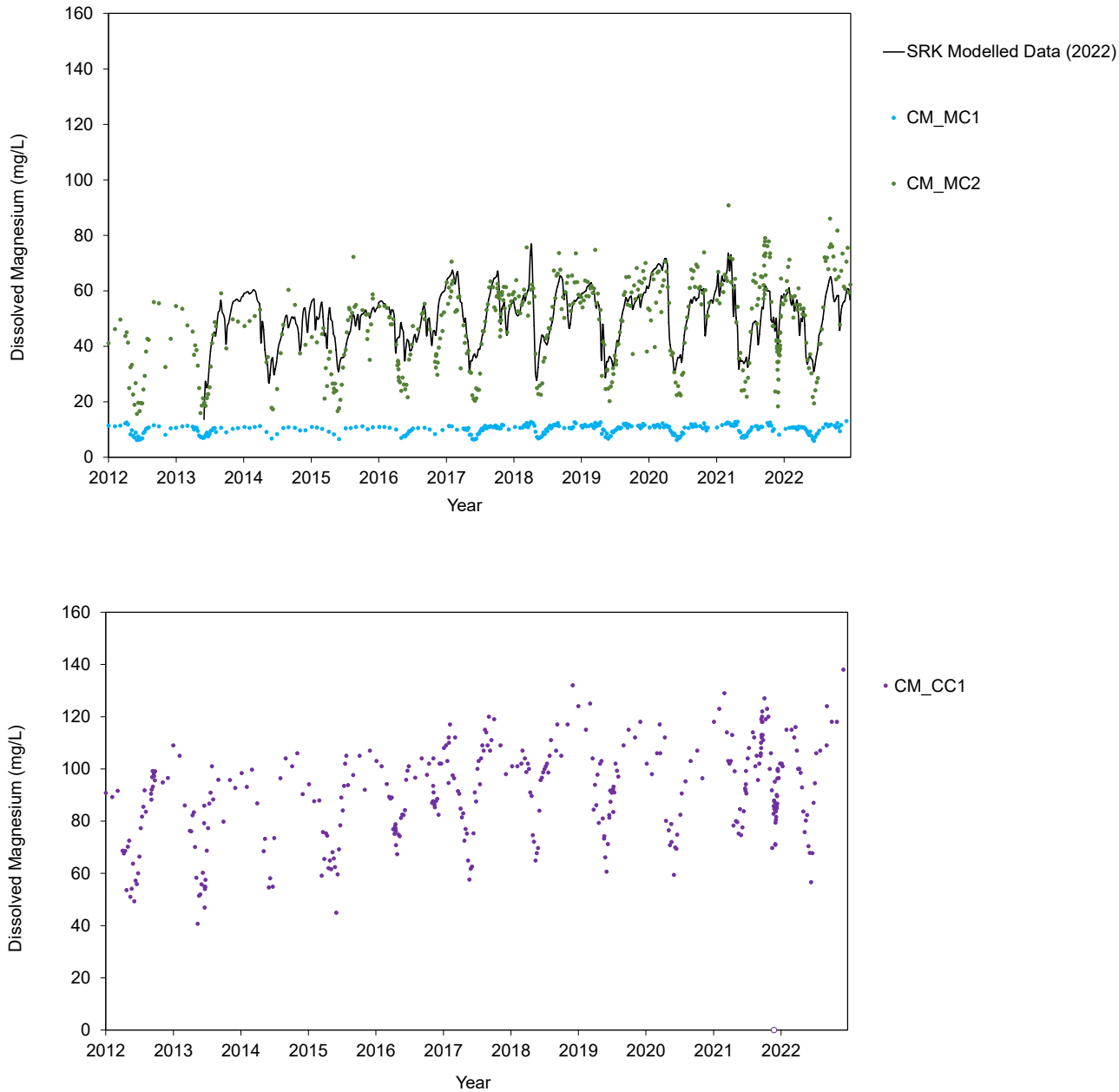
**Figure G1.2-21: Temporal Variation in Aqueous Potassium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects. SRK modelled projections for dissolved potassium are included for comparison (SRK 2023). Two points not shown in the bottom panel (5.7 and 8.1 mg/L in June 2013). SRK modelled data are represented by the solid black line in the upper panel.

mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

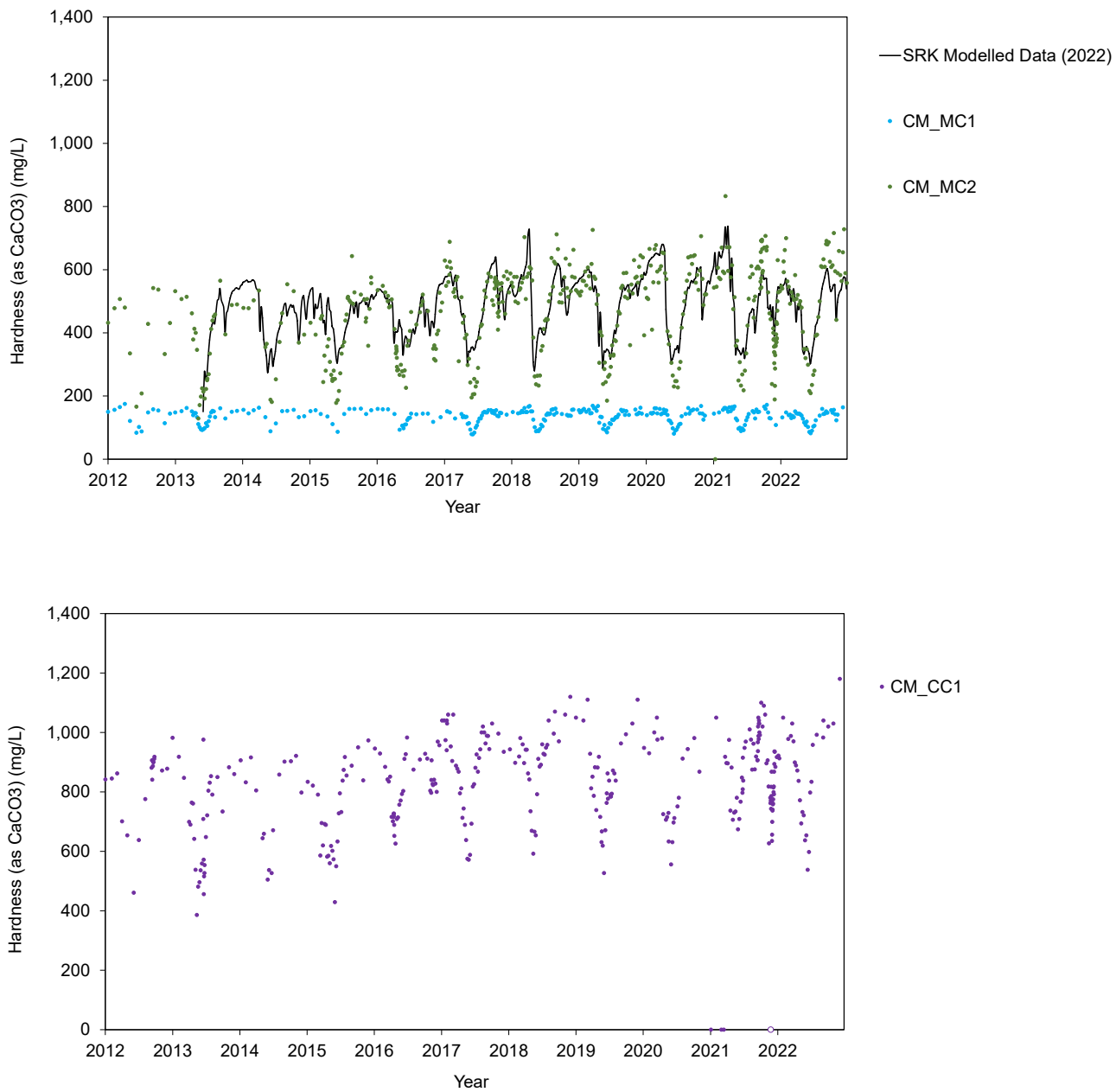
**Figure G1.2-22: Temporal Variation in Aqueous Magnesium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects. SRK modelled projections for dissolved magnesium are included for comparison (SRK 2023). SRK modelled data are represented by the solid black line in the upper panel.

mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

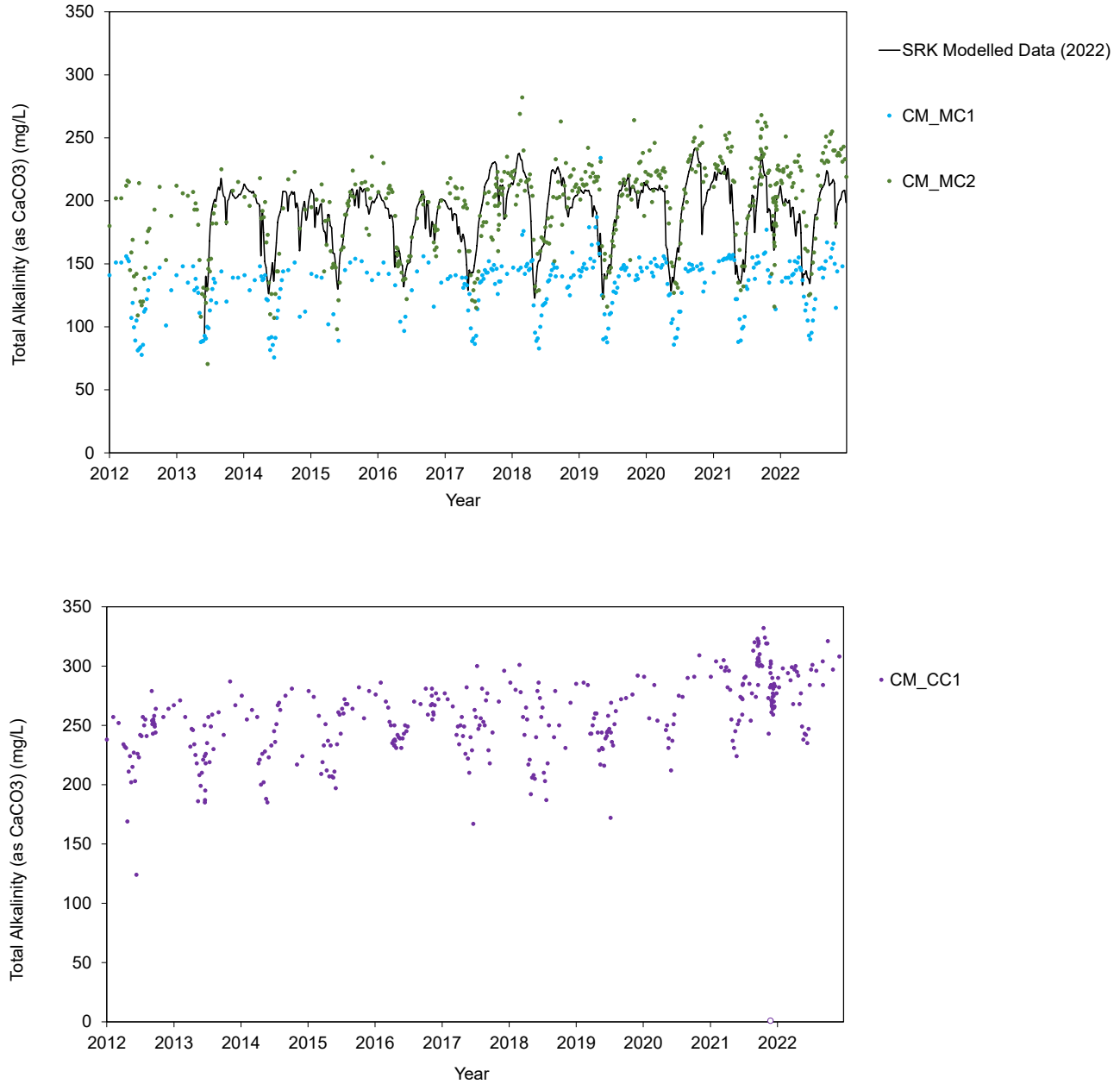
**Figure G1.2-23: Temporal Variation in Hardness in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects. SRK modelled projections for hardness are included for comparison (SRK 2023). SRK modelled data are represented by the solid black line in the upper panel.

mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

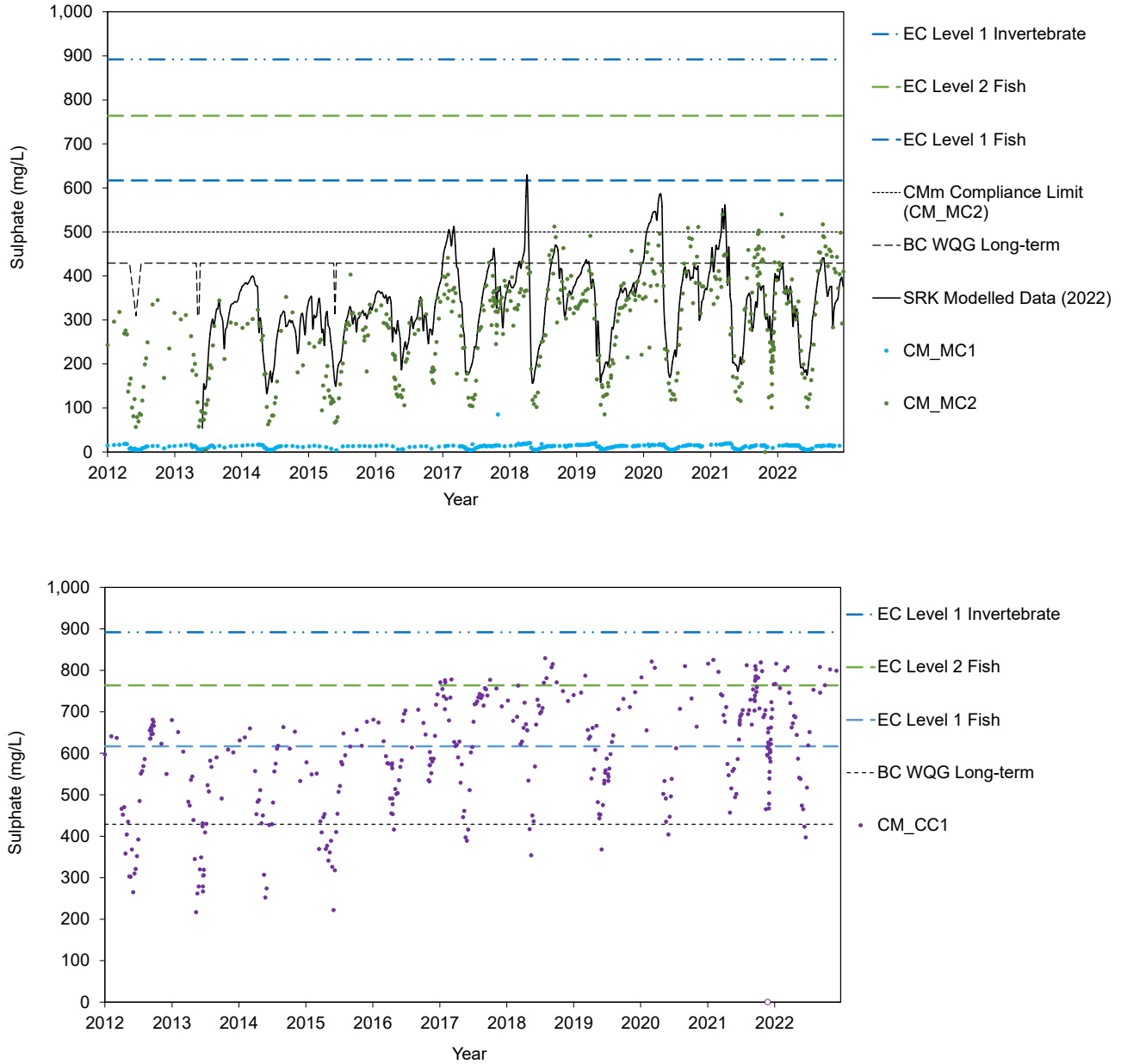
**Figure G1.2-24: Temporal Variation in Alkalinity in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects. SRK modelled projections for total alkalinity are included for comparison (SRK 2023). SRK modelled data are represented by the solid black line.

mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.2-25: Temporal Variation in Sulphate in Samples Collected from the CMm LAEMP, 2012 to 2022**

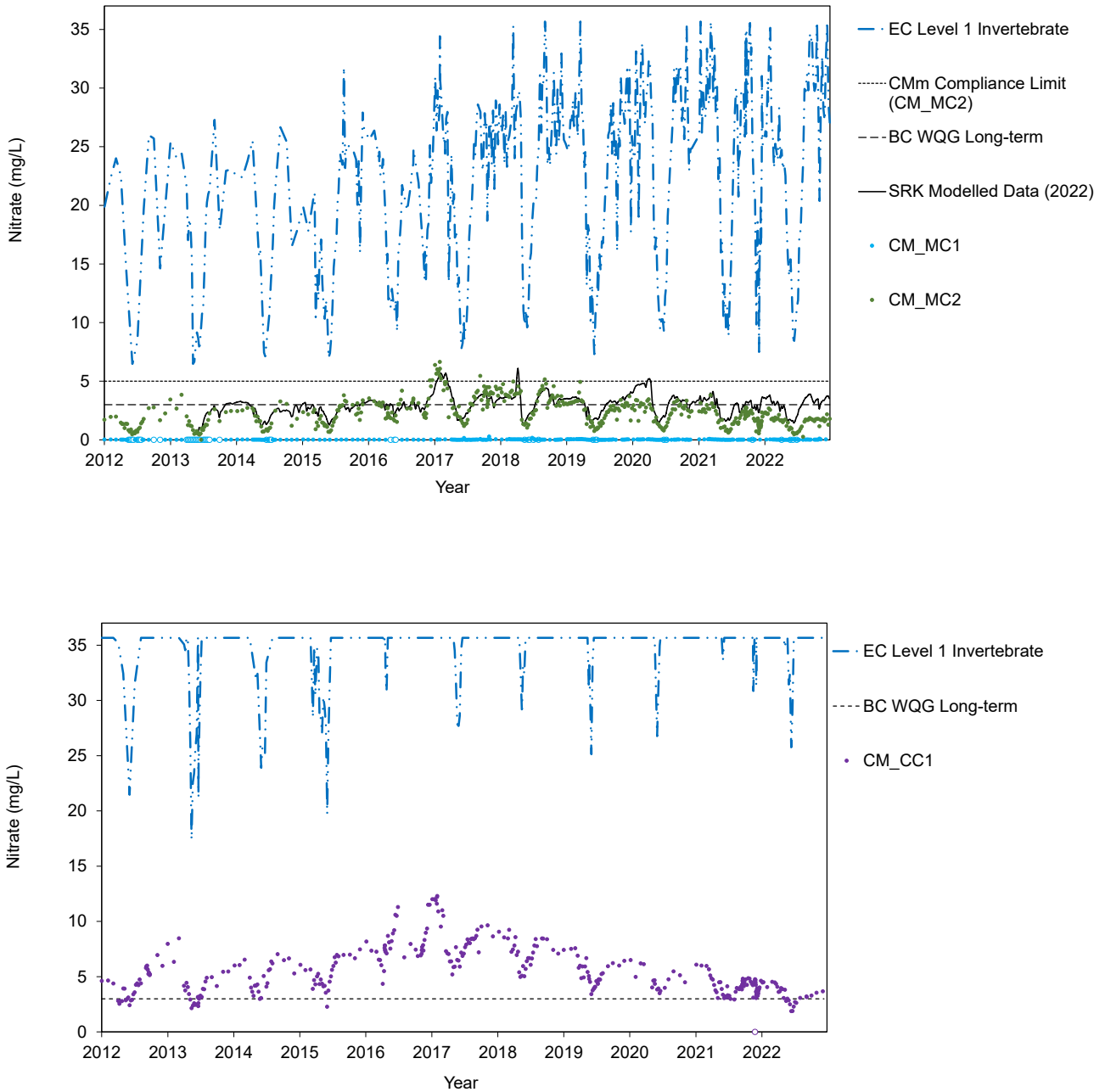


Notes: EVWQP effects concentrations; level 2 invertebrate (1,057 mg/L) and level 3 invertebrate (1,413 mg/L) not shown. Measured concentrations for CM\_MC1, CM\_MC2 and CM\_CC1 are shown as blue, green, and purple circles and SRK modelled data are represented by the solid black line in the upper panel (SRK 2023).

mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

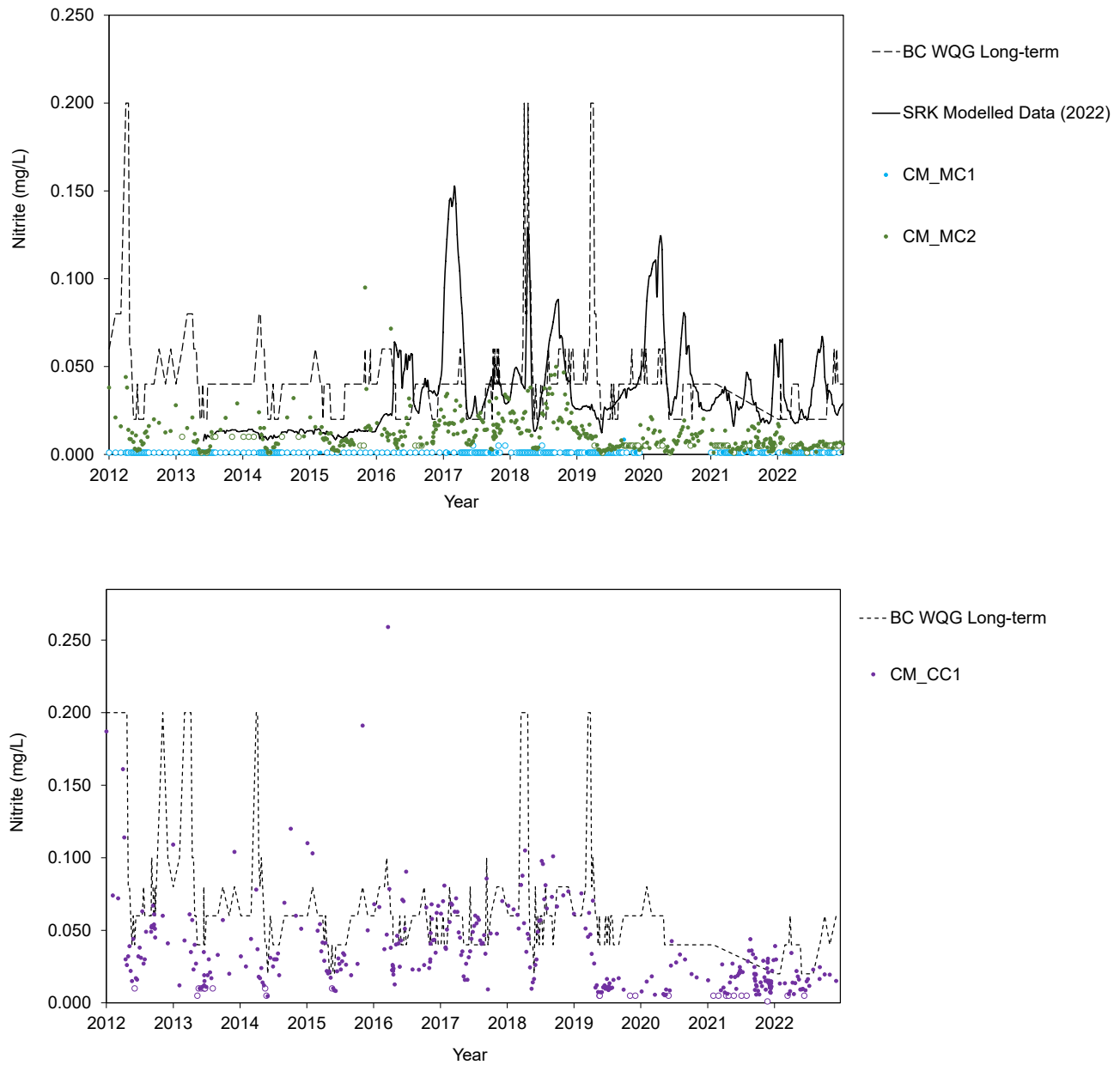


**Figure G1.2-26: Temporal Variation in Nitrate in Samples Collected from the CMm LAEMP, 2012 to 2022**



Notes: EVWQP effects concentrations; level 2 invertebrate (8.8 to 48 mg/L) and level 3 invertebrate (15 to 82 mg/L) not shown. Measured concentrations for CM\_MC1, CM\_MC2 and CM\_CC1 are shown as blue, green, and purple circles and SRK modelled data are represented by the solid black line in the upper panel. Open symbols indicate non-detects.  
 mg/L = milligrams per litre; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G1.2-27: Temporal Variation in Nitrite in Samples Collected from the CMm LAEMP, 2012 to 2022**

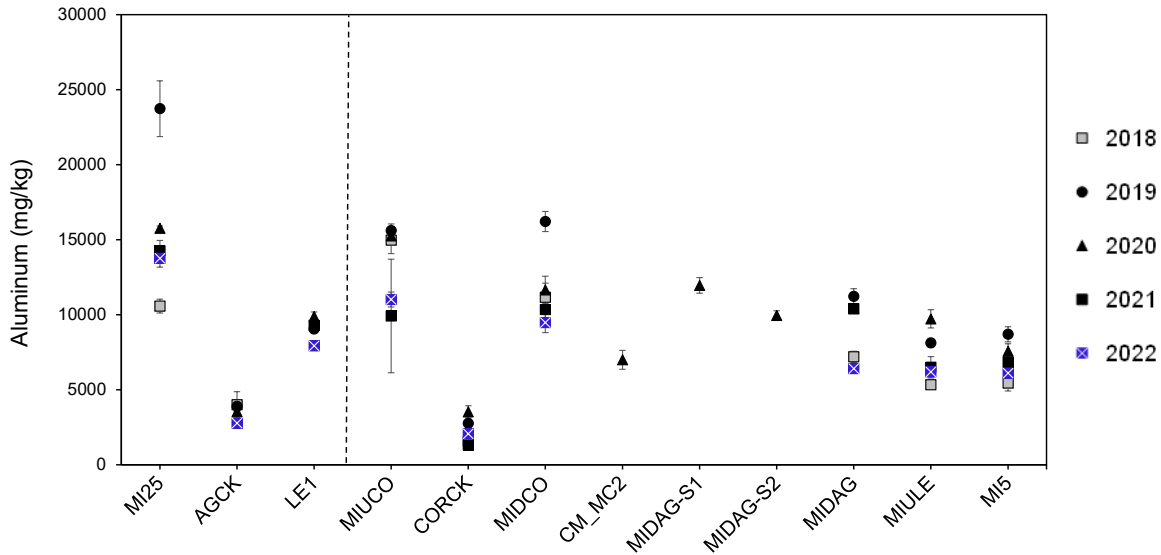


Note: Open symbols represent non-detects. SRK modelled projections for nitrite are included for comparison (SRK 2023). SRK modelled data are represented by the solid black line in the upper panel.

mg/L = milligrams per litre; BC WQG = British Columbia water quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

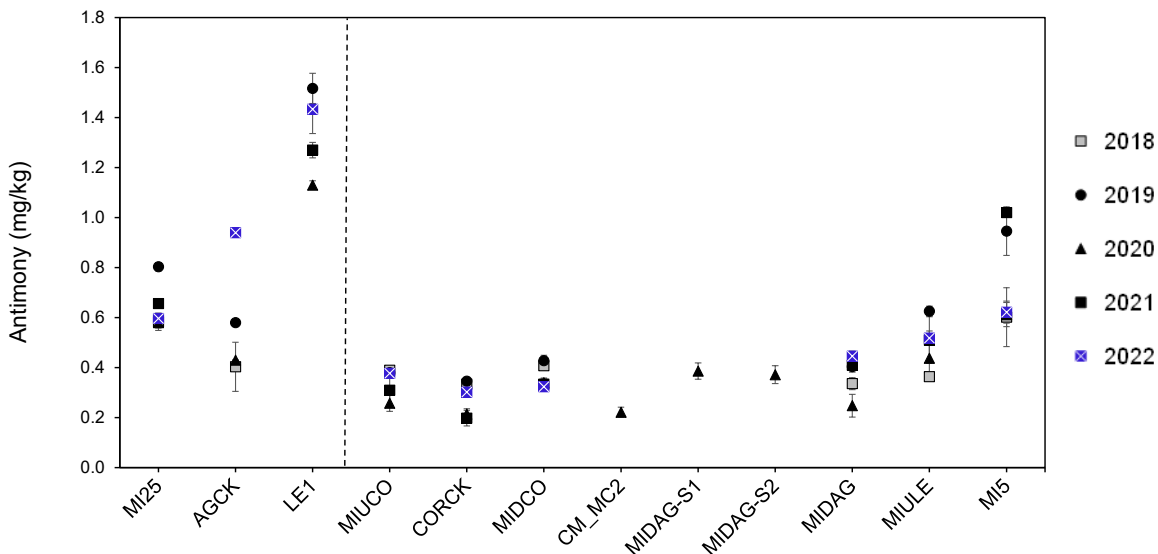
## G2.0 SEDIMENT QUALITY

**Figure G2.1-1: Spatial Variation in Sediment Aluminum Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



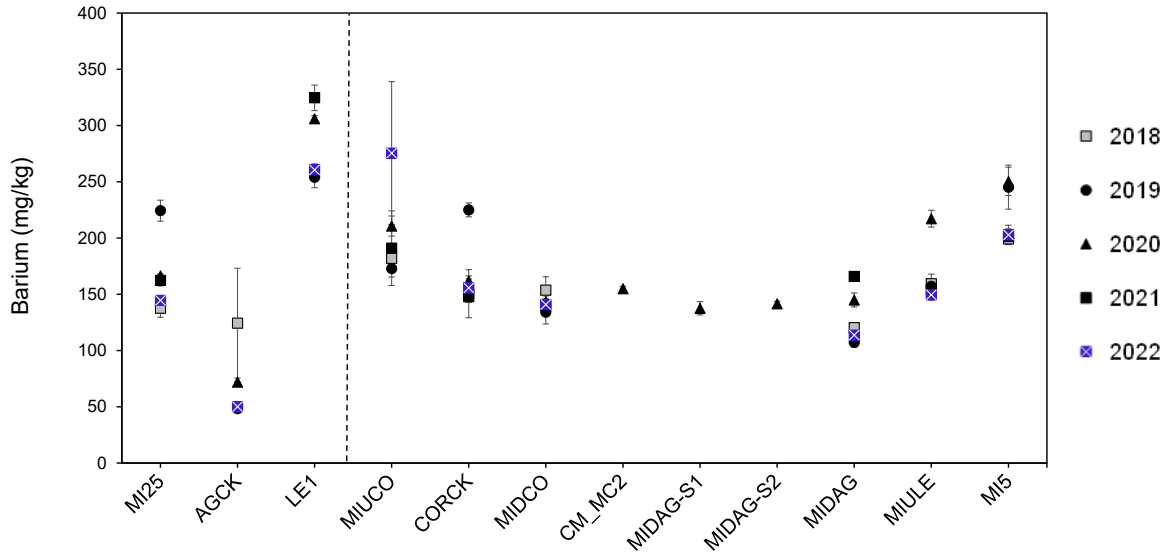
mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-2: Spatial Variation in Sediment Antimony Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



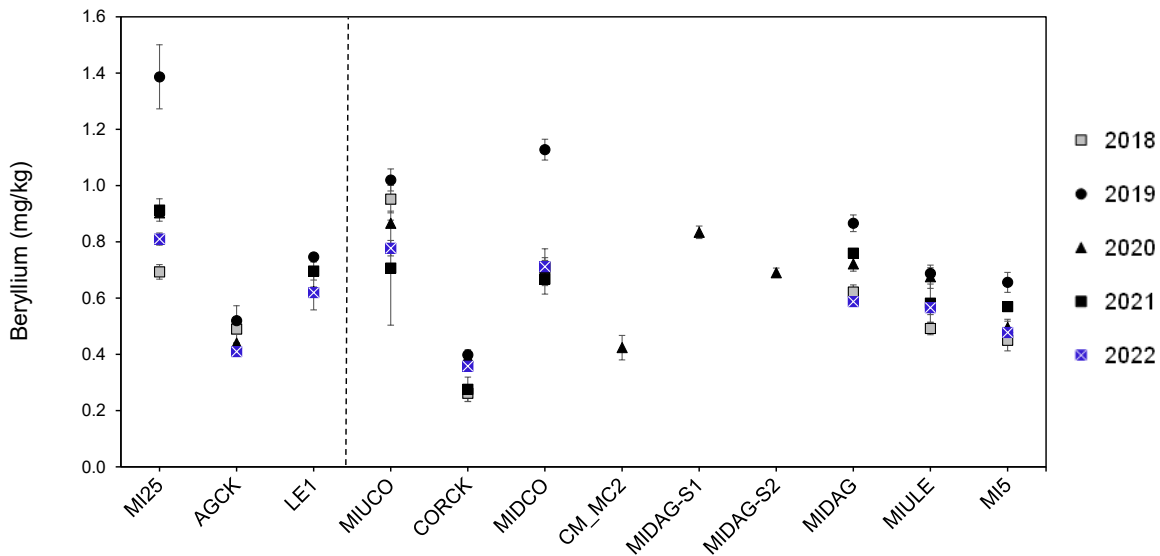
mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-3: Spatial Variation in Sediment Barium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



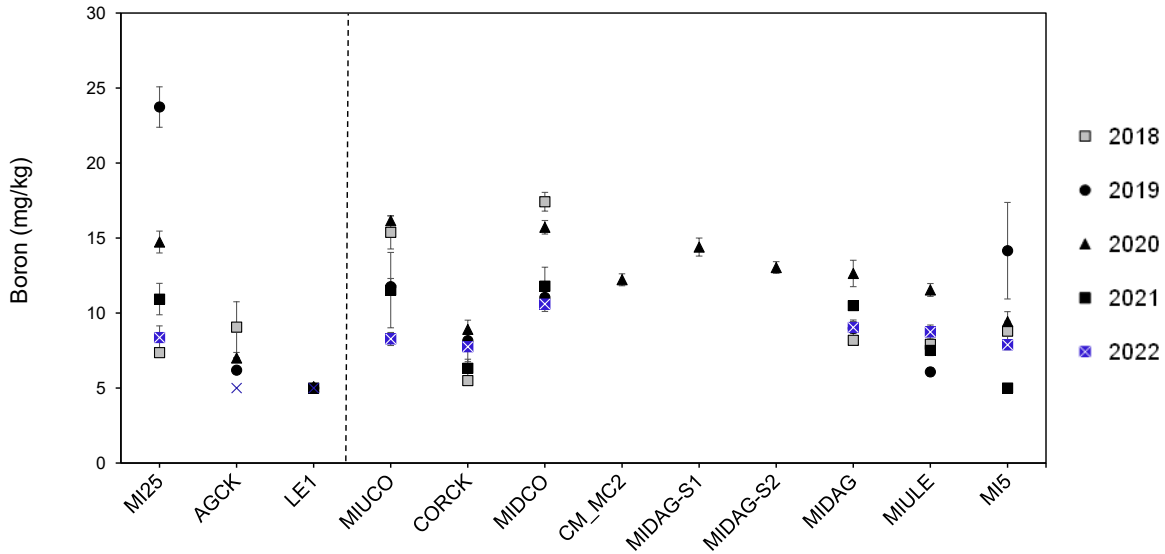
mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-4: Spatial Variation in Sediment Beryllium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

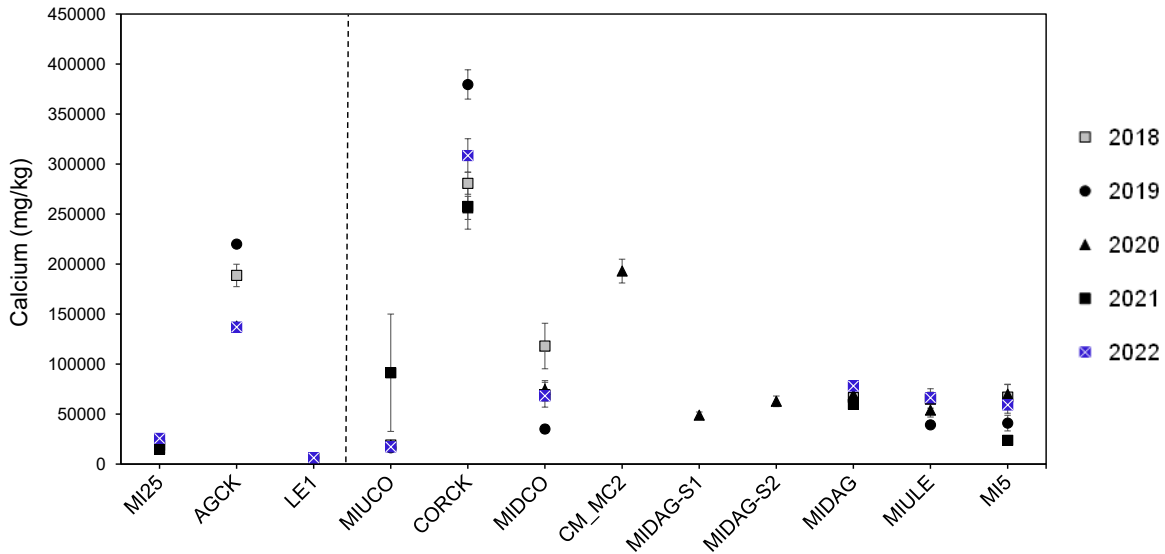
**Figure G2.1-5: Spatial Variation in Sediment Boron Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects.

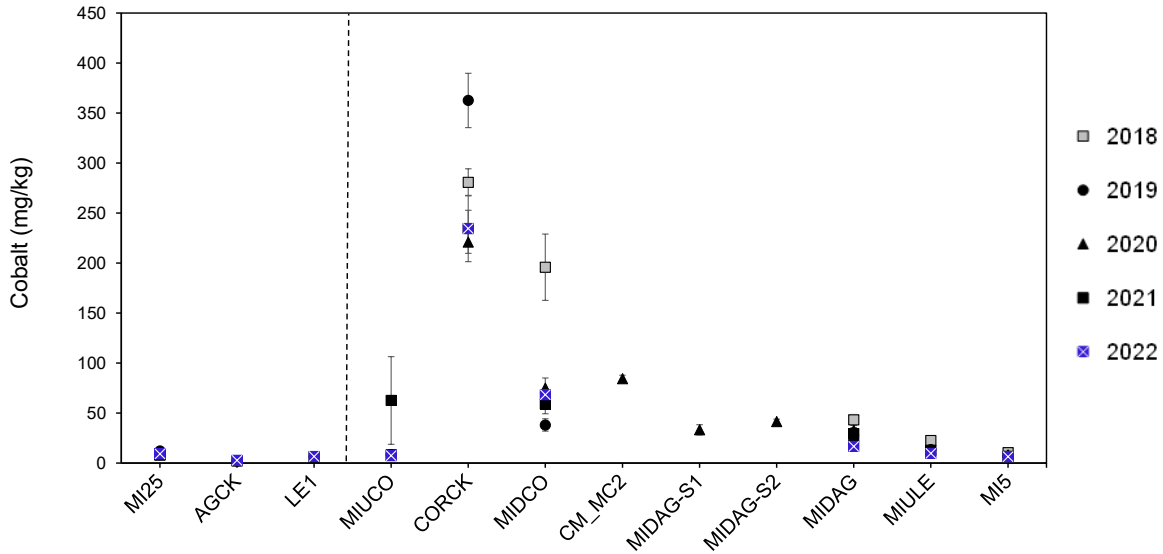
mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-6: Spatial Variation in Sediment Calcium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



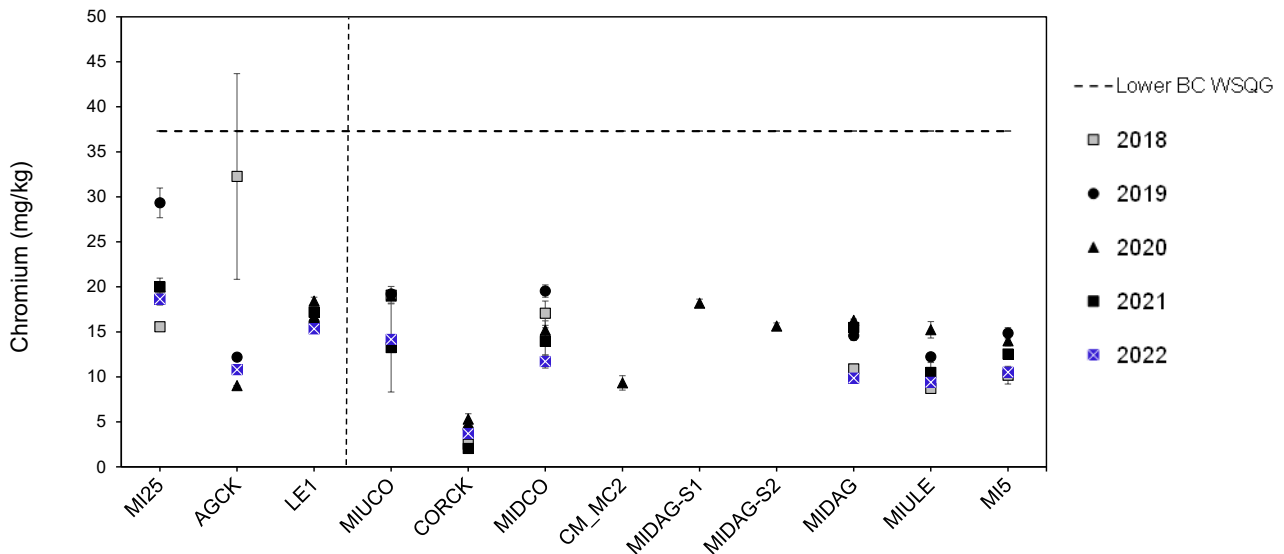
mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-7: Spatial Variation in Sediment Cobalt Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

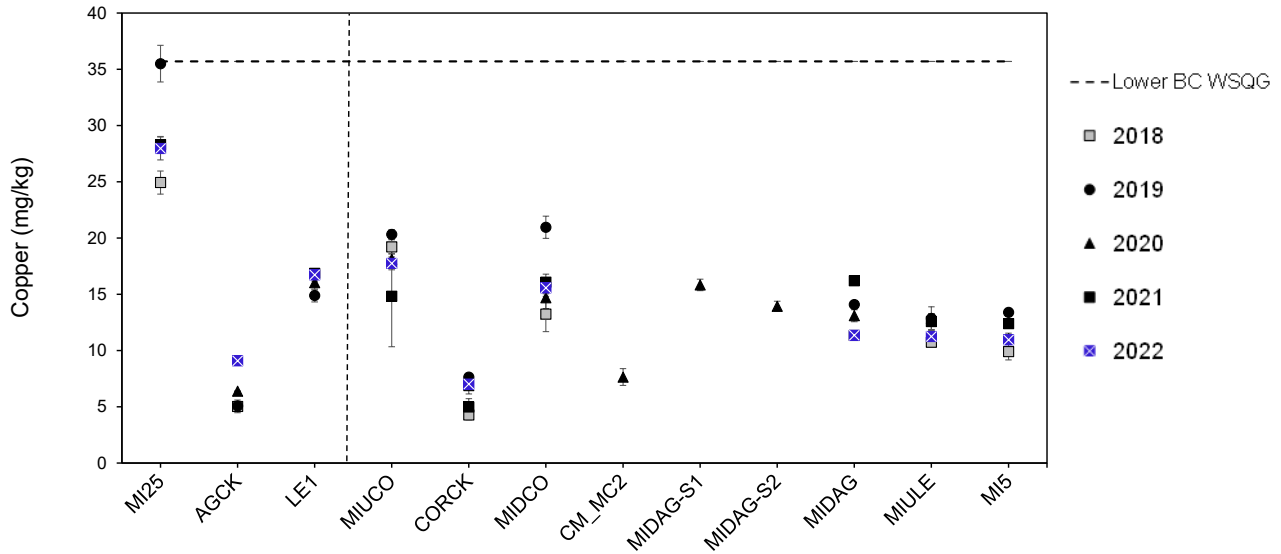
**Figure G2.1-8: Spatial Variation in Sediment Chromium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Upper BC WSQG (90 mg/kg) not shown.

mg/kg = milligrams per kilogram; BC WSQG = British Columbia working sediment quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

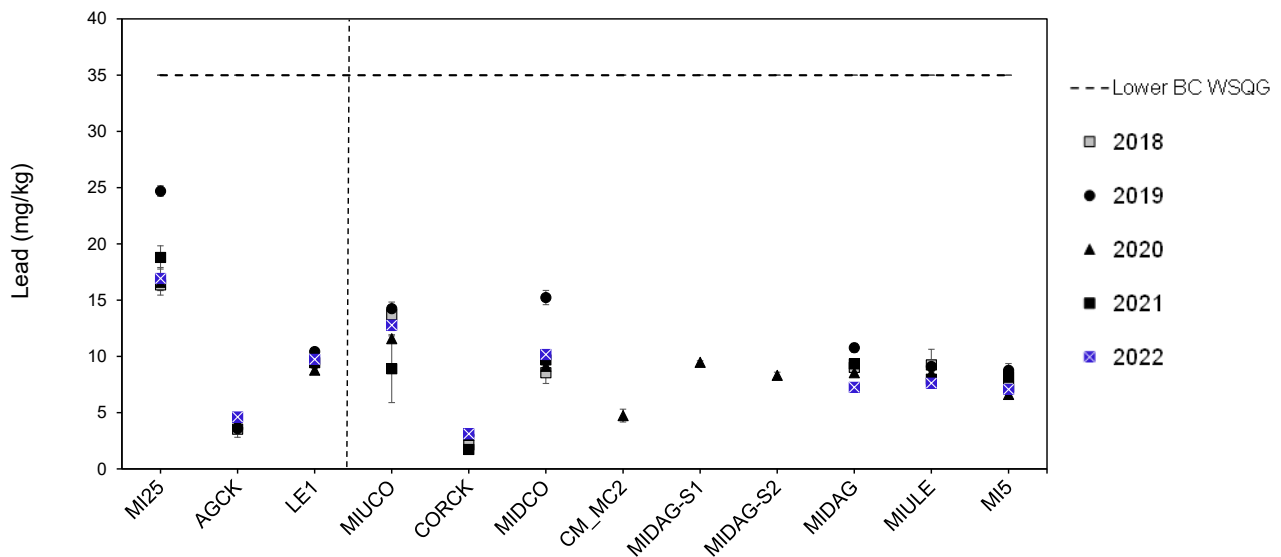
**Figure G2.1-9: Spatial Variation in Sediment Copper Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Upper BC WSQG (197 mg/kg) not shown.

mg/kg = milligrams per kilogram; BC WSQG = British Columbia working sediment quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

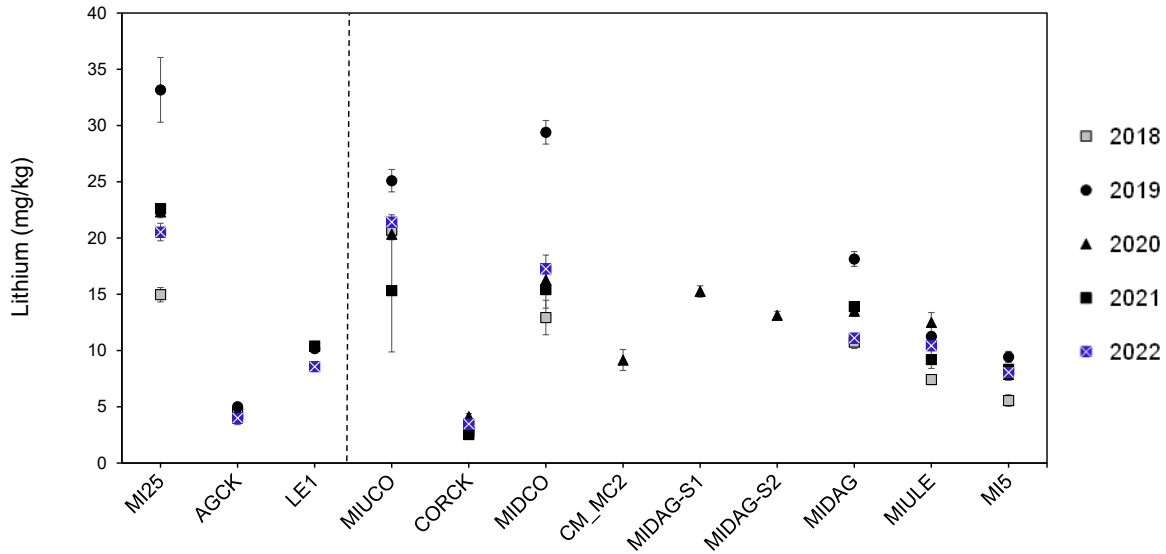
**Figure G2.1-10: Spatial Variation in Sediment Lead Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Upper BC WSQG (91.3 mg/kg) not shown.

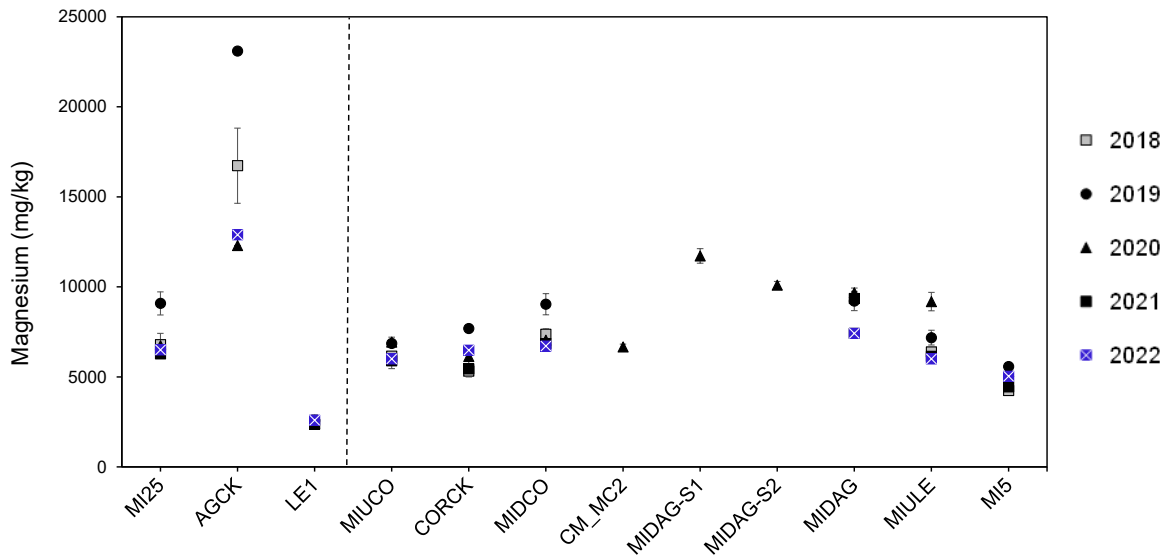
mg/kg = milligrams per kilogram; BC WSQG = British Columbia working sediment quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-11: Spatial Variation in Sediment Lithium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

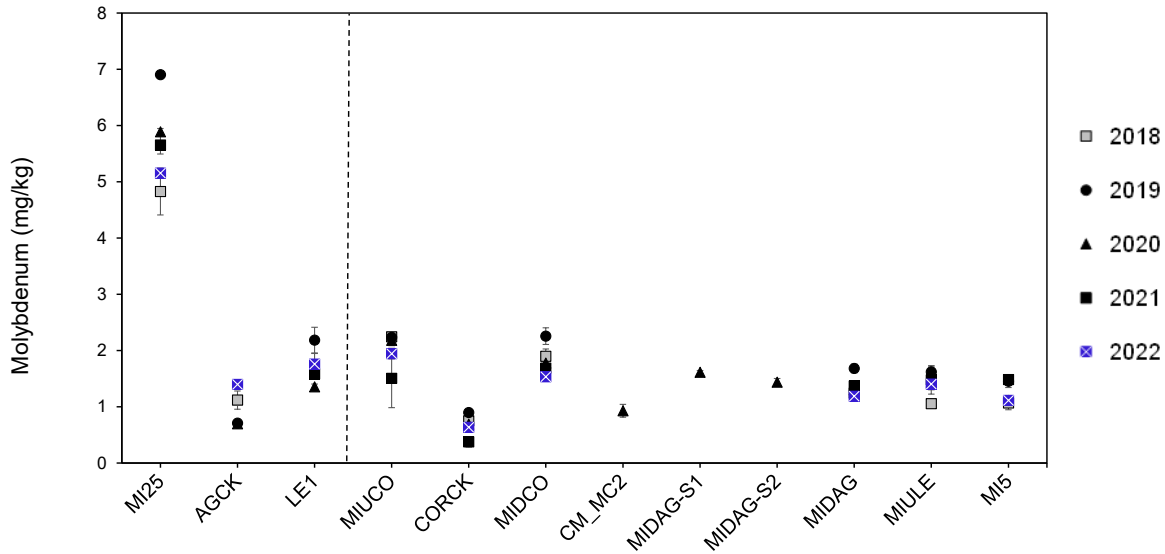
**Figure G2.1-12: Spatial Variation in Sediment Magnesium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

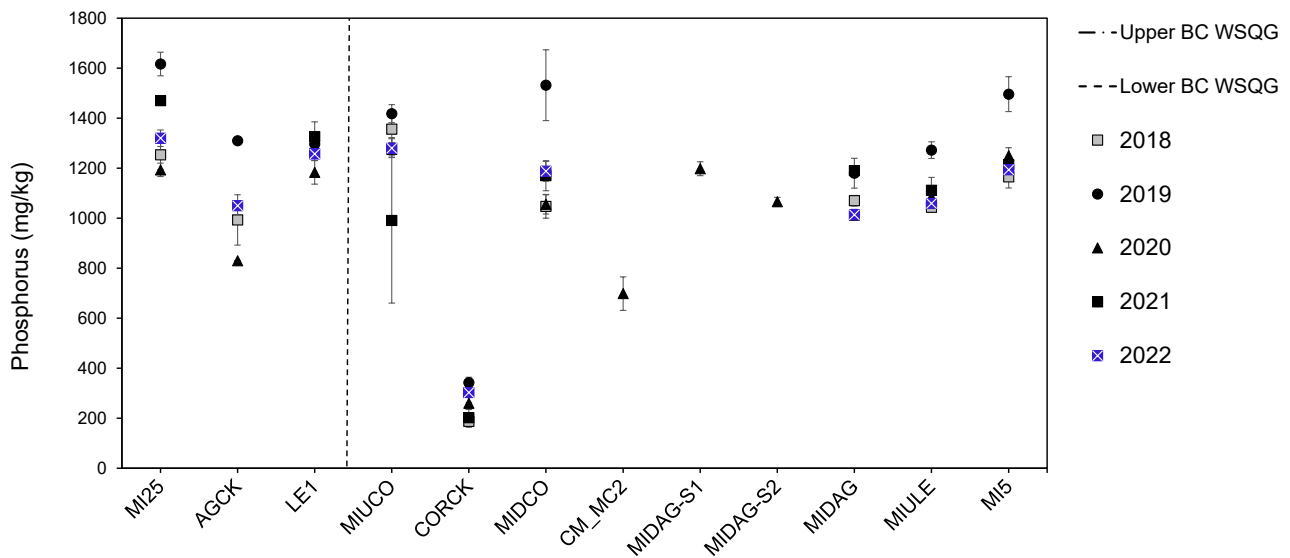


**Figure G2.1-13: Spatial Variation in Sediment Molybdenum Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



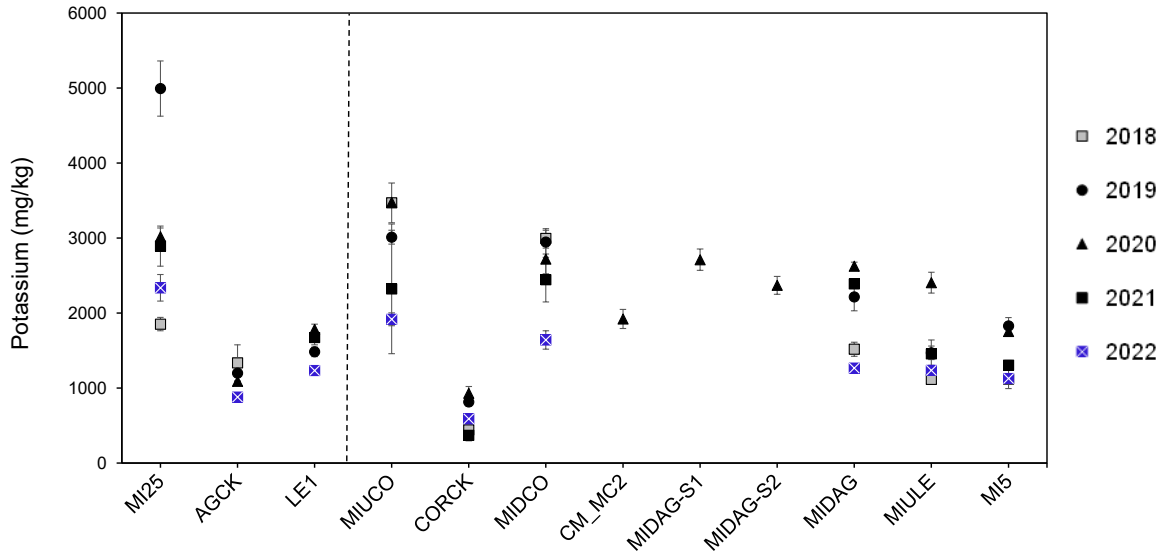
mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-14: Spatial Variation in Sediment Phosphorus Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



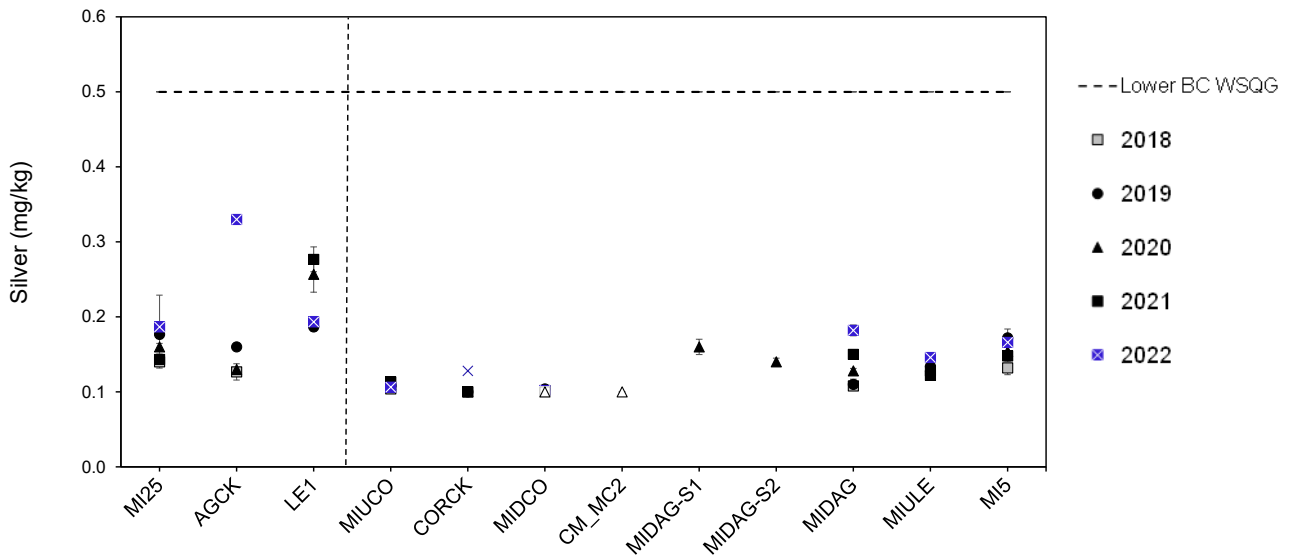
mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program; BC WSQG = British Columbia Working Sediment Quality Guidelines.

**Figure G2.1-15: Spatial Variation in Sediment Potassium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

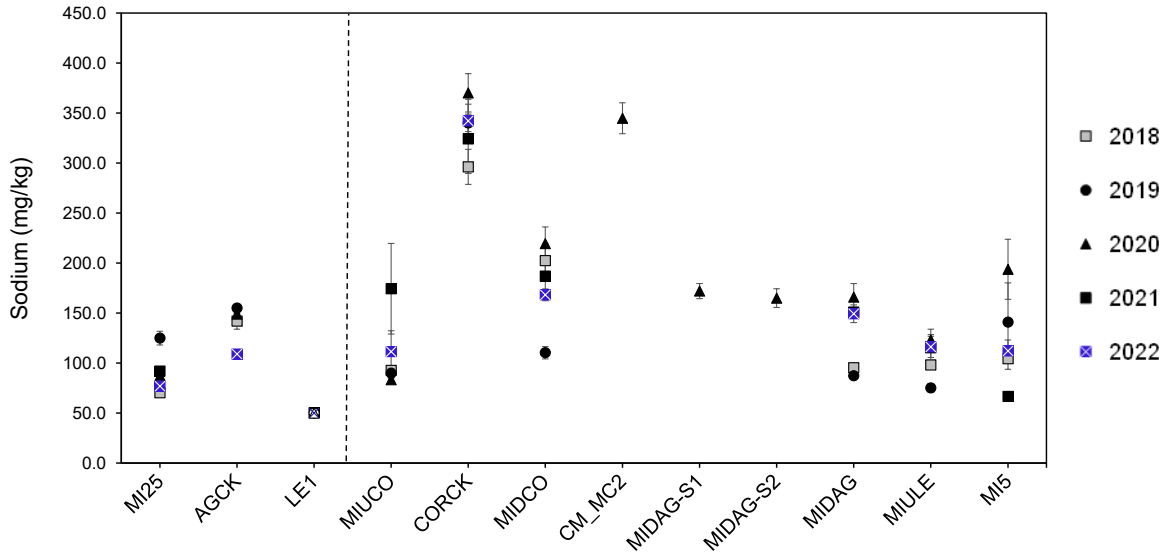
**Figure G2.1-16: Spatial Variation in Sediment Silver Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects. No upper BC WSQG for freshwater aquatic life.

mg/kg = milligrams per kilogram; BC WSQG = British Columbia working sediment quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

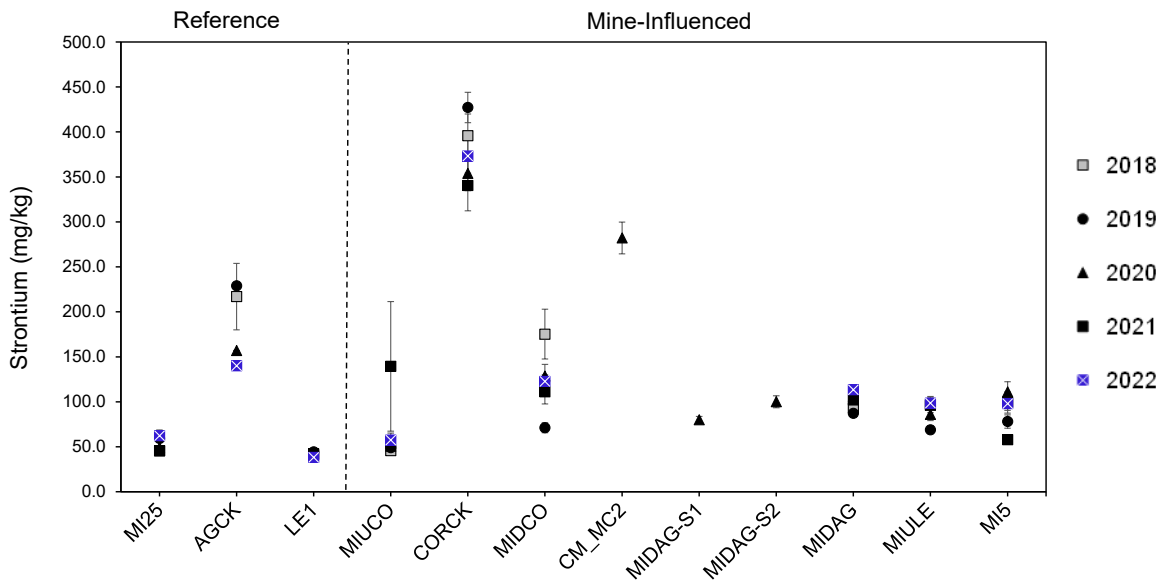
**Figure G2.1-17: Spatial Variation in Sediment Sodium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects.

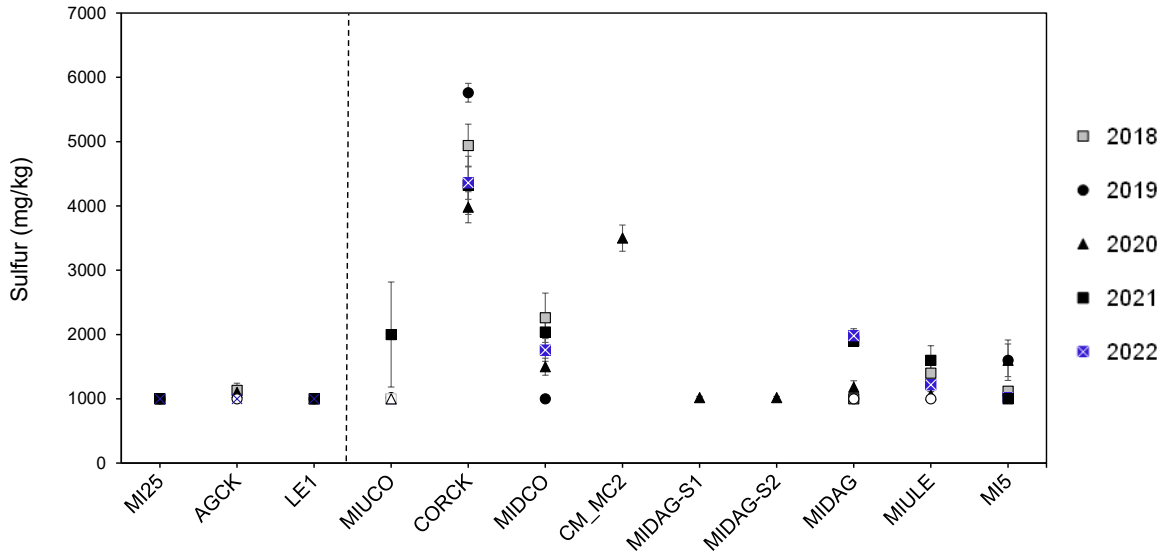
mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-18: Spatial Variation in Sediment Strontium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



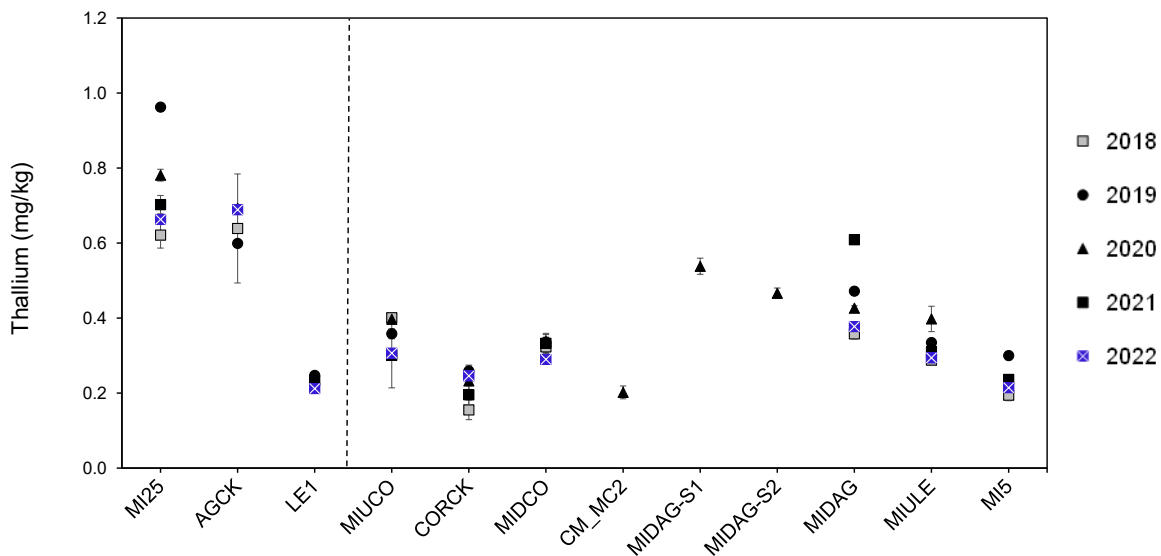
mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-19: Spatial Variation in Sediment Sulfur Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



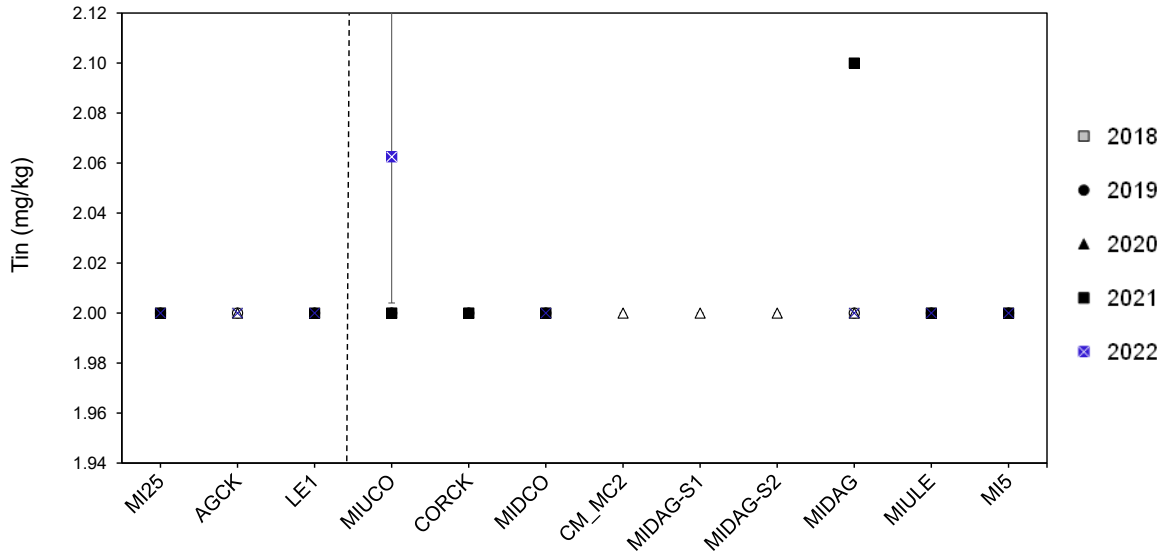
Note: Open symbols represent non-detects.  
 mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-20: Spatial Variation in Sediment Thallium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



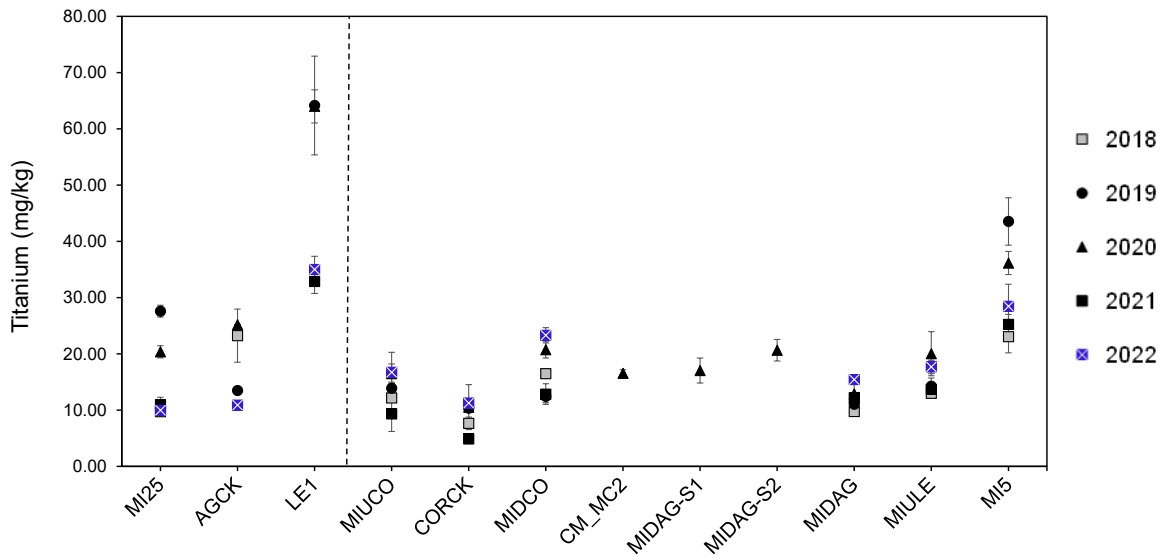
mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-21: Spatial Variation in Sediment Tin Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



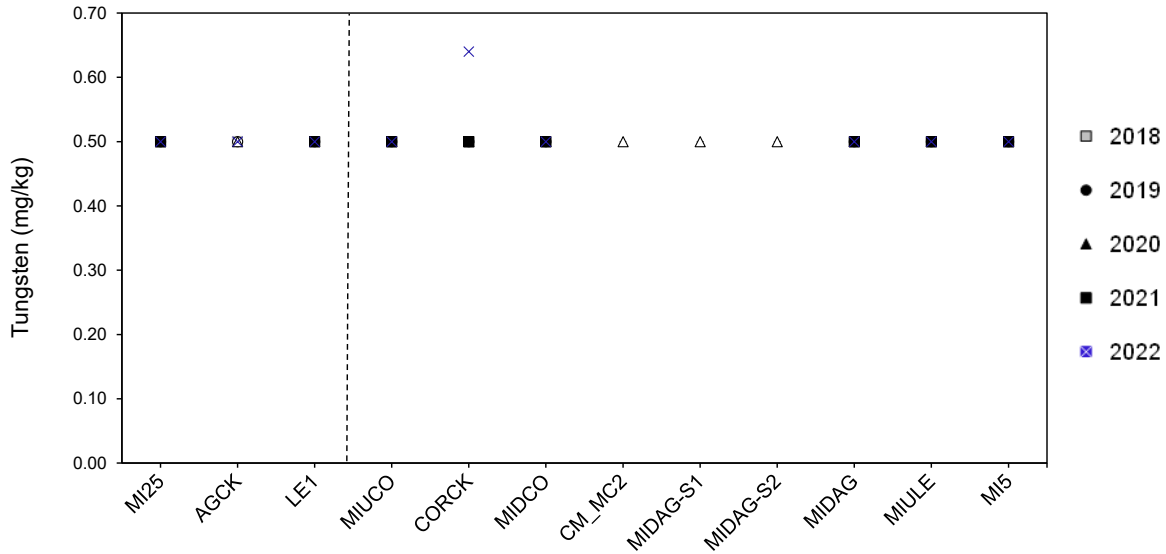
Note: Open symbols represent non-detects.  
 mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-22: Spatial Variation in Sediment Titanium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

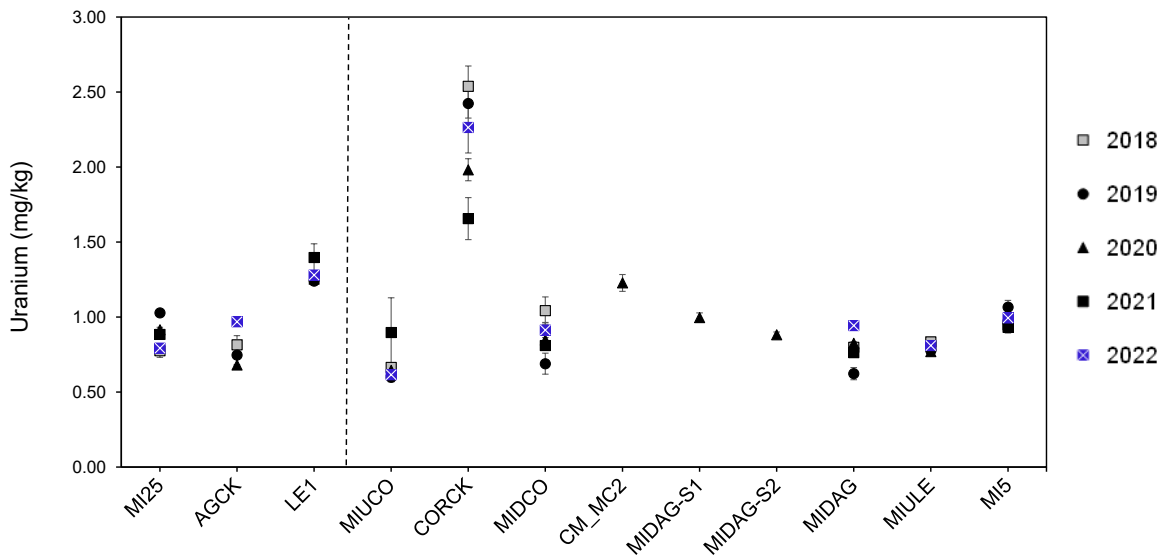
**Figure G2.1-23: Spatial Variation in Sediment Tungsten Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects.

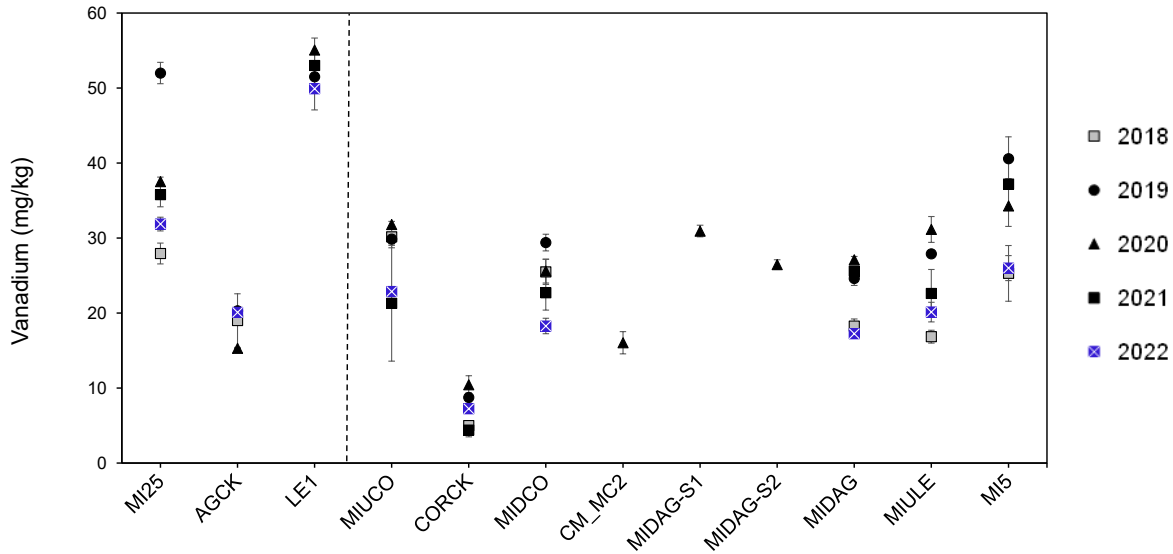
mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-24: Spatial Variation in Sediment Uranium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



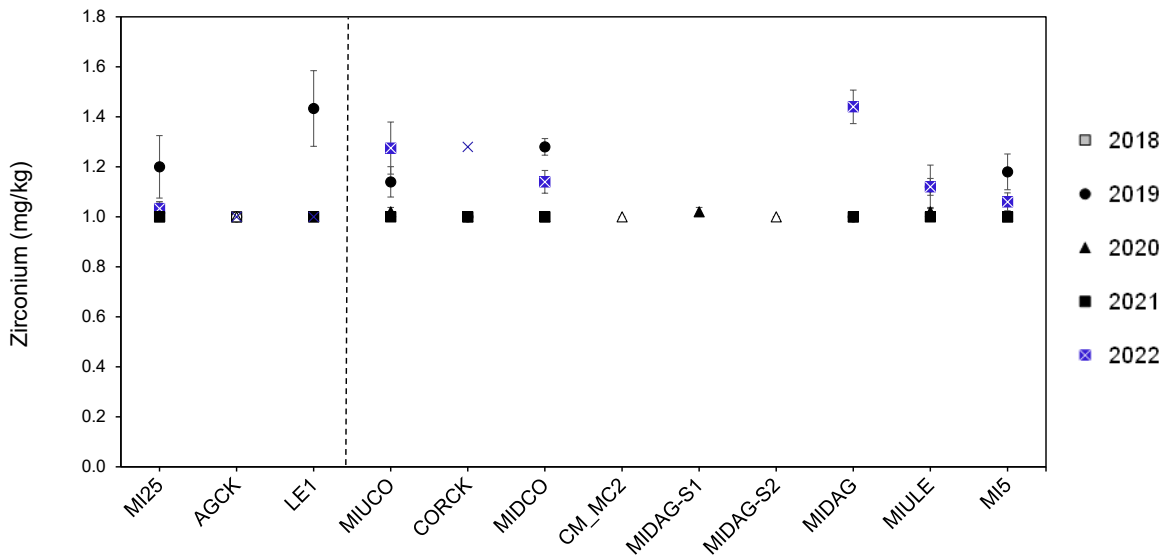
mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-25: Spatial Variation in Sediment Vanadium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

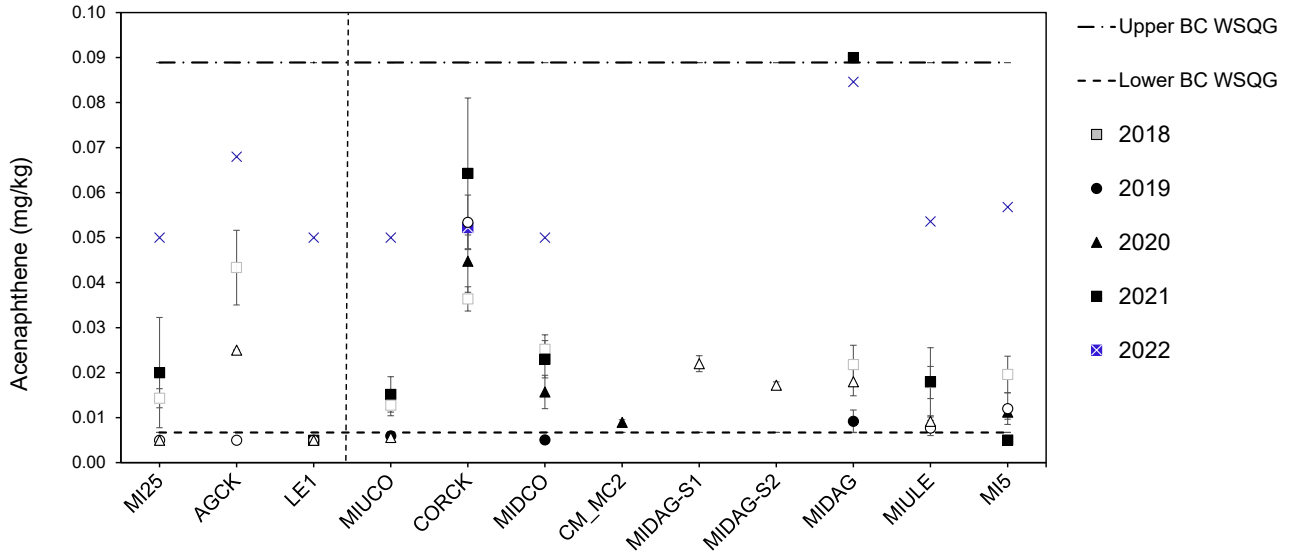
**Figure G2.1-26: Spatial Variation in Sediment Zirconium Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects.

mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

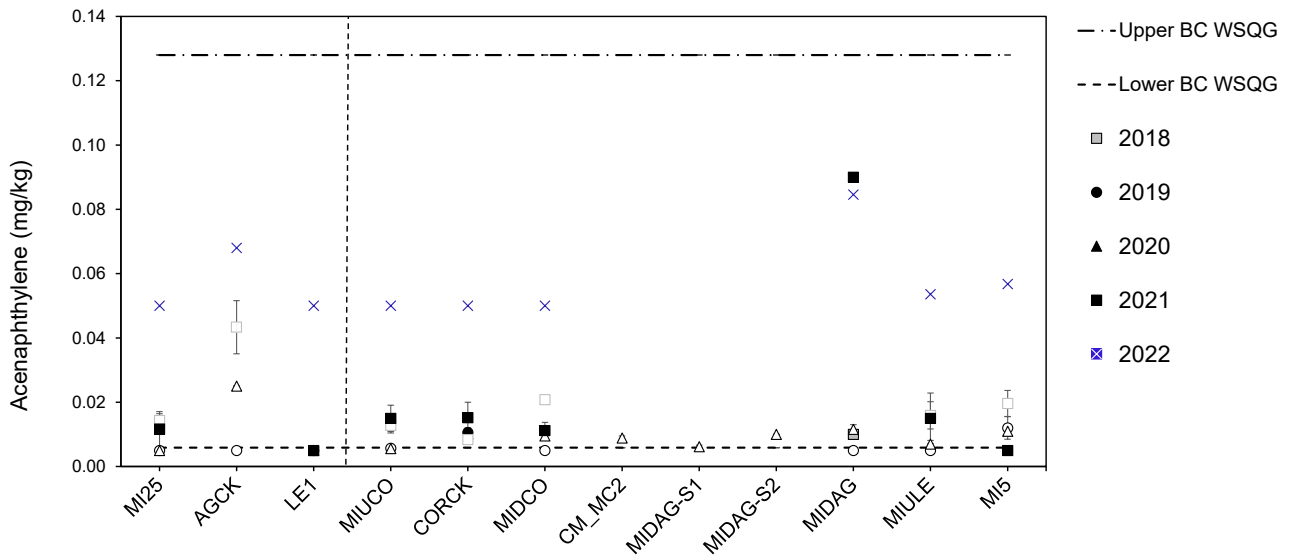
**Figure G2.1-27: Spatial Variation in Sediment Acenaphthene Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects.

BC WSQG = British Columbia working sediment quality guideline; mg/kg = milligrams per kilogram dry weight; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-28: Spatial Variation in Sediment Acenaphthylene Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**

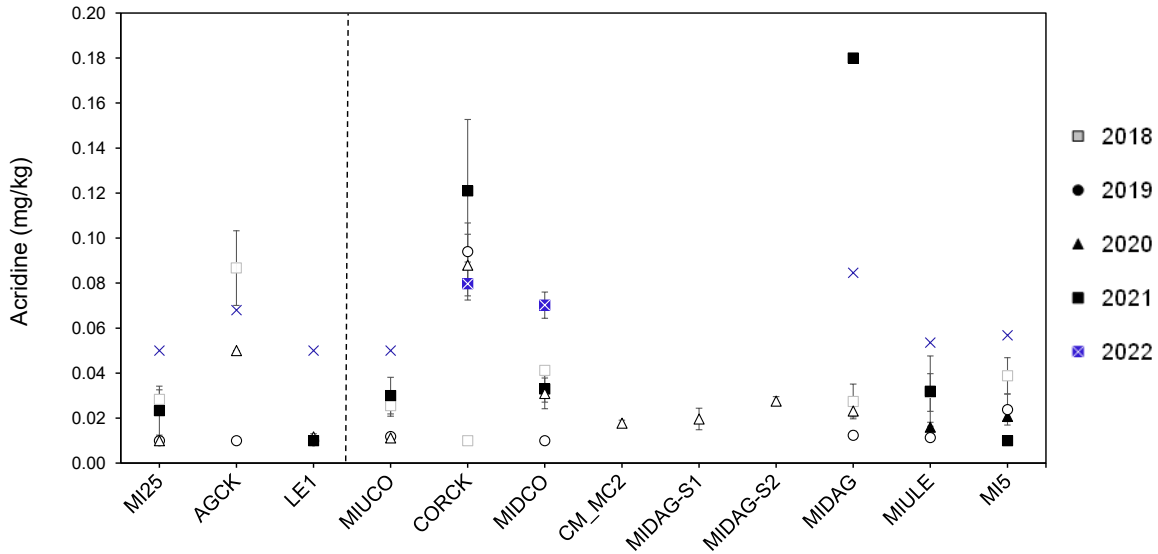


Notes: Open symbols represent non-detects.

BC WSQG = British Columbia working sediment quality guideline; mg/kg = milligrams per kilogram dry weight; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.



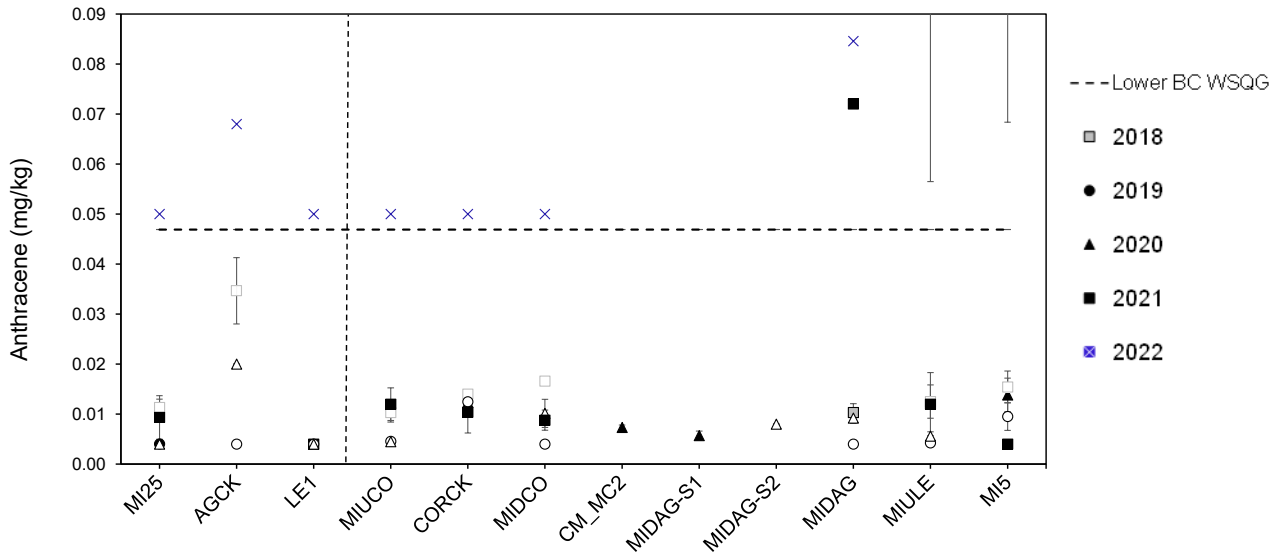
**Figure G2.1-29: Spatial Variation in Sediment Acridine Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects.

mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

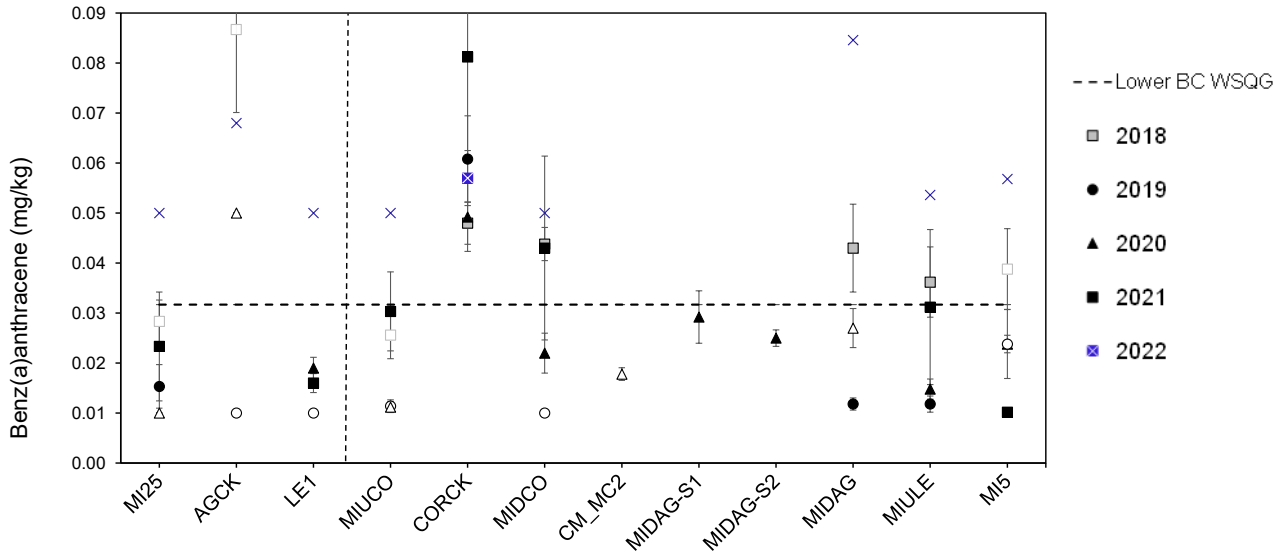
**Figure G2.1-30: Spatial Variation in Sediment Anthracene Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects. Upper BC WSQG (0.245 mg/kg) not shown.

mg/kg = milligrams per kilogram; BC WSQG = British Columbia working sediment quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

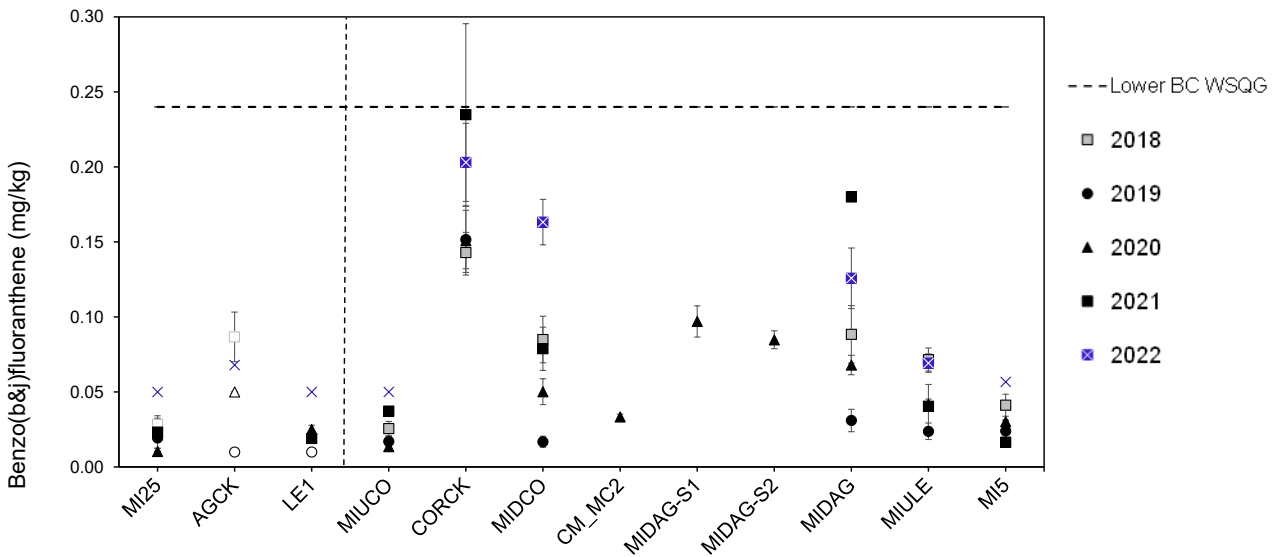
**Figure G2.1-31: Spatial Variation in Sediment Benzo(a)anthracene Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Notes: Upper BC WSQG not shown for benzo(a)anthracene (0.39 mg/kg) and benzo(a)pyrene (0.78 mg/kg).

BC WSQG = British Columbia working sediment quality guideline; mg/kg = milligrams per kilogram dry weight; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

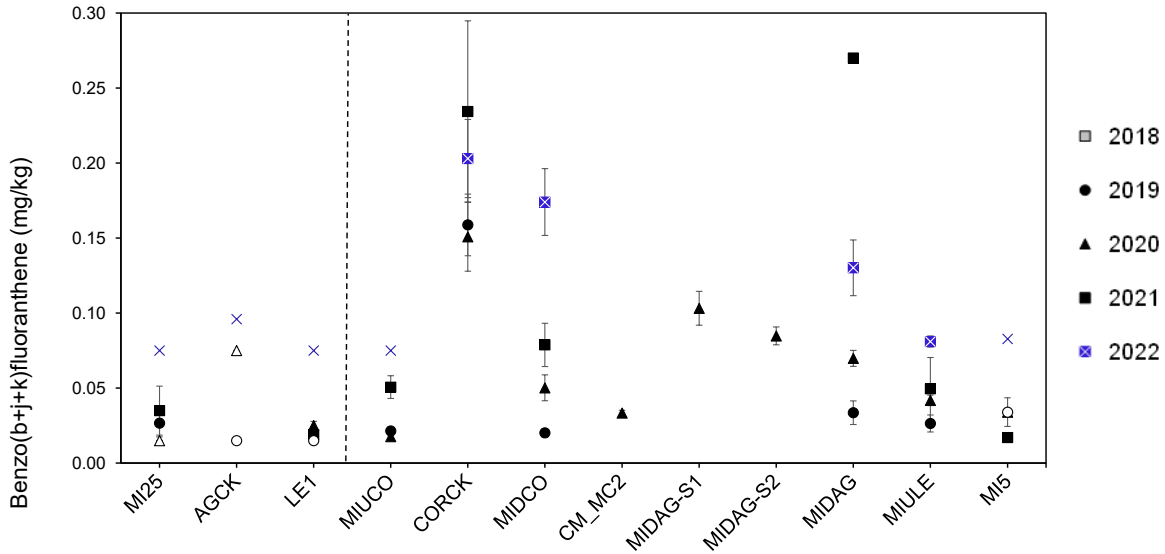
**Figure G2.1-32: Spatial Variation in Sediment Benzo(b,j)fluoranthene Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects. Upper BC WSQG (13 mg/kg) not shown.

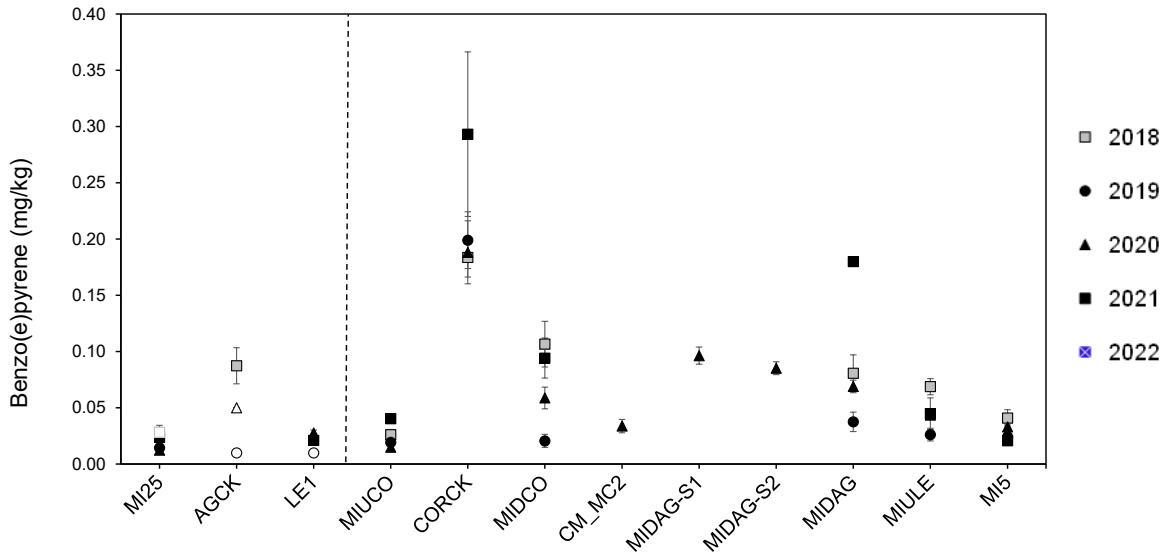
mg/kg = milligrams per kilogram; BC WSQG = British Columbia working sediment quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-33: Spatial Variation in Sediment Benzo(b,j,k)fluoranthene Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



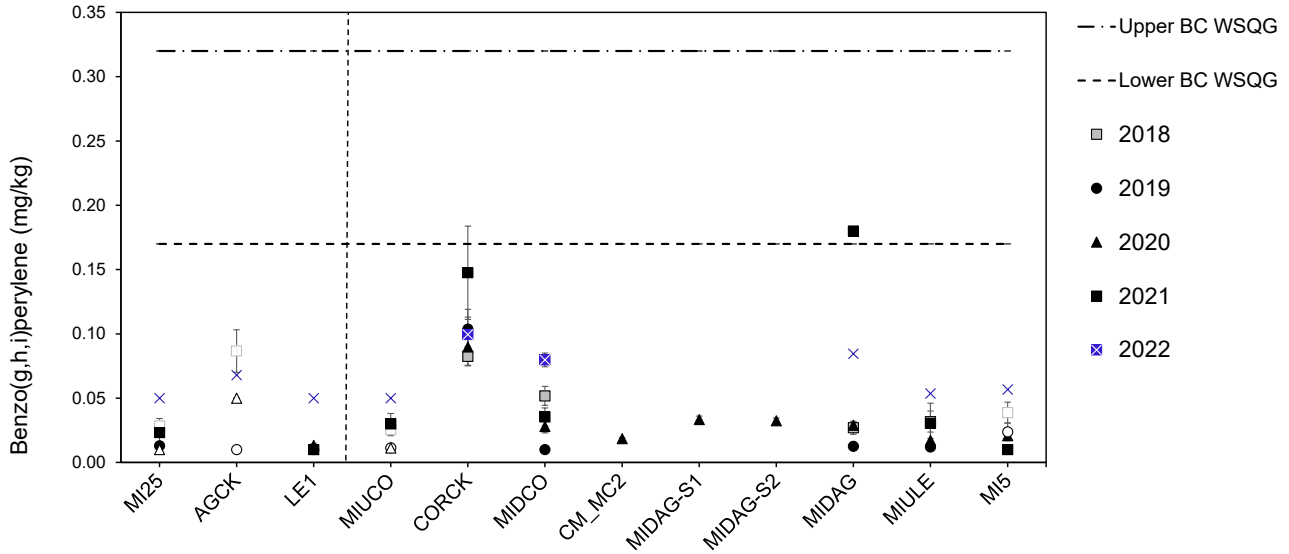
Note: Open symbols represent non-detects.  
 mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-34: Spatial Variation in Sediment Benzo(e)pyrene Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects.  
 mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

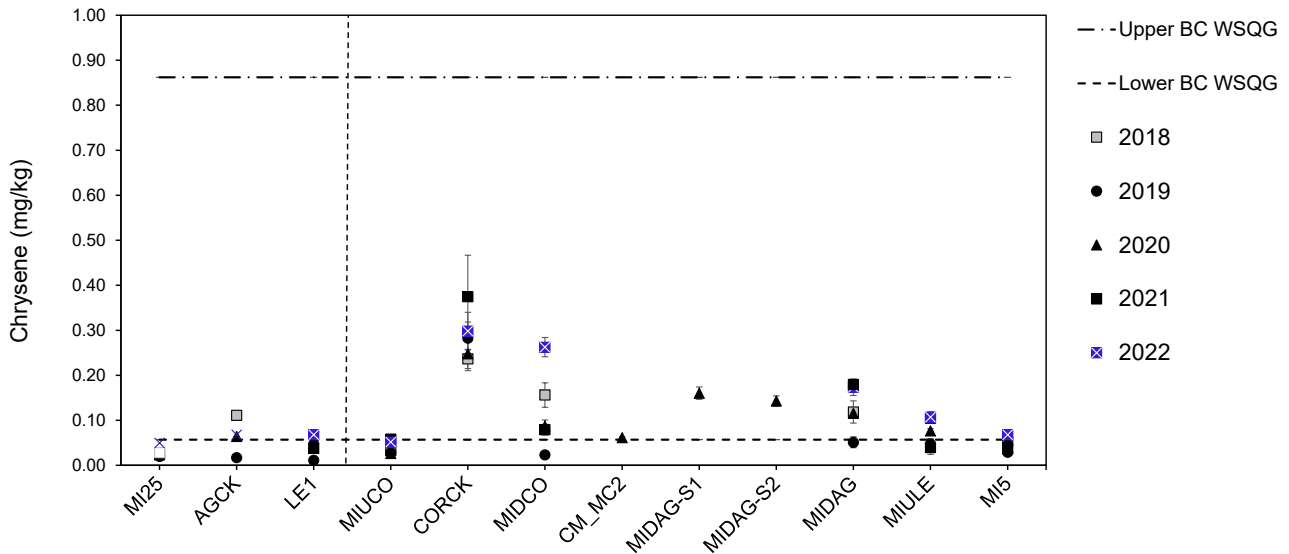
**Figure G2.1-35: Spatial Variation in Sediment Benzo(g,h,i)perylene Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects. Upper BC WSQG (0.32 mg/kg) not shown.

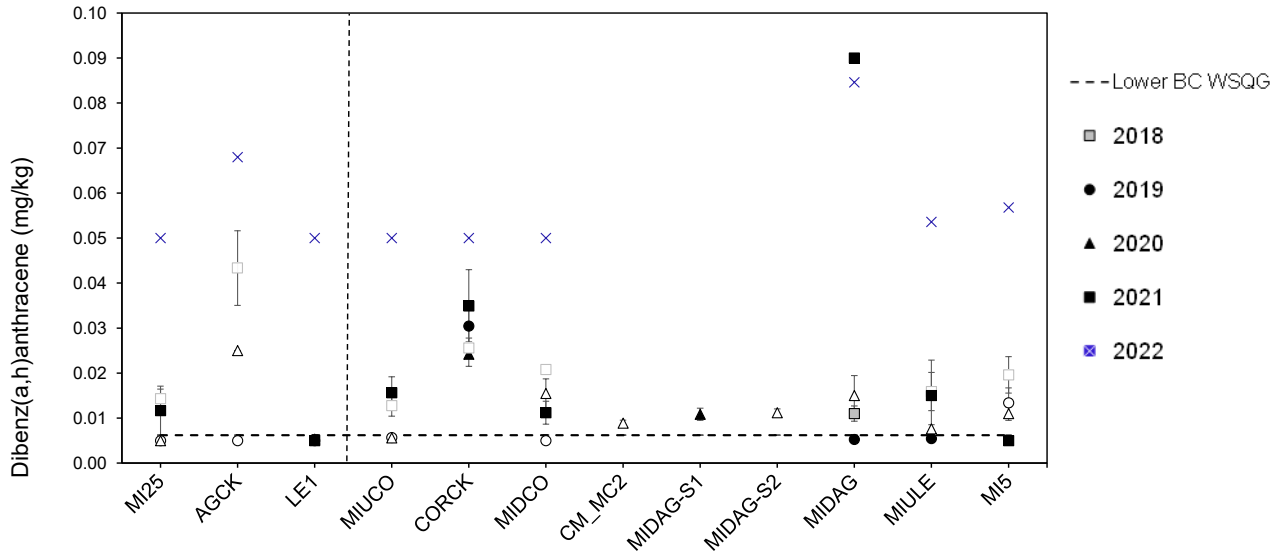
mg/kg = milligrams per kilogram; BC WSQG = British Columbia working sediment quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-36: Spatial Variation in Sediment Chrysene Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



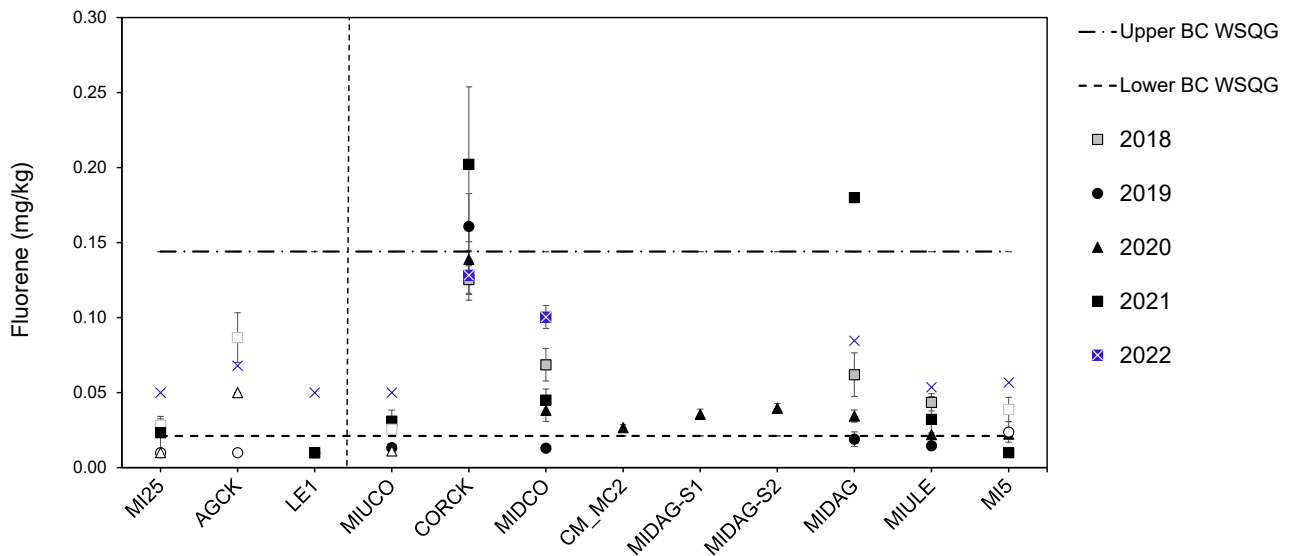
BC WSQG = British Columbia working sediment quality guideline; mg/kg = milligrams per kilogram dry weight; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-37: Spatial Variation in Sediment Dibenzo(a,h)anthracene Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



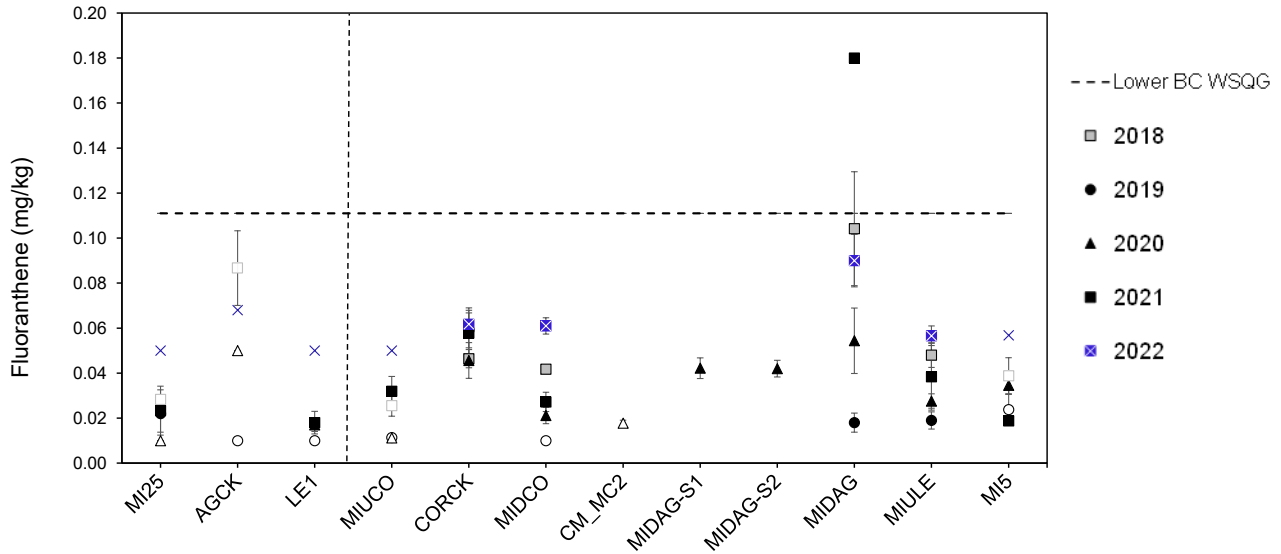
Note: Open symbols represent non-detects. Upper BC WSQG (0.135mg/kg) not shown.  
 mg/kg = milligrams per kilogram; BC WSQG = British Columbia working sediment quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-38: Spatial Variation in Sediment Fluorene Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects.  
 mg/kg = milligrams per kilogram; BC WSQG = British Columbia working sediment quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

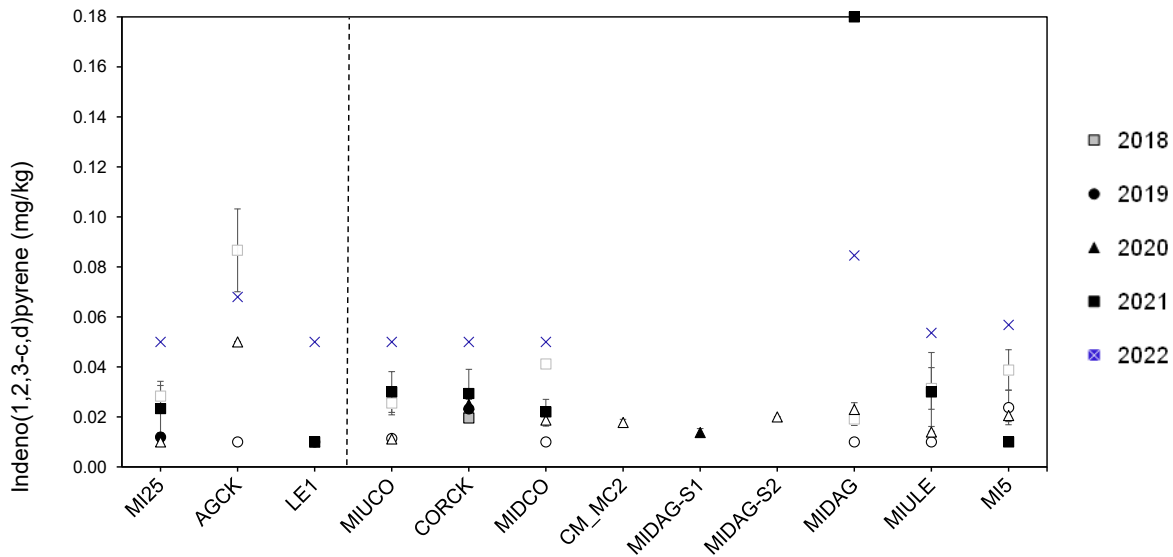
**Figure G2.1-39: Spatial Variation in Sediment Fluoranthene Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects. Upper BC WSQG (2.355 mg/L) not shown.

mg/kg = milligrams per kilogram; BC WSQG = British Columbia working sediment quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

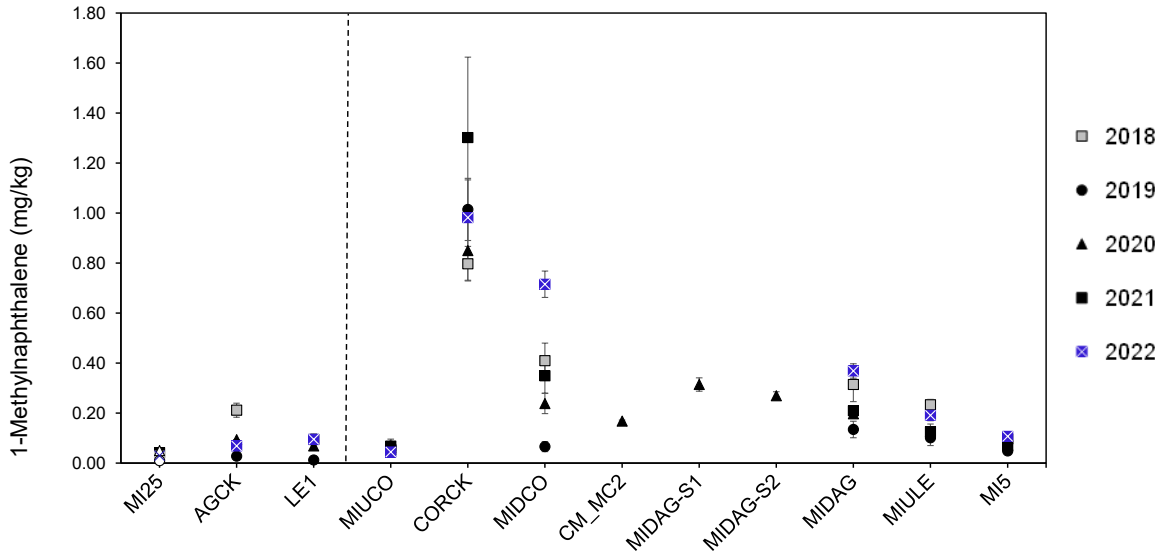
**Figure G2.1-40: Spatial Variation in Sediment Indeno(1,2,3-c,d)pyrene Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects. Lower BC WSQG (0.2 mg/kg) and Upper BC WSQG (3.2 mg/kg) not shown.

mg/kg = milligrams per kilogram; BC WSQG = British Columbia working sediment quality guideline; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

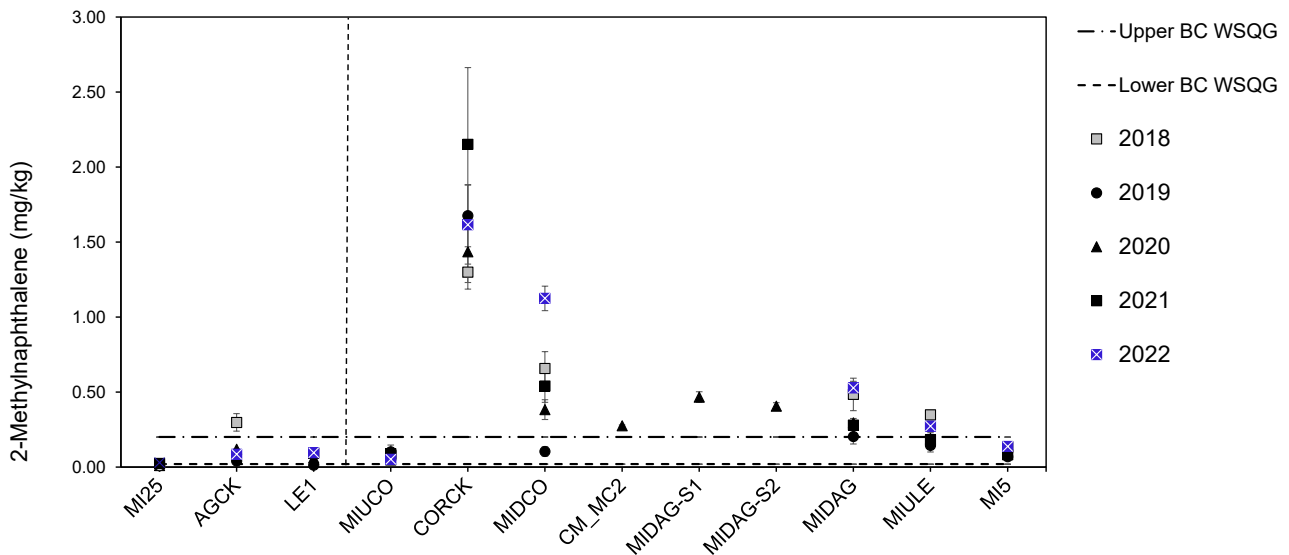
**Figure G2.1-41: Spatial Variation in Sediment 1-Methyl-naphthalene Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Note: Open symbols represent non-detects.

mg/kg = milligrams per kilogram; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

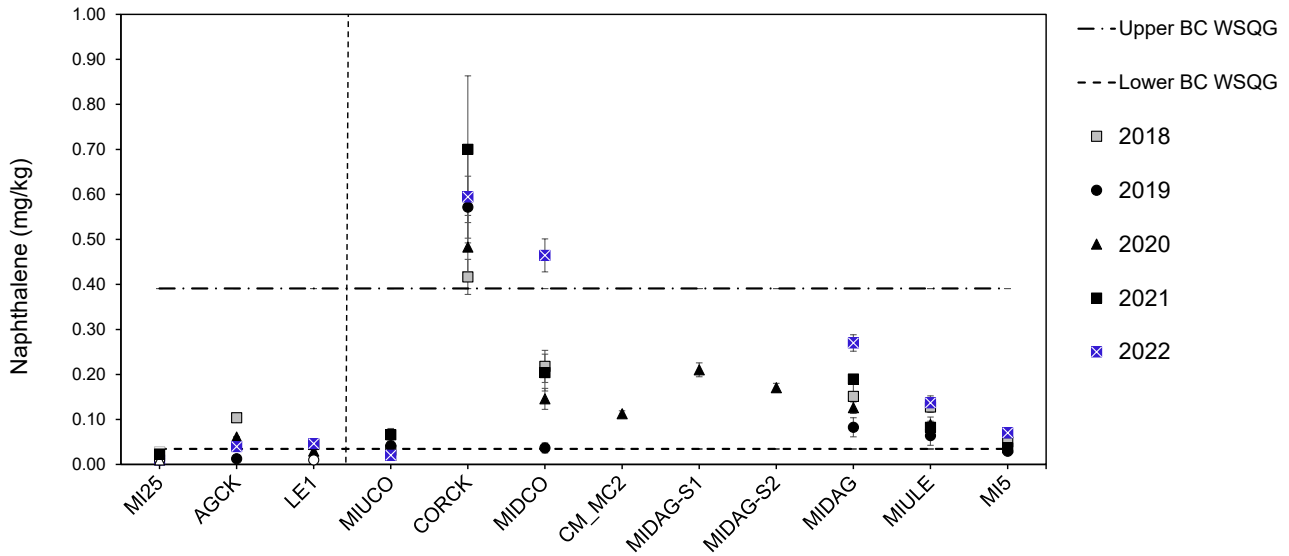
**Figure G2.1-42: Spatial Variation in Sediment 2-Methyl-naphthalene Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Notes: Open symbols represent non-detects.

BC WSQG = British Columbia working sediment quality guideline; mg/kg = milligrams per kilogram dry weight; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

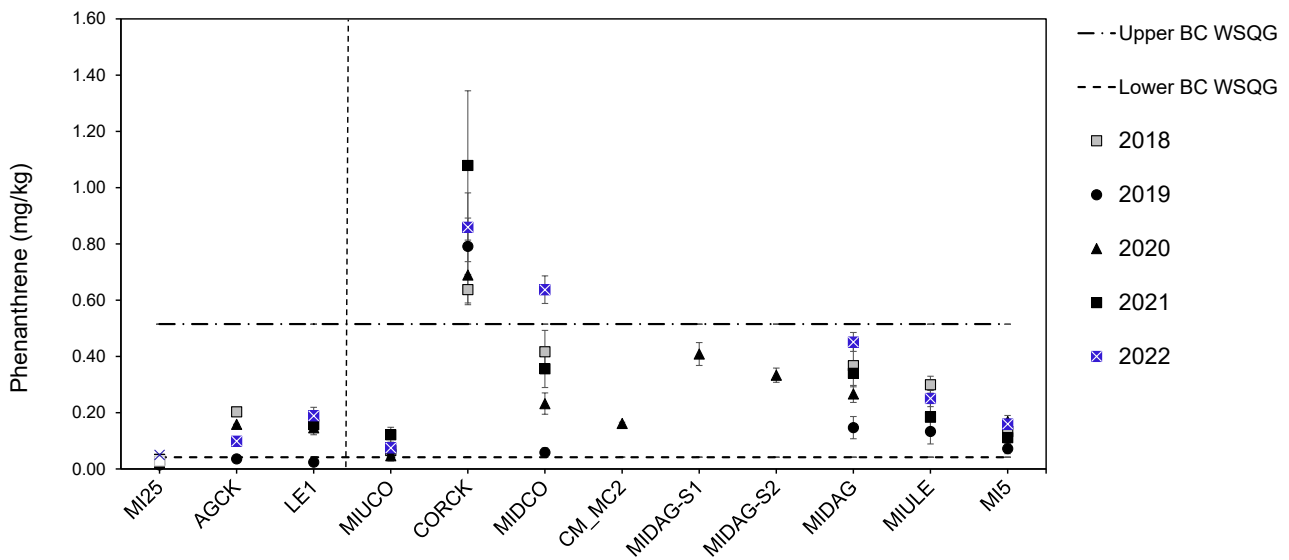
**Figure G2.1-43: Spatial Variation in Sediment Naphthalene Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Notes: Open symbols represent non-detects.

BC WSQG = British Columbia working sediment quality guideline; mg/kg = milligrams per kilogram dry weight; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-44: Spatial Variation in Sediment Phenanthrene Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**

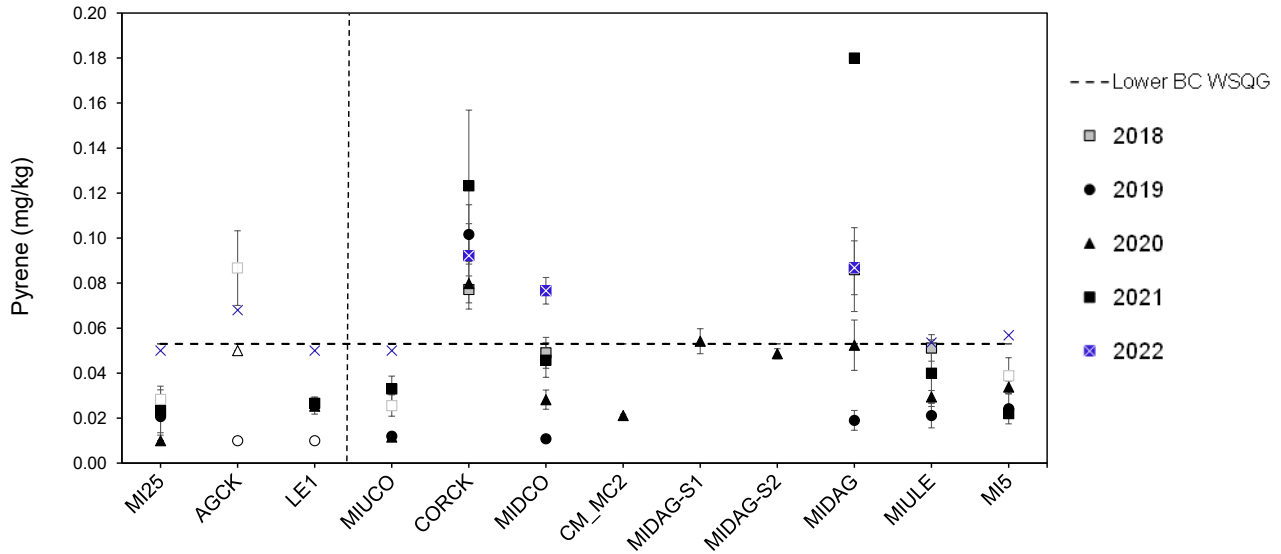


Notes: Open symbols represent non-detects.

BC WSQG = British Columbia working sediment quality guideline; mg/kg = milligrams per kilogram dry weight; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.



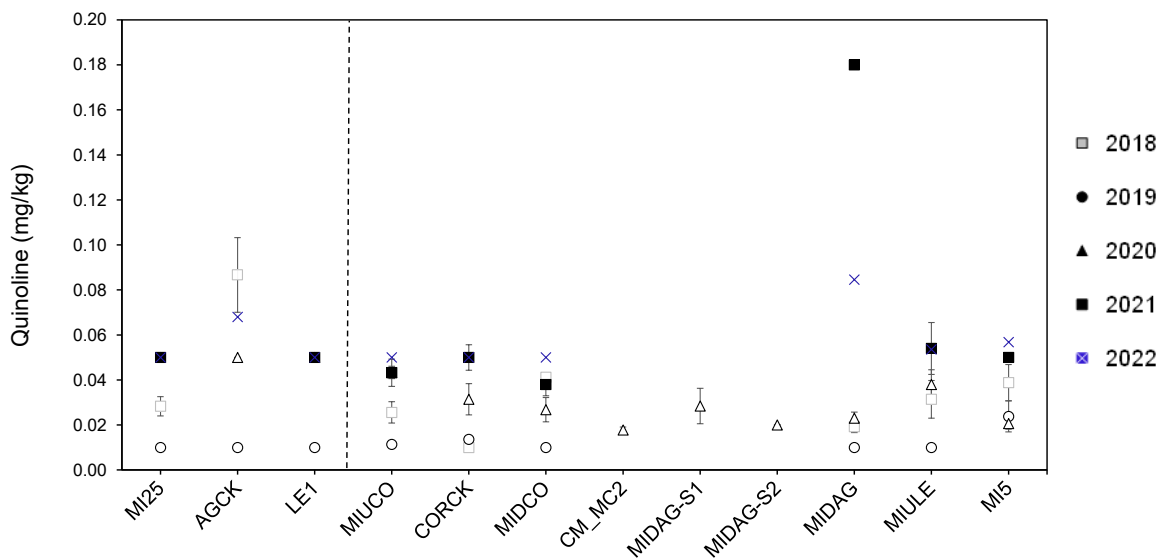
**Figure G2.1-45: Spatial Variation in Sediment Pyrene Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Notes: Open symbols represent non-detects. Upper BC WSQG not shown for pyrene (0.88 mg/kg).

BC WSQG = British Columbia working sediment quality guideline; mg/kg = milligrams per kilogram dry weight; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

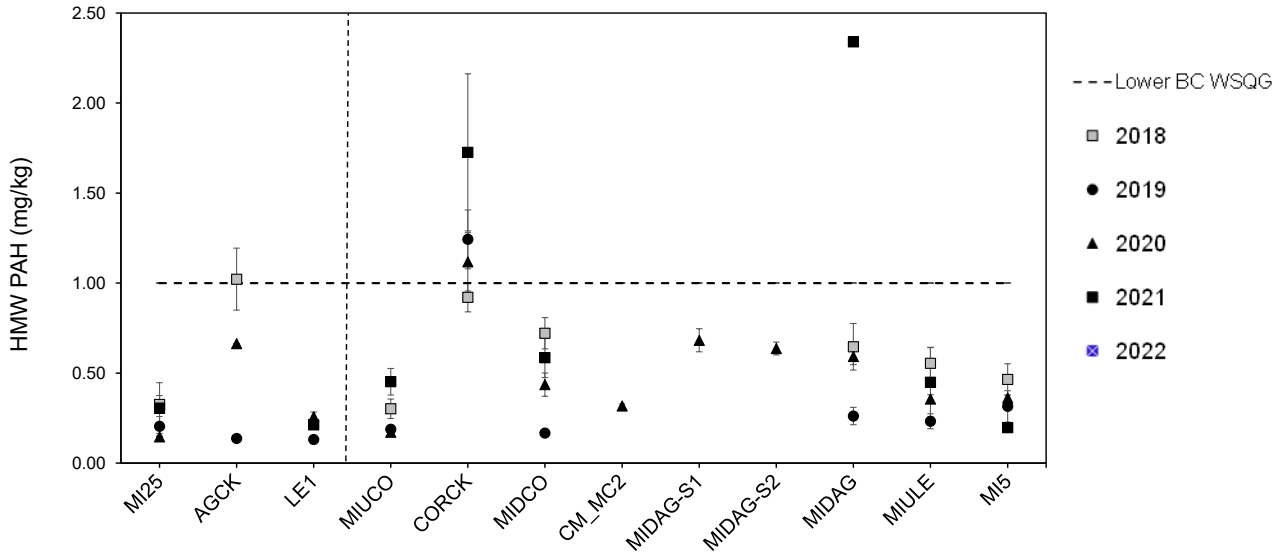
**Figure G2.1-46: Spatial Variation in Sediment Quinoline Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Notes: Open symbols represent non-detects.

mg/kg = milligrams per kilogram dry weight; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

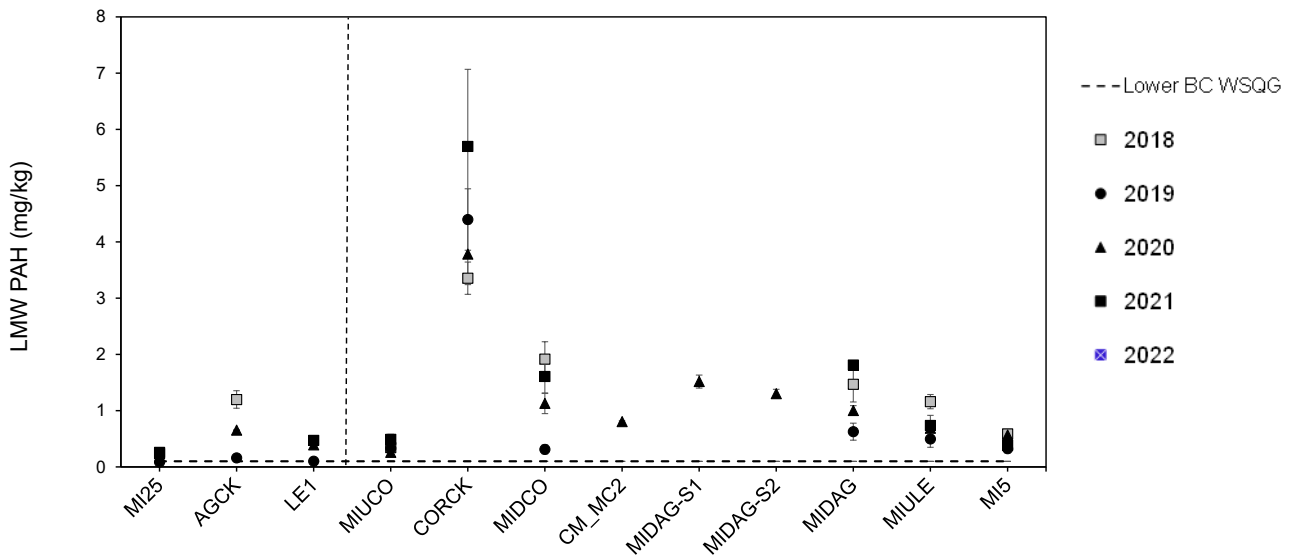
**Figure G2.1-47: Spatial Variation in Sediment Quinoline Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Notes: No upper BC WSQG for freshwater aquatic life.

PAH = polycyclic aromatic hydrocarbon; HMW = high molecular weight; BC WSQG = British Columbia working sediment quality guideline; mg/kg = milligrams per kilogram dry weight; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

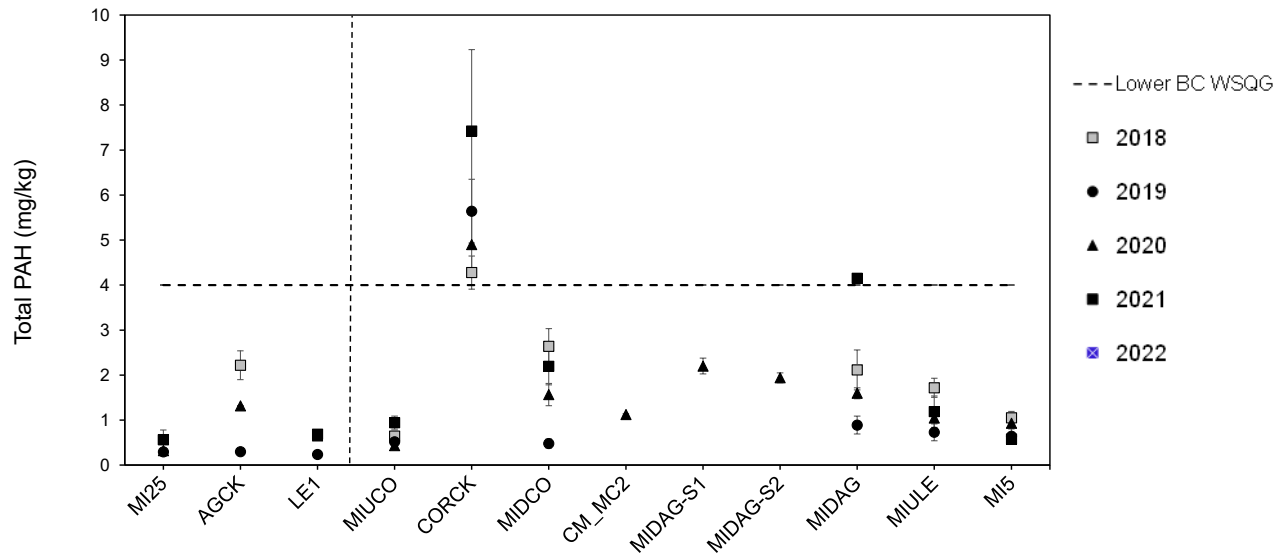
**Figure G2.1-48: Spatial Variation in Sediment Quinoline Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**



Notes: No upper BC WSQG for freshwater aquatic life.

PAH = polycyclic aromatic hydrocarbon; LMW = low molecular weight; BC WSQG = British Columbia working sediment quality guideline; mg/kg = milligrams per kilogram dry weight; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G2.1-49: Spatial Variation in Sediment Quinoline Concentrations in Samples Collected from the CMm LAEMP, 2012 to 2022**

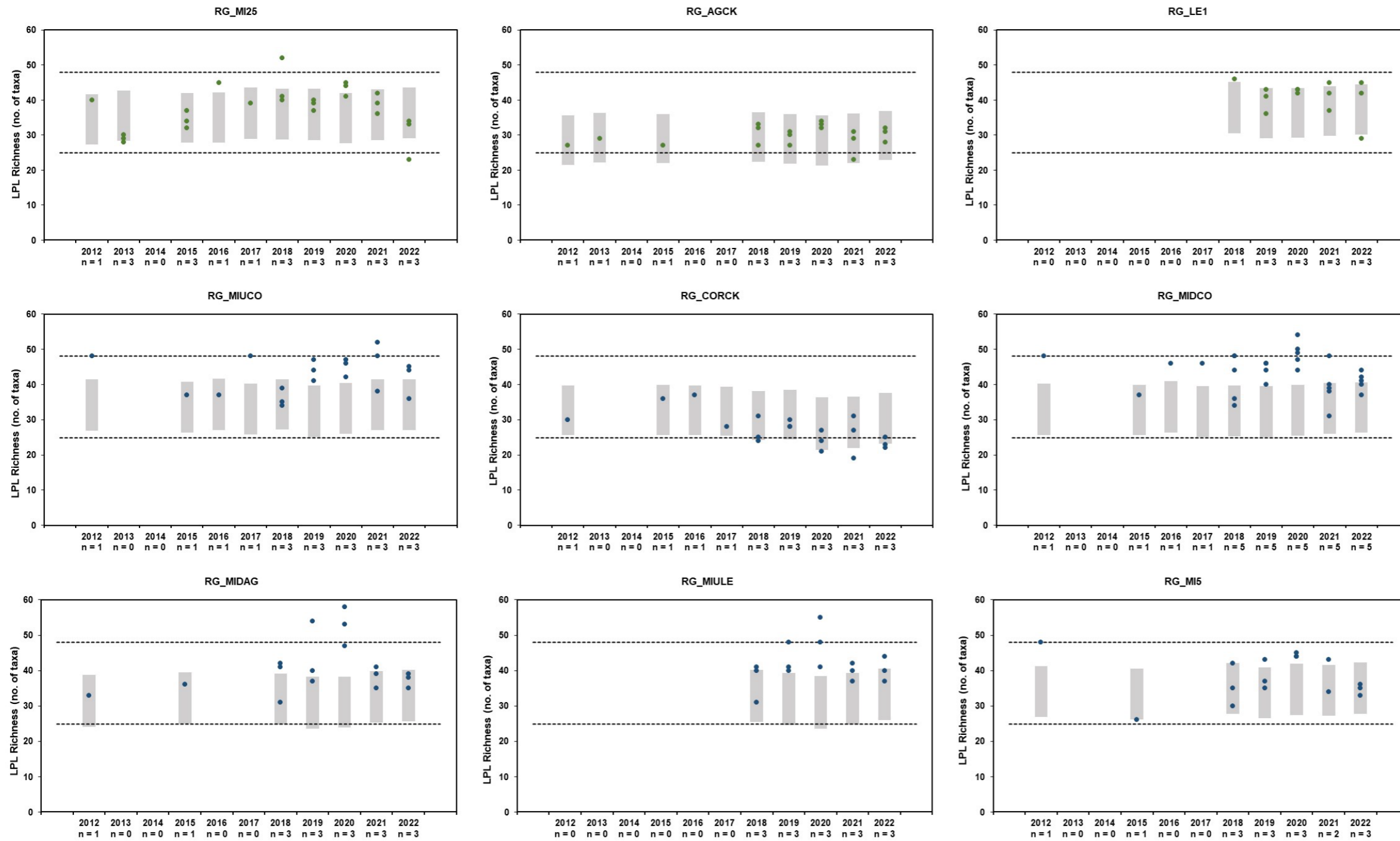


Notes: Upper BC WSQG not shown for total PAH (35 mg/kg).

PAH = polycyclic aromatic hydrocarbon; BC WSQG = British Columbia working sediment quality guideline; mg/kg = milligrams per kilogram dry weight; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

### G3.0 BENTHIC INVERTEBRATE COMMUNITY

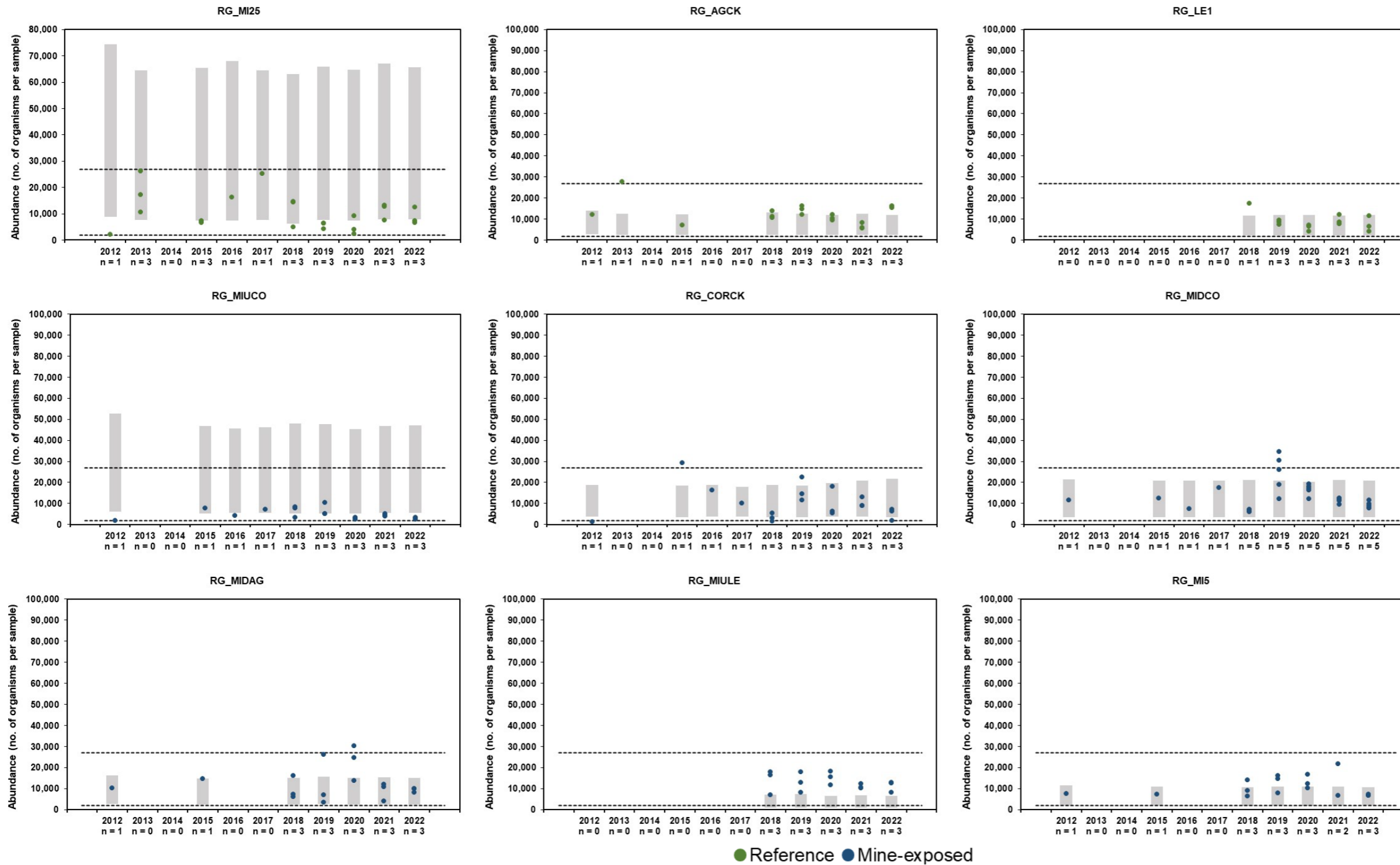
Figure G3.1-1: Benthic Invertebrate Taxonomic Richness (Lowest Possible Level) in Samples Collected from the CMm LAEMP, 2012 to 2022



● Reference ● Mine-exposed

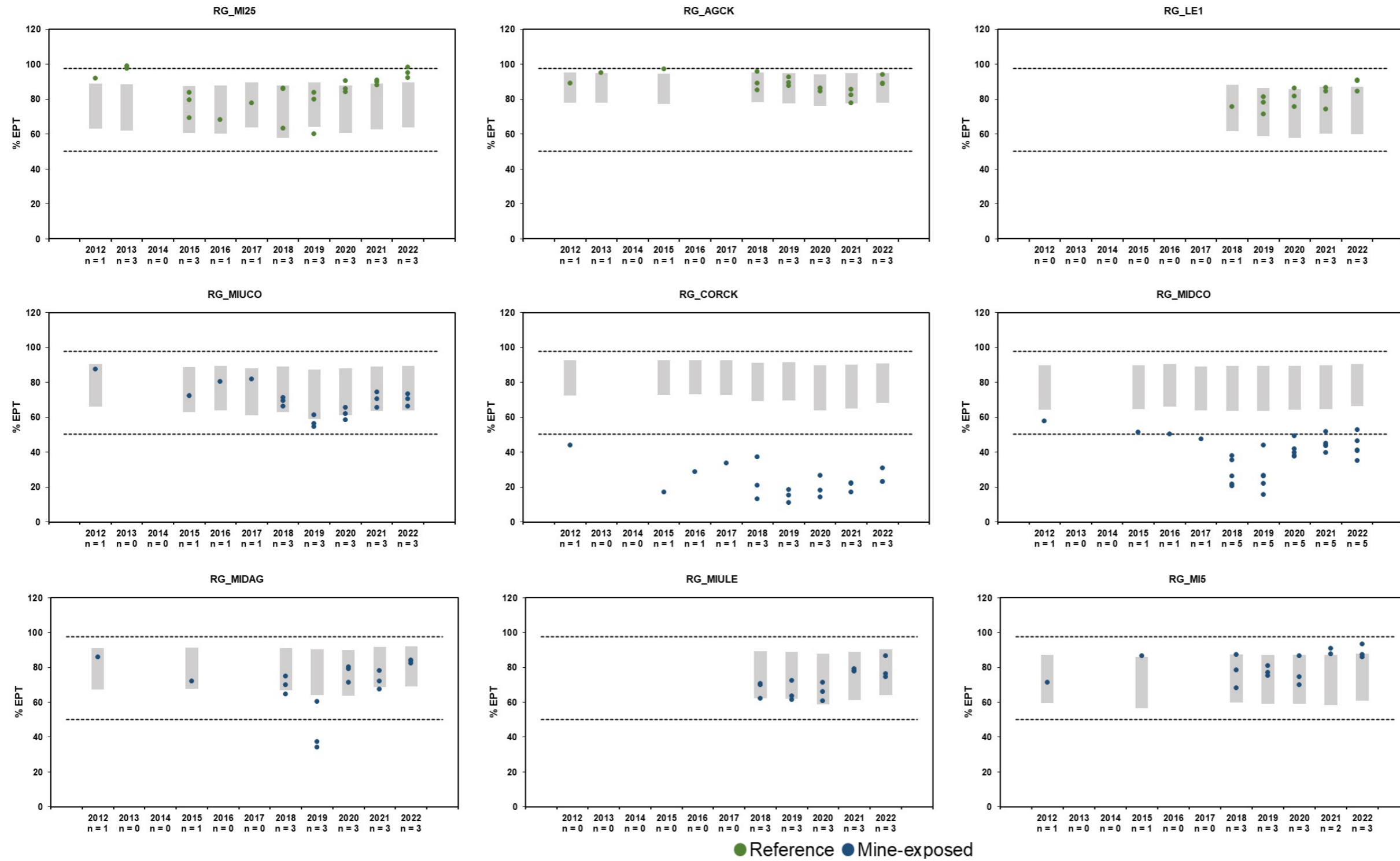
Note: Grey shading represents the site-specific normal ranges and the dotted line represents the regional normal range defined as the 2.5th and 97.5th percentiles of the 2012 to 2019 reference area data from the RAEMP (Minnow 2020). LPL = lowest possible level (i.e., species or genus); n = sample size; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

Figure G3.1-2: Benthic Invertebrate Abundance in Samples Collected from the CMm LAEMP, 2012 to 2022



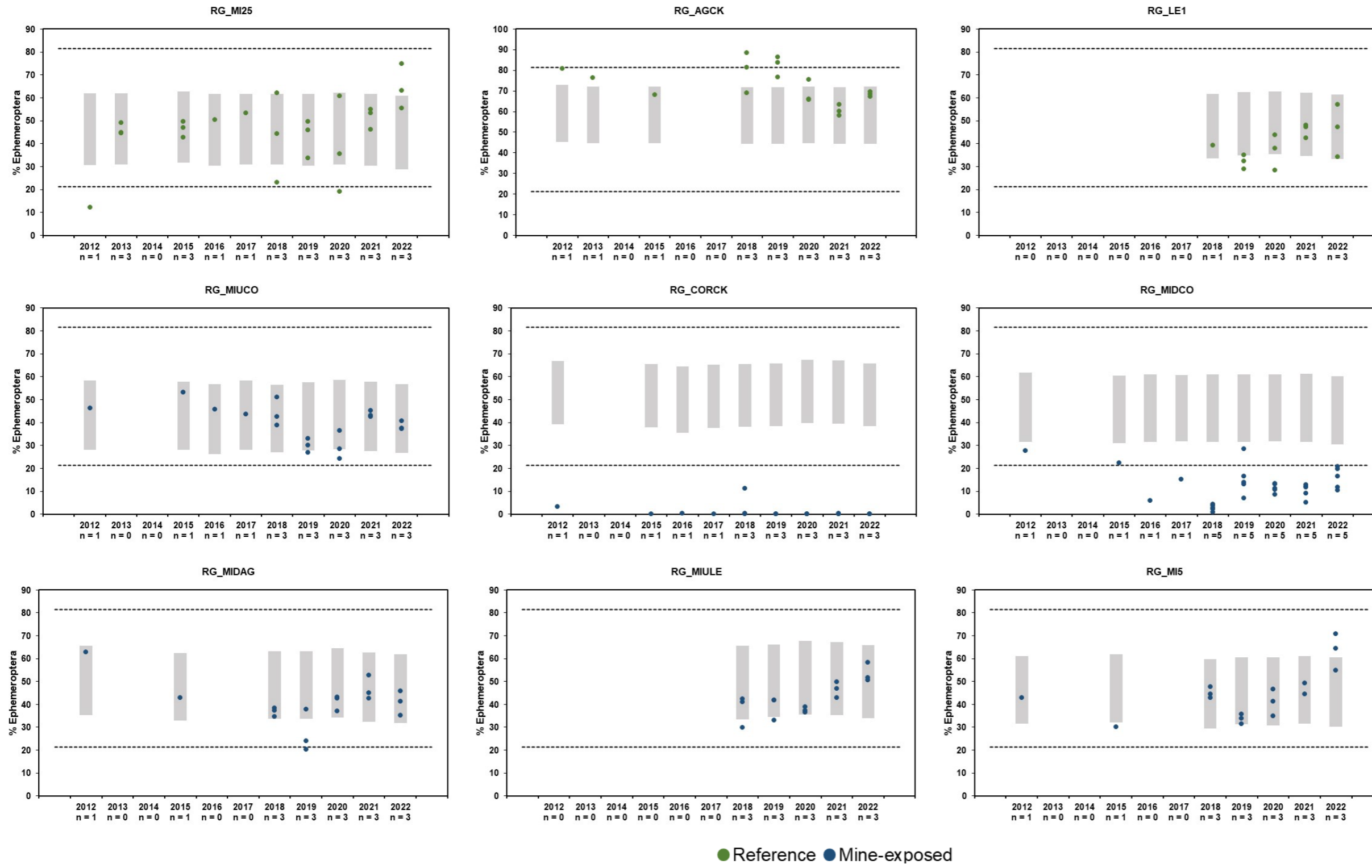
Note: Grey shading represents the site-specific normal ranges and the dotted line represents the regional normal range defined as the 2.5th and 97.5th percentiles of the 2012 to 2019 reference area data from the RAEMP (Minnow 2020).  
n = sample size; no. = number; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

Figure G3.1-3: Percent Ephemeroptera, Plecoptera, Trichoptera in Samples Collected from the CMm LAEMP, 2012 to 2022



Note: Grey shading represents the site-specific normal ranges and the dotted line represents the regional normal range defined as the 2.5th and 97.5th percentiles of the 2012 to 2019 reference area data from the RAEMP (Minnow 2020). % = percent; EPT = Ephemeroptera, Plecoptera, Trichoptera; n = sample size; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

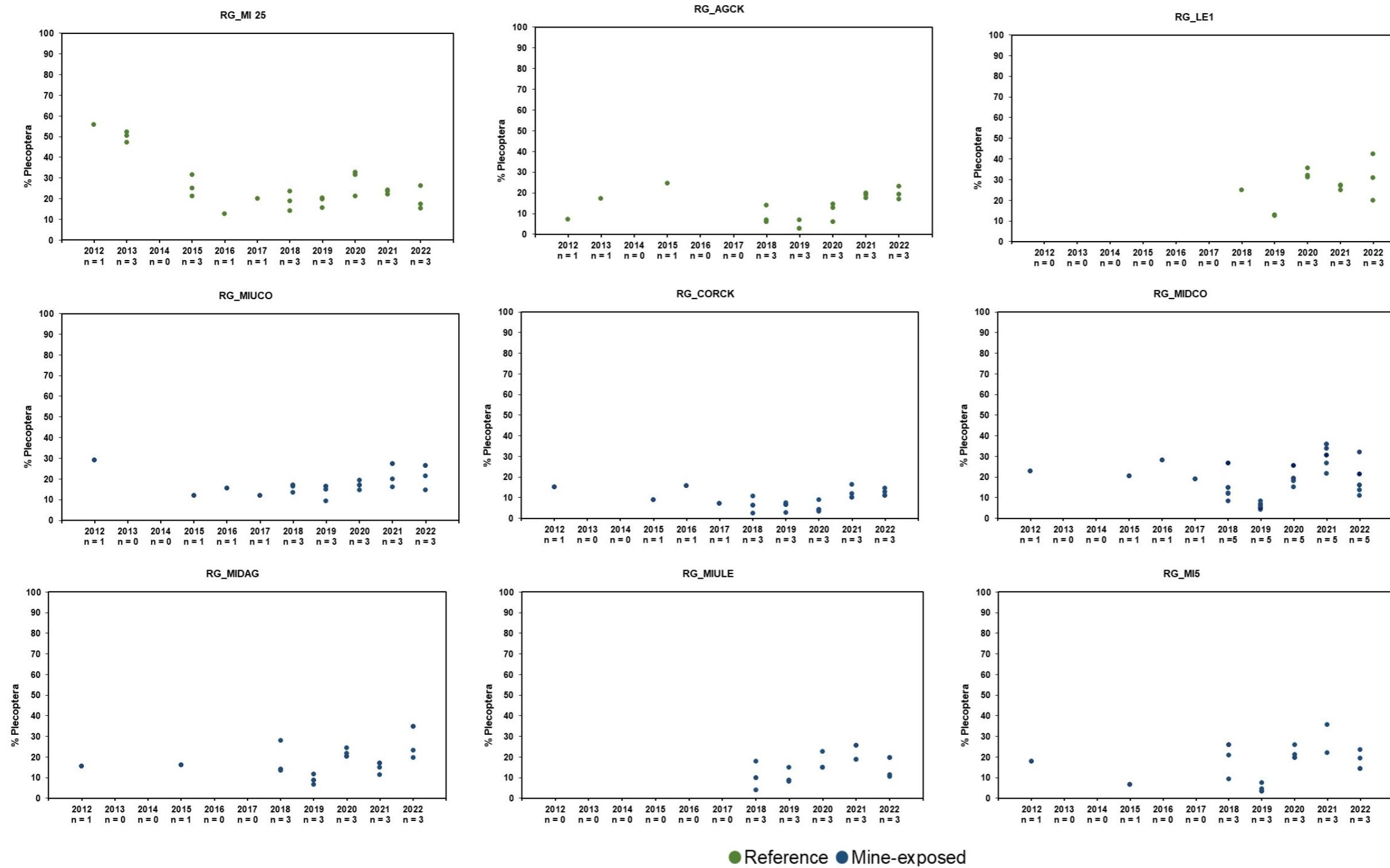
Figure G3.1-4: Percent Ephemeroptera in Samples Collected from the CMm LAEMP, 2012 to 2022



Note: Grey shading represents the site-specific normal ranges and the dotted line represents the regional normal range defined as the 2.5th and 97.5th percentiles of the 2012 to 2019 reference area data from the RAEMP (Minnow 2020). % = percent; n = sample size; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.



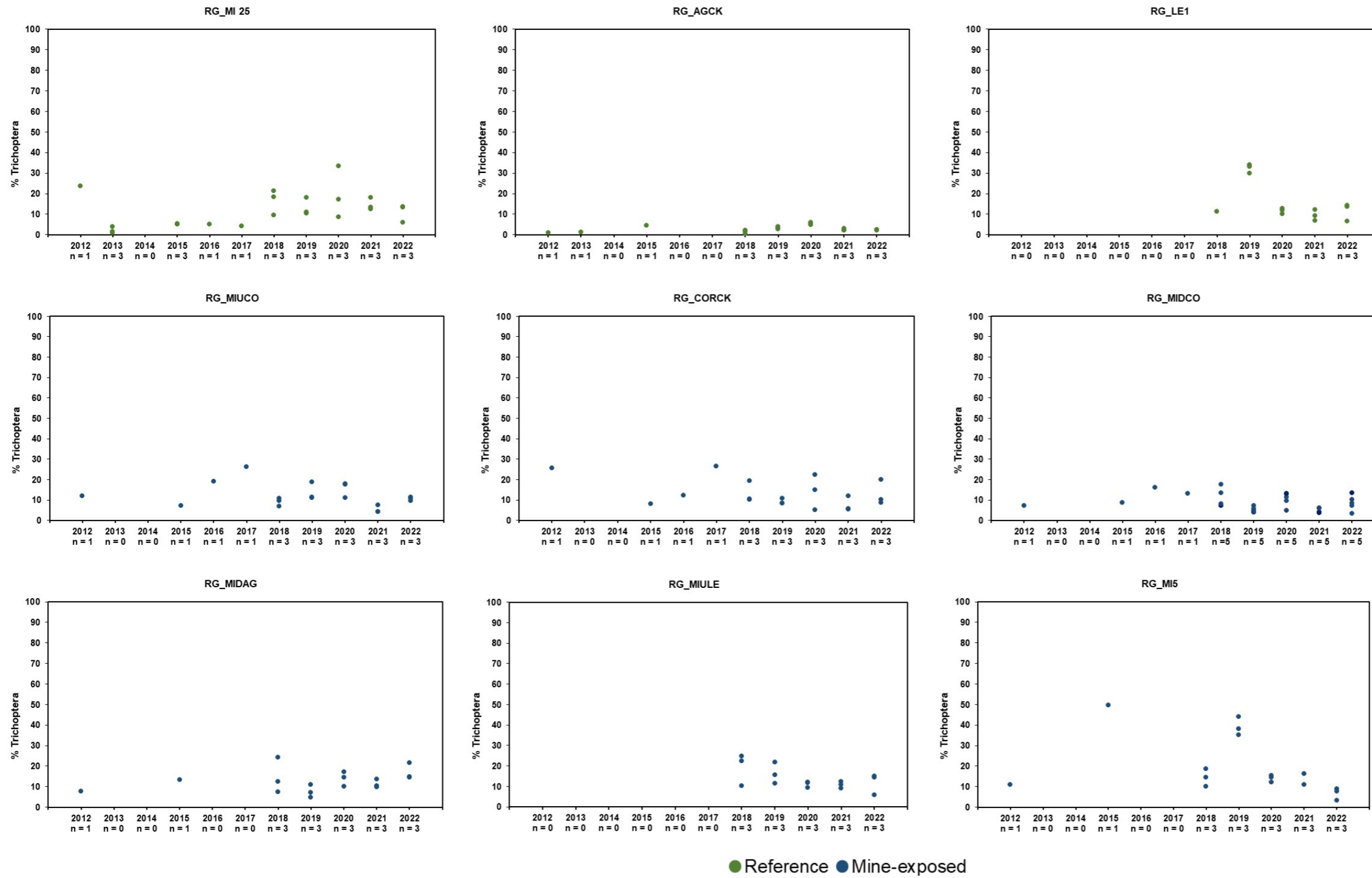
Figure G3.1-5: Percent Plecoptera in Samples Collected from the CMm LAEMP, 2012 to 2022



% = percent; n = sample size; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

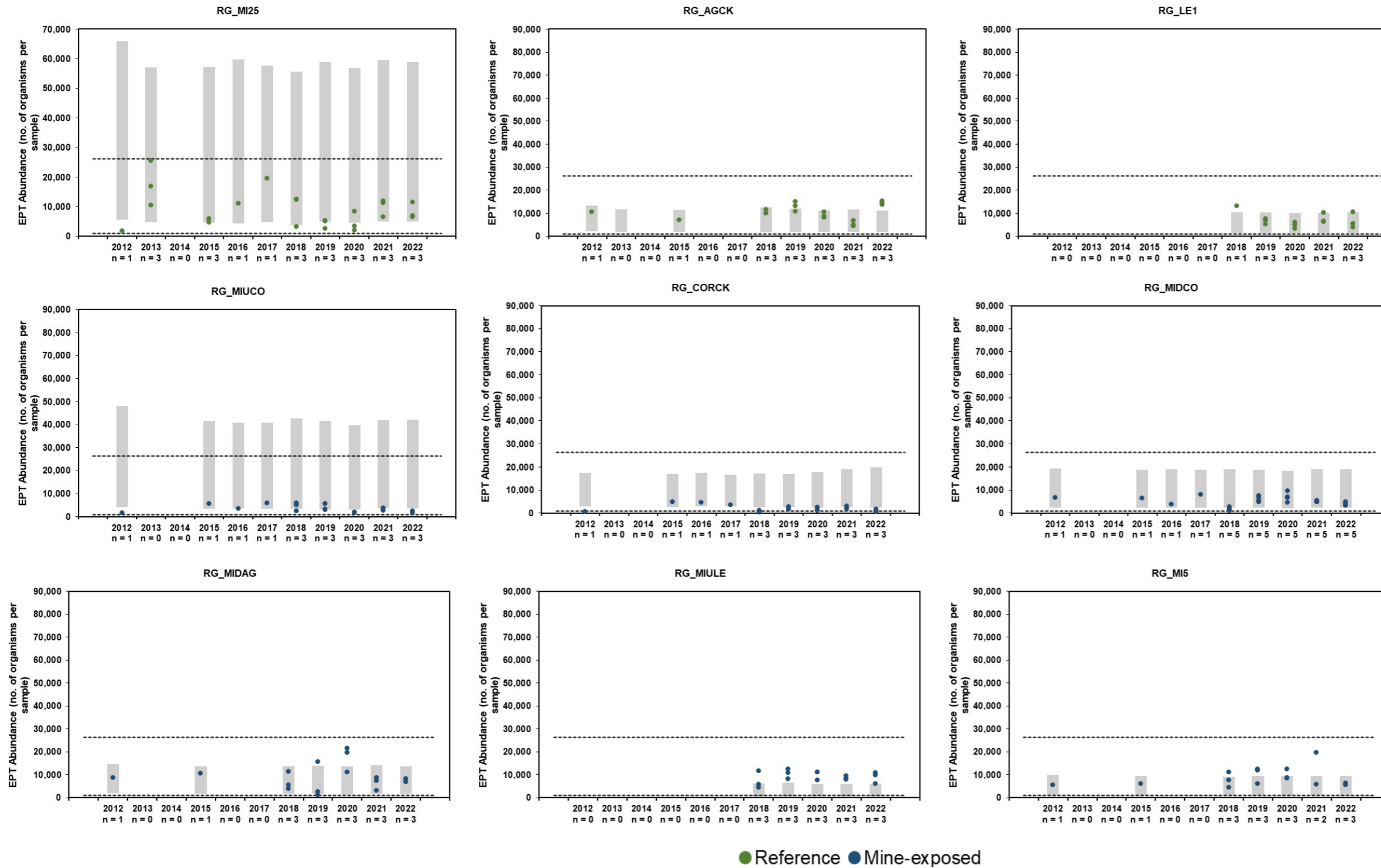


Figure G3.1-6: Percent Trichoptera in Samples Collected from the CMm LAEMP, 2012 to 2022



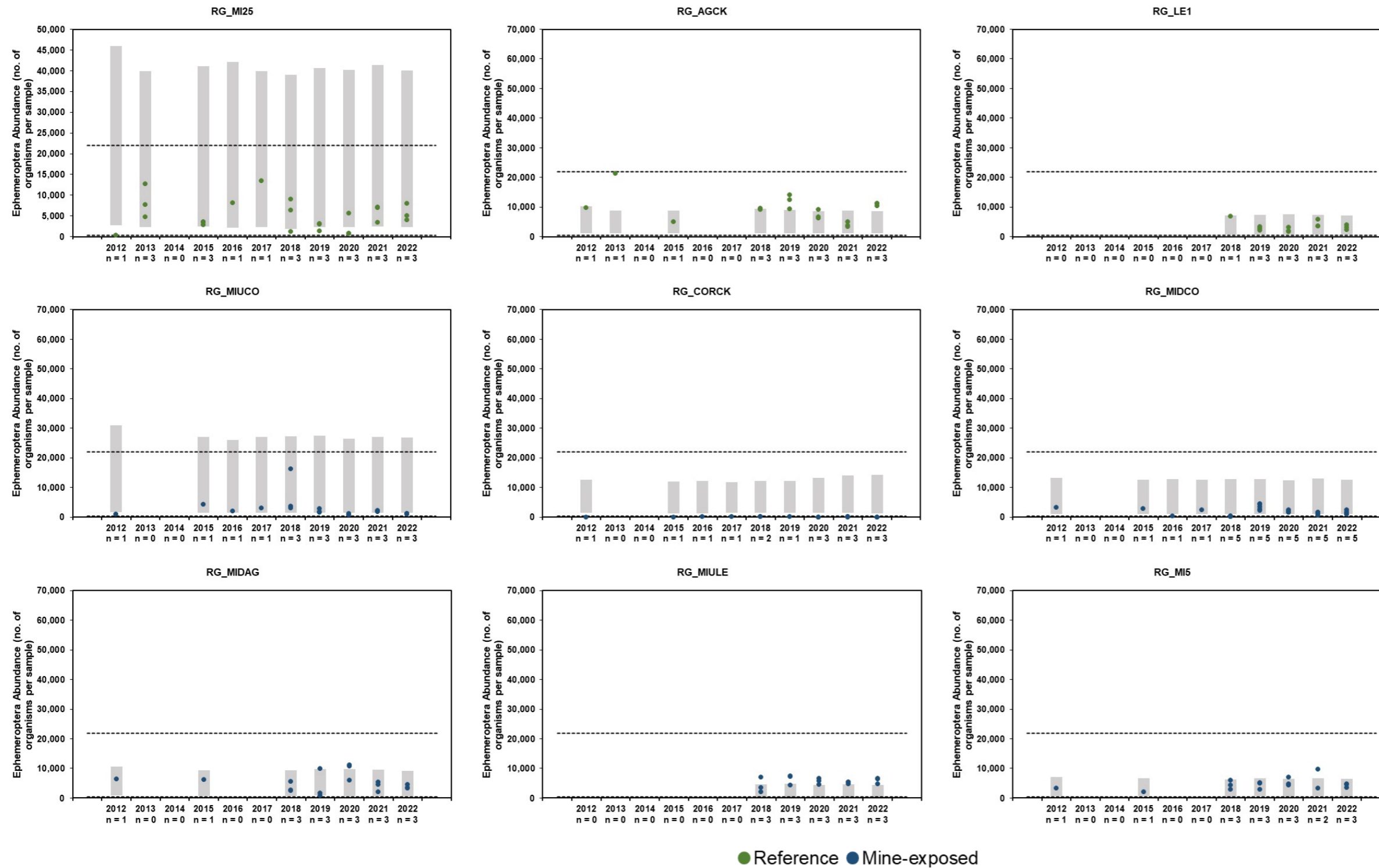
% = percent; n = sample size; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

Figure G3.1-7: Ephemeroptera, Plecoptera, Trichoptera Abundance in Samples Collected from the CMm LAEMP, 2012 to 2022



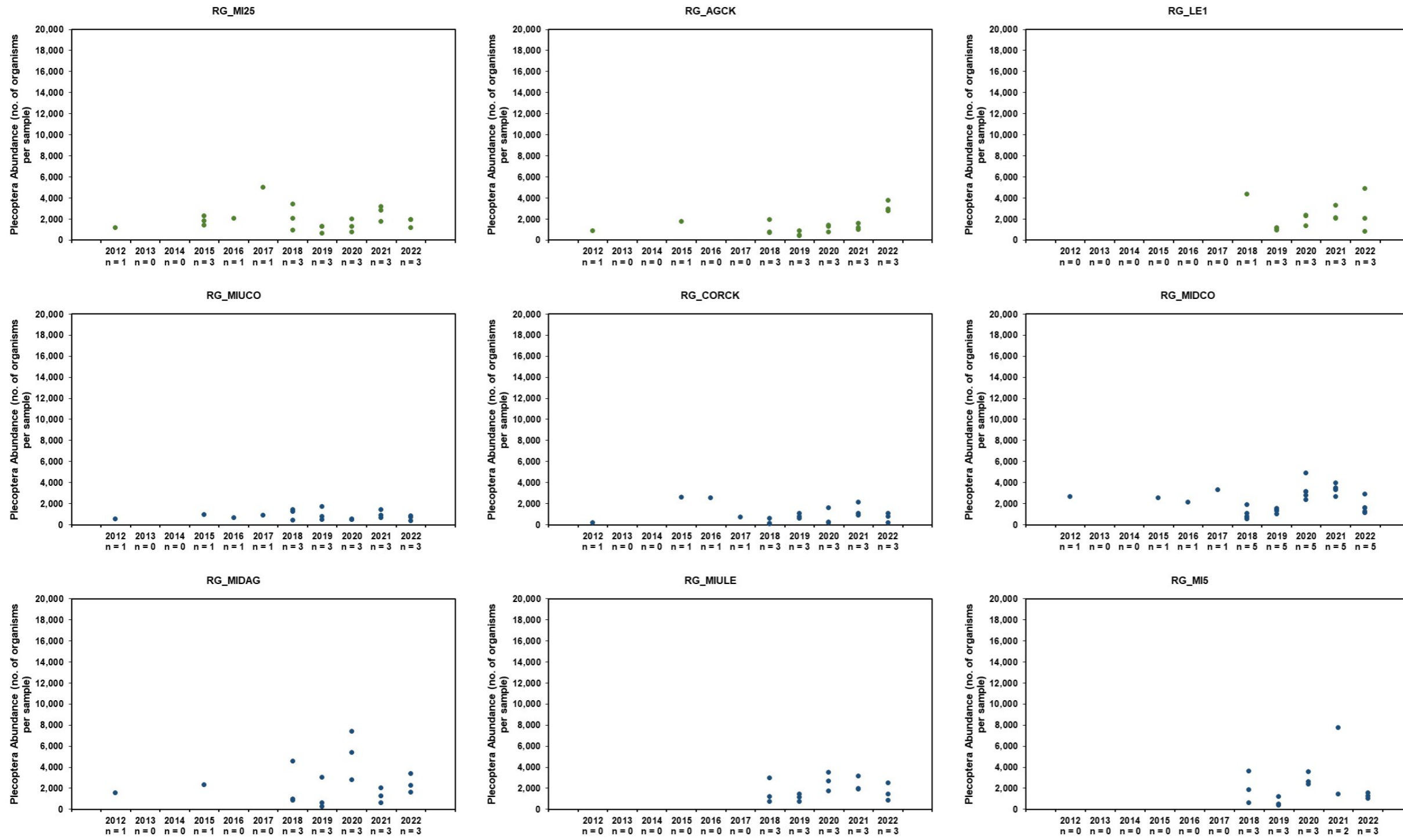
Note: Grey shading represents the site-specific normal ranges and the dotted line represents the regional normal range defined as the 2.5th and 97.5th percentiles of the 2012 to 2019 reference area data from the RAEMP (Minnow 2020). EPT = Ephemeroptera, Plecoptera, Trichoptera; no. = number; n = sample size; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

Figure G3.1-8: Ephemeroptera Abundance in Samples Collected from the CMm LAEMP, 2012 to 2022



Note: Grey shading represents the site-specific normal ranges and the dotted line represents the regional normal range defined as the 2.5th and 97.5th percentiles of the 2012 to 2019 reference area data from the RAEMP (Minnow 2020).  
no. = number; n = sample size; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

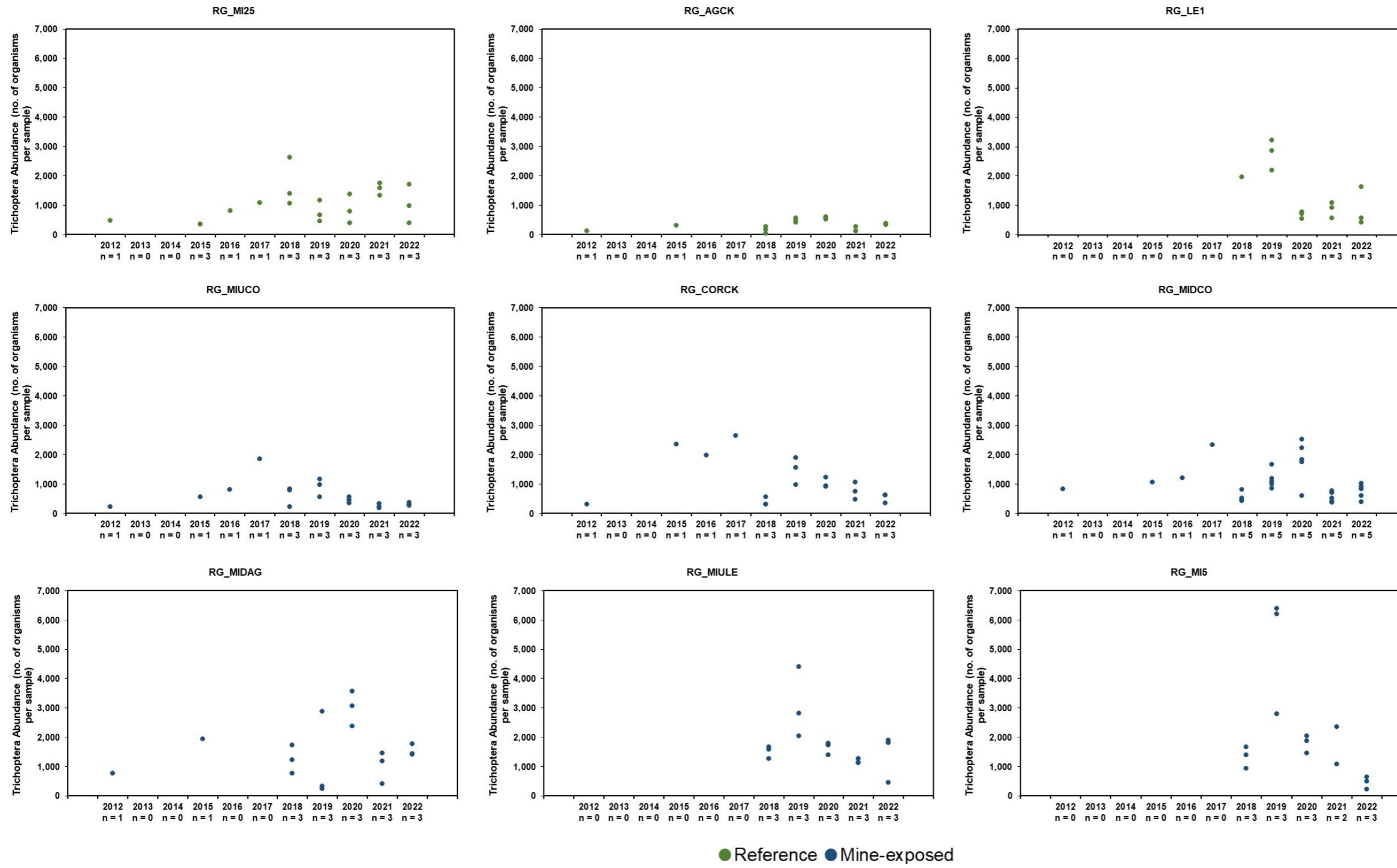
Figure G3.1-9: Plecoptera Abundance in Samples Collected from the CMm LAEMP, 2012 to 2022



● Reference ● Mine-exposed

no. = number; n = sample size; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

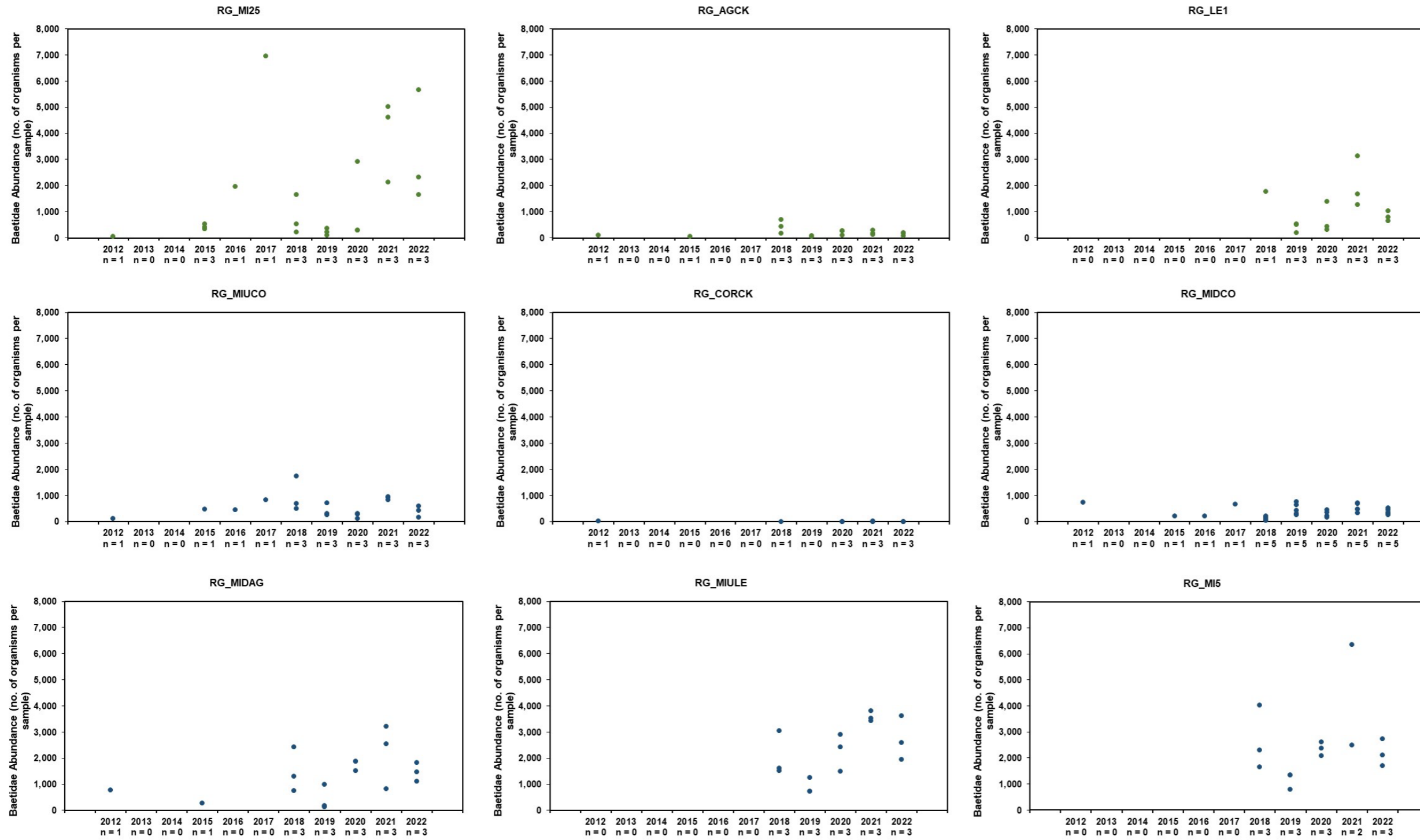
Figure G3.1-10: Trichoptera Abundance in Samples Collected from the CMm LAEMP, 2012 to 2022



no. = number; n = sample size; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.



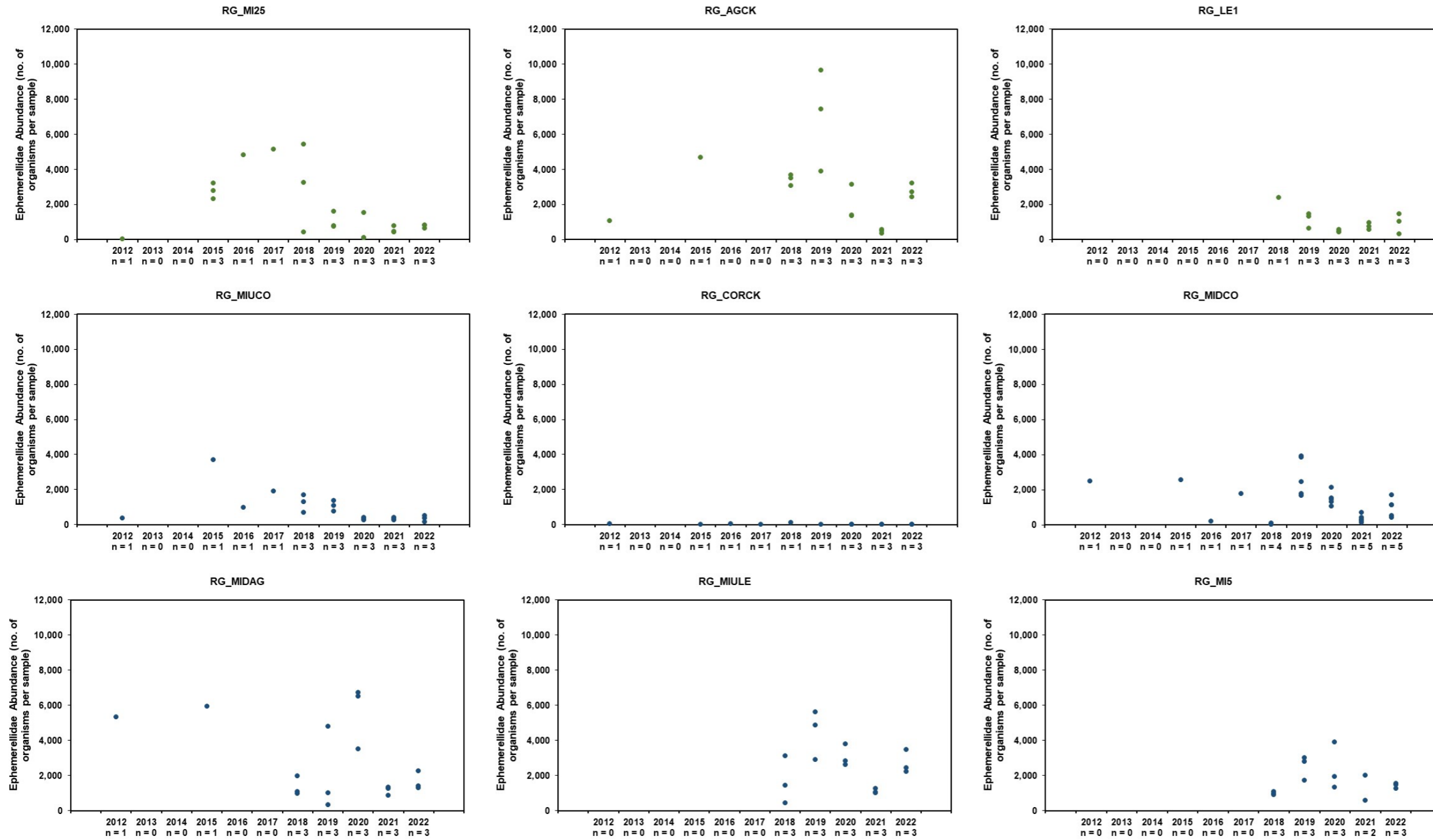
Figure G3.1-11: Baetidae Abundance in Samples Collected from the CMm LAEMP, 2012 to 2022



● Reference ● Mine-exposed

no. = number; n = sample size; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

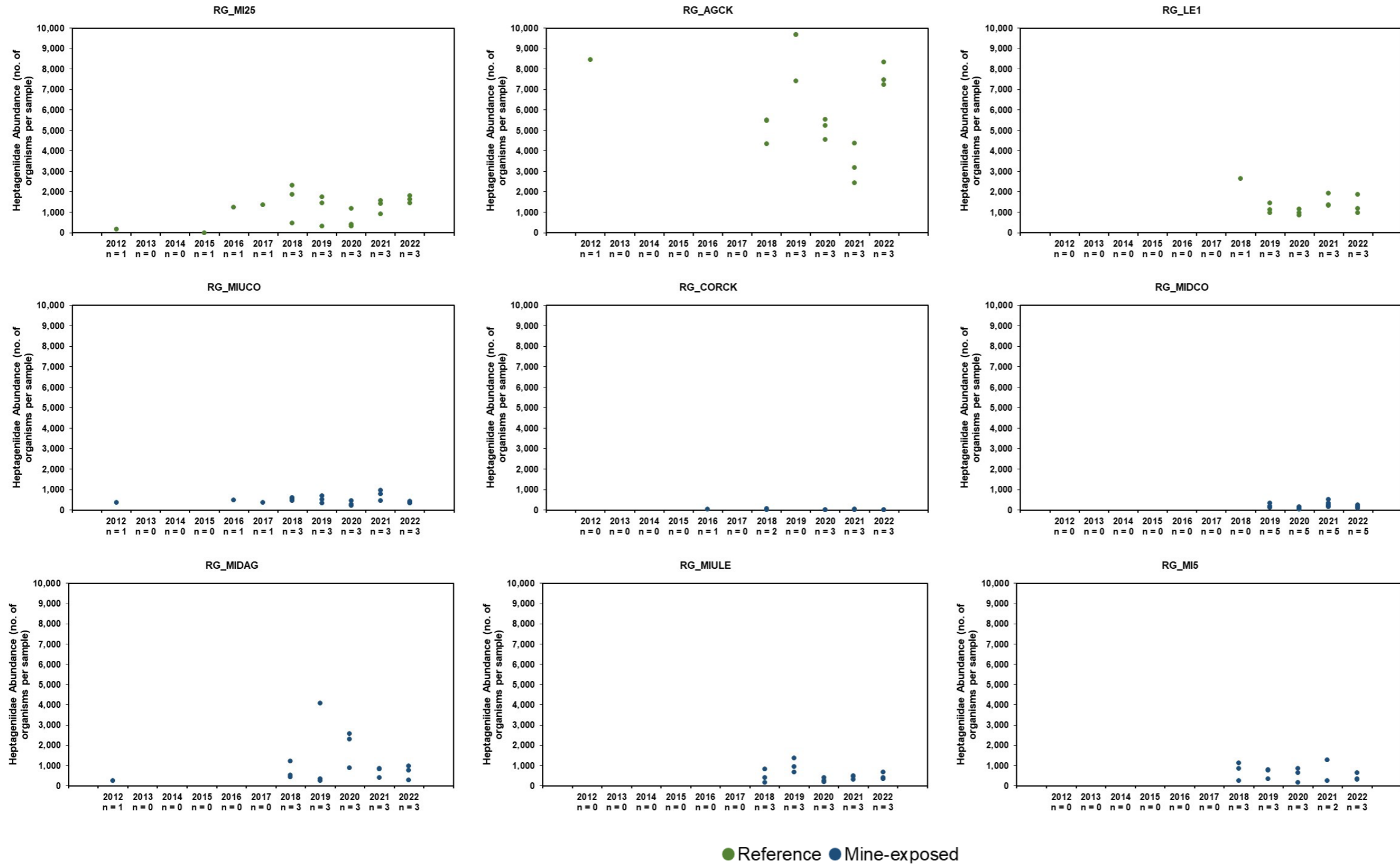
Figure G3.1-12: Ephemerellidae Abundance in Samples Collected from the CMm LAEMP, 2012 to 2022



● Reference ● Mine-exposed

no. = number; n = sample size; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

Figure G3.1-13: Heptageniidae Abundance in Samples Collected from the CMm LAEMP, 2012 to 2022

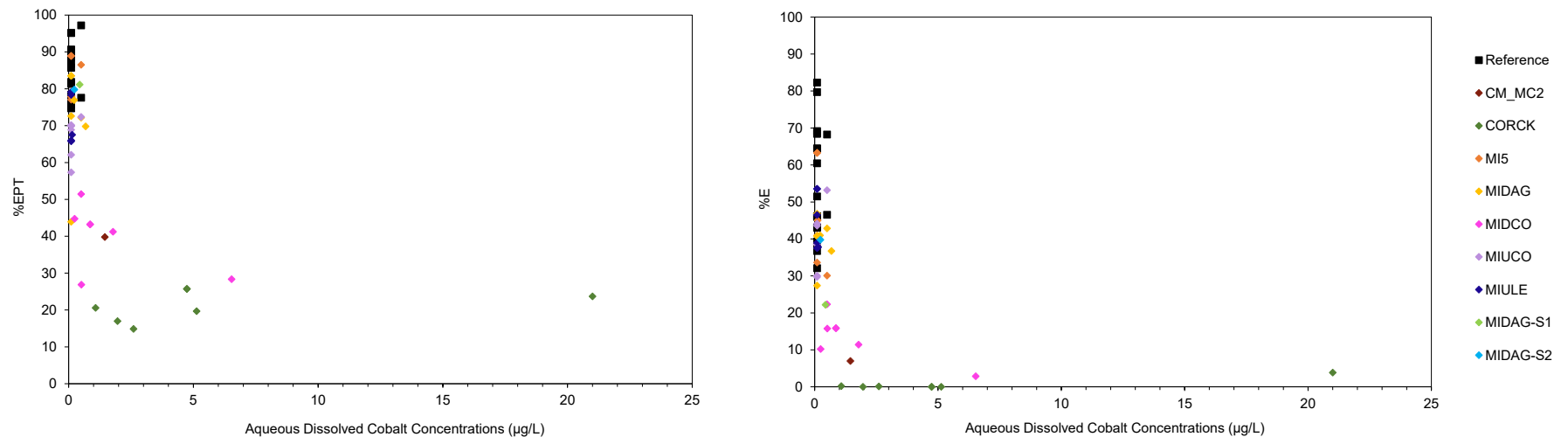


no. = number; n = sample size; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.



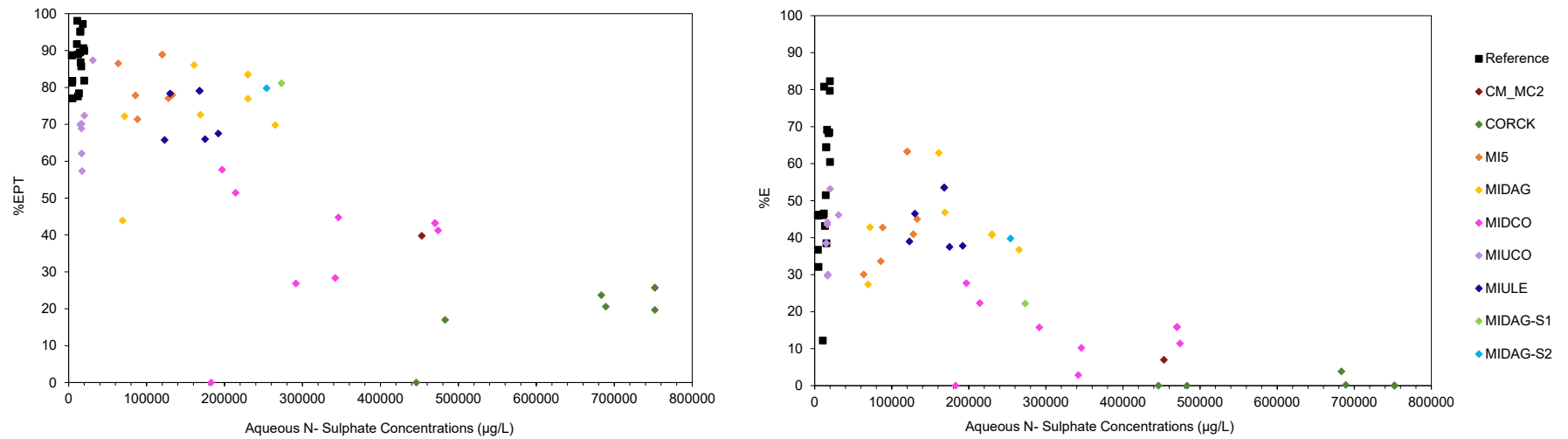
### G3.1 Correlations of Benthic Invertebrate Community Endpoints with Water Quality

Figure G3.2-1: Proportion of Ephemeroptera, Plecoptera, and Trichoptera versus Aqueous Cobalt (left panel) and Proportion of Ephemeroptera versus Aqueous Cobalt (right panel) Concentrations from the CMm LAEMP Study Area, 2012 to 2022



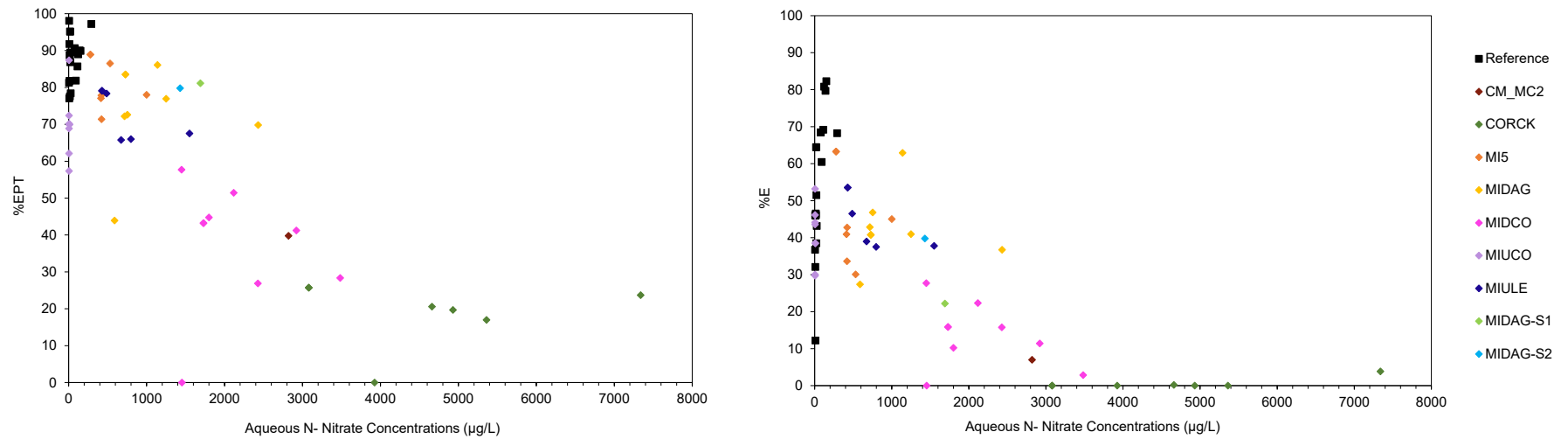
% = percent; µg/L= micrograms per litre; EPT = Ephemeroptera, Plecopteran, and Trichopteran; E = Ephemeroptera; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G3.2-2: Proportion of Ephemeroptera, Plecoptera, and Trichoptera versus Aqueous Sulphate (left panel) and Proportion of Ephemeroptera versus Aqueous Sulphate (right panel) Concentrations from the CMm LAEMP Study Area, 2012 to 2022**



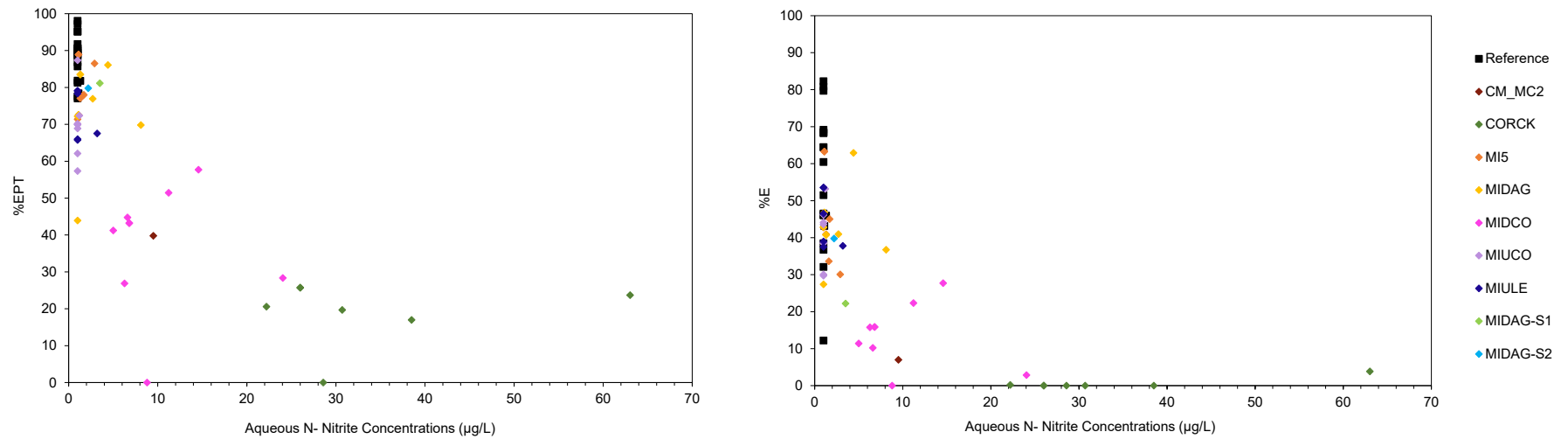
% = percent; µg/L= micrograms per litre; EPT = Ephemeroptera, Plecopteran, and Trichopteran; E = Ephemeroptera; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G3.2-3: Proportion of Ephemeroptera, Plecoptera, and Trichoptera versus Aqueous Nitrate (left panel) and Proportion of Ephemeroptera versus Aqueous Nitrate (right panel) Concentrations from the CMm LAEMP Study Area, 2012 to 2022**



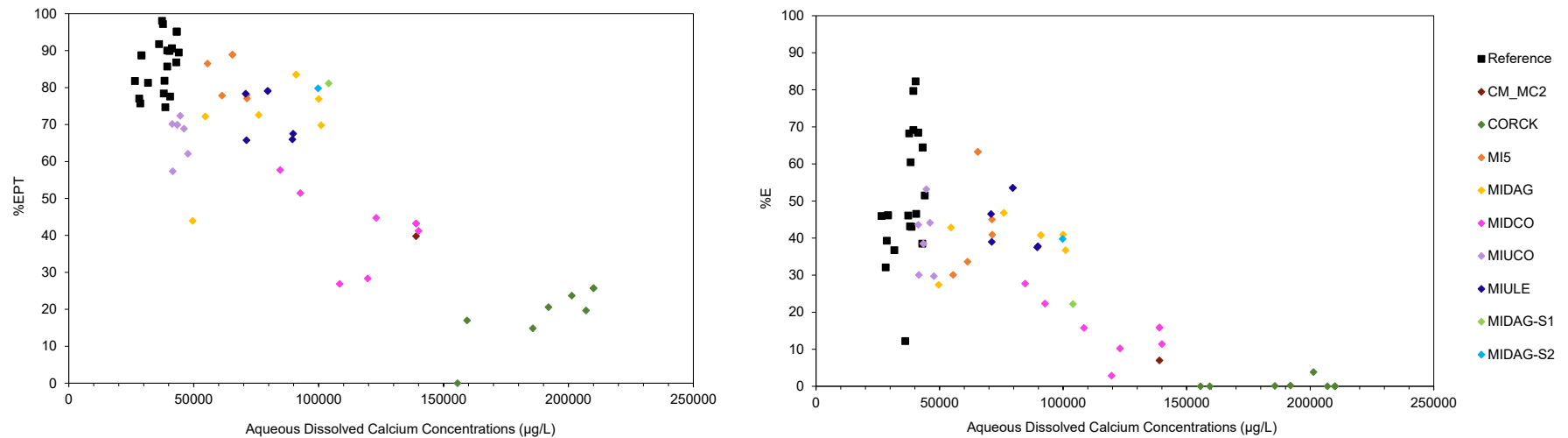
% = percent; µg/L= micrograms per litre; EPT = Ephemeroptera, Plecopteran, and Trichopteran; E = Ephemeroptera; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G3.2-4: Proportion of Ephemeroptera, Plecoptera, and Trichoptera versus Aqueous Nitrite (left panel) and Proportion of Ephemeroptera versus Aqueous Nitrite (right panel) Concentrations from the CMm LAEMP Study Area, 2012 to 2022**



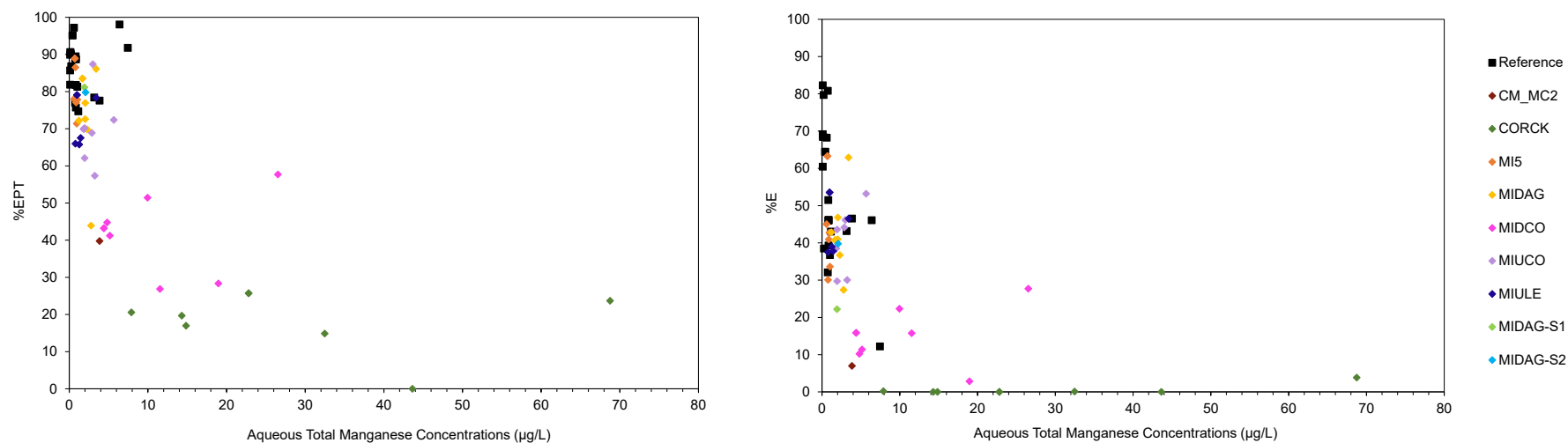
% = percent; µg/L= micrograms per litre; EPT = Ephemeroptera, Plecopteran, and Trichopteran; E = Ephemeroptera; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G3.2-5: Proportion of Ephemeroptera, Plecoptera, and Trichoptera versus Aqueous Calcium (left panel) and Proportion of Ephemeroptera versus Aqueous Calcium (right panel) Concentrations from the CMm LAEMP Study Area, 2012 to 2022**



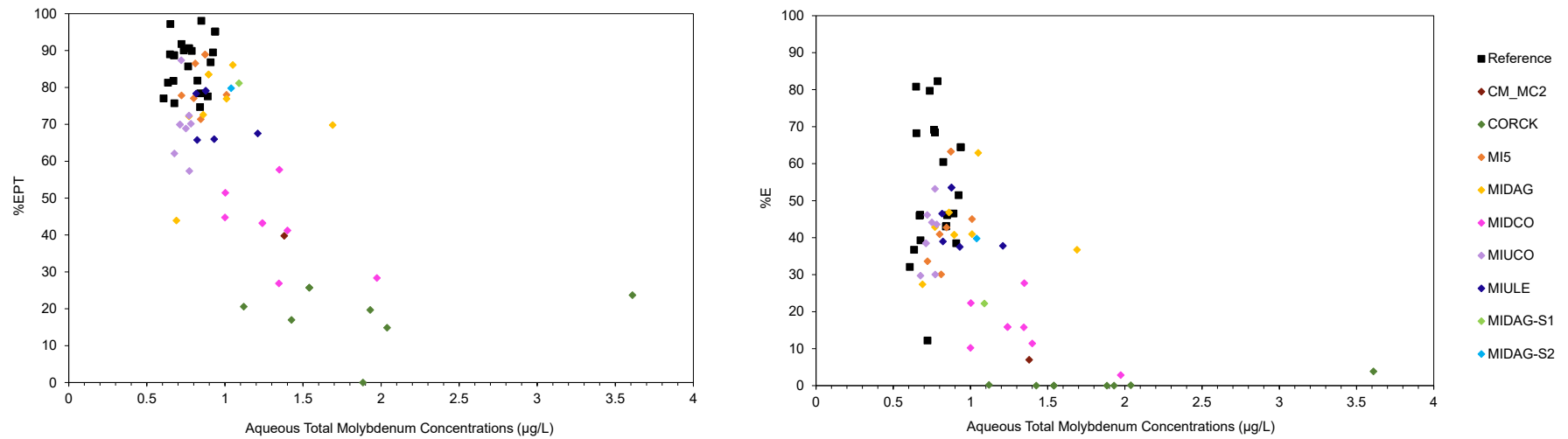
% = percent; µg/L= micrograms per litre; EPT = Ephemeroptera, Plecopteran, and Trichopteran; E = Ephemeroptera; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

**Figure G3.2-6: Proportion of Ephemeroptera, Plecoptera, and Trichoptera versus Aqueous Total Manganese (left panel) and Proportion of Ephemeroptera versus Aqueous Total Manganese (right panel) Concentrations from the CMM LAEMP Study Area, 2012 to 2022**



% = percent; µg/L= micrograms per litre; EPT = Ephemeroptera, Plecopteran, and Trichopteran; E = Ephemeroptera; CMM = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

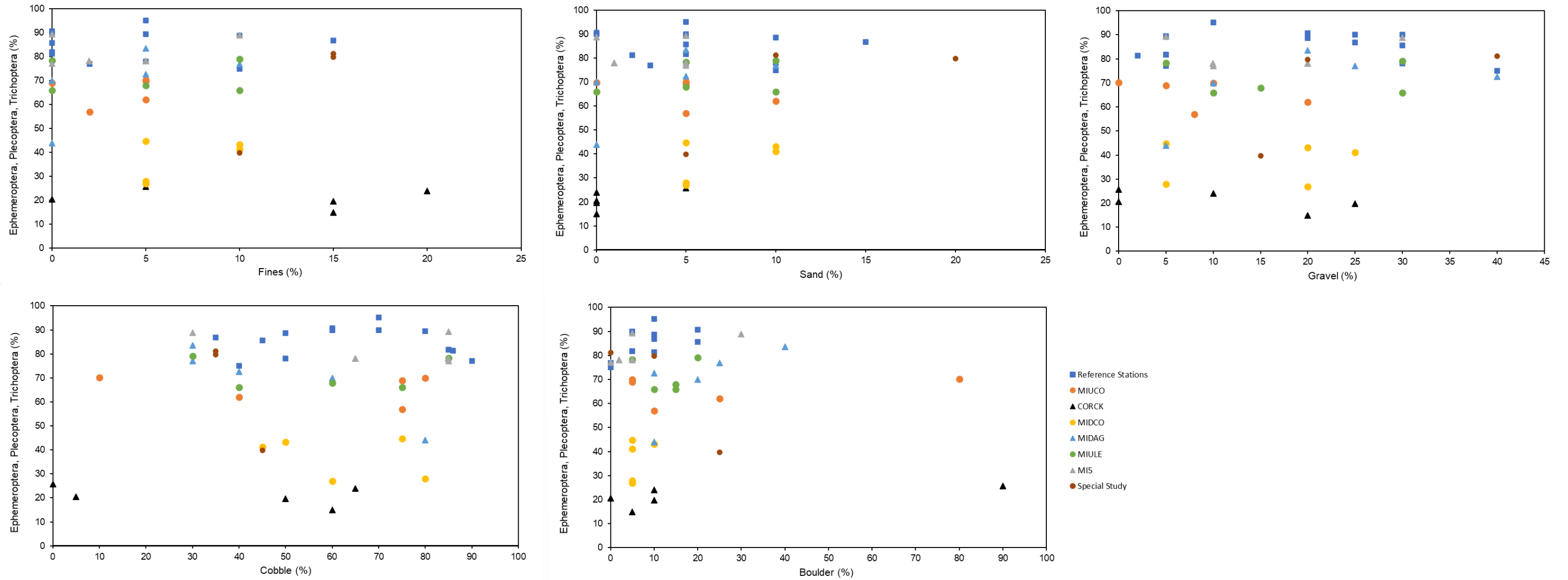
**Figure G3.2-7: Proportion of Ephemeroptera, Plecoptera, and Trichoptera versus Aqueous Total Molybdenum (left panel) and Proportion of Ephemeroptera versus Aqueous Total Molybdenum (right panel) Concentrations from the CMm LAEMP Study Area, 2012 to 2022**



% = percent; µg/L= micrograms per litre; EPT = Ephemeroptera, Plecopteran, and Trichopteran; E = Ephemeroptera; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

## G4.0 HABITAT COMPARISON

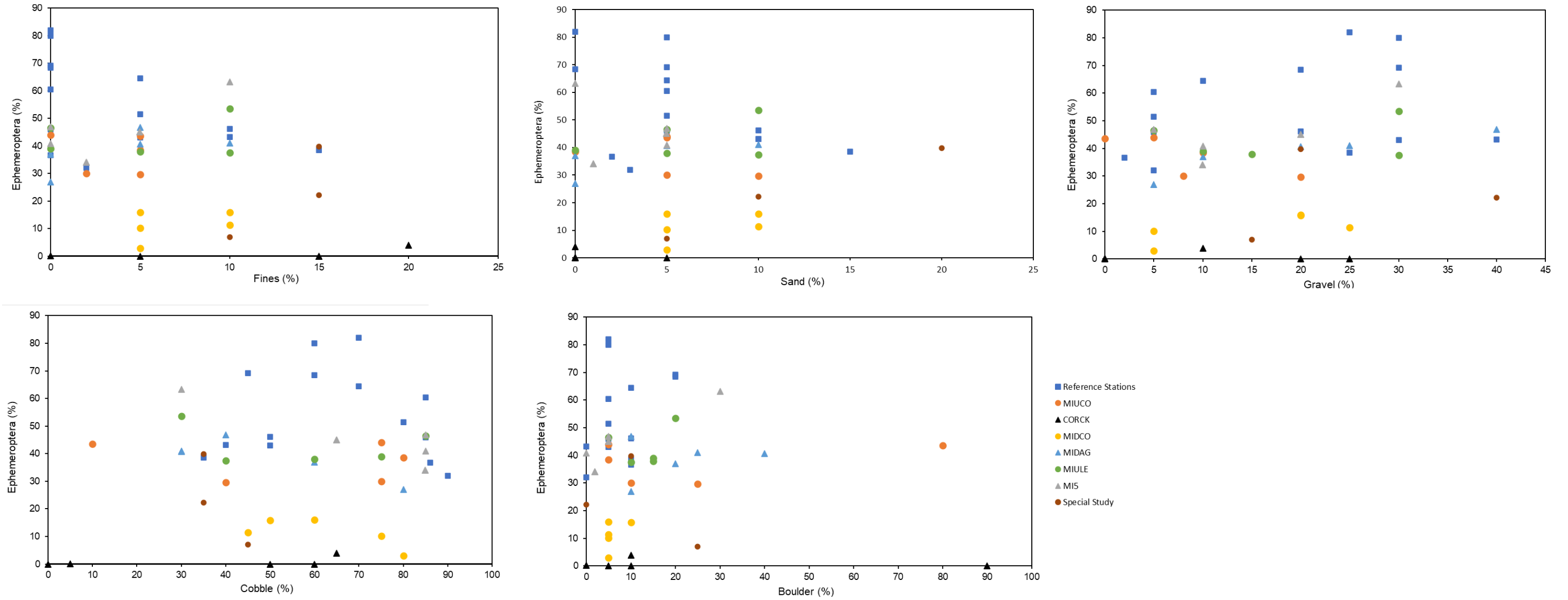
Figure G4.1-1: Proportion of Ephemeroptera, Plecoptera, and Trichoptera Compared to Substrate Composition in the CMm LAEMP Study Area, 2018 and 2022



% = percent; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.



Figure G4.1-2: Proportion of Ephemeroptera Compared to Substrate Composition in the CMm LAEMP Study Area, 2018 and 2022



% = percent; CMm = Coal Mountain Mine; LAEMP = Local Aquatic Effects Monitoring Program.

## **G5.0 REFERENCES**

SRK (SRK Consulting). 2023. Coal Mountain Mine water and load balance model 2022 comprehensive update. Report prepared by SRK Consulting for Teck Coal Limited – Coal Mountain Mine. March 2023.

**APPENDIX H**

**Calcite Data**

Table H-1: Calcite Data at CMm LAEMP Sampling Stations, 2015 to 2022

Station	Location (UTMs) <sup>(a)</sup>		Replicates	Calcite Index									
	Easting	Northing		2015	2016	2017	2018	2019	2020	2021 <sup>(b)</sup>		2022	
										Old Method	New Method	New Method	
Reference	RG_MI25	668184	5482818	1	0.360	0.000	0.580	0.350	0.000	0.020	0.000	0.000	0.046
				2	0.360	-	-	0.240	0.000	0.000	0.000	0.000	0.004
				3	0.360	-	-	0.020	0.000	0.020	0.000	0.000	0.011
	RG_AGCK	667557	5488648	1	0.000	-	-	0.310	0.000	0.000	0.070	0.022	0.009
				2	-	-	-	0.210	0.000	0.000	0.080	0.014	0.001
				3	-	-	-	0.220	0.000	0.000	0.120	0.035	0.000
	RG_LE1	659635	5494108	1	-	-	-	0.000	0.000	0.000	0.000	0.000	0.000
				2	-	-	-	-	0.000	0.000	0.000	0.000	0.000
				3	-	-	-	-	0.000	0.000	0.000	0.000	0.000
Mine-influenced	RG_MIUCO	668135	5486767	1	0.870	0.520	0.590	1.410	0.000	0.040	0.000	0.000	0.052
				2	-	-	-	0.720	0.000	0.100	0.000	0.000	0.000
				3	-	-	-	0.740	0.000	0.130	0.003	0.010	0.011
	RG_CORCK	668539	5487366	1	1.360	1.000	2.190	2.740	2.300	2.770	1.920	2.023	2.794
				2	-	-	-	1.980	2.300	2.700	2.660	2.444	2.778
				3	-	-	-	2.480	2.900	2.880	2.760	2.635	_(d)
	RG_MIDCO	667616	5487621	1	0.690	1.000	0.910	1.630	0.900	0.610	0.080	0.015	0.204
				2	-	-	-	1.780	0.990	0.550	0.100	0.015	0.165
				3	-	-	-	1.470	0.970	0.500	0.080	0.012	0.110
				4	-	-	-	1.530	0.980	0.620	0.000	0.000	0.182
				5	-	-	-	1.300	0.930	0.820	0.060	0.010	0.097
	RG_CM_MC2 <sup>(c)</sup>	667249	5488144	1	-	-	-	-	-	0.640	-	-	-
				2	-	-	-	-	-	0.700	-	-	-
				3	-	-	-	-	-	0.800	-	-	-
	SS_MIDAG-S1 <sup>(c)</sup>	666290	5488507	1	-	-	-	-	-	0.190	-	-	-
				2	-	-	-	-	-	0.040	-	-	-
				3	-	-	-	-	-	0.060	-	-	-
	SS_MIDAG-S2 <sup>(c)</sup>	665770	5488854	1	-	-	-	-	-	0.010	-	-	-
				2	-	-	-	-	-	0.020	-	-	-
				3	-	-	-	-	-	0.070	-	-	-
	RG_MIDAG	665220	5489324	1	0.360	-	-	0.660	0.000	0.030	0.070	0.015	0.094
				2	-	-	-	0.550	0.000	0.010	0.000	0.000	0.082
				3	-	-	-	0.550	0.000	0.010	0.010	0.001	0.111
	RG_MIULE	660503	5493048	1	-	-	-	1.020	0.000	0.020	0.500	0.078	0.186
				2	-	-	-	0.560	0.000	0.040	0.626	0.107	0.188
				3	-	-	-	0.600	0.000	0.070	0.586	0.111	0.243
	RG_MI5	659496	5496774	1	0.500	-	-	0.420	0.000	0.030	0.030	0.005	0.062
2				-	-	-	0.370	0.000	0.110	0.030	0.003	0.087	
3				-	-	-	0.800	0.000	0.090	0.000	0.000	0.009	

a) UTM coordinates (NAD = 83, Zone = 11) provided are from the 2021 sampling program, except for the three stations CM-MC2, MIDAG-S1, and MIDAG-S2, which were only sampled in 2020 as part of the Nickel Benchmark Study.  
 b) The Calcite Index calculation method changed in 2021 to a proportional assessment of calcite presence. All previous years were calculated using a binary presence/absence methodology. The 2021 results are presented using both methods and 2022 results are presented using the new method.  
 c) Supplemental stations for the Nickel Benchmark Study in 2020.  
 d) Two out of three 100 pebble counts were performed at RG\_CORCK in 2022.  
 - = data not available or data not recorded; CMm = Coal Mountain Mine; LAEMP = local aquatic effects monitoring program.



Table H-2: Calcite Data and Pebble Counts at Reference Stations in CMm LAEMP, 2022

Rock	RG_AGCK 1				AGCK					RG_AGCK 3				
	Concreted Status	Calcite Presence	Intermediate Axis (cm)	Embeddedness	Rock	Concreted Status	Calcite Presence	Intermediate Axis (cm)	Embeddedness	Rock	Concreted Status	Calcite Presence	Intermediate Axis (cm)	Embeddedness
1	0	0	6.0	-	1	0	0	5.5	-	1	0	0	6.0	-
2	0	0	7.0	-	2	0	0	15.0	-	2	0	0	17.0	-
3	0	0	-	-	3	0	0	11.0	-	3	0	0	14.0	-
4	0	0	7.0	-	4	0	0	3.0	-	4	0	0	7.0	-
5	0	0	16.0	-	5	0	0	5.0	-	5	0	0	4.0	-
6	0	0	5.5	-	6	0	0	8.0	-	6	0	0	4.0	-
7	0	0	6.5	-	7	0	0	8.0	-	7	0	0	8.0	-
8	0	0	4.0	-	8	0	0	6.0	-	8	0	0	11.0	-
9	0	0	8.0	-	9	0	0	9.0	-	9	0	0	7.5	-
10	0	0	21.0	0.00	10	0	0	6.0	0.50	10	0	0	10.0	0.75
11	0	0	7.5	-	11	0	0	14.0	-	11	0	0	5.0	-
12	0	0	7.5	-	12	0	0	6.0	-	12	0	0	8.0	-
13	0	0	14.0	-	13	0	0	7.0	-	13	0	0	9.0	-
14	0	0	20.0	-	14	0	0	10.5	-	14	0	0	2.5	-
15	0	0	8.5	-	15	0	0	11.5	-	15	0	0	3.5	-
16	0	0	8.0	-	16	0	0	5.0	-	16	0	0	8.0	-
17	0	0	6.0	-	17	0	0	6.0	-	17	0	0	8.0	-
18	0	0	21.0	-	18	0	0	4.5	-	18	0	0	4.5	-
19	0	0	4.5	-	19	0	0	10.0	-	19	0	0	7.5	-
20	0	0	6.0	0.00	20	0	0	21.0	0.50	20	0	0	6.0	0.25
21	0	0	5.0	-	21	0	0	2.0	-	21	0	0	5.0	-
22	0	0	16.5	-	22	0	0	18.0	-	22	0	0	7.5	-
23	0	0	7.5	-	23	0	0	4.5	-	23	0	0	6.0	-
24	0	0	5.5	-	24	0	0	5.0	-	24	0	0	6.5	-
25	0	0	14.0	-	25	0	0	8.5	-	25	0	0	11.0	-
26	0	0	6.0	-	26	0	0	6.5	-	26	0	0	4.5	-
27	0	0	5.5	-	27	0	0	4.0	-	27	0	0	6.0	-
28	0	0	5.0	-	28	0	0	7.0	-	28	0	0	8.5	-
29	0	0	12.0	-	29	0	0	8.5	-	29	0	0	4.5	-
30	0	0	12.0	0.50	30	0	0	17.0	0.25	30	0	0	8.5	0.25
31	0	0	7.5	-	31	0	0	5.5	-	31	0	0	12.0	-
32	0	0	7.0	-	32	0	0	4.0	-	32	0	0	9.5	-
33	0	0	14.5	-	33	0	0	20.0	-	33	0	0	5.0	-
34	0	0	11.0	-	34	0	0	10.0	-	34	0	0	9.5	-
35	0	0	7.5	-	35	0	0	11.5	-	35	0	0	10.5	-
36	0	0	9.0	-	36	0	0	3.0	-	36	0	0	2.0	-
37	0	0	7.5	-	37	0	0	5.0	-	37	0	0	15.0	-
38	0	0	6.0	-	38	0	0	16.0	-	38	0	0	10.5	-
39	0	0	5.0	-	39	0	0	30.0	-	39	0	0	14.5	-
40	0	0	2.0	0.00	40	0	0	8.0	0.25	40	0	0	9.0	0.25
41	0	0	5.5	-	41	0	0	6.0	-	41	0	0	11.0	-
42	0	0	-	-	42	0	0	3.0	-	42	0	0	5.0	-
43	0	0	6.5	-	43	0	0	12.0	-	43	0	0	4.5	-
44	0	0	-	-	44	0	0	12.0	-	44	0	0	13.5	-
45	0	0	9.0	-	45	0	0.1	17.0	-	45	0	0	5.0	-
46	0	0	7.0	-	46	0	0	7.5	-	46	0	0	12.0	-
47	0	0	4.0	-	47	0	0	12.0	-	47	0	0	30.0	-
48	0	0	6.0	-	48	0	0	12.5	-	48	0	0	6.0	-
49	0	0	5.0	-	49	0	0	6.0	-	49	0	0	6.0	-
50	0	0	7.0	0.25	50	0	0	3.0	0.00	50	0	0	22.0	0.00
51	0	0	6.0	-	51	0	0	3.5	-	51	0	0	6.0	-
52	0	0	8.0	-	52	0	0	4.5	-	52	0	0	3.5	-
53	0	0	4.0	-	53	0	0	7.0	-	53	0	0	4.0	-
54	0	0	6.0	-	54	0	0	5.0	-	54	0	0	10.0	-
55	0	0.1	10.0	-	55	0	0	6.5	-	55	0	0	7.0	-
56	0	0	5.5	-	56	0	0	3.5	-	56	0	0	7.0	-
57	0	0	6.0	-	57	0	0	10.0	-	57	0	0	10.5	-
58	0	0	10.0	-	58	0	0	8.0	-	58	0	0	6.0	-
59	0	0	5.5	-	59	0	0	8.5	-	59	0	0	8.0	-
60	0	0	8.0	0.00	60	0	0	4.5	0.00	60	0	0	6.5	0.25
61	0	0.2	6.0	-	61	0	0	6.0	-	61	0	0	6.0	-
62	0	0	9.5	-	62	0	0	7.0	-	62	0	0	3.5	-
63	0	0	5.5	-	63	0	0	4.0	-	63	0	0	8.0	-
64	0	0	7.0	-	64	0	0	135.0	-	64	0	0	16.0	-
65	0	0	4.0	-	65	0	0	12.5	-	65	0	0	4.0	-
66	0	0	10.5	-	66	0	0	23.0	-	66	0	0	5.0	-
67	0	0	6.5	-	67	0	0	13.0	-	67	0	0	6.0	-
68	0	0	5.0	-	68	0	0	7.5	-	68	0	0	12.0	-
69	0	0.1	34.0	-	69	0	0	8.0	-	69	0	0	3.5	-
70	0	0	27.0	0.50	70	0	0	8.5	0.25	70	0	0	9.0	0.50
71	0	0	5.0	-	71	0	0	5.5	-	71	0	0	5.0	-
72	0	0	12.0	-	72	0	0	4.0	-	72	0	0	5.5	-
73	0	0	7.0	-	73	0	0	11.0	-	73	0	0	17.0	-
74	0	0	5.0	-	74	0	0	8.5	-	74	0	0	3.5	-
75	0	0	2.5	-	75	0	0	8.0	-	75	0	0	7.5	-
76	0	0	5.5	-	76	0	0	23.0	-	76	0	0	6.5	-
77	0	0	9.0	-	77	0	0	5.5	-	77	0	0	5.0	-
78	0	0	8.5	-	78	0	0	17.0	-	78	0	0	8.0	-
79	0	0	8.0	-	79	0	0	5.0	-	79	0	0	15.0	-
80	0	0	11.0	0.25	80	0	0	7.5	0.50	80	0	0	5.5	0.25
81	0	0	7.0	-	81	0	0	5.0	-	81	0	0	8.0	-
82	0	0	7.0	-	82	0	0	9.0	-	82	0	0	7.0	-
83	0	0	4.0	-	83	0	0	6.5	-	83	0	0	8.5	-
84	0	0	6.0	-	84	0	0	3.5	-	84	0	0	11.0	-
85	0	0	4.0	-	85	0	0	5.0	-	85	0	0	7.5	-
86	0	0.2	16.0	-	86	0	0	7.0	-	86	0	0	7.0	-
87	0	0	7.0	-	87	0	0	4.5	-	87	0	0	7.0	-
88	0	0	8.0	-	88	0	0	6.0	-	88	0	0	7.0	-
89	0	0	7.5	-	89	0	0	13.0	-	89	0	0	18.0	-
90	0	0	6.0	0.00	90	0	0	6.5	0.00	90	0	0	4.0	0.25
91	0	0	4.5	-	91	0	0	8.0	-	91	0	0	5.0	-
92	0	0	5.0	-	92	0	0	11.0	-	92	0	0	13.5	-
93	0	0	5.5	-	93	0	0	12.0	-	93	0	0	8.0	-
94	0	0.1	14.5	-	94	0	0	1.5	-	94	0	0	7.0	-
95	0	0	4.0	-	95	0	0	4.0	-	95	0	0	6.0	-
96	0	0	5.0	-	96	0	0	11.5	-	96	0	0	8.5	-
97	0	0.2	11.0	-	97	0	0	5.0	-	97	0	0	10.5	-
98	0	0	11.5	-	98	0	0	0.4	-	98	0	0	17.0	-
99	0	0	3.0	-	99	0	0	8.0	-	99	0	0	6.0	-
100	0	0	4.5	0.00	100	0	0	7.0	0.25	100	0	0	7.5	0.00

cm = centimetre.















Table H-3: Calcite Data and Pebble Counts at Michel Creek Stations in CMm LAEMP, 2022

MI5					MI5				
RG MI5 2					RG MI5 3				
Rock	Concreted Status	Calcite Presence	Intermediate Axis (cm)	Embeddedness	Rock	Concreted Status	Calcite Presence	Intermediate Axis (cm)	Embeddedness
1	0	0	17.0	-	1	0	0	10.5	-
2	0	0.3	8.0	-	2	0	0	12.0	-
3	0	0.02	10.0	-	3	0	0	12.0	-
4	0	0.1	7.0	-	4	0	0	14.0	-
5	0	0.2	9.0	-	5	0	0	8.0	-
6	0	0	5.0	-	6	0	0	12.0	-
7	0	0	6.5	-	7	0	0	10.5	-
8	0	0.2	3.0	-	8	0	0	10.0	-
9	0	0.1	3.5	-	9	0	0	6.0	-
10	0	0.2	5.5	0.00	10	0	0	12.0	0.00
11	0	0.4	4.0	-	11	0	0	8.0	-
12	0	0.2	4.0	-	12	0	0	9.0	-
13	0	0.1	4.5	-	13	0	0	18.0	-
14	0	0.1	7.0	-	14	0	0	9.0	-
15	0	0	8.0	-	15	0	0	6.0	-
16	0	0.1	7.5	-	16	0	0	0.1	-
17	0	0	4.5	-	17	0	0	11.0	-
18	0	0.3	5.5	-	18	0	0	19.0	-
19	0	0.4	10.0	-	19	0	0	9.0	-
20	0	0	4.5	0.25	20	0	0	11.0	0.50
21	0	0.4	5.5	-	21	0	0	10.0	-
22	0	0.2	7.0	-	22	0	0	9.0	-
23	0	0.1	18.0	-	23	0	0	11.0	-
24	0	0.5	10.5	-	24	0	0	8.0	-
25	0	0.1	8.5	-	25	0	0	14.0	-
26	0	0.1	5.5	-	26	0	0	14.0	-
27	0	0	7.0	-	27	0	0	9.0	-
28	0	0.1	7.0	-	28	0	0	11.0	-
29	0	0	12.0	-	29	0	0	23.0	-
30	0	0.1	10.0	0.25	30	0	0.1	13.0	0.50
31	0	0.3	10.5	-	31	0	0	10.0	-
32	0	0.1	8.5	-	32	0	0	10.0	-
33	0	0.1	7.5	-	33	0	0	6.0	-
34	0	0.2	7.0	-	34	0	0	10.5	-
35	0	0	6.5	-	35	0	0	6.0	-
36	0	0.1	6.0	-	36	0	0	9.5	-
37	0	0.1	6.5	-	37	0	0	11.0	-
38	0	0	10.0	-	38	0	0	15.0	-
39	0	0.2	6.0	-	39	0	0	7.0	-
40	0	0	10.0	0.50	40	0	0	11.0	0.25
41	0	0.1	9.0	-	41	0	0	30.0	-
42	0	0	7.0	-	42	0	0	7.0	-
43	0	0	13.0	-	43	0	0	8.0	-
44	0	0	5.0	-	44	0	0	19.0	-
45	0	0	3.5	-	45	0	0	13.0	-
46	0	0	7.5	-	46	0	0	4.5	-
47	0	0	9.0	-	47	0	0	5.0	-
48	0	0.2	7.0	-	48	0	0.3	17.0	-
49	0	0	5.5	-	49	0	0	6.0	-
50	0	0	13.0	0.25	50	0	0.1	77.0	0.25
51	0	0	11.0	-	51	0	0	10.0	-
52	0	0	14.0	-	52	0	0	8.5	-
53	0	0	10.0	-	53	0	0	13.0	-
54	0	0	8.0	-	54	0	0.2	13.0	-
55	0	0	11.0	-	55	0	0	15.0	-
56	0	0.2	12.0	-	56	0	0	11.0	-
57	0	0.1	6.5	-	57	0	0	12.0	-
58	0	0	7.0	-	58	0	0	5.0	-
59	0	0	8.0	-	59	0	0	15.0	-
60	0	0	9.0	0.00	60	0	0	9.0	0.00
61	0	0	6.5	-	61	0	0	18.0	-
62	0	0.1	6.5	-	62	0	0	18.0	-
63	0	0	12.0	-	63	0	0	11.0	-
64	0	0.3	13.0	-	64	0	0	5.0	-
65	0	0	8.5	-	65	0	0	4.0	-
66	0	0	16.0	-	66	0	0	11.0	-
67	0	0	10.0	-	67	0	0	6.0	-
68	0	0.3	11.5	-	68	0	0	9.5	-
69	0	0.4	7.5	-	69	0	0	11.0	-
70	0	0.1	18.0	0.25	70	0	0	6.0	0.00
71	0	0	11.0	-	71	0	0	15.0	-
72	0	0	8.0	-	72	0	0	1.0	-
73	0	0.1	12.5	-	73	0	0	12.0	-
74	0	0.1	9.5	-	74	0	0	15.0	-
75	0	0.1	14.0	-	75	0	0	3.5	-
76	0	0	6.0	-	76	0	0	23.0	-
77	0	0	12.0	-	77	0	0	16.0	-
78	0	0	7.0	-	78	0	0	5.5	-
79	0	0	13.0	-	79	0	0	9.5	-
80	0	0	12.5	0.00	80	0	0	10.0	0.00
81	0	0	14.0	-	81	0	0	6.0	-
82	0	0.3	15.0	-	82	0	0	5.0	-
83	0	0	5.0	-	83	0	0	9.0	-
84	0	0.1	9.5	-	84	0	0	8.0	-
85	0	0	14.0	-	85	0	0	7.0	-
86	0	0.4	3.5	-	86	0	0	9.0	-
87	0	0.1	4.0	-	87	0	0	27.0	-
88	0	0	6.0	-	88	0	0	10.0	-
89	0	0.1	4.5	-	89	0	0	10.0	-
90	0	0.1	13.0	0.00	90	0	0	7.5	0.25
91	0	0	7.0	-	91	0	0	12.0	-
92	0	0	6.0	-	92	0	0	7.5	-
93	0	0.1	7.0	-	93	0	0	9.0	-
94	0	0	6.5	-	94	0	0	12.0	-
95	0	0	8.5	-	95	0	0	9.0	-
96	0	0	18.0	-	96	0	0	8.0	-
97	0	0	7.0	-	97	0	0	19.0	-
98	0	0	6.5	-	98	0	0	13.5	-
99	0	0	11.5	-	99	0	0	9.5	-
100	0	0	18.0	0.25	100	0	0.2	8.5	0.25

cm = centimetre.

Table H-4: Calcite Data and Pebble Counts in Corbin Creek at CORCK Collected during the CMm LAEMP, 2022

RG_CORCK 1					CORCK					RG_CORCK 3				
Rock	Concreted Status	Calcite Presence	Intermediate Axis (cm)	Embeddedness	Rock	Concreted Status	Calcite Presence	Intermediate Axis (cm)	Embeddedness	Rock	Concreted Status	Calcite Presence	Intermediate Axis (cm)	Embeddedness
1	0	0.4	3.5	-	1	0	0.5	12.0	-	1	-	-	-	-
2	2	1	_(a)	-	2	2	1	_(a)	-	2	-	-	-	-
3	2	1	_(a)	-	3	2	1	_(a)	-	3	-	-	-	-
4	2	1	_(a)	-	4	2	1	14.0	-	4	-	-	-	-
5	2	1	_(a)	-	5	2	1	18.0	-	5	-	-	-	-
6	2	1	_(a)	-	6	2	1	_(a)	-	6	-	-	-	-
7	1	1	9.0	-	7	1	0.9	11.0	-	7	-	-	-	-
8	2	1	_(a)	-	8	1	0.9	21.5	-	8	-	-	-	-
9	2	1	_(a)	-	9	2	1	_(a)	-	9	-	-	-	-
10	2	1	_(a)	1.00	10	2	1	_(a)	1.00	10	-	-	-	-
11	2	1	_(a)	-	11	1	0.7	15.0	-	11	-	-	-	-
12	2	1	_(a)	-	12	2	1	_(a)	-	12	-	-	-	-
13	2	1	_(a)	-	13	2	1	_(a)	-	13	-	-	-	-
14	2	1	_(a)	-	14	2	1	_(a)	-	14	-	-	-	-
15	2	1	_(a)	-	15	2	1	_(a)	-	15	-	-	-	-
16	2	1	_(a)	-	16	2	1	_(a)	-	16	-	-	-	-
17	2	1	_(a)	-	17	2	1	_(a)	-	17	-	-	-	-
18	1	1	12.5	-	18	2	1	_(a)	-	18	-	-	-	-
19	2	1	_(a)	-	19	2	1	_(a)	-	19	-	-	-	-
20	2	1	16.0	0.50	20	0	0.1	4.0	0.50	20	-	-	-	-
21	2	1	_(a)	-	21	2	1	_(a)	-	21	-	-	-	-
22	2	1	_(a)	-	22	2	1	_(a)	-	22	-	-	-	-
23	2	1	_(a)	-	23	2	1	-	-	23	-	-	-	-
24	2	0.8	14.5	-	24	2	1	_(a)	-	24	-	-	-	-
25	2	1	_(a)	-	25	2	1	_(a)	-	25	-	-	-	-
26	2	1	_(a)	-	26	2	1	_(a)	-	26	-	-	-	-
27	2	1	_(a)	-	27	2	1	_(a)	-	27	-	-	-	-
28	2	1	_(a)	-	28	2	1	_(a)	-	28	-	-	-	-
29	2	1	_(a)	-	29	2	1	_(a)	-	29	-	-	-	-
30	2	1	_(a)	1.00	30	2	1	_(a)	1.00	30	-	-	-	-
31	2	1	_(a)	-	31	2	1	_(a)	-	31	-	-	-	-
32	2	1	_(a)	-	32	2	1	_(a)	-	32	-	-	-	-
33	2	1	_(a)	-	33	2	1	_(a)	-	33	-	-	-	-
34	2	1	_(a)	-	34	2	1	_(a)	-	34	-	-	-	-
35	2	1	_(a)	-	35	0	0.5	6.5	-	35	-	-	-	-
36	1	0.5	3.0	-	36	0	0.7	14.0	-	36	-	-	-	-
37	0	0.1	3.5	-	37	2	1	_(a)	-	37	-	-	-	-
38	2	1	_(a)	-	38	2	1	_(a)	-	38	-	-	-	-
39	2	1	_(a)	-	39	1	0.8	12.5	-	39	-	-	-	-
40	2	1	_(a)	1.00	40	2	1	_(a)	1.00	40	-	-	-	-
41	2	1	_(a)	-	41	2	1	25.0	-	41	-	-	-	-
42	2	1	_(a)	-	42	2	1	25.5	-	42	-	-	-	-
43	2	1	_(a)	-	43	2	1	_(a)	-	43	-	-	-	-
44	2	1	_(a)	-	44	2	1	_(a)	-	44	-	-	-	-
45	2	1	_(a)	-	45	2	1	_(a)	-	45	-	-	-	-
46	2	1	_(a)	-	46	2	1	_(a)	-	46	-	-	-	-
47	2	1	_(a)	-	47	2	1	_(a)	-	47	-	-	-	-
48	2	1	10.0	-	48	2	1	_(a)	-	48	-	-	-	-
49	0	0.9	3.5	-	49	2	1	_(a)	-	49	-	-	-	-
50	2	0.1	12.0	0.50	50	2	1	_(a)	0.50	50	-	-	-	-
51	2	1	15.0	-	51	2	1	_(a)	-	51	-	-	-	-
52	2	1	_(a)	-	52	1	0.9	14.5	-	52	-	-	-	-
53	1	1	12.0	-	53	2	1	_(a)	-	53	-	-	-	-
54	2	1	_(a)	-	54	2	1	_(a)	-	54	-	-	-	-
55	2	1	11.0	-	55	2	1	_(a)	-	55	-	-	-	-
56	2	1	_(a)	-	56	0	1	20.0	-	56	-	-	-	-
57	1	0.8	4.0	-	57	2	1	_(a)	-	57	-	-	-	-
58	2	1	24.0	-	58	2	1	_(a)	-	58	-	-	-	-
59	2	1	_(a)	-	59	2	1	_(a)	-	59	-	-	-	-
60	2	1	_(a)	1.00	60	2	1	_(a)	1.00	60	-	-	-	-
61	2	1	_(a)	-	61	2	1	_(a)	-	61	-	-	-	-
62	2	1	14.0	-	62	2	1	_(a)	-	62	-	-	-	-
63	2	1	12.0	-	63	2	1	_(a)	-	63	-	-	-	-
64	2	1	12.0	-	64	2	1	_(a)	-	64	-	-	-	-
65	2	1	18.0	-	65	2	1	_(a)	-	65	-	-	-	-
66	2	1	_(a)	-	66	2	1	_(a)	-	66	-	-	-	-
67	2	1	_(a)	-	67	2	1	_(a)	-	67	-	-	-	-
68	2	1	_(a)	-	68	2	1	_(a)	-	68	-	-	-	-
69	2	1	_(a)	-	69	1	0.9	15.5	-	69	-	-	-	-
70	2	1	_(a)	1.00	70	2	1	_(a)	1.00	70	-	-	-	-
71	2	1	_(a)	-	71	2	1	_(a)	-	71	-	-	-	-
72	2	1	_(a)	-	72	2	1	_(a)	-	72	-	-	-	-
73	2	1	_(a)	-	73	2	1	_(a)	-	73	-	-	-	-
74	2	1	_(a)	-	74	2	1	_(a)	-	74	-	-	-	-
75	2	1	_(a)	-	75	2	1	_(a)	-	75	-	-	-	-
76	2	1	_(a)	-	76	2	1	_(a)	-	76	-	-	-	-
77	2	1	_(a)	-	77	2	1	_(a)	-	77	-	-	-	-
78	1	0.9	3.0	-	78	1	1	13.0	-	78	-	-	-	-
79	1	1	6.0	-	79	2	1	_(a)	-	79	-	-	-	-
80	2	1	11.0	0.75	80	2	1	_(a)	0.75	80	-	-	-	-
81	1	0.9	2.0	-	81	2	1	_(a)	-	81	-	-	-	-
82	2	1	14.0	-	82	2	1	_(a)	-	82	-	-	-	-
83	2	1	_(a)	-	83	2	1	_(a)	-	83	-	-	-	-
84	2	1	_(a)	-	84	2	1	_(a)	-	84	-	-	-	-
85	2	1	_(a)	-	85	2	1	_(a)	-	85	-	-	-	-
86	2	1	10.5	-	86	2	1	_(a)	-	86	-	-	-	-
87	0	0	6.5	-	87	2	1	_(a)	-	87	-	-	-	-
88	2	1	_(a)	-	88	2	1	_(a)	-	88	-	-	-	-
89	2	1	_(a)	-	89	2	1	_(a)	-	89	-	-	-	-
90	2	1	_(a)	1.00	90	2	1	_(a)	1.00	90	-	-	-	-
91	2	1	_(a)	-	91	2	1	_(a)	-	91	-	-	-	-
92	2	1	_(a)	-	92	2	1	_(a)	-	92	-	-	-	-
93	2	1	_(a)	-	93	2	1	_(a)	-	93	-	-	-	-
94	2	1	_(a)	-	94	2	1	_(a)	-	94	-	-	-	-
95	2	1	16.0	-	95	2	1	_(a)	-	95	-	-	-	-
96	2	1	_(a)	-	96	2	1	_(a)	-	96	-	-	-	-
97	2	1	_(a)	-	97	2	1	_(a)	-	97	-	-	-	-
98	2	1	_(a)	-	98	1	0.9	11.0	-	98	-	-	-	-
99	2	1	_(a)	-	99	1	1	11.0	-	99	-	-	-	-
100	2	1	_(a)	1.00	100	2	1	_(a)	1.00	100	-	-	-	-

a) Intermediate axis not measured due to the presence of calcite.

Note: Two out of three 100-pebble counts were performed.

cm = centimetre.

**APPENDIX I**

**Sediment Quality Screening Data**



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Moisture	92	%	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Acenaphthene	<0.025	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Acenaphthylene	<0.025	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Acridine	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Anthracene	<0.020	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Benz(a)anthracene	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Benzo(a)pyrene	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Benzo(b&j)fluoranthene	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Benzo(g_h_i)perylene	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Benzo(k)fluoranthene	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Benzo(e)pyrene	0.052	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Chrysene	0.12	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Dibenz(a_h)anthracene	<0.025	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Fluoranthene	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Fluorene	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Indeno(1,2,3-c,d)pyrene	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	1-Methylnaphthalene	0.18	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	2-Methylnaphthalene	0.24	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Naphthalene	0.1	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Perylene	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Phenanthrene	0.23	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Pyrene	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Quinoline	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	IACR (CCME)	0.58	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	B(a)P Total Potency Equivalent	0.049	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	d8-Naphthalene	81	%	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	d10-Acenaphthene	91	%	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	d10-Phenanthrene	94	%	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	d12-Chrysene	104	%	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	% Gravel (>2 mm)	2.3	%	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	% Sand (2.00 mm - 1.00 mm)	2.4	%	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	% Sand (1.00 mm - 0.50 mm)	7.0	%	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	% Sand (0.50 mm - 0.25 mm)	27	%	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	% Sand (0.25 mm - 0.125 mm)	27	%	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	% Sand (0.125 mm - 0.063 mm)	12	%	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	% Silt (0.063 mm - 0.0312 mm)	10	%	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	% Silt (0.031 mm - 0.004 mm)	10	%	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	% Clay (<4 µm)	2.6	%	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Texture	Loamy sand	-	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Mercury (Hg)	0.025	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Aluminum (Al)	5,280	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Antimony (Sb)	0.47	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Arsenic (As)	7.1	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Barium (Ba)	63	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Beryllium (Be)	0.56	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Boron (B)	10	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Cadmium (Cd)	0.56	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Calcium (Ca)	191,000	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Chromium (Cr)	23	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Cobalt (Co)	2.6	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Copper (Cu)	5.4	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Iron (Fe)	6,890	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Lead (Pb)	4.4	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Lithium (Li)	5.8	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Magnesium (Mg)	21,700	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Manganese (Mn)	131	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Molybdenum (Mo)	0.98	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Nickel (Ni)	18	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Phosphorus (P)	963	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Potassium (K)	1,670	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Selenium (Se)	0.82	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Silver (Ag)	0.14	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Sodium (Na)	140	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Strontium (Sr)	180	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Sulfur (S)	<1000	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Thallium (Tl)	0.75	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Titanium (Ti)	24	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Uranium (U)	0.82	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Vanadium (V)	25	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Zinc (Zn)	86	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	pH (1:2 soil:water)	7.3	pH	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	1	2018-09-08	08:00	Total Organic Carbon	4.0	%	ALS	RG_AGCK_SE-1_2018-09-08_0800
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Moisture	96	%	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Acenaphthene	<0.060	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Acenaphthylene	<0.060	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Acridine	<0.12	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Anthracene	<0.048	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Benz(a)anthracene	<0.12	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Benzo(a)pyrene	<0.12	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Benzo(b&j)fluoranthene	<0.12	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Benzo(g_h_i)perylene	<0.12	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Benzo(k)fluoranthene	<0.12	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Benzo(e)pyrene	<0.12	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Chrysene	<0.12	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Dibenz(a_h)anthracene	<0.060	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Fluoranthene	<0.12	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Fluorene	<0.12	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Indeno(1,2,3-c,d)pyrene	<0.12	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	1-Methylnaphthalene	0.28	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	2-Methylnaphthalene	0.44	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Naphthalene	<0.12	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Perylene	<0.12	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Phenanthrene	0.21	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Pyrene	<0.12	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Quinoline	<0.12	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	IACR (CCME)	<1.3	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	B(a)P Total Potency Equivalent	<0.12	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	d8-Naphthalene	70	%	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	d10-Acenaphthene	80	%	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	d10-Phenanthrene	82	%	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	d12-Chrysene	96	%	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	pH (1:9)	7.1	pH	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Mercury (Hg)	0.0091	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Aluminum (Al)	1,890	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Antimony (Sb)	0.17	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Arsenic (As)	3.7	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Barium (Ba)	244	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Beryllium (Be)	0.29	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Boron (B)	<5.0	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Cadmium (Cd)	0.4	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Calcium (Ca)	211,000	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Chromium (Cr)	60	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Cobalt (Co)	2.3	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Copper (Cu)	3.7	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Iron (Fe)	3,740	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Lead (Pb)	1.8	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Lithium (Li)	<2.0	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Magnesium (Mg)	13,200	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Manganese (Mn)	400	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Molybdenum (Mo)	1.5	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Nickel (Ni)	28	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Phosphorus (P)	796	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Potassium (K)	750	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Selenium (Se)	0.74	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Silver (Ag)	<0.10	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Sodium (Na)	126	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Strontium (Sr)	307	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Sulfur (S)	<1000	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Thallium (Tl)	0.29	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Titanium (Ti)	13	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Uranium (U)	0.68	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Vanadium (V)	10	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Zinc (Zn)	49	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930
SE	AGCK	667557	5488648	2018	2	2018-09-08	09:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_AGCK_SE-2_2018-09-08_0930

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Moisture	95	%	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Acenaphthene	<0.045	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Acenaphthylene	<0.045	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Acridine	<0.090	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Anthracene	<0.036	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Benz(a)anthracene	<0.090	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Benzo(a)pyrene	<0.090	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Benzo(b&j)fluoranthene	<0.090	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Benzo(g_h_i)perylene	<0.090	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Benzo(k)fluoranthene	<0.090	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Benzo(e)pyrene	<0.090	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Chrysene	0.091	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Dibenz(a_h)anthracene	<0.045	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Fluoranthene	<0.090	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Fluorene	<0.090	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Indeno(1,2,3-c,d)pyrene	<0.090	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	1-Methylnaphthalene	0.17	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	2-Methylnaphthalene	0.22	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Naphthalene	<0.090	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Perylene	<0.090	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Phenanthrene	0.17	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Pyrene	<0.090	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Quinoline	<0.090	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	IACR (CCME)	0.98	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	B(a)P Total Potency Equivalent	0.087	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	d8-Naphthalene	77	%	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	d10-Acenaphthene	85	%	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	d10-Phenanthrene	86	%	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	d12-Chrysene	100	%	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	% Gravel (>2 mm)	<1.0	%	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	% Sand (1.00 mm - 0.50 mm)	<1.0	%	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	% Sand (0.50 mm - 0.25 mm)	1.3	%	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	% Sand (0.25 mm - 0.125 mm)	2.1	%	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	% Sand (0.125 mm - 0.063 mm)	1.8	%	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	% Silt (0.063 mm - 0.0312 mm)	42	%	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	% Silt (0.031 mm - 0.004 mm)	45	%	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	% Clay (<4 µm)	7.7	%	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Texture	Silt	-	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	pH (1:9)	7.0	pH	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Mercury (Hg)	0.025	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Aluminum (Al)	4,850	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Antimony (Sb)	0.57	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Arsenic (As)	6.7	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Barium (Ba)	66	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Beryllium (Be)	0.62	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Boron (B)	12	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Cadmium (Cd)	0.77	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Calcium (Ca)	164,000	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Chromium (Cr)	14	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Cobalt (Co)	2.3	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Copper (Cu)	6.0	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Iron (Fe)	6,310	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Lead (Pb)	4.5	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Lithium (Li)	5.4	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Magnesium (Mg)	15,300	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Manganese (Mn)	138	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Molybdenum (Mo)	0.87	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Nickel (Ni)	20	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Phosphorus (P)	1,220	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Potassium (K)	1,590	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Selenium (Se)	2.2	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Silver (Ag)	0.14	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Sodium (Na)	160	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Strontium (Sr)	164	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Sulfur (S)	1,400	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Thallium (Tl)	0.88	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Titanium (Ti)	33	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Uranium (U)	0.94	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Vanadium (V)	22	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Zinc (Zn)	148	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Zirconium (Zr)	1.0	mg/kg	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	AGCK	667557	5488648	2018	3	2018-09-08	11:00	Total Organic Carbon	10	%	ALS	RG_AGCK_SE-3_2018-09-08_1100
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Moisture	87	%	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Acenaphthene	<0.020	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Acenaphthylene	<0.020	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Acridine	<0.039	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Anthracene	<0.016	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Benz(a)anthracene	<0.039	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Benzo(a)pyrene	<0.039	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Benzo(b&j)fluoranthene	0.047	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Benzo(g_h_i)perylene	<0.039	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Benzo(k)fluoranthene	<0.039	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Benzo(e)pyrene	0.057	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Chrysene	0.086	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Dibenz(a_h)anthracene	<0.020	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Fluoranthene	<0.039	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Fluorene	0.045	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Indeno(1,2,3-c,d)pyrene	<0.039	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	1-Methylnaphthalene	0.24	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	2-Methylnaphthalene	0.39	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Naphthalene	0.13	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Perylene	<0.039	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Phenanthrene	0.23	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Pyrene	<0.039	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Quinoline	<0.039	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	IACR (CCME)	0.62	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	B(a)P Total Potency Equivalent	0.041	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	d8-Naphthalene	61	%	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	d10-Acenaphthene	67	%	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	d10-Phenanthrene	80	%	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	d12-Chrysene	80	%	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	% Sand (2.00 mm - 1.00 mm)	3.2	%	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	% Sand (1.00 mm - 0.50 mm)	1.7	%	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	% Sand (0.50 mm - 0.25 mm)	2.0	%	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	% Sand (0.25 mm - 0.125 mm)	2.8	%	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	% Sand (0.125 mm - 0.063 mm)	3.8	%	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	% Silt (0.063 mm - 0.0312 mm)	39	%	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	% Silt (0.031 mm - 0.004 mm)	43	%	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	% Clay (<4 µm)	4.2	%	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Texture	Silt	-	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Mercury (Hg)	0.023	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Aluminum (Al)	12,900	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Antimony (Sb)	0.4	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Arsenic (As)	7.6	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Barium (Ba)	128	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Beryllium (Be)	0.84	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Boron (B)	16	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Cadmium (Cd)	1.2	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Calcium (Ca)	91,900	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Chromium (Cr)	21	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Cobalt (Co)	131	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Copper (Cu)	17	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Iron (Fe)	22,400	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Lead (Pb)	11	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Lithium (Li)	18	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Magnesium (Mg)	8,660	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Manganese (Mn)	1,200	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Molybdenum (Mo)	2.2	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Nickel (Ni)	151	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Phosphorus (P)	1,020	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Potassium (K)	3,040	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Selenium (Se)	1.8	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Sodium (Na)	171	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Strontium (Sr)	138	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Sulfur (S)	1,600	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Thallium (Tl)	0.34	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Titanium (Ti)	16	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Uranium (U)	0.86	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Vanadium (V)	28	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Zinc (Zn)	168	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	pH (1:2 soil:water)	7.6	pH	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	1	2018-09-09	14:00	Total Organic Carbon	5.4	%	ALS	RG_MIDCO_SE-1_2018-09-09_1400
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Moisture	88	%	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Acenaphthene	<0.024	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Acenaphthylene	<0.019	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Acridine	<0.038	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Anthracene	<0.015	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Benz(a)anthracene	<0.038	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Benzo(a)pyrene	<0.038	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Benzo(b&j)fluoranthene	0.081	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Benzo(g_h_i)perylene	0.048	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Benzo(k)fluoranthene	<0.038	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Benzo(e)pyrene	0.1	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Chrysene	0.15	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Dibenz(a_h)anthracene	<0.019	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Fluoranthene	<0.038	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Fluorene	0.067	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Indeno(1,2,3-c,d)pyrene	<0.038	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	1-Methylnaphthalene	0.44	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	2-Methylnaphthalene	0.7	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Naphthalene	0.24	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Perylene	<0.038	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Phenanthrene	0.42	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Pyrene	0.042	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Quinoline	<0.038	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	IACR (CCME)	0.86	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	B(a)P Total Potency Equivalent	0.044	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	d8-Naphthalene	59	%	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	d10-Acenaphthene	65	%	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	d10-Phenanthrene	79	%	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	d12-Chrysene	79	%	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	% Gravel (>2 mm)	1.4	%	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	% Sand (2.00 mm - 1.00 mm)	2.7	%	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	% Sand (1.00 mm - 0.50 mm)	2.4	%	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	% Sand (0.50 mm - 0.25 mm)	4.1	%	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	% Sand (0.25 mm - 0.125 mm)	5.0	%	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	% Sand (0.125 mm - 0.063 mm)	5.7	%	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	% Silt (0.063 mm - 0.0312 mm)	35	%	ALS	RG_MIDCO_SE-2_2018-09-09_1240



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	% Silt (0.031 mm - 0.004 mm)	39	%	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	% Clay (<4 µm)	4.9	%	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Texture	Silt loam	-	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Mercury (Hg)	0.022	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Aluminum (Al)	9,250	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Antimony (Sb)	0.35	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Arsenic (As)	4.9	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Barium (Ba)	157	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Beryllium (Be)	0.58	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Boron (B)	17	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Cadmium (Cd)	1.5	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Calcium (Ca)	159,000	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Chromium (Cr)	13	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Cobalt (Co)	235	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Copper (Cu)	9.6	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Iron (Fe)	12,000	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Lead (Pb)	6.7	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Lithium (Li)	10	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Magnesium (Mg)	6,670	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Manganese (Mn)	1,510	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Molybdenum (Mo)	1.6	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Nickel (Ni)	194	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Phosphorus (P)	962	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Potassium (K)	2,720	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Selenium (Se)	2.6	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Sodium (Na)	233	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Strontium (Sr)	231	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Sulfur (S)	2,800	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Thallium (Tl)	0.28	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Titanium (Ti)	18	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Uranium (U)	1.1	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Vanadium (V)	21	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Zinc (Zn)	159	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	pH (1:2 soil:water)	7.7	pH	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	2	2018-09-09	12:40	Total Organic Carbon	5.5	%	ALS	RG_MIDCO_SE-2_2018-09-09_1240
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Moisture	90	%	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Acenaphthene	<0.039	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Acenaphthylene	<0.022	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Acridine	<0.044	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Anthracene	<0.018	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Benz(a)anthracene	0.057	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Benzo(a)pyrene	<0.044	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Benzo(b&j)fluoranthene	0.15	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Benzo(g_h_i)perylene	0.084	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Benzo(k)fluoranthene	<0.044	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Benzo(e)pyrene	0.19	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Chrysene	0.27	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Dibenz(a_h)anthracene	<0.022	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Fluoranthene	0.047	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Fluorene	0.11	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Indeno(1,2,3-c,d)pyrene	<0.044	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	1-Methylnaphthalene	0.69	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	2-Methylnaphthalene	1.1	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Naphthalene	0.36	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Perylene	0.054	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Phenanthrene	0.73	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Pyrene	0.079	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Quinoline	<0.044	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	IACR (CCME)	1.5	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	B(a)P Total Potency Equivalent	0.062	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	d8-Naphthalene	55	%	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	d10-Acenaphthene	62	%	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	d10-Phenanthrene	75	%	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	d12-Chrysene	76	%	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	% Gravel (>2 mm)	1.3	%	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	% Sand (1.00 mm - 0.50 mm)	1.2	%	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	% Sand (0.50 mm - 0.25 mm)	3.4	%	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	% Sand (0.25 mm - 0.125 mm)	5.8	%	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	% Sand (0.125 mm - 0.063 mm)	7.9	%	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	% Silt (0.063 mm - 0.0312 mm)	27	%	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	% Silt (0.031 mm - 0.004 mm)	38	%	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	% Clay (<4 µm)	14	%	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Texture	Silt loam	-	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Mercury (Hg)	0.033	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Aluminum (Al)	10,100	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Antimony (Sb)	0.46	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Arsenic (As)	6.7	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Barium (Ba)	191	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Beryllium (Be)	0.69	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Boron (B)	19	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Cadmium (Cd)	1.8	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Calcium (Ca)	94,900	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Chromium (Cr)	18	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Cobalt (Co)	224	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Copper (Cu)	13	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Iron (Fe)	14,100	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Lead (Pb)	8.6	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Lithium (Li)	11	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Magnesium (Mg)	7,230	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Manganese (Mn)	1,570	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Molybdenum (Mo)	1.9	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Nickel (Ni)	235	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Phosphorus (P)	1,140	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Potassium (K)	2,760	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Selenium (Se)	4.7	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Sodium (Na)	209	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Strontium (Sr)	156	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Sulfur (S)	2,500	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Thallium (Tl)	0.36	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Titanium (Ti)	14	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Uranium (U)	1.3	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Vanadium (V)	25	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Zinc (Zn)	176	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	pH (1:2 soil:water)	7.6	pH	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	3	2018-09-09	11:30	Total Organic Carbon	7.9	%	ALS	RG_MIDCO_SE-3_2018-09-09_1130
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Moisture	90	%	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Acenaphthene	<0.024	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Acenaphthylene	<0.024	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Acridine	<0.047	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Anthracene	<0.019	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Benz(a)anthracene	<0.047	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Benzo(a)pyrene	<0.047	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Benzo(b&j)fluoranthene	0.079	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Benzo(g_h_i)perylene	<0.047	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Benzo(k)fluoranthene	<0.047	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Benzo(e)pyrene	0.097	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Chrysene	0.14	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Dibenz(a_h)anthracene	<0.024	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Fluoranthene	<0.047	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Fluorene	0.066	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Indeno(1,2,3-c,d)pyrene	<0.047	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	1-Methylnaphthalene	0.38	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	2-Methylnaphthalene	0.61	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Naphthalene	0.19	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Perylene	<0.047	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Phenanthrene	0.39	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Pyrene	<0.047	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Quinoline	<0.047	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	IACR (CCME)	0.91	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	B(a)P Total Potency Equivalent	0.052	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	d8-Naphthalene	51	%	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	d10-Acenaphthene	61	%	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	d10-Phenanthrene	74	%	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	d12-Chrysene	73	%	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	% Sand (1.00 mm - 0.50 mm)	<1.0	%	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	% Sand (0.50 mm - 0.25 mm)	2.4	%	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	% Sand (0.25 mm - 0.125 mm)	3.6	%	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	% Sand (0.125 mm - 0.063 mm)	5.0	%	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	% Silt (0.063 mm - 0.0312 mm)	35	%	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	% Silt (0.031 mm - 0.004 mm)	43	%	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	% Clay (<4 µm)	9.4	%	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Texture	Silt loam	-	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Mercury (Hg)	0.016	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Aluminum (Al)	9,200	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Antimony (Sb)	0.39	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Arsenic (As)	4.4	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Barium (Ba)	172	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Beryllium (Be)	0.53	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Boron (B)	19	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Cadmium (Cd)	1.7	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Calcium (Ca)	193,000	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Chromium (Cr)	14	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Cobalt (Co)	297	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Copper (Cu)	9.0	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Iron (Fe)	10,700	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Lead (Pb)	5.7	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Lithium (Li)	9.2	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Magnesium (Mg)	7,070	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Manganese (Mn)	1,910	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Molybdenum (Mo)	1.6	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Nickel (Ni)	230	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Phosphorus (P)	916	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Potassium (K)	2,930	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Selenium (Se)	2.7	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Sodium (Na)	252	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Strontium (Sr)	260	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Sulfur (S)	3,400	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Thallium (Tl)	0.29	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Titanium (Ti)	18	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Uranium (U)	1.2	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Vanadium (V)	22	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Zinc (Zn)	171	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	pH (1:2 soil:water)	7.4	pH	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	4	2018-09-09	15:45	Total Organic Carbon	6.1	%	ALS	RG_MIDCO_SE-4_2018-09-09_1545
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Moisture	88	%	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Acenaphthene	<0.019	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Acenaphthylene	<0.019	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Acridine	<0.038	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Anthracene	<0.015	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Benz(a)anthracene	<0.038	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Benzo(a)pyrene	<0.038	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Benzo(b&j)fluoranthene	0.068	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Benzo(g_h_i)perylene	0.041	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Benzo(k)fluoranthene	<0.038	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Benzo(e)pyrene	0.086	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Chrysene	0.13	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Dibenz(a_h)anthracene	<0.019	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Fluoranthene	<0.038	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Fluorene	0.051	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Indeno(1,2,3-c,d)pyrene	<0.038	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	1-Methylnaphthalene	0.3	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	2-Methylnaphthalene	0.48	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Naphthalene	0.17	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Perylene	<0.038	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Phenanthrene	0.32	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Pyrene	<0.038	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Quinoline	<0.038	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	IACR (CCME)	0.77	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	B(a)P Total Potency Equivalent	0.043	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	d8-Naphthalene	55	%	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	d10-Acenaphthene	61	%	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	d10-Phenanthrene	78	%	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	d12-Chrysene	80	%	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	% Gravel (>2 mm)	19	%	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	% Sand (2.00 mm - 1.00 mm)	2.8	%	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	% Sand (1.00 mm - 0.50 mm)	3.5	%	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	% Sand (0.50 mm - 0.25 mm)	4.9	%	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	% Sand (0.25 mm - 0.125 mm)	5.6	%	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	% Sand (0.125 mm - 0.063 mm)	7.1	%	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	% Silt (0.063 mm - 0.0312 mm)	23	%	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	% Silt (0.031 mm - 0.004 mm)	28	%	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	% Clay (<4 µm)	6.1	%	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Texture	Silt loam	-	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Mercury (Hg)	0.017	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Aluminum (Al)	14,400	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Antimony (Sb)	0.44	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Arsenic (As)	8.2	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Barium (Ba)	121	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Beryllium (Be)	0.91	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Boron (B)	16	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Cadmium (Cd)	1.3	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Calcium (Ca)	51,500	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Chromium (Cr)	20	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Cobalt (Co)	92	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Copper (Cu)	18	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Iron (Fe)	23,100	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Lead (Pb)	11	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Lithium (Li)	17	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Magnesium (Mg)	7,230	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Manganese (Mn)	817	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Molybdenum (Mo)	2.3	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Nickel (Ni)	128	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Phosphorus (P)	1,200	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Potassium (K)	3,530	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Selenium (Se)	1.4	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Sodium (Na)	147	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Strontium (Sr)	91	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Sulfur (S)	1,000	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Thallium (Tl)	0.36	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Titanium (Ti)	16	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Uranium (U)	0.76	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Vanadium (V)	31	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Zinc (Zn)	152	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	pH (1:2 soil:water)	7.7	pH	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MIDCO	667616	5487621	2018	5	2018-09-09	16:15	Total Organic Carbon	4.7	%	ALS	RG_MIDCO_SE-5_2018-09-09_1615
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Moisture	83	%	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Acenaphthene	<0.014	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Acenaphthylene	<0.014	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Acridine	<0.027	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Anthracene	<0.011	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Benz(a)anthracene	<0.027	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Benzo(a)pyrene	<0.027	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Benzo(b&j)fluoranthene	<0.027	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Benzo(g_h_i)perylene	<0.027	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Benzo(k)fluoranthene	<0.027	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Benzo(e)pyrene	<0.027	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Chrysene	<0.027	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Dibenz(a_h)anthracene	<0.014	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Fluoranthene	<0.027	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Fluorene	<0.027	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Indeno(1,2,3-c,d)pyrene	<0.027	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	1-Methylnaphthalene	<0.027	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	2-Methylnaphthalene	<0.027	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Naphthalene	<0.027	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Perylene	<0.027	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Phenanthrene	<0.027	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Pyrene	<0.027	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Quinoline	<0.027	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	IACR (CCME)	<0.29	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	B(a)P Total Potency Equivalent	<0.026	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	d8-Naphthalene	72	%	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	d10-Acenaphthene	72	%	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	d10-Phenanthrene	81	%	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	d12-Chrysene	88	%	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	% Gravel (>2 mm)	<1.0	%	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	% Sand (2.00 mm - 1.00 mm)	3.5	%	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	% Sand (1.00 mm - 0.50 mm)	6.8	%	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	% Sand (0.50 mm - 0.25 mm)	15	%	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	% Sand (0.25 mm - 0.125 mm)	15	%	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	% Sand (0.125 mm - 0.063 mm)	6.1	%	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	% Silt (0.063 mm - 0.0312 mm)	19	%	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	% Silt (0.031 mm - 0.004 mm)	26	%	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	% Clay (<4 µm)	8.2	%	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Texture	Sandy loam	-	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Mercury (Hg)	0.039	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Aluminum (Al)	11,500	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Antimony (Sb)	0.61	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Arsenic (As)	11	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Barium (Ba)	142	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Beryllium (Be)	0.69	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Boron (B)	7.7	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Cadmium (Cd)	1.3	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Calcium (Ca)	13,000	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Chromium (Cr)	17	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Cobalt (Co)	8.0	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Copper (Cu)	25	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Iron (Fe)	21,500	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Lead (Pb)	17	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Lithium (Li)	16	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Magnesium (Mg)	6,010	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Manganese (Mn)	501	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Molybdenum (Mo)	5.1	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Nickel (Ni)	31	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Phosphorus (P)	1,310	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Potassium (K)	2,070	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Selenium (Se)	0.96	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Silver (Ag)	0.13	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Sodium (Na)	73	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Strontium (Sr)	41	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Sulfur (S)	<1000	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Thallium (Tl)	0.61	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Titanium (Ti)	11	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Uranium (U)	0.79	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Vanadium (V)	30	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Zinc (Zn)	135	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	pH (1:2 soil:water)	7.1	pH	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	1	2018-09-10	11:30	Total Organic Carbon	4.4	%	ALS	RG_MI25_SE-1_2018-09-10_1130
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Moisture	88	%	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Acenaphthene	<0.019	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Acenaphthylene	<0.019	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Acridine	<0.038	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Anthracene	<0.015	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Benz(a)anthracene	<0.038	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Benzo(a)pyrene	<0.038	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Benzo(b&j)fluoranthene	<0.038	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Benzo(g_h_i)perylene	<0.038	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Benzo(k)fluoranthene	<0.038	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Benzo(e)pyrene	<0.038	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Chrysene	<0.038	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Dibenz(a_h)anthracene	<0.019	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Fluoranthene	<0.038	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Fluorene	<0.038	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Indeno(1,2,3-c,d)pyrene	<0.038	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	1-Methylnaphthalene	<0.038	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	2-Methylnaphthalene	<0.038	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Naphthalene	<0.038	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Perylene	<0.038	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Phenanthrene	<0.038	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Pyrene	<0.038	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Quinoline	<0.038	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	IACR (CCME)	<0.41	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	B(a)P Total Potency Equivalent	<0.036	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	d8-Naphthalene	71	%	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	d10-Acenaphthene	71	%	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	d10-Phenanthrene	76	%	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	d12-Chrysene	86	%	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	% Gravel (>2 mm)	<1.0	%	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	% Sand (2.00 mm - 1.00 mm)	5.7	%	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	% Sand (1.00 mm - 0.50 mm)	8.8	%	ALS	RG_MI25_SE-2_2018-09-10_1030

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	% Sand (0.50 mm - 0.25 mm)	12	%	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	% Sand (0.25 mm - 0.125 mm)	5.2	%	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	% Sand (0.125 mm - 0.063 mm)	2.0	%	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	% Silt (0.063 mm - 0.0312 mm)	24	%	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	% Silt (0.031 mm - 0.004 mm)	33	%	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	% Clay (<4 µm)	8.9	%	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Texture	Silt loam	-	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Mercury (Hg)	0.036	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Aluminum (Al)	9,550	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Antimony (Sb)	0.5	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Arsenic (As)	9.3	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Barium (Ba)	119	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Beryllium (Be)	0.64	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Boron (B)	6.9	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Cadmium (Cd)	1.2	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Calcium (Ca)	28,800	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Chromium (Cr)	14	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Cobalt (Co)	7.4	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Copper (Cu)	23	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Iron (Fe)	19,500	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Lead (Pb)	14	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Lithium (Li)	13	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Magnesium (Mg)	8,330	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Manganese (Mn)	636	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Molybdenum (Mo)	3.8	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Nickel (Ni)	27	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Phosphorus (P)	1,110	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Potassium (K)	1,710	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Selenium (Se)	0.98	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Silver (Ag)	0.13	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Sodium (Na)	71	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Strontium (Sr)	50	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Sulfur (S)	<1000	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Thallium (Tl)	0.55	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Titanium (Ti)	9.5	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Uranium (U)	0.68	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Vanadium (V)	25	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Zinc (Zn)	113	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	pH (1:2 soil:water)	7.4	pH	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	2	2018-09-10	10:30	Total Organic Carbon	6.3	%	ALS	RG_MI25_SE-2_2018-09-10_1030
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Moisture	77	%	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Acenaphthene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Acenaphthylene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Acridine	<0.020	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Anthracene	<0.0080	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Benz(a)anthracene	<0.020	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Benzo(a)pyrene	<0.020	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Benzo(b&j)fluoranthene	<0.020	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Benzo(g_h_i)perylene	<0.020	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Benzo(k)fluoranthene	<0.020	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Benzo(e)pyrene	<0.020	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Chrysene	<0.020	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Dibenz(a_h)anthracene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Fluoranthene	<0.020	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Fluorene	<0.020	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Indeno(1,2,3-c,d)pyrene	<0.020	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	1-Methylnaphthalene	<0.020	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	2-Methylnaphthalene	<0.020	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Naphthalene	<0.020	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Perylene	<0.020	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Phenanthrene	<0.020	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Pyrene	<0.020	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Quinoline	<0.020	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	IACR (CCME)	<0.21	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	d8-Naphthalene	67	%	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	d10-Acenaphthene	66	%	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	d10-Phenanthrene	76	%	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	d12-Chrysene	87	%	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	% Gravel (>2 mm)	<1.0	%	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	% Sand (1.00 mm - 0.50 mm)	<1.0	%	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	% Sand (0.50 mm - 0.25 mm)	7.3	%	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	% Sand (0.25 mm - 0.125 mm)	19	%	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	% Sand (0.125 mm - 0.063 mm)	12	%	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	% Silt (0.063 mm - 0.0312 mm)	27	%	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	% Silt (0.031 mm - 0.004 mm)	29	%	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	% Clay (<4 µm)	5.4	%	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Texture	Silt loam	-	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Mercury (Hg)	0.043	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Aluminum (Al)	10,700	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Antimony (Sb)	0.64	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Arsenic (As)	10	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Barium (Ba)	152	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Beryllium (Be)	0.75	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Bismuth (Bi)	0.22	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Boron (B)	7.5	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Cadmium (Cd)	1.5	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Calcium (Ca)	14,500	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Chromium (Cr)	16	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Cobalt (Co)	8.5	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Copper (Cu)	27	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Iron (Fe)	21,100	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Lead (Pb)	18	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Lithium (Li)	16	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Magnesium (Mg)	6,050	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Manganese (Mn)	554	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Molybdenum (Mo)	5.5	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Nickel (Ni)	32	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Phosphorus (P)	1,340	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Potassium (K)	1,780	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Selenium (Se)	1.2	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Silver (Ag)	0.16	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Sodium (Na)	67	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Strontium (Sr)	46	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Sulfur (S)	<1000	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Thallium (Tl)	0.7	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Titanium (Ti)	9.1	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Uranium (U)	0.87	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Vanadium (V)	29	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Zinc (Zn)	136	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Zirconium (Zr)	1.0	mg/kg	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	pH (1:2 soil:water)	7.4	pH	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI25	668184	5482818	2018	3	2018-09-10	09:30	Total Organic Carbon	2.4	%	ALS	RG_MI25_SE-3_2018-09-10_0930
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Moisture	80	%	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Acenaphthene	<0.013	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Acenaphthylene	<0.013	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Acridine	<0.025	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Anthracene	<0.010	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Benz(a)anthracene	<0.025	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Benzo(a)pyrene	<0.025	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Benzo(b&j)fluoranthene	0.027	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Benzo(g_h_i)perylene	<0.025	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Benzo(k)fluoranthene	<0.025	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Benzo(e)pyrene	0.028	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Chrysene	0.052	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Dibenz(a_h)anthracene	<0.013	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Fluoranthene	<0.025	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Fluorene	<0.025	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Indeno(1,2,3-c,d)pyrene	<0.025	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	1-Methylnaphthalene	0.094	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	2-Methylnaphthalene	0.13	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Naphthalene	0.048	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Perylene	<0.025	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Phenanthrene	0.13	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Pyrene	<0.025	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Quinoline	<0.025	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	IACR (CCME)	0.38	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	B(a)P Total Potency Equivalent	0.026	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	d8-Naphthalene	65	%	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	d10-Acenaphthene	71	%	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	d10-Phenanthrene	89	%	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	d12-Chrysene	92	%	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	% Gravel (>2 mm)	8.5	%	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	% Sand (2.00 mm - 1.00 mm)	3.7	%	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	% Sand (1.00 mm - 0.50 mm)	9.5	%	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	% Sand (0.50 mm - 0.25 mm)	31	%	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	% Sand (0.25 mm - 0.125 mm)	22	%	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	% Sand (0.125 mm - 0.063 mm)	7.0	%	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	% Silt (0.063 mm - 0.0312 mm)	8.6	%	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	% Silt (0.031 mm - 0.004 mm)	8.4	%	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	% Clay (<4 µm)	1.6	%	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Texture	Loamy sand	-	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Mercury (Hg)	0.03	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Aluminum (Al)	7,410	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Antimony (Sb)	1.1	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Arsenic (As)	7.3	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Barium (Ba)	194	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Beryllium (Be)	0.59	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Boron (B)	7.9	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Cadmium (Cd)	1.2	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Calcium (Ca)	28,500	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Chromium (Cr)	14	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Cobalt (Co)	8.4	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Copper (Cu)	12	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Iron (Fe)	16,400	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Lead (Pb)	9.1	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Lithium (Li)	7.3	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Magnesium (Mg)	4,340	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Manganese (Mn)	236	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Molybdenum (Mo)	1.6	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Nickel (Ni)	31	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Phosphorus (P)	1,260	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Potassium (K)	1,630	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Selenium (Se)	1.1	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Silver (Ag)	0.14	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Sodium (Na)	73	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Strontium (Sr)	65	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Sulfur (S)	<1000	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Thallium (Tl)	0.25	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Titanium (Ti)	34	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Uranium (U)	1.1	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Vanadium (V)	41	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Zinc (Zn)	98	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	pH (1:2 soil:water)	8.0	pH	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	1	2018-10-10	12:45	Total Organic Carbon	2.4	%	ALS	RG_MI5_SE-1_2018-10-10_1245
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Moisture	93	%	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Acenaphthene	<0.033	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Acenaphthylene	<0.033	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Acridine	<0.066	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Anthracene	<0.026	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Benz(a)anthracene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Benzo(a)pyrene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Benzo(b&j)fluoranthene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Benzo(g_h_i)perylene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Benzo(k)fluoranthene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Benzo(e)pyrene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Chrysene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Dibenz(a_h)anthracene	<0.033	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Fluoranthene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Fluorene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Indeno(1,2,3-c,d)pyrene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	1-Methylnaphthalene	0.1	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	2-Methylnaphthalene	0.15	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Naphthalene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Perylene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Phenanthrene	0.15	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Pyrene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Quinoline	<0.066	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	IACR (CCME)	<0.71	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	B(a)P Total Potency Equivalent	<0.063	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	d8-Naphthalene	63	%	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	d10-Acenaphthene	67	%	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	d10-Phenanthrene	88	%	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	d12-Chrysene	93	%	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	% Gravel (>2 mm)	14	%	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	% Sand (2.00 mm - 1.00 mm)	14	%	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	% Sand (1.00 mm - 0.50 mm)	15	%	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	% Sand (0.50 mm - 0.25 mm)	16	%	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	% Sand (0.25 mm - 0.125 mm)	5.2	%	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	% Sand (0.125 mm - 0.063 mm)	2.6	%	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	% Silt (0.063 mm - 0.0312 mm)	15	%	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	% Silt (0.031 mm - 0.004 mm)	16	%	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	% Clay (<4 µm)	2.8	%	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Texture	Sandy loam	-	ALS	RG_MI5_SE-2_2018-10-10_1300



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Mercury (Hg)	0.027	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Aluminum (Al)	5,150	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Antimony (Sb)	0.53	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Arsenic (As)	4.8	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Barium (Ba)	200	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Beryllium (Be)	0.42	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Boron (B)	9.2	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Cadmium (Cd)	1.5	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Calcium (Ca)	71,900	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Chromium (Cr)	9.9	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Cobalt (Co)	11	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Copper (Cu)	9.9	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Iron (Fe)	11,500	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Lead (Pb)	6.8	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Lithium (Li)	5.6	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Magnesium (Mg)	4,130	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Manganese (Mn)	248	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Molybdenum (Mo)	1.1	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Nickel (Ni)	36	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Phosphorus (P)	1,170	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Potassium (K)	1,020	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Selenium (Se)	2.4	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Silver (Ag)	0.12	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Sodium (Na)	93	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Strontium (Sr)	104	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Sulfur (S)	<1000	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Thallium (Tl)	0.19	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Titanium (Ti)	23	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Uranium (U)	0.97	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Vanadium (V)	24	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Zinc (Zn)	90	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	pH (1:2 soil:water)	7.8	pH	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	2	2018-10-10	13:00	Total Organic Carbon	4.3	%	ALS	RG_MI5_SE-2_2018-10-10_1300
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Moisture	80	%	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Acenaphthene	<0.012	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Acenaphthylene	<0.012	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Acridine	<0.024	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Anthracene	<0.0096	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Benz(a)anthracene	<0.024	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Benzo(a)pyrene	<0.024	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Benzo(b&j)fluoranthene	0.025	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Benzo(g_h_i)perylene	<0.024	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Benzo(k)fluoranthene	<0.024	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Benzo(e)pyrene	<0.024	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Chrysene	0.039	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Dibenz(a_h)anthracene	<0.012	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Fluoranthene	<0.024	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Fluorene	<0.024	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Indeno(1,2,3-c,d)pyrene	<0.024	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	1-Methylnaphthalene	0.085	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	2-Methylnaphthalene	0.12	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Naphthalene	0.041	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Perylene	<0.024	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Phenanthrene	0.11	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Pyrene	<0.024	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Quinoline	<0.024	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	IACR (CCME)	0.35	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	B(a)P Total Potency Equivalent	0.025	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	d8-Naphthalene	66	%	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	d10-Acenaphthene	70	%	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	d10-Phenanthrene	93	%	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	d12-Chrysene	96	%	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	% Gravel (>2 mm)	<1.0	%	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	% Sand (2.00 mm - 1.00 mm)	1.4	%	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	% Sand (1.00 mm - 0.50 mm)	1.6	%	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	% Sand (0.50 mm - 0.25 mm)	5.9	%	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	% Sand (0.25 mm - 0.125 mm)	11	%	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	% Sand (0.125 mm - 0.063 mm)	5.4	%	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	% Silt (0.063 mm - 0.0312 mm)	33	%	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	% Silt (0.031 mm - 0.004 mm)	36	%	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	% Clay (<4 µm)	5.8	%	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Texture	Silt loam	-	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Mercury (Hg)	0.026	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Aluminum (Al)	5,320	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Antimony (Sb)	0.46	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Arsenic (As)	4.8	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Barium (Ba)	188	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Beryllium (Be)	0.44	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Boron (B)	6.5	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Cadmium (Cd)	1.5	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Calcium (Ca)	48,500	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Chromium (Cr)	11	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Cobalt (Co)	11	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Copper (Cu)	11	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Iron (Fe)	11,400	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Lead (Pb)	7.5	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Lithium (Li)	5.5	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Magnesium (Mg)	4,610	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Manganese (Mn)	218	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Molybdenum (Mo)	0.93	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Nickel (Ni)	36	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Phosphorus (P)	1,130	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Potassium (K)	910	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Selenium (Se)	2.5	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Silver (Ag)	0.16	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Sodium (Na)	103	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Strontium (Sr)	80	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Sulfur (S)	<1000	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Thallium (Tl)	0.19	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Titanium (Ti)	15	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Uranium (U)	0.91	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Vanadium (V)	21	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Zinc (Zn)	99	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	pH (1:2 soil:water)	7.8	pH	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	3	2018-10-10	13:05	Total Organic Carbon	5.7	%	ALS	RG_MI5_SE-3_2018-10-10_1305
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Moisture	92	%	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Acenaphthene	<0.028	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Acenaphthylene	<0.028	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Acridine	<0.055	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Anthracene	<0.022	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Benz(a)anthracene	<0.055	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Benzo(a)pyrene	<0.055	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Benzo(b&j)fluoranthene	<0.055	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Benzo(g_h_i)perylene	<0.055	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Benzo(k)fluoranthene	<0.055	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Benzo(e)pyrene	<0.055	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Chrysene	0.056	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Dibenz(a_h)anthracene	<0.028	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Fluoranthene	<0.055	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Fluorene	<0.055	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Indeno(1,2,3-c,d)pyrene	<0.055	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	1-Methylnaphthalene	0.11	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	2-Methylnaphthalene	0.16	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Naphthalene	<0.055	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Perylene	<0.055	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Phenanthrene	0.15	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Pyrene	<0.055	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Quinoline	<0.055	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	IACR (CCME)	0.6	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	B(a)P Total Potency Equivalent	0.053	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	d8-Naphthalene	65	%	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	d10-Acenaphthene	67	%	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	d10-Phenanthrene	84	%	ALS	RG_MI5_SE-4_2018-10-10_1315



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	d12-Chrysene	87	%	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	% Gravel (>2 mm)	29	%	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	% Sand (2.00 mm - 1.00 mm)	17	%	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	% Sand (1.00 mm - 0.50 mm)	19	%	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	% Sand (0.50 mm - 0.25 mm)	7.3	%	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	% Sand (0.25 mm - 0.125 mm)	2.8	%	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	% Sand (0.125 mm - 0.063 mm)	2.0	%	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	% Silt (0.063 mm - 0.0312 mm)	10	%	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	% Silt (0.031 mm - 0.004 mm)	11	%	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	% Clay (<4 µm)	1.7	%	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Texture	Sandy loam	-	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Mercury (Hg)	0.021	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Aluminum (Al)	3,670	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Antimony (Sb)	0.39	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Arsenic (As)	3.3	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Barium (Ba)	219	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Beryllium (Be)	0.33	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Boron (B)	11	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Cadmium (Cd)	1.4	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Calcium (Ca)	112,000	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Chromium (Cr)	6.6	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Cobalt (Co)	11	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Copper (Cu)	6.9	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Iron (Fe)	7,600	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Lead (Pb)	5.0	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Lithium (Li)	3.7	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Magnesium (Mg)	3,910	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Manganese (Mn)	258	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Molybdenum (Mo)	0.77	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Nickel (Ni)	32	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Phosphorus (P)	998	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Potassium (K)	830	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Selenium (Se)	2.8	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Silver (Ag)	<0.10	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Sodium (Na)	108	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Strontium (Sr)	143	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Sulfur (S)	1,400	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Thallium (Tl)	0.15	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Titanium (Ti)	19	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Uranium (U)	0.76	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Vanadium (V)	16	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Zinc (Zn)	73	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	pH (1:2 soil:water)	7.7	pH	ALS	RG_MI5_SE-4_2018-10-10_1315

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659496	5496774	2018	4	2018-10-10	13:15	Total Organic Carbon	3.4	%	ALS	RG_MI5_SE-4_2018-10-10_1315
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Moisture	80	%	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Acenaphthene	<0.012	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Acenaphthylene	<0.012	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Acridine	<0.024	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Anthracene	<0.0096	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Benz(a)anthracene	<0.024	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Benzo(a)pyrene	<0.024	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Benzo(b&j)fluoranthene	0.033	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Benzo(g_h_i)perylene	<0.024	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Benzo(k)fluoranthene	<0.024	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Benzo(e)pyrene	0.032	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Chrysene	0.051	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Dibenz(a_h)anthracene	<0.012	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Fluoranthene	<0.024	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Fluorene	<0.024	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Indeno(1,2,3-c,d)pyrene	<0.024	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	1-Methylnaphthalene	0.09	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	2-Methylnaphthalene	0.13	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Naphthalene	0.042	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Perylene	<0.024	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Phenanthrene	0.13	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Pyrene	<0.024	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Quinoline	<0.024	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	IACR (CCME)	0.41	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	B(a)P Total Potency Equivalent	0.026	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	d8-Naphthalene	65	%	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	d10-Acenaphthene	69	%	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	d10-Phenanthrene	92	%	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	d12-Chrysene	99	%	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	% Gravel (>2 mm)	3.7	%	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	% Sand (2.00 mm - 1.00 mm)	12	%	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	% Sand (1.00 mm - 0.50 mm)	13	%	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	% Sand (0.50 mm - 0.25 mm)	8.7	%	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	% Sand (0.25 mm - 0.125 mm)	4.4	%	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	% Sand (0.125 mm - 0.063 mm)	4.4	%	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	% Silt (0.063 mm - 0.0312 mm)	25	%	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	% Silt (0.031 mm - 0.004 mm)	25	%	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	% Clay (<4 µm)	3.9	%	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Texture	Silt loam	-	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Mercury (Hg)	0.029	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Aluminum (Al)	5,730	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Antimony (Sb)	0.51	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Arsenic (As)	4.8	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Barium (Ba)	195	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Beryllium (Be)	0.47	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Boron (B)	9.6	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Cadmium (Cd)	1.6	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Calcium (Ca)	74,100	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Chromium (Cr)	10	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Cobalt (Co)	11	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Copper (Cu)	9.9	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Iron (Fe)	11,900	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Lead (Pb)	7.9	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Lithium (Li)	5.7	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Magnesium (Mg)	4,260	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Manganese (Mn)	227	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Molybdenum (Mo)	0.98	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Nickel (Ni)	34	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Phosphorus (P)	1,270	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Potassium (K)	1,220	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Selenium (Se)	3.4	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Silver (Ag)	0.14	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Sodium (Na)	145	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Strontium (Sr)	105	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Sulfur (S)	1,200	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Thallium (Tl)	0.2	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Titanium (Ti)	25	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Uranium (U)	0.95	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Vanadium (V)	25	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Zinc (Zn)	101	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	pH (1:2 soil:water)	8.1	pH	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MI5	659496	5496774	2018	5	2018-10-10	14:00	Total Organic Carbon	4.5	%	ALS	RG_MI5_SE-5_2018-10-10_1400
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Moisture	89	%	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Acenaphthene	<0.020	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Acenaphthylene	<0.020	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Acridine	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Anthracene	<0.016	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Benz(a)anthracene	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Benzo(a)pyrene	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Benzo(b&j)fluoranthene	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Benzo(g_h_i)perylene	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Benzo(k)fluoranthene	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Benzo(e)pyrene	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Chrysene	0.042	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Dibenz(a_h)anthracene	<0.020	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Fluoranthene	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Fluorene	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Indeno(1,2,3-c,d)pyrene	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	1-Methylnaphthalene	0.066	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	2-Methylnaphthalene	0.097	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Naphthalene	0.041	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Perylene	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Phenanthrene	0.076	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Pyrene	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Quinoline	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	IACR (CCME)	0.44	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	B(a)P Total Potency Equivalent	0.039	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	d8-Naphthalene	64	%	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	d10-Acenaphthene	66	%	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	d10-Phenanthrene	86	%	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	d12-Chrysene	97	%	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	% Gravel (>2 mm)	13	%	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	% Sand (2.00 mm - 1.00 mm)	23	%	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	% Sand (1.00 mm - 0.50 mm)	17	%	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	% Sand (0.50 mm - 0.25 mm)	12	%	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	% Sand (0.25 mm - 0.125 mm)	6.0	%	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	% Sand (0.125 mm - 0.063 mm)	3.7	%	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	% Silt (0.063 mm - 0.0312 mm)	11	%	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	% Silt (0.031 mm - 0.004 mm)	12	%	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	% Clay (<4 µm)	2.1	%	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Texture	Sandy loam	-	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Mercury (Hg)	0.024	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Aluminum (Al)	14,400	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Antimony (Sb)	0.38	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Arsenic (As)	8.1	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Barium (Ba)	178	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Beryllium (Be)	0.9	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Bismuth (Bi)	0.21	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Boron (B)	16	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Cadmium (Cd)	0.87	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Calcium (Ca)	18,100	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Chromium (Cr)	19	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Cobalt (Co)	7.5	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Copper (Cu)	18	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Iron (Fe)	21,900	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Lead (Pb)	13	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Lithium (Li)	19	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Magnesium (Mg)	5,800	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Manganese (Mn)	624	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Molybdenum (Mo)	2.5	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Nickel (Ni)	24	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Phosphorus (P)	1,350	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Potassium (K)	3,440	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Selenium (Se)	0.92	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Silver (Ag)	0.12	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Sodium (Na)	94	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Strontium (Sr)	43	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Sulfur (S)	<1000	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Thallium (Tl)	0.42	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Titanium (Ti)	13	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Uranium (U)	0.75	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Vanadium (V)	31	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Zinc (Zn)	91	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	pH (1:2 soil:water)	8.1	pH	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	1	2018-10-10	18:15	Total Organic Carbon	1.1	%	ALS	RG_MIUCO_SE-1_2018-10-10_1815
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Moisture	81	%	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Acenaphthene	<0.012	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Acenaphthylene	<0.012	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Acridine	<0.024	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Anthracene	<0.0096	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Benz(a)anthracene	<0.024	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Benzo(a)pyrene	<0.024	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Benzo(b&j)fluoranthene	<0.024	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Benzo(g_h_i)perylene	<0.024	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Benzo(k)fluoranthene	<0.024	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Benzo(e)pyrene	<0.024	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Chrysene	0.037	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Dibenz(a_h)anthracene	<0.012	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Fluoranthene	<0.024	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Fluorene	<0.024	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Indeno(1,2,3-c,d)pyrene	<0.024	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	1-Methylnaphthalene	0.057	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	2-Methylnaphthalene	0.086	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Naphthalene	0.033	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Perylene	<0.024	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Phenanthrene	0.07	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Pyrene	<0.024	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Quinoline	<0.024	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	IACR (CCME)	0.27	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	B(a)P Total Potency Equivalent	0.023	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	d8-Naphthalene	62	%	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	d10-Acenaphthene	62	%	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	d10-Phenanthrene	80	%	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	d12-Chrysene	89	%	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	% Gravel (>2 mm)	21	%	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	% Sand (2.00 mm - 1.00 mm)	21	%	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	% Sand (1.00 mm - 0.50 mm)	14	%	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	% Sand (0.50 mm - 0.25 mm)	9.7	%	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	% Sand (0.25 mm - 0.125 mm)	4.4	%	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	% Sand (0.125 mm - 0.063 mm)	3.2	%	ALS	RG_MIUCO_SE-2_2018-10-10_1830



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	% Silt (0.063 mm - 0.0312 mm)	12	%	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	% Silt (0.031 mm - 0.004 mm)	13	%	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	% Clay (<4 µm)	1.6	%	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Texture	Sandy loam	-	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Mercury (Hg)	0.021	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Aluminum (Al)	16,300	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Antimony (Sb)	0.37	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Arsenic (As)	8.2	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Barium (Ba)	204	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Beryllium (Be)	0.96	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Bismuth (Bi)	0.23	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Boron (B)	16	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Cadmium (Cd)	0.91	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Calcium (Ca)	17,800	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Chromium (Cr)	20	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Cobalt (Co)	9.1	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Copper (Cu)	19	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Iron (Fe)	24,100	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Lead (Pb)	14	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Lithium (Li)	21	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Magnesium (Mg)	6,520	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Manganese (Mn)	695	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Molybdenum (Mo)	2.1	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Nickel (Ni)	26	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Phosphorus (P)	1,370	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Potassium (K)	3,860	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Selenium (Se)	0.7	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Sodium (Na)	94	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Strontium (Sr)	43	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Sulfur (S)	<1000	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Thallium (Tl)	0.4	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Titanium (Ti)	12	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Uranium (U)	0.64	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Vanadium (V)	32	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Zinc (Zn)	99	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	pH (1:2 soil:water)	8.0	pH	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	2	2018-10-10	18:30	Total Organic Carbon	1.3	%	ALS	RG_MIUCO_SE-2_2018-10-10_1830
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Moisture	52	%	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Acenaphthene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Acridine	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Anthracene	<0.0040	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Benzo(b&j)fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Benzo(e)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Chrysene	0.01	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Fluorene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	1-Methylnaphthalene	0.016	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	2-Methylnaphthalene	0.024	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Naphthalene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Perylene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Phenanthrene	0.019	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Quinoline	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	IACR (CCME)	<0.15	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	d8-Naphthalene	68	%	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	d10-Acenaphthene	69	%	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	d10-Phenanthrene	88	%	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	d12-Chrysene	97	%	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	% Gravel (>2 mm)	11	%	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	% Sand (2.00 mm - 1.00 mm)	20	%	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	% Sand (1.00 mm - 0.50 mm)	24	%	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	% Sand (0.50 mm - 0.25 mm)	14	%	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	% Sand (0.25 mm - 0.125 mm)	6.0	%	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	% Sand (0.125 mm - 0.063 mm)	3.7	%	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	% Silt (0.063 mm - 0.0312 mm)	8.9	%	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	% Silt (0.031 mm - 0.004 mm)	10	%	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	% Clay (<4 µm)	2.2	%	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Texture	Loamy sand	-	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Mercury (Hg)	0.053	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Aluminum (Al)	18,100	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Antimony (Sb)	0.41	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Arsenic (As)	8.8	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Barium (Ba)	199	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Beryllium (Be)	1.2	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Bismuth (Bi)	0.26	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Boron (B)	19	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Cadmium (Cd)	0.83	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Calcium (Ca)	20,700	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Chromium (Cr)	22	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Cobalt (Co)	9.2	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Copper (Cu)	21	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Iron (Fe)	26,800	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Lead (Pb)	16	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Lithium (Li)	24	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Magnesium (Mg)	7,060	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Manganese (Mn)	716	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Molybdenum (Mo)	2.4	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Nickel (Ni)	27	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Phosphorus (P)	1,610	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Potassium (K)	4,370	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Selenium (Se)	0.74	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Sodium (Na)	109	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Strontium (Sr)	51	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Sulfur (S)	<1000	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Thallium (Tl)	0.43	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Titanium (Ti)	12	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Uranium (U)	0.73	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Vanadium (V)	35	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Zinc (Zn)	104	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	pH (1:2 soil:water)	7.9	pH	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	3	2018-10-10	18:35	Total Organic Carbon	1.0	%	ALS	RG_MIUCO_SE-3_2018-10-10_1835
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Moisture	87	%	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Acenaphthene	<0.017	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Acenaphthylene	<0.017	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Acridine	<0.034	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Anthracene	<0.014	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Benz(a)anthracene	<0.034	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Benzo(a)pyrene	<0.034	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Benzo(b&j)fluoranthene	<0.034	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Benzo(g_h_i)perylene	<0.034	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Benzo(k)fluoranthene	<0.034	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Benzo(e)pyrene	<0.034	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Chrysene	0.038	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Dibenz(a_h)anthracene	<0.017	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Fluoranthene	<0.034	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Fluorene	<0.034	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Indeno(1,2,3-c,d)pyrene	<0.034	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	1-Methylnaphthalene	0.069	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	2-Methylnaphthalene	0.1	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Naphthalene	0.038	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Perylene	<0.034	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Phenanthrene	0.086	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Pyrene	<0.034	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Quinoline	<0.034	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	IACR (CCME)	0.37	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	B(a)P Total Potency Equivalent	<0.033	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	d8-Naphthalene	63	%	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	d10-Acenaphthene	66	%	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	d10-Phenanthrene	89	%	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	d12-Chrysene	93	%	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	% Gravel (>2 mm)	12	%	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	% Sand (2.00 mm - 1.00 mm)	25	%	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	% Sand (1.00 mm - 0.50 mm)	19	%	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	% Sand (0.50 mm - 0.25 mm)	12	%	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	% Sand (0.25 mm - 0.125 mm)	5.0	%	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	% Sand (0.125 mm - 0.063 mm)	3.3	%	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	% Silt (0.063 mm - 0.0312 mm)	10	%	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	% Silt (0.031 mm - 0.004 mm)	11	%	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	% Clay (<4 µm)	1.9	%	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Texture	Loamy sand	-	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Mercury (Hg)	0.025	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Aluminum (Al)	12,300	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Antimony (Sb)	0.41	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Arsenic (As)	7.6	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Barium (Ba)	172	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Beryllium (Be)	0.87	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Bismuth (Bi)	0.21	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Boron (B)	13	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Cadmium (Cd)	0.83	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Calcium (Ca)	21,800	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Chromium (Cr)	17	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Cobalt (Co)	7.9	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Copper (Cu)	21	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Iron (Fe)	20,600	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Lead (Pb)	13	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Lithium (Li)	19	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Magnesium (Mg)	5,550	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Manganese (Mn)	701	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Molybdenum (Mo)	2.2	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Nickel (Ni)	23	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Phosphorus (P)	1,250	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Potassium (K)	2,850	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Selenium (Se)	0.85	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Silver (Ag)	0.1	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Sodium (Na)	81	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Strontium (Sr)	50	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Sulfur (S)	<1000	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Thallium (Tl)	0.41	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Titanium (Ti)	13	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Uranium (U)	0.65	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Vanadium (V)	27	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Zinc (Zn)	92	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	pH (1:2 soil:water)	7.9	pH	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	4	2018-10-10	18:45	Total Organic Carbon	1.1	%	ALS	RG_MIUCO_SE-4_2018-10-10_1845
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Moisture	77	%	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Acenaphthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Acenaphthylene	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Acridine	<0.020	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Anthracene	<0.0080	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Benz(a)anthracene	<0.020	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Benzo(a)pyrene	<0.020	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Benzo(b&j)fluoranthene	0.02	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Benzo(g_h_i)perylene	<0.020	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Benzo(k)fluoranthene	<0.020	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Benzo(e)pyrene	0.023	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Chrysene	0.035	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Dibenz(a_h)anthracene	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Fluoranthene	<0.020	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Fluorene	<0.020	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Indeno(1,2,3-c,d)pyrene	<0.020	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	1-Methylnaphthalene	0.061	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	2-Methylnaphthalene	0.089	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Naphthalene	0.036	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Perylene	0.022	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Phenanthrene	0.078	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Pyrene	<0.020	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Quinoline	<0.020	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	IACR (CCME)	0.29	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	B(a)P Total Potency Equivalent	0.02	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	d8-Naphthalene	62	%	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	d10-Acenaphthene	62	%	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	d10-Phenanthrene	80	%	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	d12-Chrysene	86	%	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	% Gravel (>2 mm)	17	%	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	% Sand (2.00 mm - 1.00 mm)	20	%	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	% Sand (1.00 mm - 0.50 mm)	12	%	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	% Sand (0.50 mm - 0.25 mm)	7.7	%	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	% Sand (0.25 mm - 0.125 mm)	7.6	%	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	% Sand (0.125 mm - 0.063 mm)	6.8	%	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	% Silt (0.063 mm - 0.0312 mm)	13	%	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	% Silt (0.031 mm - 0.004 mm)	14	%	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	% Clay (<4 µm)	2.6	%	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Texture	Sandy loam	-	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Mercury (Hg)	0.015	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Aluminum (Al)	13,800	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Antimony (Sb)	0.38	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Arsenic (As)	8.1	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Barium (Ba)	157	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Beryllium (Be)	0.87	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Bismuth (Bi)	0.22	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Boron (B)	12	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Cadmium (Cd)	0.62	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Calcium (Ca)	17,200	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Chromium (Cr)	17	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Cobalt (Co)	8.2	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Copper (Cu)	17	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Iron (Fe)	22,900	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Lead (Pb)	13	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Lithium (Li)	21	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Magnesium (Mg)	5,850	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Manganese (Mn)	527	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Molybdenum (Mo)	2.1	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Nickel (Ni)	23	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Phosphorus (P)	1,200	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Potassium (K)	2,830	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Selenium (Se)	0.52	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Sodium (Na)	86	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Strontium (Sr)	42	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Sulfur (S)	<1000	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Thallium (Tl)	0.35	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Titanium (Ti)	11	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Uranium (U)	0.55	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Vanadium (V)	26	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Zinc (Zn)	90	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	pH (1:2 soil:water)	7.9	pH	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIUCO	668135	5486767	2018	5	2018-10-10	18:55	Total Organic Carbon	1.4	%	ALS	RG_MIUCO_SE-5_2018-10-10_1855
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Moisture	44	%	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Acenaphthene	<0.0060	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Acridine	<0.010	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Anthracene	<0.0040	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Benz(a)anthracene	0.012	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Benzo(b&j)fluoranthene	0.024	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Benzo(e)pyrene	0.023	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Chrysene	0.035	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Fluoranthene	0.028	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Fluorene	0.014	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	1-Methylnaphthalene	0.076	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	2-Methylnaphthalene	0.12	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Naphthalene	0.039	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Perylene	<0.010	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Phenanthrene	0.096	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Pyrene	0.025	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Quinoline	<0.010	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	IACR (CCME)	0.26	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	d8-Naphthalene	61	%	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	d10-Acenaphthene	64	%	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	d10-Phenanthrene	83	%	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	d12-Chrysene	88	%	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	% Gravel (>2 mm)	1.2	%	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	% Sand (2.00 mm - 1.00 mm)	3.6	%	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	% Sand (1.00 mm - 0.50 mm)	22	%	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	% Sand (0.50 mm - 0.25 mm)	26	%	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	% Sand (0.25 mm - 0.125 mm)	11	%	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	% Sand (0.125 mm - 0.063 mm)	6.5	%	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	% Silt (0.063 mm - 0.0312 mm)	13	%	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	% Silt (0.031 mm - 0.004 mm)	14	%	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	% Clay (<4 µm)	2.3	%	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Texture	Sandy loam	-	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Mercury (Hg)	0.016	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Aluminum (Al)	8,850	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Antimony (Sb)	0.39	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Arsenic (As)	7.4	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Barium (Ba)	110	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Beryllium (Be)	0.72	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Boron (B)	8.6	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Cadmium (Cd)	0.79	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Calcium (Ca)	56,800	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Chromium (Cr)	13	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Cobalt (Co)	24	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Copper (Cu)	12	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Iron (Fe)	16,500	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Lead (Pb)	10	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Lithium (Li)	13	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Magnesium (Mg)	7,670	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Manganese (Mn)	372	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Molybdenum (Mo)	1.3	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Nickel (Ni)	44	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Phosphorus (P)	1,150	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Potassium (K)	1,930	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Selenium (Se)	1.4	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Sodium (Na)	85	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Strontium (Sr)	78	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Thallium (Tl)	0.41	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Titanium (Ti)	8.7	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Uranium (U)	0.71	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Vanadium (V)	22	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Zinc (Zn)	110	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	pH (1:2 soil:water)	8.1	pH	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	1	2018-10-10	16:35	Total Organic Carbon	2.5	%	ALS	RG_MIDAG_SE-1_2018-10-10_1635
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Moisture	83	%	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Acenaphthene	<0.021	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Acenaphthylene	<0.014	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Acridine	<0.027	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Anthracene	<0.011	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Benz(a)anthracene	0.045	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Benzo(a)pyrene	<0.027	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Benzo(b&j)fluoranthene	0.084	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Benzo(g_h_i)perylene	<0.027	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Benzo(k)fluoranthene	<0.027	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Benzo(e)pyrene	0.08	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Chrysene	0.12	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Dibenz(a_h)anthracene	<0.014	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Fluoranthene	0.086	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Fluorene	0.055	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Indeno(1,2,3-c,d)pyrene	<0.027	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	1-Methylnaphthalene	0.31	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	2-Methylnaphthalene	0.47	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Naphthalene	0.15	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Perylene	<0.027	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Phenanthrene	0.35	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Pyrene	0.075	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Quinoline	<0.027	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	IACR (CCME)	0.88	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	B(a)P Total Potency Equivalent	0.037	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	d8-Naphthalene	67	%	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	d10-Acenaphthene	69	%	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	d10-Phenanthrene	93	%	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	d12-Chrysene	97	%	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	% Gravel (>2 mm)	11	%	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	% Sand (2.00 mm - 1.00 mm)	16	%	ALS	RG_MIDAG_SE-2_2018-10-10_1700



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	% Sand (1.00 mm - 0.50 mm)	21	%	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	% Sand (0.50 mm - 0.25 mm)	8.9	%	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	% Sand (0.25 mm - 0.125 mm)	3.6	%	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	% Sand (0.125 mm - 0.063 mm)	4.1	%	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	% Silt (0.063 mm - 0.0312 mm)	16	%	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	% Silt (0.031 mm - 0.004 mm)	18	%	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	% Clay (<4 µm)	3.1	%	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Texture	Sandy loam	-	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Mercury (Hg)	0.021	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Aluminum (Al)	6,770	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Antimony (Sb)	0.3	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Arsenic (As)	6.1	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Barium (Ba)	122	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Beryllium (Be)	0.57	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Boron (B)	8.3	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Cadmium (Cd)	0.98	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Calcium (Ca)	80,400	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Chromium (Cr)	10	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Cobalt (Co)	55	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Copper (Cu)	11	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Iron (Fe)	13,300	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Lead (Pb)	8.7	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Lithium (Li)	10	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Magnesium (Mg)	7,670	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Manganese (Mn)	502	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Molybdenum (Mo)	1.1	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Nickel (Ni)	70	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Phosphorus (P)	1,060	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Potassium (K)	1,420	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Selenium (Se)	2.1	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Silver (Ag)	0.1	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Sodium (Na)	108	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Strontium (Sr)	111	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Sulfur (S)	1,000	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Thallium (Tl)	0.34	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Titanium (Ti)	11	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Uranium (U)	0.88	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Vanadium (V)	17	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Zinc (Zn)	116	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	pH (1:2 soil:water)	8.0	pH	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	2	2018-10-10	17:00	Total Organic Carbon	3.9	%	ALS	RG_MIDAG_SE-2_2018-10-10_1700
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Moisture	79	%	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Acenaphthene	<0.022	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Acenaphthylene	<0.012	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Acridine	<0.023	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Anthracene	0.015	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Benz(a)anthracene	0.043	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Benzo(a)pyrene	0.031	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Benzo(b&j)fluoranthene	0.1	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Benzo(g_h_i)perylene	0.03	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Benzo(k)fluoranthene	<0.023	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Benzo(e)pyrene	0.093	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Chrysene	0.13	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Dibenz(a_h)anthracene	<0.012	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Fluoranthene	0.11	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Fluorene	0.066	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Indeno(1,2,3-c,d)pyrene	<0.023	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	1-Methylnaphthalene	0.35	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	2-Methylnaphthalene	0.54	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Naphthalene	0.17	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Perylene	<0.023	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Phenanthrene	0.41	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Pyrene	0.094	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Quinoline	<0.023	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	IACR (CCME)	1.0	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	B(a)P Total Potency Equivalent	0.055	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	d8-Naphthalene	65	%	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	d10-Acenaphthene	68	%	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	d10-Phenanthrene	89	%	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	d12-Chrysene	93	%	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	% Gravel (>2 mm)	12	%	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	% Sand (2.00 mm - 1.00 mm)	17	%	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	% Sand (1.00 mm - 0.50 mm)	13	%	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	% Sand (0.50 mm - 0.25 mm)	3.2	%	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	% Sand (0.25 mm - 0.125 mm)	2.7	%	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	% Sand (0.125 mm - 0.063 mm)	5.2	%	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	% Silt (0.063 mm - 0.0312 mm)	20	%	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	% Silt (0.031 mm - 0.004 mm)	23	%	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	% Clay (<4 µm)	4.2	%	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Texture	Silt loam	-	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Mercury (Hg)	0.024	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Aluminum (Al)	6,810	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Antimony (Sb)	0.28	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Arsenic (As)	5.9	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Barium (Ba)	123	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Beryllium (Be)	0.61	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Boron (B)	8.6	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Cadmium (Cd)	1.1	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Calcium (Ca)	75,800	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Chromium (Cr)	10	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Cobalt (Co)	49	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Copper (Cu)	11	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Iron (Fe)	13,700	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Lead (Pb)	8.9	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Lithium (Li)	10	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Magnesium (Mg)	7,460	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Manganese (Mn)	448	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Molybdenum (Mo)	1.1	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Nickel (Ni)	60	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Phosphorus (P)	1,030	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Potassium (K)	1,450	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Selenium (Se)	2.4	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Silver (Ag)	0.11	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Sodium (Na)	97	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Strontium (Sr)	105	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Sulfur (S)	1,000	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Thallium (Tl)	0.33	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Titanium (Ti)	9.8	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Uranium (U)	0.76	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Vanadium (V)	17	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Zinc (Zn)	119	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	pH (1:2 soil:water)	7.9	pH	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	3	2018-10-10	17:05	Total Organic Carbon	4.9	%	ALS	RG_MIDAG_SE-3_2018-10-10_1705
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Moisture	72	%	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Acenaphthene	<0.024	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Acenaphthylene	<0.0085	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Acridine	<0.017	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Anthracene	0.0078	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Benz(a)anthracene	0.041	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Benzo(a)pyrene	0.025	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Benzo(b&j)fluoranthene	0.077	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Benzo(g_h_i)perylene	0.023	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Benzo(k)fluoranthene	<0.017	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Benzo(e)pyrene	0.072	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Chrysene	0.1	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Dibenz(a_h)anthracene	<0.0085	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Fluoranthene	0.095	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Fluorene	0.059	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Indeno(1,2,3-c,d)pyrene	<0.017	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	1-Methylnaphthalene	0.28	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	2-Methylnaphthalene	0.43	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Naphthalene	0.14	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Perylene	<0.017	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Phenanthrene	0.36	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Pyrene	0.081	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Quinoline	<0.017	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	IACR (CCME)	0.8	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	B(a)P Total Potency Equivalent	0.044	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	d8-Naphthalene	58	%	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	d10-Acenaphthene	63	%	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	d10-Phenanthrene	85	%	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	d12-Chrysene	89	%	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	% Gravel (>2 mm)	1.9	%	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	% Sand (2.00 mm - 1.00 mm)	4.4	%	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	% Sand (1.00 mm - 0.50 mm)	7.7	%	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	% Sand (0.50 mm - 0.25 mm)	4.5	%	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	% Sand (0.25 mm - 0.125 mm)	5.8	%	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	% Sand (0.125 mm - 0.063 mm)	10	%	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	% Silt (0.063 mm - 0.0312 mm)	28	%	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	% Silt (0.031 mm - 0.004 mm)	32	%	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	% Clay (<4 µm)	5.9	%	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Texture	Silt loam	-	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Mercury (Hg)	0.031	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Aluminum (Al)	6,560	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Antimony (Sb)	0.3	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Arsenic (As)	5.9	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Barium (Ba)	124	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Beryllium (Be)	0.57	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Boron (B)	7.6	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Cadmium (Cd)	1.0	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Calcium (Ca)	66,300	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Chromium (Cr)	10.0	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Cobalt (Co)	54	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Copper (Cu)	11	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Iron (Fe)	12,600	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Lead (Pb)	8.3	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Lithium (Li)	9.5	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Magnesium (Mg)	7,280	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Manganese (Mn)	498	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Molybdenum (Mo)	1.1	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Nickel (Ni)	67	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Phosphorus (P)	1,020	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Potassium (K)	1,340	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Selenium (Se)	2.4	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Silver (Ag)	0.11	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Sodium (Na)	98	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Strontium (Sr)	94	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Thallium (Tl)	0.33	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Titanium (Ti)	9.2	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Uranium (U)	0.79	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Vanadium (V)	17	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Zinc (Zn)	120	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	pH (1:2 soil:water)	7.9	pH	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	4	2018-10-10	17:10	Total Organic Carbon	6.1	%	ALS	RG_MIDAG_SE-4_2018-10-10_1710
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Moisture	77	%	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Acenaphthene	<0.036	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Acenaphthylene	0.011	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Acridine	<0.060	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Anthracene	0.014	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Benz(a)anthracene	0.074	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Benzo(a)pyrene	0.053	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Benzo(b&j)fluoranthene	0.16	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Benzo(g_h_i)perylene	0.045	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Benzo(k)fluoranthene	0.021	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Benzo(e)pyrene	0.14	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Chrysene	0.21	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Dibenz(a_h)anthracene	0.016	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Fluoranthene	0.2	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Fluorene	0.12	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Indeno(1,2,3-c,d)pyrene	<0.019	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	1-Methylnaphthalene	0.56	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	2-Methylnaphthalene	0.87	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Naphthalene	0.26	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Perylene	<0.019	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Phenanthrene	0.63	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Pyrene	0.16	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Quinoline	<0.019	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	IACR (CCME)	1.7	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	B(a)P Total Potency Equivalent	0.098	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	d8-Naphthalene	55	%	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	d10-Acenaphthene	62	%	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	d10-Phenanthrene	85	%	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	d12-Chrysene	90	%	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	% Gravel (>2 mm)	3.0	%	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	% Sand (2.00 mm - 1.00 mm)	10	%	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	% Sand (1.00 mm - 0.50 mm)	19	%	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	% Sand (0.50 mm - 0.25 mm)	11	%	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	% Sand (0.25 mm - 0.125 mm)	6.3	%	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	% Sand (0.125 mm - 0.063 mm)	7.3	%	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	% Silt (0.063 mm - 0.0312 mm)	18	%	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	% Silt (0.031 mm - 0.004 mm)	20	%	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	% Clay (<4 µm)	4.2	%	ALS	RG_MIDAG_SE-5_2018-10-10_1725



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Texture	Sandy loam	-	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Mercury (Hg)	0.031	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Aluminum (Al)	7,020	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Antimony (Sb)	0.41	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Arsenic (As)	6.7	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Barium (Ba)	123	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Beryllium (Be)	0.64	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Boron (B)	7.8	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Cadmium (Cd)	1.0	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Calcium (Ca)	53,100	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Chromium (Cr)	11	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Cobalt (Co)	35	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Copper (Cu)	12	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Iron (Fe)	12,900	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Lead (Pb)	9.1	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Lithium (Li)	11	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Magnesium (Mg)	7,020	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Manganese (Mn)	353	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Molybdenum (Mo)	1.5	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Nickel (Ni)	47	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Phosphorus (P)	1,090	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Potassium (K)	1,450	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Selenium (Se)	2.2	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Silver (Ag)	0.12	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Sodium (Na)	89	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Strontium (Sr)	78	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Thallium (Tl)	0.38	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Titanium (Ti)	10	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Uranium (U)	0.85	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Vanadium (V)	19	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Zinc (Zn)	108	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	pH (1:2 soil:water)	7.9	pH	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIDAG	665220	5489324	2018	5	2018-10-10	17:25	Total Organic Carbon	6.0	%	ALS	RG_MIDAG_SE-5_2018-10-10_1725
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Moisture	87	%	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Acenaphthene	<0.018	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Acenaphthylene	<0.018	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Acridine	<0.036	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Anthracene	<0.014	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Benz(a)anthracene	0.036	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Benzo(a)pyrene	<0.036	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Benzo(b&j)fluoranthene	0.081	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Benzo(g_h_i)perylene	<0.036	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Benzo(k)fluoranthene	<0.036	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Benzo(e)pyrene	0.078	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Chrysene	0.13	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Dibenz(a_h)anthracene	<0.018	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Fluoranthene	0.053	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Fluorene	0.046	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Indeno(1,2,3-c,d)pyrene	<0.036	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	1-Methylnaphthalene	0.25	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	2-Methylnaphthalene	0.37	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Naphthalene	0.14	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Perylene	<0.036	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Phenanthrene	0.34	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Pyrene	0.059	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Quinoline	<0.036	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	IACR (CCME)	0.89	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	B(a)P Total Potency Equivalent	0.044	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	d8-Naphthalene	58	%	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	d10-Acenaphthene	62	%	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	d10-Phenanthrene	87	%	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	d12-Chrysene	93	%	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	% Gravel (>2 mm)	21	%	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	% Sand (2.00 mm - 1.00 mm)	11	%	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	% Sand (1.00 mm - 0.50 mm)	7.9	%	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	% Sand (0.50 mm - 0.25 mm)	5.4	%	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	% Sand (0.25 mm - 0.125 mm)	3.8	%	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	% Sand (0.125 mm - 0.063 mm)	5.0	%	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	% Silt (0.063 mm - 0.0312 mm)	20	%	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	% Silt (0.031 mm - 0.004 mm)	22	%	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	% Clay (<4 µm)	4.1	%	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Texture	Silt loam	-	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Mercury (Hg)	0.036	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Aluminum (Al)	5,220	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Antimony (Sb)	0.36	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Arsenic (As)	5.0	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Barium (Ba)	164	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Beryllium (Be)	0.49	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Boron (B)	7.4	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Cadmium (Cd)	1.5	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Calcium (Ca)	64,200	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Chromium (Cr)	8.5	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Cobalt (Co)	24	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Copper (Cu)	12	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Iron (Fe)	11,300	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Lead (Pb)	15	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Lithium (Li)	7.2	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Magnesium (Mg)	6,880	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Manganese (Mn)	356	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Molybdenum (Mo)	1.1	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Nickel (Ni)	50	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Phosphorus (P)	1,030	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Potassium (K)	1,110	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Selenium (Se)	3.3	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Silver (Ag)	0.14	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Sodium (Na)	101	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Strontium (Sr)	94	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Sulfur (S)	1,500	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Thallium (Tl)	0.32	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Titanium (Ti)	11	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Uranium (U)	0.85	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Vanadium (V)	17	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Zinc (Zn)	120	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	pH (1:2 soil:water)	7.8	pH	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	1	2018-10-10	14:45	Total Organic Carbon	5.7	%	ALS	RG_MIULE_SE-1_2018-10-10_1445
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Moisture	93	%	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Acenaphthene	<0.033	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Acenaphthylene	<0.033	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Acridine	<0.065	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Anthracene	<0.026	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Benz(a)anthracene	<0.065	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Benzo(a)pyrene	<0.065	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Benzo(b&j)fluoranthene	0.094	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Benzo(g_h_i)perylene	<0.065	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Benzo(k)fluoranthene	<0.065	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Benzo(e)pyrene	0.09	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Chrysene	0.13	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Dibenz(a_h)anthracene	<0.033	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Fluoranthene	<0.065	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Fluorene	<0.065	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Indeno(1,2,3-c,d)pyrene	<0.065	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	1-Methylnaphthalene	0.3	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	2-Methylnaphthalene	0.44	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Naphthalene	0.17	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Perylene	<0.065	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Phenanthrene	0.38	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Pyrene	<0.065	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Quinoline	<0.065	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	IACR (CCME)	1.1	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	B(a)P Total Potency Equivalent	0.07	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	d8-Naphthalene	62	%	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	d10-Acenaphthene	65	%	ALS	RG_MIULE_SE-2_2018-10-10_1500



Appendix I:  
Sediment Screening

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	d10-Phenanthrene	87	%	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	d12-Chrysene	94	%	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	% Sand (1.00 mm - 0.50 mm)	<1.0	%	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	% Sand (0.50 mm - 0.25 mm)	<1.0	%	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	% Sand (0.25 mm - 0.125 mm)	4.5	%	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	% Sand (0.125 mm - 0.063 mm)	7.7	%	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	% Silt (0.063 mm - 0.0312 mm)	39	%	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	% Silt (0.031 mm - 0.004 mm)	41	%	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	% Clay (<4 µm)	6.6	%	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Texture	Silt loam	-	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Mercury (Hg)	0.035	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Aluminum (Al)	4,540	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Antimony (Sb)	0.32	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Arsenic (As)	3.8	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Barium (Ba)	159	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Beryllium (Be)	0.43	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Boron (B)	9.2	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Cadmium (Cd)	1.3	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Calcium (Ca)	77,300	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Chromium (Cr)	7.7	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Cobalt (Co)	20	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Copper (Cu)	9.4	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Iron (Fe)	8,960	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Lead (Pb)	6.6	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Lithium (Li)	6.3	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Magnesium (Mg)	5,720	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Manganese (Mn)	256	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Molybdenum (Mo)	0.93	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Nickel (Ni)	49	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Phosphorus (P)	1,010	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Potassium (K)	1,120	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Selenium (Se)	3.3	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Silver (Ag)	0.12	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Sodium (Na)	106	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Strontium (Sr)	114	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Sulfur (S)	2,100	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Thallium (Tl)	0.26	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Titanium (Ti)	12	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Uranium (U)	0.84	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Vanadium (V)	15	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Zinc (Zn)	92	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIULE_SE-2_2018-10-10_1500

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	pH (1:2 soil:water)	7.9	pH	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	2	2018-10-10	15:00	Total Organic Carbon	9.4	%	ALS	RG_MIULE_SE-2_2018-10-10_1500
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Moisture	69	%	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Acenaphthene	<0.012	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Acenaphthylene	<0.0075	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Acridine	<0.015	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Anthracene	<0.0060	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Benz(a)anthracene	0.023	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Benzo(a)pyrene	<0.015	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Benzo(b&j)fluoranthene	0.055	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Benzo(g_h_i)perylene	0.016	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Benzo(k)fluoranthene	<0.015	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Benzo(e)pyrene	0.053	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Chrysene	0.079	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Dibenz(a_h)anthracene	<0.0075	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Fluoranthene	0.039	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Fluorene	0.034	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Indeno(1,2,3-c,d)pyrene	<0.015	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	1-Methylnaphthalene	0.2	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	2-Methylnaphthalene	0.31	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Naphthalene	0.11	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Perylene	0.017	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Phenanthrene	0.24	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Pyrene	0.039	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Quinoline	<0.015	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	IACR (CCME)	0.54	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	B(a)P Total Potency Equivalent	0.021	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	d8-Naphthalene	64	%	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	d10-Acenaphthene	67	%	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	d10-Phenanthrene	90	%	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	d12-Chrysene	97	%	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	% Sand (1.00 mm - 0.50 mm)	<1.0	%	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	% Sand (0.50 mm - 0.25 mm)	2.8	%	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	% Sand (0.25 mm - 0.125 mm)	12	%	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	% Sand (0.125 mm - 0.063 mm)	14	%	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	% Silt (0.063 mm - 0.0312 mm)	30	%	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	% Silt (0.031 mm - 0.004 mm)	34	%	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	% Clay (<4 µm)	6.4	%	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Texture	Silt loam	-	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Mercury (Hg)	0.033	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Aluminum (Al)	5,960	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Antimony (Sb)	0.37	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Arsenic (As)	5.4	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Barium (Ba)	159	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Beryllium (Be)	0.52	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505

Appendix I:  
Sediment Screening

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Boron (B)	7.2	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Cadmium (Cd)	1.2	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Calcium (Ca)	59,300	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Chromium (Cr)	9.6	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Cobalt (Co)	23	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Copper (Cu)	11	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Iron (Fe)	12,500	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Lead (Pb)	8.5	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Lithium (Li)	8.3	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Magnesium (Mg)	6,630	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Manganese (Mn)	273	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Molybdenum (Mo)	1.1	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Nickel (Ni)	48	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Phosphorus (P)	1,100	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Potassium (K)	1,120	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Selenium (Se)	2.4	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Silver (Ag)	0.13	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Sodium (Na)	86	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Strontium (Sr)	86	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Sulfur (S)	1,100	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Thallium (Tl)	0.29	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Titanium (Ti)	16	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Uranium (U)	0.83	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Vanadium (V)	18	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Zinc (Zn)	113	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	pH (1:2 soil:water)	7.8	pH	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	3	2018-10-10	15:05	Total Organic Carbon	5.9	%	ALS	RG_MIULE_SE-3_2018-10-10_1505
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Moisture	68	%	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Acenaphthene	<0.011	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Acenaphthylene	<0.0070	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Acridine	<0.014	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Anthracene	<0.0056	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Benz(a)anthracene	0.021	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Benzo(a)pyrene	<0.014	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Benzo(b&j)fluoranthene	0.048	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Benzo(g_h_i)perylene	0.015	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Benzo(k)fluoranthene	<0.014	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Benzo(e)pyrene	0.047	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Chrysene	0.07	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Dibenz(a_h)anthracene	<0.0070	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Fluoranthene	0.03	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Fluorene	0.027	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Indeno(1,2,3-c,d)pyrene	<0.014	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	1-Methylnaphthalene	0.16	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	2-Methylnaphthalene	0.24	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Naphthalene	0.088	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Perylene	<0.014	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Phenanthrene	0.2	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Pyrene	0.032	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Quinoline	<0.014	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	IACR (CCME)	0.48	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	d8-Naphthalene	61	%	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	d10-Acenaphthene	64	%	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	d10-Phenanthrene	88	%	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	d12-Chrysene	96	%	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	% Gravel (>2 mm)	10	%	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	% Sand (2.00 mm - 1.00 mm)	3.5	%	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	% Sand (1.00 mm - 0.50 mm)	3.4	%	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	% Sand (0.50 mm - 0.25 mm)	6.4	%	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	% Sand (0.25 mm - 0.125 mm)	11	%	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	% Sand (0.125 mm - 0.063 mm)	11	%	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	% Silt (0.063 mm - 0.0312 mm)	24	%	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	% Silt (0.031 mm - 0.004 mm)	26	%	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	% Clay (<4 µm)	4.5	%	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Texture	Silt loam	-	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Mercury (Hg)	0.034	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Aluminum (Al)	6,230	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Antimony (Sb)	0.43	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Arsenic (As)	5.6	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Barium (Ba)	160	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Beryllium (Be)	0.57	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Boron (B)	8.1	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Cadmium (Cd)	1.1	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Calcium (Ca)	57,100	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Chromium (Cr)	10.0	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Cobalt (Co)	23	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Copper (Cu)	11	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Iron (Fe)	12,800	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Lead (Pb)	8.4	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Lithium (Li)	8.8	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Magnesium (Mg)	6,350	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Manganese (Mn)	314	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Molybdenum (Mo)	1.2	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Nickel (Ni)	48	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Phosphorus (P)	1,080	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Potassium (K)	1,280	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Selenium (Se)	2.0	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Silver (Ag)	0.12	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Sodium (Na)	91	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Strontium (Sr)	88	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Sulfur (S)	<1000	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Thallium (Tl)	0.31	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Titanium (Ti)	14	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Uranium (U)	0.85	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Vanadium (V)	20	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Zinc (Zn)	109	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	pH (1:2 soil:water)	7.9	pH	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	4	2018-10-10	15:10	Total Organic Carbon	4.7	%	ALS	RG_MIULE_SE-4_2018-10-10_1510
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Moisture	84	%	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Acenaphthene	<0.015	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Acenaphthylene	<0.014	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Acridine	<0.027	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Anthracene	<0.011	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Benz(a)anthracene	0.036	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Benzo(a)pyrene	<0.027	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Benzo(b&j)fluoranthene	0.08	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Benzo(g_h_i)perylene	<0.027	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Benzo(k)fluoranthene	<0.027	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Benzo(e)pyrene	0.076	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Chrysene	0.12	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Dibenz(a_h)anthracene	<0.014	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Fluoranthene	0.053	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Fluorene	0.046	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Indeno(1,2,3-c,d)pyrene	<0.027	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	1-Methylnaphthalene	0.25	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	2-Methylnaphthalene	0.38	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Naphthalene	0.14	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Perylene	0.03	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Phenanthrene	0.33	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Pyrene	0.061	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Quinoline	<0.027	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	IACR (CCME)	0.82	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	B(a)P Total Potency Equivalent	0.036	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	d8-Naphthalene	58	%	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	d10-Acenaphthene	62	%	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	d10-Phenanthrene	84	%	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	d12-Chrysene	92	%	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	% Sand (1.00 mm - 0.50 mm)	1.7	%	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	% Sand (0.50 mm - 0.25 mm)	<1.0	%	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	% Sand (0.25 mm - 0.125 mm)	1.8	%	ALS	RG_MIULE_SE-5_2018-10-10_1540



**Appendix I:  
Sediment Screening**

**Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	% Sand (0.125 mm - 0.063 mm)	8.3	%	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	% Silt (0.063 mm - 0.0312 mm)	39	%	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	% Silt (0.031 mm - 0.004 mm)	42	%	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	% Clay (<4 µm)	6.5	%	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Texture	Silt	-	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Mercury (Hg)	0.039	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Aluminum (Al)	4,750	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Antimony (Sb)	0.34	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Arsenic (As)	4.4	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Barium (Ba)	155	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Beryllium (Be)	0.45	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Boron (B)	7.7	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Cadmium (Cd)	1.3	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Calcium (Ca)	67,000	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Chromium (Cr)	7.9	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Cobalt (Co)	24	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Copper (Cu)	10	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Iron (Fe)	10,300	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Lead (Pb)	7.4	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Lithium (Li)	6.5	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Magnesium (Mg)	6,360	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Manganese (Mn)	326	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Molybdenum (Mo)	0.98	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Nickel (Ni)	49	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Phosphorus (P)	1,000	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Potassium (K)	950	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Selenium (Se)	2.8	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Silver (Ag)	0.13	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Sodium (Na)	107	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Strontium (Sr)	98	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Sulfur (S)	1,300	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Thallium (Tl)	0.27	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Titanium (Ti)	12	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Uranium (U)	0.81	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Vanadium (V)	15	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Zinc (Zn)	98	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	pH (1:2 soil:water)	7.9	pH	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	MIULE	660503	5493048	2018	5	2018-10-10	15:40	Total Organic Carbon	8.4	%	ALS	RG_MIULE_SE-5_2018-10-10_1540
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Moisture	58	%	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Acenaphthene	<0.032	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Acenaphthylene	<0.0070	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Acridine	<0.010	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Anthracene	<0.013	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Benz(a)anthracene	0.038	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Benzo(a)pyrene	0.029	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Benzo(b&j)fluoranthene	0.11	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Benzo(g_h_i)perylene	0.067	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Benzo(k)fluoranthene	0.01	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Benzo(e)pyrene	0.14	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Chrysene	0.2	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Dibenz(a_h)anthracene	<0.022	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Fluoranthene	0.036	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Fluorene	0.11	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Indeno(1,2,3-c,d)pyrene	0.018	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	1-Methylnaphthalene	0.66	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	2-Methylnaphthalene	1.1	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Naphthalene	0.35	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Perylene	<0.010	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Phenanthrene	0.53	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Pyrene	0.066	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Quinoline	<0.010	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	IACR (CCME)	1.1	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	B(a)P Total Potency Equivalent	0.061	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	d8-Naphthalene	77	%	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	d10-Acenaphthene	84	%	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	d10-Phenanthrene	95	%	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	d12-Chrysene	100	%	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	% Gravel (>2 mm)	<1.0	%	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	% Sand (1.00 mm - 0.50 mm)	<1.0	%	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	% Sand (0.50 mm - 0.25 mm)	2.0	%	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	% Sand (0.25 mm - 0.125 mm)	7.9	%	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	% Sand (0.125 mm - 0.063 mm)	14	%	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	% Silt (0.063 mm - 0.0312 mm)	31	%	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	% Silt (0.031 mm - 0.004 mm)	39	%	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	% Clay (<4 µm)	4.8	%	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Texture	Silt loam	-	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Mercury (Hg)	0.0063	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Aluminum (Al)	1,040	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Antimony (Sb)	0.35	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Arsenic (As)	1.2	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Barium (Ba)	154	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Beryllium (Be)	0.22	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Boron (B)	<5.0	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Cadmium (Cd)	5.4	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Calcium (Ca)	311,000	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Chromium (Cr)	1.6	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Cobalt (Co)	306	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Copper (Cu)	3.5	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Iron (Fe)	1,600	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Lead (Pb)	1.4	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Lithium (Li)	<2.0	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Magnesium (Mg)	5,120	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Manganese (Mn)	2,400	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Molybdenum (Mo)	0.69	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Nickel (Ni)	259	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Phosphorus (P)	131	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Potassium (K)	350	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Selenium (Se)	1.7	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Silver (Ag)	<0.10	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Sodium (Na)	337	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Strontium (Sr)	461	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Sulfur (S)	5,800	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Thallium (Tl)	0.11	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Tin (Sn)	<2.0	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Titanium (Ti)	5.3	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Tungsten (W)	<0.50	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Uranium (U)	2.9	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Vanadium (V)	3.5	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Zinc (Zn)	717	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	pH (1:2 soil:water)	8.5	pH	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	1	2018-10-12	08:10	Total Organic Carbon	6.0	%	ALS	RG_CORCK_SE-1_2018-10-12_0810
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Moisture	59	%	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Acenaphthene	<0.041	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Acenaphthylene	<0.011	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Acridine	<0.010	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Anthracene	<0.015	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Benz(a)anthracene	0.055	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Benzo(a)pyrene	0.045	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Benzo(b&j)fluoranthene	0.17	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Benzo(g_h_i)perylene	0.097	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Benzo(k)fluoranthene	0.012	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Benzo(e)pyrene	0.22	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Chrysene	0.28	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Dibenz(a_h)anthracene	<0.030	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Fluoranthene	0.054	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Fluorene	0.15	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Indeno(1,2,3-c,d)pyrene	0.022	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	1-Methylnaphthalene	0.95	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	2-Methylnaphthalene	1.6	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Naphthalene	0.51	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Perylene	<0.010	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Phenanthrene	0.73	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Pyrene	0.088	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Quinoline	<0.010	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	IACR (CCME)	1.6	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	B(a)P Total Potency Equivalent	0.089	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	d8-Naphthalene	80	%	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	d10-Acenaphthene	90	%	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	d10-Phenanthrene	97	%	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	d12-Chrysene	104	%	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	% Gravel (>2 mm)	12	%	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	% Sand (2.00 mm - 1.00 mm)	9.0	%	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	% Sand (1.00 mm - 0.50 mm)	13	%	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	% Sand (0.50 mm - 0.25 mm)	13	%	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	% Sand (0.25 mm - 0.125 mm)	9.7	%	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	% Sand (0.125 mm - 0.063 mm)	9.2	%	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	% Silt (0.063 mm - 0.0312 mm)	14	%	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	% Silt (0.031 mm - 0.004 mm)	18	%	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	% Clay (<4 µm)	3.2	%	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Texture	Sandy loam	-	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Mercury (Hg)	0.016	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Aluminum (Al)	2,300	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Antimony (Sb)	0.36	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Arsenic (As)	2.7	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Barium (Ba)	170	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Beryllium (Be)	0.37	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Boron (B)	5.2	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Cadmium (Cd)	7.9	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Calcium (Ca)	257,000	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Chromium (Cr)	3.6	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Cobalt (Co)	252	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Copper (Cu)	5.7	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Iron (Fe)	3,790	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Lead (Pb)	3.6	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Lithium (Li)	3.4	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Magnesium (Mg)	6,010	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Manganese (Mn)	1,770	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Molybdenum (Mo)	0.95	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Nickel (Ni)	207	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Phosphorus (P)	265	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Potassium (K)	520	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Selenium (Se)	1.6	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Silver (Ag)	<0.10	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Sodium (Na)	234	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Strontium (Sr)	309	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Sulfur (S)	3,800	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Thallium (Tl)	0.25	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Titanium (Ti)	9.3	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Uranium (U)	2.1	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Vanadium (V)	7.0	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Zinc (Zn)	760	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	pH (1:2 soil:water)	8.3	pH	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	2	2018-10-12	08:30	Total Organic Carbon	6.5	%	ALS	RG_CORCK_SE-2_2018-10-12_0830
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Moisture	61	%	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Acenaphthene	<0.032	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Acenaphthylene	<0.0070	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Acridine	<0.010	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Anthracene	<0.013	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Benz(a)anthracene	0.043	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Benzo(a)pyrene	0.033	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Benzo(b&j)fluoranthene	0.12	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Benzo(g_h_i)perylene	0.071	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Benzo(e)pyrene	0.16	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Chrysene	0.2	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Dibenz(a_h)anthracene	<0.021	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Fluoranthene	0.041	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Fluorene	0.11	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Indeno(1,2,3-c,d)pyrene	0.017	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	1-Methylnaphthalene	0.71	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	2-Methylnaphthalene	1.2	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Naphthalene	0.37	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Perylene	<0.010	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Phenanthrene	0.55	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Pyrene	0.064	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Quinoline	<0.010	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	IACR (CCME)	1.2	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	B(a)P Total Potency Equivalent	0.065	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	d8-Naphthalene	71	%	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	d10-Acenaphthene	79	%	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	d10-Phenanthrene	87	%	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	d12-Chrysene	93	%	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	% Gravel (>2 mm)	1.1	%	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	% Sand (2.00 mm - 1.00 mm)	1.6	%	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	% Sand (1.00 mm - 0.50 mm)	2.1	%	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	% Sand (0.50 mm - 0.25 mm)	1.7	%	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	% Sand (0.25 mm - 0.125 mm)	4.9	%	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	% Sand (0.125 mm - 0.063 mm)	11	%	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	% Silt (0.063 mm - 0.0312 mm)	34	%	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	% Silt (0.031 mm - 0.004 mm)	40	%	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	% Clay (<4 µm)	4.1	%	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Texture	Silt loam	-	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Mercury (Hg)	0.013	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Aluminum (Al)	1,670	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Antimony (Sb)	0.36	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Arsenic (As)	1.8	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Barium (Ba)	160	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Beryllium (Be)	0.27	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Boron (B)	6.2	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Cadmium (Cd)	5.5	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Calcium (Ca)	310,000	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Chromium (Cr)	2.7	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Cobalt (Co)	318	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Copper (Cu)	4.3	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Iron (Fe)	2,180	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Lead (Pb)	1.9	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Lithium (Li)	3.1	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Magnesium (Mg)	5,710	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Manganese (Mn)	2,440	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Molybdenum (Mo)	0.8	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Nickel (Ni)	272	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Phosphorus (P)	209	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Potassium (K)	500	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Selenium (Se)	1.6	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Silver (Ag)	<0.10	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Sodium (Na)	340	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Strontium (Sr)	444	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Sulfur (S)	5,700	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Thallium (Tl)	0.16	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Tin (Sn)	<2.0	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Titanium (Ti)	7.6	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Tungsten (W)	<0.50	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Uranium (U)	2.9	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Vanadium (V)	5.5	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Zinc (Zn)	727	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	pH (1:2 soil:water)	8.1	pH	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	3	2018-10-12	08:35	Total Organic Carbon	6.0	%	ALS	RG_CORCK_SE-3_2018-10-12_0835
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Moisture	61	%	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Acenaphthene	<0.046	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Acenaphthylene	<0.010	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Acridine	<0.010	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Anthracene	<0.016	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Benz(a)anthracene	0.063	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Benzo(a)pyrene	0.05	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Benzo(b&j)fluoranthene	0.19	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Benzo(g_h_i)perylene	0.11	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Benzo(k)fluoranthene	0.013	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Benzo(e)pyrene	0.24	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Chrysene	0.31	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Dibenz(a_h)anthracene	<0.033	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Fluoranthene	0.06	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Fluorene	0.15	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Indeno(1,2,3-c,d)pyrene	0.024	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	1-Methylnaphthalene	1.0	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	2-Methylnaphthalene	1.7	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Naphthalene	0.54	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Perylene	<0.010	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Phenanthrene	0.83	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Pyrene	0.098	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Quinoline	<0.010	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	IACR (CCME)	1.8	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	B(a)P Total Potency Equivalent	0.099	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	d8-Naphthalene	73	%	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	d10-Acenaphthene	83	%	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	d10-Phenanthrene	93	%	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	d12-Chrysene	100	%	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	% Gravel (>2 mm)	23	%	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	% Sand (2.00 mm - 1.00 mm)	6.5	%	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	% Sand (1.00 mm - 0.50 mm)	3.6	%	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	% Sand (0.50 mm - 0.25 mm)	3.3	%	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	% Sand (0.25 mm - 0.125 mm)	5.6	%	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	% Sand (0.125 mm - 0.063 mm)	10	%	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	% Silt (0.063 mm - 0.0312 mm)	21	%	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	% Silt (0.031 mm - 0.004 mm)	25	%	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	% Clay (<4 µm)	3.1	%	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Texture	Silt loam	-	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Mercury (Hg)	0.015	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Aluminum (Al)	1,860	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Antimony (Sb)	0.33	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Arsenic (As)	2.2	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Barium (Ba)	151	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Beryllium (Be)	0.28	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Boron (B)	6.1	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Cadmium (Cd)	5.1	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Calcium (Ca)	270,000	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Chromium (Cr)	3.1	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Cobalt (Co)	288	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Copper (Cu)	4.8	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Iron (Fe)	2,950	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Lead (Pb)	2.7	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Lithium (Li)	3.2	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Magnesium (Mg)	5,450	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Manganese (Mn)	2,130	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Molybdenum (Mo)	0.79	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Nickel (Ni)	242	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Phosphorus (P)	204	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Potassium (K)	510	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Selenium (Se)	1.6	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Silver (Ag)	<0.10	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Sodium (Na)	287	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Strontium (Sr)	386	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Sulfur (S)	4,800	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Thallium (Tl)	0.17	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Tin (Sn)	<2.0	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Titanium (Ti)	11	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Tungsten (W)	<0.50	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Uranium (U)	2.5	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Vanadium (V)	5.9	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Zinc (Zn)	643	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	pH (1:2 soil:water)	8.3	pH	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	4	2018-10-12	08:45	Total Organic Carbon	6.5	%	ALS	RG_CORCK_SE-4_2018-10-12_0845
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Moisture	63	%	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Acenaphthene	<0.031	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Acenaphthylene	<0.0070	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Acridine	<0.010	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Anthracene	<0.013	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Benz(a)anthracene	0.041	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Benzo(a)pyrene	0.032	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Benzo(b&j)fluoranthene	0.12	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Benzo(g_h_i)perylene	0.07	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Benzo(e)pyrene	0.16	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Chrysene	0.2	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Dibenz(a_h)anthracene	<0.022	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Fluoranthene	0.041	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Fluorene	0.11	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Indeno(1,2,3-c,d)pyrene	0.017	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	1-Methylnaphthalene	0.65	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	2-Methylnaphthalene	1.1	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Naphthalene	0.33	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Perylene	<0.010	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Phenanthrene	0.55	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Pyrene	0.07	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Quinoline	<0.010	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	IACR (CCME)	1.2	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	B(a)P Total Potency Equivalent	0.065	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	d8-Naphthalene	65	%	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	d10-Acenaphthene	73	%	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	d10-Phenanthrene	85	%	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	d12-Chrysene	93	%	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	% Gravel (>2 mm)	<1.0	%	ALS	RG_CORCK_SE-5_2018-10-12_0850



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	% Sand (1.00 mm - 0.50 mm)	1.2	%	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	% Sand (0.50 mm - 0.25 mm)	2.5	%	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	% Sand (0.25 mm - 0.125 mm)	8.7	%	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	% Sand (0.125 mm - 0.063 mm)	16	%	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	% Silt (0.063 mm - 0.0312 mm)	30	%	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	% Silt (0.031 mm - 0.004 mm)	36	%	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	% Clay (<4 µm)	4.5	%	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Texture	Silt loam	-	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Mercury (Hg)	<0.0050	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Aluminum (Al)	965	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Antimony (Sb)	0.27	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Arsenic (As)	1.0	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Barium (Ba)	118	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Beryllium (Be)	0.17	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Boron (B)	<5.0	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Cadmium (Cd)	4.6	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Calcium (Ca)	256,000	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Chromium (Cr)	1.5	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Cobalt (Co)	240	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Copper (Cu)	3.0	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Iron (Fe)	1,320	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Lead (Pb)	1.2	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Lithium (Li)	2.3	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Magnesium (Mg)	4,330	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Manganese (Mn)	2,020	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Molybdenum (Mo)	0.53	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Nickel (Ni)	220	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Phosphorus (P)	128	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Potassium (K)	330	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Selenium (Se)	1.5	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Silver (Ag)	<0.10	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Sodium (Na)	283	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Strontium (Sr)	379	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Sulfur (S)	4,600	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Thallium (Tl)	0.081	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Tin (Sn)	<2.0	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Titanium (Ti)	4.7	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Tungsten (W)	<0.50	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Uranium (U)	2.3	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Vanadium (V)	3.1	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Zinc (Zn)	617	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	pH (1:2 soil:water)	8.3	pH	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	CORCK	668539	5487366	2018	5	2018-10-12	08:50	Total Organic Carbon	6.5	%	ALS	RG_CORCK_SE-5_2018-10-12_0850
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Moisture	54	%	ALS	RG_MI25_SE-1_2019-09-04_1315

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Acenaphthene	<0.0050	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Acridine	<0.010	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Anthracene	0.0041	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Benz(a)anthracene	0.026	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Benzo(a)pyrene	0.027	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Benzo(b&j)fluoranthene	0.036	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Benzo(g_h_i)perylene	0.019	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Benzo(k)fluoranthene	0.013	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Benzo(e)pyrene	0.023	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Chrysene	0.033	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Fluoranthene	0.042	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Fluorene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Indeno(1,2,3-c,d)pyrene	0.016	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	1-Methylnaphthalene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	2-Methylnaphthalene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Naphthalene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Perylene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Phenanthrene	0.021	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Pyrene	0.038	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Quinoline	<0.010	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	IACR (CCME)	0.49	-	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	B(a)P Total Potency Equivalent	0.039	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Benzo(b+j+k)fluoranthene	0.049	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	d8-Naphthalene	85	%	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	d10-Acenaphthene	83	%	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	d10-Phenanthrene	88	%	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	d12-Chrysene	92	%	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	% Gravel (>2 mm)	2.5	%	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	% Sand (2.00 mm - 1.00 mm)	5.1	%	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	% Sand (1.00 mm - 0.50 mm)	12	%	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	% Sand (0.50 mm - 0.25 mm)	13	%	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	% Sand (0.25 mm - 0.125 mm)	8.9	%	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	% Sand (0.125 mm - 0.063 mm)	8.3	%	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	% Silt (0.063 mm - 0.0312 mm)	23	%	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	% Silt (0.031 mm - 0.004 mm)	24	%	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	% Clay (<4 µm)	2.6	%	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Texture	Sandy loam	-	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Mercury (Hg)	0.039	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Aluminum (Al)	22,200	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Antimony (Sb)	0.84	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Arsenic (As)	15	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Barium (Ba)	242	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Beryllium (Be)	1.3	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Bismuth (Bi)	0.31	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Boron (B)	23	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Cadmium (Cd)	1.8	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Calcium (Ca)	23,900	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Chromium (Cr)	28	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Cobalt (Co)	11	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Copper (Cu)	35	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Iron (Fe)	33,000	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Lead (Pb)	24	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Lithium (Li)	31	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Magnesium (Mg)	9,620	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Manganese (Mn)	887	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Molybdenum (Mo)	7.0	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Nickel (Ni)	44	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Phosphorus (P)	1,710	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Potassium (K)	4,610	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Selenium (Se)	1.3	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Silver (Ag)	0.19	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Sodium (Na)	126	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Strontium (Sr)	62	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Sulfur (S)	<1000	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Thallium (Tl)	0.95	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Titanium (Ti)	30	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Uranium (U)	1.1	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Vanadium (V)	51	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Zinc (Zn)	191	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Zirconium (Zr)	1.1	mg/kg	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	pH (1:2 soil:water)	8.2	pH	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	1	2019-09-04	13:15	Total Organic Carbon	2.1	%	ALS	RG_MI25_SE-1_2019-09-04_1315
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Moisture	36	%	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Acenaphthene	<0.0050	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Acridine	<0.010	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Anthracene	<0.0040	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Benzo(b&j)fluoranthene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Benzo(e)pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Chrysene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Fluoranthene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Fluorene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	1-Methylnaphthalene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	2-Methylnaphthalene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Naphthalene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Perylene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Phenanthrene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Quinoline	<0.010	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	IACR (CCME)	<0.15	-	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	d8-Naphthalene	88	%	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	d10-Acenaphthene	87	%	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	d10-Phenanthrene	89	%	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	d12-Chrysene	95	%	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	% Gravel (>2 mm)	8.6	%	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	% Sand (2.00 mm - 1.00 mm)	5.7	%	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	% Sand (1.00 mm - 0.50 mm)	14	%	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	% Sand (0.50 mm - 0.25 mm)	15	%	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	% Sand (0.25 mm - 0.125 mm)	8.3	%	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	% Sand (0.125 mm - 0.063 mm)	6.9	%	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	% Silt (0.063 mm - 0.0312 mm)	19	%	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	% Silt (0.031 mm - 0.004 mm)	20	%	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	% Clay (<4 µm)	1.9	%	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Texture	Sandy loam	-	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Mercury (Hg)	0.025	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Aluminum (Al)	28,200	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Antimony (Sb)	0.77	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Arsenic (As)	17	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Barium (Ba)	228	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Beryllium (Be)	1.7	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Bismuth (Bi)	0.37	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Boron (B)	27	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Cadmium (Cd)	2.0	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Calcium (Ca)	21,800	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Chromium (Cr)	33	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Cobalt (Co)	15	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Copper (Cu)	39	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Iron (Fe)	42,300	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Lead (Pb)	26	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Lithium (Li)	40	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Magnesium (Mg)	10,100	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Manganese (Mn)	1,060	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Molybdenum (Mo)	6.9	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Nickel (Ni)	55	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Phosphorus (P)	1,630	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Potassium (K)	5,890	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Selenium (Se)	1.0	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Silver (Ag)	0.17	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Sodium (Na)	139	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Strontium (Sr)	64	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Sulfur (S)	<1000	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Thallium (Tl)	0.99	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Titanium (Ti)	26	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Uranium (U)	1.1	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Vanadium (V)	55	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Zinc (Zn)	211	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Zirconium (Zr)	1.5	mg/kg	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	pH (1:2 soil:water)	8.3	pH	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	2	2019-09-04	14:30	Total Organic Carbon	2.0	%	ALS	RG_MI25_SE-2_2019-09-04_1430
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Moisture	42	%	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Acenaphthene	<0.0050	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Acridine	<0.010	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Anthracene	<0.0040	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Benzo(b&j)fluoranthene	0.012	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Benzo(e)pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Chrysene	0.016	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Fluoranthene	0.014	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Fluorene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	1-Methylnaphthalene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	2-Methylnaphthalene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Naphthalene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Perylene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Phenanthrene	0.012	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Pyrene	0.014	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Quinoline	<0.010	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	IACR (CCME)	0.16	-	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Benzo(b+j+k)fluoranthene	0.016	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	d8-Naphthalene	88	%	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	d10-Acenaphthene	87	%	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	d10-Phenanthrene	90	%	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	d12-Chrysene	98	%	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	% Gravel (>2 mm)	<1.0	%	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	% Sand (1.00 mm - 0.50 mm)	3.0	%	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	% Sand (0.50 mm - 0.25 mm)	10	%	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	% Sand (0.25 mm - 0.125 mm)	15	%	ALS	RG_MI25_SE-3_2019-09-04_1630

Appendix I:  
Sediment Screening

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	% Sand (0.125 mm - 0.063 mm)	14	%	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	% Silt (0.063 mm - 0.0312 mm)	27	%	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	% Silt (0.031 mm - 0.004 mm)	28	%	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	% Clay (<4 µm)	3.2	%	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Texture	Silt loam	-	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Mercury (Hg)	0.037	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Aluminum (Al)	20,800	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Antimony (Sb)	0.8	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Arsenic (As)	14	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Barium (Ba)	203	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Beryllium (Be)	1.2	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Bismuth (Bi)	0.27	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Boron (B)	21	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Cadmium (Cd)	1.7	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Calcium (Ca)	17,500	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Chromium (Cr)	27	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Cobalt (Co)	11	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Copper (Cu)	32	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Iron (Fe)	29,400	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Lead (Pb)	25	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Lithium (Li)	29	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Magnesium (Mg)	7,540	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Manganese (Mn)	733	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Molybdenum (Mo)	6.8	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Nickel (Ni)	42	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Phosphorus (P)	1,510	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Potassium (K)	4,480	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Selenium (Se)	1.1	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Silver (Ag)	0.17	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Sodium (Na)	110	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Strontium (Sr)	52	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Sulfur (S)	<1000	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Thallium (Tl)	0.95	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Titanium (Ti)	27	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Uranium (U)	0.97	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Vanadium (V)	49	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Zinc (Zn)	186	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	pH (1:2 soil:water)	8.1	pH	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	MI25	668186	5482838	2019	3	2019-09-04	16:30	Total Organic Carbon	2.5	%	ALS	RG_MI25_SE-3_2019-09-04_1630
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Moisture	35	%	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Acenaphthene	<0.0050	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Acenaphthylene	<0.0050	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Acridine	<0.010	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Anthracene	<0.0040	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Benzo(b&j)fluoranthene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Benzo(e)pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Chrysene	0.014	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Fluoranthene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Fluorene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	1-Methylnaphthalene	0.018	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	2-Methylnaphthalene	0.018	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Naphthalene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Perylene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Phenanthrene	0.038	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Quinoline	<0.010	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	IACR (CCME)	<0.15	-	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	d8-Naphthalene	79	%	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	d10-Acenaphthene	79	%	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	d10-Phenanthrene	89	%	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	d12-Chrysene	98	%	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	% Gravel (>2 mm)	<1.0	%	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	% Sand (2.00 mm - 1.00 mm)	1.6	%	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	% Sand (1.00 mm - 0.50 mm)	28	%	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	% Sand (0.50 mm - 0.25 mm)	50	%	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	% Sand (0.25 mm - 0.125 mm)	9.2	%	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	% Sand (0.125 mm - 0.063 mm)	2.7	%	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	% Silt (0.063 mm - 0.0312 mm)	3.1	%	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	% Silt (0.031 mm - 0.004 mm)	4.0	%	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	% Clay (<4 µm)	1.5	%	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Texture	Sand	-	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Mercury (Hg)	0.038	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Aluminum (Al)	8,850	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Antimony (Sb)	1.4	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Arsenic (As)	7.1	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Barium (Ba)	261	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Beryllium (Be)	0.76	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Boron (B)	<5.0	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Cadmium (Cd)	2.0	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Calcium (Ca)	5,180	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Chromium (Cr)	16	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Cobalt (Co)	6.6	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Copper (Cu)	16	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Iron (Fe)	17,900	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Lead (Pb)	10	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Lithium (Li)	9.5	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Magnesium (Mg)	2,130	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Manganese (Mn)	382	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Molybdenum (Mo)	1.7	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Nickel (Ni)	29	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Phosphorus (P)	1,220	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Potassium (K)	1,530	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Selenium (Se)	0.67	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Silver (Ag)	0.18	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Sodium (Na)	<50	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Strontium (Sr)	47	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Sulfur (S)	<1000	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Thallium (Tl)	0.24	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Titanium (Ti)	52	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Uranium (U)	1.2	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Vanadium (V)	50	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Zinc (Zn)	126	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Zirconium (Zr)	1.3	mg/kg	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	pH (1:2 soil:water)	8.0	pH	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	1	2019-09-05	13:30	Total Organic Carbon	1.4	%	ALS	RG_LE1_SE-1_2019-09-05_1330
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Moisture	25	%	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Acenaphthene	<0.0050	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Acenaphthylene	<0.0050	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Acridine	<0.010	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Anthracene	<0.0040	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Benzo(b&j)fluoranthene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Benzo(e)pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Chrysene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Fluoranthene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Fluorene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	1-Methylnaphthalene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	2-Methylnaphthalene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Naphthalene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Perylene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Phenanthrene	0.018	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Quinoline	<0.010	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	IACR (CCME)	<0.15	-	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	d8-Naphthalene	73	%	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	d10-Acenaphthene	77	%	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	d10-Phenanthrene	94	%	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	d12-Chrysene	108	%	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	% Gravel (>2 mm)	4.6	%	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	% Sand (2.00 mm - 1.00 mm)	4.2	%	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	% Sand (1.00 mm - 0.50 mm)	11	%	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	% Sand (0.50 mm - 0.25 mm)	33	%	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	% Sand (0.25 mm - 0.125 mm)	22	%	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	% Sand (0.125 mm - 0.063 mm)	8.5	%	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	% Silt (0.063 mm - 0.0312 mm)	6.7	%	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	% Silt (0.031 mm - 0.004 mm)	7.4	%	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	% Clay (<4 µm)	2.6	%	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Texture	Loamy sand	-	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Mercury (Hg)	0.049	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Aluminum (Al)	9,630	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Antimony (Sb)	1.6	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Arsenic (As)	9.3	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Barium (Ba)	269	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Beryllium (Be)	0.73	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Boron (B)	<5.0	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Cadmium (Cd)	1.7	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Calcium (Ca)	8,400	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Chromium (Cr)	17	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Cobalt (Co)	6.6	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Copper (Cu)	14	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Iron (Fe)	20,900	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Lead (Pb)	11	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Lithium (Li)	10	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Magnesium (Mg)	3,360	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Manganese (Mn)	393	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Molybdenum (Mo)	2.7	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Nickel (Ni)	30	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Phosphorus (P)	1,390	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Potassium (K)	1,590	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Selenium (Se)	0.77	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Silver (Ag)	0.2	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Sodium (Na)	<50	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Strontium (Sr)	39	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Sulfur (S)	<1000	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Thallium (Tl)	0.26	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Titanium (Ti)	86	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Uranium (U)	1.3	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Vanadium (V)	55	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Zinc (Zn)	121	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Zirconium (Zr)	1.2	mg/kg	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	pH (1:2 soil:water)	8.5	pH	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	2	2019-09-05	14:30	Total Organic Carbon	1.4	%	ALS	RG_LE1_SE-2_2019-09-05_1430
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Moisture	21	%	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Acenaphthene	<0.0050	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Acenaphthylene	<0.0050	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Acridine	<0.010	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Anthracene	<0.0040	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Benzo(b&j)fluoranthene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Benzo(e)pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Chrysene	0.01	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Fluoranthene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Fluorene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	1-Methylnaphthalene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	2-Methylnaphthalene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Naphthalene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Perylene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Phenanthrene	0.016	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Quinoline	<0.010	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	IACR (CCME)	<0.15	-	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	d8-Naphthalene	80	%	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	d10-Acenaphthene	80	%	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	d10-Phenanthrene	92	%	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	d12-Chrysene	104	%	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	% Gravel (>2 mm)	22	%	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	% Sand (2.00 mm - 1.00 mm)	15	%	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	% Sand (1.00 mm - 0.50 mm)	28	%	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	% Sand (0.50 mm - 0.25 mm)	25	%	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	% Sand (0.25 mm - 0.125 mm)	5.8	%	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	% Sand (0.125 mm - 0.063 mm)	1.2	%	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	% Silt (0.063 mm - 0.0312 mm)	1.7	%	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	% Silt (0.031 mm - 0.004 mm)	2.1	%	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	% Clay (<4 µm)	<1.0	%	ALS	RG_LE1_SE-3_2019-09-05_1515

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Texture	Sand	-	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Mercury (Hg)	0.04	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Aluminum (Al)	8,670	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Antimony (Sb)	1.6	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Arsenic (As)	8.5	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Barium (Ba)	232	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Beryllium (Be)	0.75	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Boron (B)	<5.0	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Cadmium (Cd)	1.7	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Calcium (Ca)	5,350	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Chromium (Cr)	15	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Cobalt (Co)	6.2	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Copper (Cu)	14	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Iron (Fe)	18,200	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Lead (Pb)	11	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Lithium (Li)	11	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Magnesium (Mg)	2,250	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Manganese (Mn)	306	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Molybdenum (Mo)	2.2	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Nickel (Ni)	28	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Phosphorus (P)	1,280	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Potassium (K)	1,330	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Selenium (Se)	0.55	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Silver (Ag)	0.18	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Sodium (Na)	<50	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Strontium (Sr)	47	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Sulfur (S)	<1000	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Thallium (Tl)	0.24	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Tin (Sn)	<2.0	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Titanium (Ti)	55	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Tungsten (W)	<0.50	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Uranium (U)	1.3	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Vanadium (V)	49	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Zinc (Zn)	122	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Zirconium (Zr)	1.8	mg/kg	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	pH (1:2 soil:water)	8.4	pH	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	LE1	659632	5494112	2019	3	2019-09-05	15:15	Total Organic Carbon	1.5	%	ALS	RG_LE1_SE-3_2019-09-05_1515
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Moisture	56	%	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Acenaphthene	<0.0050	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Acridine	<0.010	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Anthracene	<0.0040	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Benzo(b&j)fluoranthene	0.011	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Benzo(e)pyrene	0.012	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Chrysene	0.023	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Fluoranthene	<0.010	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Fluorene	<0.010	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	1-Methylnaphthalene	0.048	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	2-Methylnaphthalene	0.064	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Naphthalene	0.025	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Perylene	<0.010	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Phenanthrene	0.058	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Pyrene	0.012	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Quinoline	<0.010	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	IACR (CCME)	0.15	-	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	d8-Naphthalene	76	%	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	d10-Acenaphthene	79	%	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	d10-Phenanthrene	94	%	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	d12-Chrysene	98	%	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	% Gravel (>2 mm)	3.3	%	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	% Sand (1.00 mm - 0.50 mm)	1.3	%	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	% Sand (0.50 mm - 0.25 mm)	12	%	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	% Sand (0.25 mm - 0.125 mm)	37	%	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	% Sand (0.125 mm - 0.063 mm)	14	%	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	% Silt (0.063 mm - 0.0312 mm)	15	%	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	% Silt (0.031 mm - 0.004 mm)	14	%	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	% Clay (<4 µm)	2.6	%	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Texture	Sandy loam	-	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Mercury (Hg)	0.031	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Aluminum (Al)	10,000	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Antimony (Sb)	1.0	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Arsenic (As)	7.1	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Barium (Ba)	227	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Beryllium (Be)	0.73	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Boron (B)	8.8	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Cadmium (Cd)	1.3	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Calcium (Ca)	26,200	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Chromium (Cr)	17	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Cobalt (Co)	7.5	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Copper (Cu)	14	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Iron (Fe)	17,100	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Lead (Pb)	9.3	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Lithium (Li)	11	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Magnesium (Mg)	5,880	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Manganese (Mn)	203	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Molybdenum (Mo)	1.6	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Nickel (Ni)	32	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Phosphorus (P)	1,400	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Potassium (K)	1,990	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Selenium (Se)	1.2	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Silver (Ag)	0.17	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Sodium (Na)	76	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Strontium (Sr)	64	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Sulfur (S)	<1000	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Thallium (Tl)	0.3	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Titanium (Ti)	55	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Uranium (U)	1.1	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Vanadium (V)	47	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Zinc (Zn)	118	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Zirconium (Zr)	1.0	mg/kg	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	pH (1:2 soil:water)	7.8	pH	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	1	2019-09-05	09:00	Total Organic Carbon	4.9	%	ALS	RG_MI5_SE-1_2019-09-05_0900
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Moisture	90	%	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Acenaphthene	<0.020	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Acenaphthylene	<0.020	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Acridine	<0.040	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Anthracene	<0.016	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Benz(a)anthracene	<0.040	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Benzo(a)pyrene	<0.040	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Benzo(b&j)fluoranthene	<0.040	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Benzo(g_h_i)perylene	<0.040	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Benzo(k)fluoranthene	<0.040	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Benzo(e)pyrene	<0.040	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Chrysene	0.047	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Dibenz(a_h)anthracene	<0.020	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Fluoranthene	<0.040	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Fluorene	<0.040	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Indeno(1,2,3-c,d)pyrene	<0.040	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	1-Methylnaphthalene	0.077	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	2-Methylnaphthalene	0.11	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Naphthalene	<0.040	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Perylene	<0.040	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Phenanthrene	0.12	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Pyrene	<0.040	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Quinoline	<0.040	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	IACR (CCME)	0.44	-	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	B(a)P Total Potency Equivalent	0.039	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Benzo(b+j+k)fluoranthene	<0.060	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015

**Appendix I:  
Sediment Screening**

**Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	d8-Naphthalene	76	%	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	d10-Acenaphthene	85	%	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	d10-Phenanthrene	100	%	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	d12-Chrysene	110	%	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	% Gravel (>2 mm)	8.7	%	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	% Sand (2.00 mm - 1.00 mm)	2.1	%	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	% Sand (1.00 mm - 0.50 mm)	12	%	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	% Sand (0.50 mm - 0.25 mm)	25	%	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	% Sand (0.25 mm - 0.125 mm)	22	%	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	% Sand (0.125 mm - 0.063 mm)	9.8	%	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	% Silt (0.063 mm - 0.0312 mm)	9.5	%	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	% Silt (0.031 mm - 0.004 mm)	9.2	%	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	% Clay (<4 µm)	1.4	%	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Texture	Loamy sand	-	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	pH (1:9)	7.7	pH	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Mercury (Hg)	0.042	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Aluminum (Al)	9,600	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Antimony (Sb)	0.79	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Arsenic (As)	5.9	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Barium (Ba)	256	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Beryllium (Be)	0.64	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Boron (B)	23	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Cadmium (Cd)	1.8	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Calcium (Ca)	54,100	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Chromium (Cr)	15	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Cobalt (Co)	7.9	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Copper (Cu)	14	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Iron (Fe)	14,800	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Lead (Pb)	8.2	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Lithium (Li)	9.9	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Magnesium (Mg)	5,860	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Manganese (Mn)	131	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Molybdenum (Mo)	1.4	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Nickel (Ni)	43	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Phosphorus (P)	1,640	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Potassium (K)	2,230	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Selenium (Se)	4.3	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Silver (Ag)	0.22	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Sodium (Na)	168	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Strontium (Sr)	93	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Sulfur (S)	2,800	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Thallium (Tl)	0.35	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Titanium (Ti)	46	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Uranium (U)	1.2	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Vanadium (V)	37	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Zinc (Zn)	136	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Zirconium (Zr)	1.3	mg/kg	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	2	2019-09-05	10:15	Total Organic Carbon	3.8	%	ALS	RG_MI5_SE-2_2019-09-05_1015
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Moisture	47	%	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Acenaphthene	<0.0050	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Acridine	<0.010	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Anthracene	<0.0040	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Benzo(b&j)fluoranthene	<0.010	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Benzo(e)pyrene	<0.010	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Chrysene	<0.010	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Fluoranthene	<0.010	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Fluorene	<0.010	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	1-Methylnaphthalene	<0.010	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	2-Methylnaphthalene	0.013	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Naphthalene	<0.010	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Perylene	<0.010	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Phenanthrene	0.016	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Pyrene	<0.010	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Quinoline	<0.010	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	IACR (CCME)	<0.15	-	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	d8-Naphthalene	82	%	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	d10-Acenaphthene	89	%	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	d10-Phenanthrene	104	%	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	d12-Chrysene	114	%	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	% Gravel (>2 mm)	11	%	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	% Sand (2.00 mm - 1.00 mm)	35	%	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	% Sand (1.00 mm - 0.50 mm)	27	%	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	% Sand (0.50 mm - 0.25 mm)	8.1	%	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	% Sand (0.25 mm - 0.125 mm)	3.3	%	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	% Sand (0.125 mm - 0.063 mm)	1.9	%	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	% Silt (0.063 mm - 0.0312 mm)	6.0	%	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	% Silt (0.031 mm - 0.004 mm)	6.8	%	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	% Clay (<4 µm)	1.6	%	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Texture	Loamy sand	-	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Mercury (Hg)	0.025	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Aluminum (Al)	8,960	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Antimony (Sb)	1.2	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Arsenic (As)	8.4	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Barium (Ba)	316	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Beryllium (Be)	0.68	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Boron (B)	7.5	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Cadmium (Cd)	1.5	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Calcium (Ca)	32,700	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Chromium (Cr)	16	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Cobalt (Co)	7.0	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Copper (Cu)	14	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Iron (Fe)	21,300	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Lead (Pb)	8.9	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Lithium (Li)	9.2	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Magnesium (Mg)	5,960	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Manganese (Mn)	278	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Molybdenum (Mo)	1.8	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Nickel (Ni)	32	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Phosphorus (P)	1,410	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Potassium (K)	1,690	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Selenium (Se)	1.1	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Silver (Ag)	0.14	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Sodium (Na)	69	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Strontium (Sr)	80	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Sulfur (S)	<1000	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Thallium (Tl)	0.27	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Titanium (Ti)	51	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Uranium (U)	1.1	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Vanadium (V)	49	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Zinc (Zn)	125	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Zirconium (Zr)	1.2	mg/kg	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	pH (1:2 soil:water)	7.1	pH	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	3	2019-09-05	11:30	Total Organic Carbon	2.5	%	ALS	RG_MI5_SE-3_2019-09-05_1130
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Moisture	66	%	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Acenaphthene	<0.0070	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Acenaphthylene	<0.0070	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Acridine	<0.014	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Anthracene	<0.0056	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Benz(a)anthracene	<0.014	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Benzo(a)pyrene	<0.014	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Benzo(b&j)fluoranthene	<0.014	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Benzo(g_h_i)perylene	<0.014	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Benzo(k)fluoranthene	<0.014	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Benzo(e)pyrene	<0.014	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Chrysene	0.021	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Dibenz(a_h)anthracene	<0.014	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Fluoranthene	<0.014	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Fluorene	<0.014	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Indeno(1,2,3-c,d)pyrene	<0.014	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	1-Methylnaphthalene	0.046	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	2-Methylnaphthalene	0.067	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Naphthalene	0.027	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Perylene	<0.014	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Phenanthrene	0.053	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Pyrene	<0.014	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Quinoline	<0.014	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	IACR (CCME)	0.17	-	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Benzo(b+j+k)fluoranthene	<0.020	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	d8-Naphthalene	86	%	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	d10-Acenaphthene	89	%	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	d10-Phenanthrene	100	%	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	d12-Chrysene	107	%	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	% Gravel (>2 mm)	<1.0	%	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	% Sand (1.00 mm - 0.50 mm)	1.1	%	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	% Sand (0.50 mm - 0.25 mm)	28	%	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	% Sand (0.25 mm - 0.125 mm)	29	%	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	% Sand (0.125 mm - 0.063 mm)	12	%	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	% Silt (0.063 mm - 0.0312 mm)	15	%	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	% Silt (0.031 mm - 0.004 mm)	14	%	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	% Clay (<4 µm)	2.0	%	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Texture	Sandy loam	-	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Mercury (Hg)	0.036	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Aluminum (Al)	8,110	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Antimony (Sb)	1.1	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Arsenic (As)	7.2	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Barium (Ba)	181	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Beryllium (Be)	0.72	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Boron (B)	8.6	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Cadmium (Cd)	1.4	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Calcium (Ca)	23,500	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Chromium (Cr)	14	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Cobalt (Co)	6.5	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Copper (Cu)	14	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Iron (Fe)	17,000	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Lead (Pb)	11	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Lithium (Li)	9.9	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Magnesium (Mg)	4,750	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Manganese (Mn)	111	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Molybdenum (Mo)	1.4	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Nickel (Ni)	31	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Phosphorus (P)	1,310	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Potassium (K)	1,540	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Selenium (Se)	1.4	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Silver (Ag)	0.17	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Sodium (Na)	90	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Strontium (Sr)	55	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Sulfur (S)	1,200	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Thallium (Tl)	0.29	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Titanium (Ti)	35	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Uranium (U)	1.0	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Vanadium (V)	39	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Zinc (Zn)	119	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Zirconium (Zr)	1.4	mg/kg	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	pH (1:2 soil:water)	7.2	pH	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	4	2019-09-05	12:30	Total Organic Carbon	3.9	%	ALS	RG_MI5_SE-4_2019-09-05_1230
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Moisture	89	%	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Acenaphthene	<0.023	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Acenaphthylene	<0.023	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Acridine	<0.045	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Anthracene	<0.018	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Benz(a)anthracene	<0.045	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Benzo(a)pyrene	<0.045	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Benzo(b&j)fluoranthene	<0.045	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Benzo(g_h_i)perylene	<0.045	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Benzo(k)fluoranthene	<0.045	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Benzo(e)pyrene	<0.045	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Chrysene	<0.045	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Dibenz(a_h)anthracene	<0.023	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Fluoranthene	<0.045	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Fluorene	<0.045	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Indeno(1,2,3-c,d)pyrene	<0.045	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	1-Methylnaphthalene	0.063	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	2-Methylnaphthalene	0.094	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Naphthalene	<0.045	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Perylene	<0.045	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Phenanthrene	0.12	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Pyrene	<0.045	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Quinoline	<0.045	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	IACR (CCME)	<0.48	-	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	B(a)P Total Potency Equivalent	<0.043	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Benzo(b+j+k)fluoranthene	<0.060	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	d8-Naphthalene	76	%	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	d10-Acenaphthene	81	%	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	d10-Phenanthrene	94	%	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	d12-Chrysene	105	%	ALS	RG_MI5_SE-5_2019-09-05_1300



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	% Gravel (>2 mm)	41	%	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	% Sand (2.00 mm - 1.00 mm)	4.6	%	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	% Sand (1.00 mm - 0.50 mm)	3.5	%	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	% Sand (0.50 mm - 0.25 mm)	2.2	%	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	% Sand (0.25 mm - 0.125 mm)	1.7	%	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	% Sand (0.125 mm - 0.063 mm)	2.2	%	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	% Silt (0.063 mm - 0.0312 mm)	18	%	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	% Silt (0.031 mm - 0.004 mm)	21	%	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	% Clay (<4 µm)	6.0	%	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Texture	Silt loam	-	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	pH (1:9)	7.5	pH	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Mercury (Hg)	0.032	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Aluminum (Al)	6,850	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Antimony (Sb)	0.62	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Arsenic (As)	7.2	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Barium (Ba)	246	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Beryllium (Be)	0.51	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Boron (B)	23	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Cadmium (Cd)	2.0	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Calcium (Ca)	68,800	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Chromium (Cr)	13	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Cobalt (Co)	6.4	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Copper (Cu)	12	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Iron (Fe)	12,700	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Lead (Pb)	6.7	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Lithium (Li)	7.5	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Magnesium (Mg)	5,420	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Manganese (Mn)	141	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Molybdenum (Mo)	1.1	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Nickel (Ni)	39	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Phosphorus (P)	1,720	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Potassium (K)	1,700	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Selenium (Se)	5.2	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Silver (Ag)	0.16	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Sodium (Na)	302	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Strontium (Sr)	99	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Sulfur (S)	2,000	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Thallium (Tl)	0.29	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Titanium (Ti)	30	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Uranium (U)	0.93	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Vanadium (V)	31	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Zinc (Zn)	132	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI5_SE-5_2019-09-05_1300
SE	MI5	659387	5496818	2019	5	2019-09-05	13:00	Total Organic Carbon	9.6	%	ALS	RG_MI5_SE-5_2019-09-05_1300

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Moisture	37	%	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Acenaphthene	<0.0050	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Acenaphthylene	<0.0050	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Acridine	<0.010	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Anthracene	<0.0040	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Benzo(b&j)fluoranthene	<0.010	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Benzo(e)pyrene	<0.010	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Chrysene	0.017	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Fluoranthene	<0.010	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Fluorene	<0.010	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	1-Methylnaphthalene	0.028	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	2-Methylnaphthalene	0.041	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Naphthalene	0.013	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Perylene	<0.010	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Phenanthrene	0.036	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Pyrene	<0.010	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Quinoline	<0.010	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	IACR (CCME)	<0.15	-	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	d8-Naphthalene	75	%	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	d10-Acenaphthene	73	%	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	d10-Phenanthrene	80	%	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	d12-Chrysene	85	%	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	% Gravel (>2 mm)	14	%	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	% Sand (2.00 mm - 1.00 mm)	7.8	%	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	% Sand (1.00 mm - 0.50 mm)	19	%	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	% Sand (0.50 mm - 0.25 mm)	25	%	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	% Sand (0.25 mm - 0.125 mm)	14	%	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	% Sand (0.125 mm - 0.063 mm)	6.0	%	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	% Silt (0.063 mm - 0.0312 mm)	5.7	%	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	% Silt (0.031 mm - 0.004 mm)	6.8	%	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	% Clay (<4 µm)	1.6	%	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Texture	Loamy sand	-	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Mercury (Hg)	0.022	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Aluminum (Al)	3,900	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Antimony (Sb)	0.58	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Arsenic (As)	6.8	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Barium (Ba)	48	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Beryllium (Be)	0.52	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Boron (B)	6.2	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Cadmium (Cd)	0.51	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Calcium (Ca)	220,000	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Chromium (Cr)	12	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Cobalt (Co)	1.9	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Copper (Cu)	5.1	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Iron (Fe)	6,460	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Lead (Pb)	3.6	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Lithium (Li)	5.0	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Magnesium (Mg)	23,100	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Manganese (Mn)	135	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Molybdenum (Mo)	0.71	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Nickel (Ni)	13	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Phosphorus (P)	1,310	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Potassium (K)	1,200	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Selenium (Se)	0.68	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Silver (Ag)	0.16	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Sodium (Na)	155	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Strontium (Sr)	229	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Sulfur (S)	<1000	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Thallium (Tl)	0.6	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Titanium (Ti)	14	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Uranium (U)	0.75	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Vanadium (V)	20	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Zinc (Zn)	67	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	pH (1:2 soil:water)	8.4	pH	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	AGCK	667555	5488644	2019	1	2019-09-06	09:00	Total Organic Carbon	3.1	%	ALS	RG_AGCK_SE-1_2019-09-06_0900
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Moisture	53	%	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Acenaphthene	<0.0065	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Acridine	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Anthracene	<0.0040	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Benzo(b&j)fluoranthene	0.02	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Benzo(g_h_i)perylene	0.011	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Benzo(e)pyrene	0.024	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Chrysene	0.042	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Fluoranthene	0.018	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Fluorene	0.013	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	1-Methylnaphthalene	0.11	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	2-Methylnaphthalene	0.15	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Naphthalene	0.058	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Perylene	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Phenanthrene	0.12	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Pyrene	0.018	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Quinoline	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	IACR (CCME)	0.22	-	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Benzo(b+j+k)fluoranthene	0.022	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	d8-Naphthalene	78	%	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	d10-Acenaphthene	86	%	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	d10-Phenanthrene	100	%	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	d12-Chrysene	110	%	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	% Gravel (>2 mm)	12	%	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	% Sand (1.00 mm - 0.50 mm)	4.1	%	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	% Sand (0.50 mm - 0.25 mm)	21	%	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	% Sand (0.25 mm - 0.125 mm)	20	%	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	% Sand (0.125 mm - 0.063 mm)	12	%	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	% Silt (0.063 mm - 0.0312 mm)	13	%	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	% Silt (0.031 mm - 0.004 mm)	15	%	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	% Clay (<4 µm)	3.0	%	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Texture	Sandy loam	-	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Mercury (Hg)	0.027	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Aluminum (Al)	8,890	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Antimony (Sb)	0.65	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Arsenic (As)	9.3	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Barium (Ba)	194	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Beryllium (Be)	0.75	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Boron (B)	6.1	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Cadmium (Cd)	1.1	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Calcium (Ca)	51,000	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Chromium (Cr)	13	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Cobalt (Co)	20	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Copper (Cu)	15	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Iron (Fe)	19,200	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Lead (Pb)	11	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Lithium (Li)	13	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Magnesium (Mg)	8,420	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Manganese (Mn)	450	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Molybdenum (Mo)	1.9	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Nickel (Ni)	48	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Phosphorus (P)	1,400	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Potassium (K)	1,440	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Selenium (Se)	1.3	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Silver (Ag)	0.14	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Sodium (Na)	90	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Strontium (Sr)	84	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Sulfur (S)	<1000	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Thallium (Tl)	0.38	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Titanium (Ti)	13	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Uranium (U)	0.79	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Vanadium (V)	28	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Zinc (Zn)	139	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Zirconium (Zr)	1.0	mg/kg	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	pH (1:2 soil:water)	7.6	pH	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	1	2019-09-06	13:00	Total Organic Carbon	5.0	%	ALS	RG_MIULE_SE-1_2019-09-06_1300
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Moisture	58	%	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Acenaphthene	<0.0070	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Acridine	<0.010	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Anthracene	<0.0040	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Benzo(b&j)fluoranthene	0.02	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Benzo(g_h_i)perylene	0.01	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Benzo(e)pyrene	0.023	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Chrysene	0.04	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Fluoranthene	0.018	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Fluorene	0.015	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	1-Methylnaphthalene	0.096	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	2-Methylnaphthalene	0.14	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Naphthalene	0.052	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Perylene	<0.010	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Phenanthrene	0.11	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Pyrene	0.019	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Quinoline	<0.010	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	IACR (CCME)	0.22	-	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Benzo(b+j+k)fluoranthene	0.021	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	d8-Naphthalene	91	%	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	d10-Acenaphthene	94	%	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	d10-Phenanthrene	104	%	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	d12-Chrysene	108	%	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	% Gravel (>2 mm)	51	%	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	% Sand (2.00 mm - 1.00 mm)	3.5	%	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	% Sand (1.00 mm - 0.50 mm)	2.1	%	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	% Sand (0.50 mm - 0.25 mm)	4.4	%	ALS	RG_MIULE_SE-2_2019-09-06_1415

**Appendix I:  
Sediment Screening**

**Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	% Sand (0.25 mm - 0.125 mm)	8.2	%	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	% Sand (0.125 mm - 0.063 mm)	7.6	%	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	% Silt (0.063 mm - 0.0312 mm)	11	%	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	% Silt (0.031 mm - 0.004 mm)	11	%	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	% Clay (<4 µm)	1.7	%	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Texture	Sandy loam	-	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Mercury (Hg)	0.029	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Aluminum (Al)	7,270	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Antimony (Sb)	0.56	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Arsenic (As)	6.7	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Barium (Ba)	174	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Beryllium (Be)	0.62	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Boron (B)	5.9	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Cadmium (Cd)	1.1	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Calcium (Ca)	45,400	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Chromium (Cr)	12	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Cobalt (Co)	16	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Copper (Cu)	12	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Iron (Fe)	16,200	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Lead (Pb)	9.0	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Lithium (Li)	11	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Magnesium (Mg)	7,860	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Manganese (Mn)	274	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Molybdenum (Mo)	1.5	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Nickel (Ni)	43	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Phosphorus (P)	1,240	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Potassium (K)	1,260	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Selenium (Se)	1.7	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Silver (Ag)	0.14	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Sodium (Na)	78	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Strontium (Sr)	70	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Sulfur (S)	<1000	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Thallium (Tl)	0.34	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Titanium (Ti)	19	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Uranium (U)	0.85	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Vanadium (V)	26	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Zinc (Zn)	170	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	pH (1:2 soil:water)	7.7	pH	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	2	2019-09-06	14:15	Total Organic Carbon	3.8	%	ALS	RG_MIULE_SE-2_2019-09-06_1415
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Moisture	41	%	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Acenaphthene	<0.0050	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Acridine	<0.010	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Anthracene	<0.0040	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Benzo(b&j)fluoranthene	0.022	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Benzo(e)pyrene	0.025	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Chrysene	0.048	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Fluoranthene	0.014	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Fluorene	<0.010	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	1-Methylnaphthalene	0.06	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	2-Methylnaphthalene	0.091	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Naphthalene	0.046	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Perylene	<0.010	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Phenanthrene	0.1	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Pyrene	0.014	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Quinoline	<0.010	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	IACR (CCME)	0.23	-	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Benzo(b+j+k)fluoranthene	0.023	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	d8-Naphthalene	79	%	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	d10-Acenaphthene	79	%	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	d10-Phenanthrene	90	%	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	d12-Chrysene	99	%	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	% Gravel (>2 mm)	3.7	%	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	% Sand (2.00 mm - 1.00 mm)	1.2	%	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	% Sand (1.00 mm - 0.50 mm)	3.7	%	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	% Sand (0.50 mm - 0.25 mm)	23	%	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	% Sand (0.25 mm - 0.125 mm)	30	%	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	% Sand (0.125 mm - 0.063 mm)	15	%	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	% Silt (0.063 mm - 0.0312 mm)	12	%	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	% Silt (0.031 mm - 0.004 mm)	10	%	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	% Clay (<4 µm)	1.5	%	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Texture	Loamy sand	-	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Mercury (Hg)	0.032	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Aluminum (Al)	8,850	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Antimony (Sb)	0.63	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Arsenic (As)	7.6	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Barium (Ba)	142	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Beryllium (Be)	0.7	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Boron (B)	6.7	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Cadmium (Cd)	0.82	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Calcium (Ca)	31,100	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Chromium (Cr)	13	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Cobalt (Co)	12	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Copper (Cu)	12	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Iron (Fe)	17,400	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Lead (Pb)	8.7	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Lithium (Li)	11	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Magnesium (Mg)	6,270	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Manganese (Mn)	266	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Molybdenum (Mo)	1.6	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Nickel (Ni)	33	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Phosphorus (P)	1,270	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Potassium (K)	1,830	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Selenium (Se)	0.73	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Silver (Ag)	0.11	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Sodium (Na)	68	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Strontium (Sr)	57	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Sulfur (S)	<1000	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Thallium (Tl)	0.33	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Titanium (Ti)	14	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Uranium (U)	0.68	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Vanadium (V)	29	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Zinc (Zn)	109	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Zirconium (Zr)	1.1	mg/kg	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	pH (1:2 soil:water)	7.9	pH	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	4	2019-09-06	15:45	Total Organic Carbon	3.0	%	ALS	RG_MIULE_SE-4_2019-09-06_1545
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Moisture	48	%	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Acenaphthene	<0.015	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Acridine	<0.017	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Anthracene	<0.0052	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Benz(a)anthracene	0.019	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Benzo(b&j)fluoranthene	0.047	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Benzo(g_h_i)perylene	0.019	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Benzo(e)pyrene	0.049	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Chrysene	0.096	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Dibenz(a_h)anthracene	0.0073	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Fluoranthene	0.035	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Fluorene	0.025	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	1-Methylnaphthalene	0.22	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	2-Methylnaphthalene	0.32	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Naphthalene	0.16	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Perylene	<0.010	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Phenanthrene	0.32	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Pyrene	0.045	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Quinoline	<0.010	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	IACR (CCME)	0.48	-	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	B(a)P Total Potency Equivalent	0.021	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Benzo(b+j+k)fluoranthene	0.051	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	d8-Naphthalene	75	%	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	d10-Acenaphthene	79	%	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	d10-Phenanthrene	94	%	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	d12-Chrysene	98	%	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	% Sand (1.00 mm - 0.50 mm)	1.4	%	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	% Sand (0.50 mm - 0.25 mm)	9.5	%	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	% Sand (0.25 mm - 0.125 mm)	33	%	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	% Sand (0.125 mm - 0.063 mm)	23	%	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	% Silt (0.063 mm - 0.0312 mm)	17	%	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	% Silt (0.031 mm - 0.004 mm)	13	%	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	% Clay (<4 µm)	2.3	%	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Texture	Loamy sand	-	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Mercury (Hg)	0.035	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Aluminum (Al)	7,530	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Antimony (Sb)	0.69	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Arsenic (As)	8.8	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Barium (Ba)	126	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Beryllium (Be)	0.66	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Boron (B)	<5.0	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Cadmium (Cd)	0.93	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Calcium (Ca)	38,600	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Chromium (Cr)	11	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Cobalt (Co)	11	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Copper (Cu)	12	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Iron (Fe)	18,900	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Lead (Pb)	8.6	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Lithium (Li)	11	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Magnesium (Mg)	6,050	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Manganese (Mn)	345	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Molybdenum (Mo)	1.9	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Nickel (Ni)	35	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Phosphorus (P)	1,280	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Potassium (K)	1,300	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Selenium (Se)	0.68	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Silver (Ag)	0.12	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Sodium (Na)	63	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Strontium (Sr)	74	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Sulfur (S)	<1000	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Thallium (Tl)	0.3	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Titanium (Ti)	8.9	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Uranium (U)	0.75	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Vanadium (V)	28	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Zinc (Zn)	113	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Zirconium (Zr)	1.0	mg/kg	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	pH (1:2 soil:water)	7.6	pH	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	MIULE	660502	5493059	2019	5	2019-09-06	16:00	Total Organic Carbon	3.4	%	ALS	RG_MIULE_SE-5_2019-09-06_1600
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Moisture	58	%	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Acenaphthene	<0.033	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Acenaphthylene	0.0066	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Acridine	<0.055	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Anthracene	<0.0090	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Benz(a)anthracene	0.035	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Benzo(a)pyrene	0.024	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Benzo(b&j)fluoranthene	0.091	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Benzo(g_h_i)perylene	0.059	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Benzo(e)pyrene	0.12	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Chrysene	0.17	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Dibenz(a_h)anthracene	0.017	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Fluoranthene	0.035	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Fluorene	0.096	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Indeno(1,2,3-c,d)pyrene	0.013	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	1-Methylnaphthalene	0.63	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	2-Methylnaphthalene	1.0	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Naphthalene	0.36	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Perylene	<0.010	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Phenanthrene	0.49	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Pyrene	0.063	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Quinoline	<0.010	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	IACR (CCME)	0.93	-	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	B(a)P Total Potency Equivalent	0.057	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Benzo(b+j+k)fluoranthene	0.094	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	d8-Naphthalene	76	%	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	d10-Acenaphthene	78	%	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	d10-Phenanthrene	82	%	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	d12-Chrysene	88	%	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	% Gravel (>2 mm)	<1.0	%	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	% Sand (2.00 mm - 1.00 mm)	2.3	%	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	% Sand (1.00 mm - 0.50 mm)	5.1	%	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	% Sand (0.50 mm - 0.25 mm)	10	%	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	% Sand (0.25 mm - 0.125 mm)	11	%	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	% Sand (0.125 mm - 0.063 mm)	4.7	%	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	% Silt (0.063 mm - 0.0312 mm)	25	%	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	% Silt (0.031 mm - 0.004 mm)	35	%	ALS	RG_CORCK_SE-1_2019-09-07_0900



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	% Clay (<4 µm)	5.8	%	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Texture	Silt loam	-	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Mercury (Hg)	0.011	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Aluminum (Al)	2,430	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Antimony (Sb)	0.35	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Arsenic (As)	2.9	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Barium (Ba)	240	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Beryllium (Be)	0.4	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Boron (B)	5.8	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Cadmium (Cd)	11	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Calcium (Ca)	398,000	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Chromium (Cr)	3.8	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Cobalt (Co)	434	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Copper (Cu)	7.5	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Iron (Fe)	3,980	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Lead (Pb)	3.2	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Lithium (Li)	3.7	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Magnesium (Mg)	7,830	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Manganese (Mn)	3,220	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Molybdenum (Mo)	0.98	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Nickel (Ni)	365	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Phosphorus (P)	328	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Potassium (K)	620	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Selenium (Se)	2.3	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Silver (Ag)	<0.10	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Sodium (Na)	340	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Strontium (Sr)	482	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Sulfur (S)	5,500	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Thallium (Tl)	0.31	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Titanium (Ti)	9.3	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Uranium (U)	2.7	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Vanadium (V)	7.9	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Zinc (Zn)	1,150	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	pH (1:2 soil:water)	8.1	pH	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	1	2019-09-07	09:00	Total Organic Carbon	8.7	%	ALS	RG_CORCK_SE-1_2019-09-07_0900
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Moisture	69	%	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Acenaphthene	<0.060	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Acenaphthylene	0.0097	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Acridine	<0.10	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Anthracene	<0.0064	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Benz(a)anthracene	0.069	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Benzo(a)pyrene	0.054	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Benzo(b&j)fluoranthene	0.17	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Benzo(g_h_i)perylene	0.12	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Benzo(k)fluoranthene	<0.016	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Benzo(e)pyrene	0.23	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Chrysene	0.31	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Dibenz(a_h)anthracene	0.034	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Fluoranthene	0.068	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Fluorene	0.18	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Indeno(1,2,3-c,d)pyrene	0.027	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	1-Methylnaphthalene	1.1	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	2-Methylnaphthalene	1.9	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Naphthalene	0.65	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Perylene	<0.016	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Phenanthrene	0.87	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Pyrene	0.11	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Quinoline	<0.016	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	IACR (CCME)	1.8	-	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	B(a)P Total Potency Equivalent	0.12	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Benzo(b+j+k)fluoranthene	0.18	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	d8-Naphthalene	81	%	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	d10-Acenaphthene	84	%	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	d10-Phenanthrene	87	%	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	d12-Chrysene	96	%	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	% Gravel (>2 mm)	<1.0	%	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	% Sand (2.00 mm - 1.00 mm)	1.6	%	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	% Sand (1.00 mm - 0.50 mm)	3.8	%	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	% Sand (0.50 mm - 0.25 mm)	5.4	%	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	% Sand (0.25 mm - 0.125 mm)	6.4	%	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	% Sand (0.125 mm - 0.063 mm)	3.3	%	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	% Silt (0.063 mm - 0.0312 mm)	32	%	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	% Silt (0.031 mm - 0.004 mm)	42	%	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	% Clay (<4 µm)	5.4	%	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Texture	Silt loam	-	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Mercury (Hg)	0.014	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Aluminum (Al)	2,180	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Antimony (Sb)	0.32	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Arsenic (As)	2.3	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Barium (Ba)	205	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Beryllium (Be)	0.37	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Boron (B)	9.0	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Cadmium (Cd)	10	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Calcium (Ca)	381,000	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Chromium (Cr)	3.6	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Cobalt (Co)	343	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Copper (Cu)	7.2	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Iron (Fe)	2,950	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Lead (Pb)	2.6	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Lithium (Li)	3.2	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Magnesium (Mg)	7,940	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Manganese (Mn)	2,650	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Molybdenum (Mo)	0.83	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Nickel (Ni)	319	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Phosphorus (P)	426	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Potassium (K)	750	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Selenium (Se)	3.2	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Silver (Ag)	<0.10	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Sodium (Na)	355	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Strontium (Sr)	401	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Sulfur (S)	6,000	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Thallium (Tl)	0.24	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Titanium (Ti)	8.6	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Uranium (U)	2.3	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Vanadium (V)	7.1	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Zinc (Zn)	915	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	pH (1:2 soil:water)	7.9	pH	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	2	2019-09-07	09:30	Total Organic Carbon	9.9	%	ALS	RG_CORCK_SE-2_2019-09-07_0930
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Moisture	65	%	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Acenaphthene	<0.056	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Acenaphthylene	0.012	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Acridine	<0.10	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Anthracene	<0.014	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Benz(a)anthracene	0.063	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Benzo(a)pyrene	0.043	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Benzo(b&j)fluoranthene	0.16	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Benzo(g_h_i)perylene	0.11	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Benzo(k)fluoranthene	<0.014	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Benzo(e)pyrene	0.21	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Chrysene	0.31	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Dibenz(a_h)anthracene	0.032	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Fluoranthene	0.061	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Fluorene	0.17	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Indeno(1,2,3-c,d)pyrene	0.023	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	1-Methylnaphthalene	1.0	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	2-Methylnaphthalene	1.7	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Naphthalene	0.56	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Perylene	<0.014	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Phenanthrene	0.83	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Pyrene	0.11	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Quinoline	<0.014	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	IACR (CCME)	1.6	-	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	B(a)P Total Potency Equivalent	0.1	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Benzo(b+j+k)fluoranthene	0.16	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	d8-Naphthalene	72	%	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	d10-Acenaphthene	77	%	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	d10-Phenanthrene	83	%	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	d12-Chrysene	91	%	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	% Gravel (>2 mm)	<1.0	%	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	% Sand (1.00 mm - 0.50 mm)	1.1	%	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	% Sand (0.50 mm - 0.25 mm)	2.2	%	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	% Sand (0.25 mm - 0.125 mm)	5.1	%	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	% Sand (0.125 mm - 0.063 mm)	3.8	%	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	% Silt (0.063 mm - 0.0312 mm)	33	%	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	% Silt (0.031 mm - 0.004 mm)	47	%	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	% Clay (<4 µm)	6.6	%	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Texture	Silt	-	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Mercury (Hg)	0.013	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Aluminum (Al)	2,780	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Antimony (Sb)	0.32	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Arsenic (As)	2.6	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Barium (Ba)	212	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Beryllium (Be)	0.39	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Boron (B)	8.1	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Cadmium (Cd)	11	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Calcium (Ca)	397,000	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Chromium (Cr)	4.1	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Cobalt (Co)	391	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Copper (Cu)	7.8	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Iron (Fe)	3,330	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Lead (Pb)	2.9	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Lithium (Li)	3.6	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Magnesium (Mg)	8,010	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Manganese (Mn)	2,960	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Molybdenum (Mo)	0.89	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Nickel (Ni)	313	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Phosphorus (P)	326	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Potassium (K)	840	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Selenium (Se)	2.2	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Silver (Ag)	<0.10	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Sodium (Na)	327	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Strontium (Sr)	398	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Sulfur (S)	5,800	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Thallium (Tl)	0.27	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Tin (Sn)	<2.0	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Titanium (Ti)	10	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Tungsten (W)	<0.50	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Uranium (U)	2.1	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Vanadium (V)	8.9	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Zinc (Zn)	1,050	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	pH (1:2 soil:water)	8.1	pH	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	3	2019-09-07	10:15	Total Organic Carbon	9.3	%	ALS	RG_CORCK_SE-3_2019-09-07_1015
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Moisture	73	%	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Acenaphthene	<0.073	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Acenaphthylene	0.016	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Acridine	<0.14	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Anthracene	<0.021	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Benz(a)anthracene	0.091	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Benzo(a)pyrene	0.068	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Benzo(b&j)fluoranthene	0.22	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Benzo(g_h_i)perylene	0.16	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Benzo(k)fluoranthene	<0.018	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Benzo(e)pyrene	0.28	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Chrysene	0.4	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Dibenz(a_h)anthracene	0.046	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Fluoranthene	0.085	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Fluorene	0.24	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Indeno(1,2,3-c,d)pyrene	0.037	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	1-Methylnaphthalene	1.5	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	2-Methylnaphthalene	2.4	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Naphthalene	0.81	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Perylene	<0.018	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Phenanthrene	1.2	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Pyrene	0.15	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Quinoline	<0.018	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	IACR (CCME)	2.3	-	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	B(a)P Total Potency Equivalent	0.16	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Benzo(b+j+k)fluoranthene	0.23	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	d8-Naphthalene	74	%	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	d10-Acenaphthene	80	%	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	d10-Phenanthrene	86	%	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	d12-Chrysene	95	%	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	% Gravel (>2 mm)	<1.0	%	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	% Sand (2.00 mm - 1.00 mm)	2.6	%	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	% Sand (1.00 mm - 0.50 mm)	5.0	%	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	% Sand (0.50 mm - 0.25 mm)	6.6	%	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	% Sand (0.25 mm - 0.125 mm)	9.7	%	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	% Sand (0.125 mm - 0.063 mm)	6.6	%	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	% Silt (0.063 mm - 0.0312 mm)	28	%	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	% Silt (0.031 mm - 0.004 mm)	37	%	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	% Clay (<4 µm)	5.1	%	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Texture	Silt loam	-	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Mercury (Hg)	0.019	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Aluminum (Al)	3,610	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Antimony (Sb)	0.4	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Arsenic (As)	2.7	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Barium (Ba)	236	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Beryllium (Be)	0.45	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Boron (B)	9.5	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Cadmium (Cd)	12	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Calcium (Ca)	316,000	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Chromium (Cr)	5.4	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Cobalt (Co)	256	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Copper (Cu)	8.9	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Iron (Fe)	3,860	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Lead (Pb)	3.4	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Lithium (Li)	3.7	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Magnesium (Mg)	6,710	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Manganese (Mn)	2,000	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Molybdenum (Mo)	0.75	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Nickel (Ni)	247	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Phosphorus (P)	355	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Potassium (K)	980	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Selenium (Se)	5.5	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Silver (Ag)	<0.10	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Sodium (Na)	312	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Strontium (Sr)	392	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Sulfur (S)	5,300	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Thallium (Tl)	0.21	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Tin (Sn)	<2.0	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Titanium (Ti)	12	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Tungsten (W)	<0.50	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Uranium (U)	2.4	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Vanadium (V)	11	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Zinc (Zn)	1,210	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	pH (1:2 soil:water)	7.9	pH	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	4	2019-09-07	11:15	Total Organic Carbon	9.3	%	ALS	RG_CORCK_SE-4_2019-09-07_1115
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Moisture	60	%	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Acenaphthene	<0.045	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Acenaphthylene	0.0088	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Acridine	<0.075	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Anthracene	<0.012	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Benz(a)anthracene	0.046	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Benzo(a)pyrene	0.036	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Benzo(b&j)fluoranthene	0.12	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Benzo(g_h_i)perylene	0.075	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Benzo(e)pyrene	0.16	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Chrysene	0.23	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Dibenz(a_h)anthracene	0.023	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Fluoranthene	0.046	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Fluorene	0.12	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Indeno(1,2,3-c,d)pyrene	0.016	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	1-Methylnaphthalene	0.83	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	2-Methylnaphthalene	1.4	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Naphthalene	0.48	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Perylene	<0.010	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Phenanthrene	0.63	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Pyrene	0.079	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Quinoline	<0.010	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	IACR (CCME)	1.2	-	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	B(a)P Total Potency Equivalent	0.08	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Benzo(b+j+k)fluoranthene	0.13	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	d8-Naphthalene	76	%	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	d10-Acenaphthene	77	%	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	d10-Phenanthrene	81	%	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	d12-Chrysene	90	%	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	% Gravel (>2 mm)	<1.0	%	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	% Sand (1.00 mm - 0.50 mm)	1.7	%	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	% Sand (0.50 mm - 0.25 mm)	4.5	%	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	% Sand (0.25 mm - 0.125 mm)	11	%	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	% Sand (0.125 mm - 0.063 mm)	7.6	%	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	% Silt (0.063 mm - 0.0312 mm)	29	%	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	% Silt (0.031 mm - 0.004 mm)	39	%	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	% Clay (<4 µm)	7.3	%	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Texture	Silt loam	-	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Mercury (Hg)	0.012	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Aluminum (Al)	2,860	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Antimony (Sb)	0.34	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Arsenic (As)	2.6	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Barium (Ba)	232	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Beryllium (Be)	0.38	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Boron (B)	8.4	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Cadmium (Cd)	12	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Calcium (Ca)	406,000	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Chromium (Cr)	4.2	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Cobalt (Co)	389	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Copper (Cu)	6.9	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Iron (Fe)	3,300	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Lead (Pb)	2.8	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Lithium (Li)	3.4	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Magnesium (Mg)	7,940	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Manganese (Mn)	3,090	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Molybdenum (Mo)	1.1	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Nickel (Ni)	344	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Phosphorus (P)	278	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Potassium (K)	890	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Selenium (Se)	2.6	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Silver (Ag)	<0.10	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Sodium (Na)	367	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Strontium (Sr)	463	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Sulfur (S)	6,200	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Thallium (Tl)	0.27	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Titanium (Ti)	12	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Uranium (U)	2.6	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Vanadium (V)	9.0	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Zinc (Zn)	1,190	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	pH (1:2 soil:water)	8.0	pH	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	CORCK	668556	5487388	2019	5	2019-09-07	11:30	Total Organic Carbon	10	%	ALS	RG_CORCK_SE-5_2019-09-07_1130
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Moisture	34	%	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Acenaphthene	<0.0050	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Acridine	<0.010	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Anthracene	<0.0040	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Benzo(b&j)fluoranthene	<0.010	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Benzo(e)pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Chrysene	0.011	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Fluoranthene	<0.010	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Fluorene	<0.010	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	1-Methylnaphthalene	0.033	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	2-Methylnaphthalene	0.049	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Naphthalene	0.016	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Perylene	<0.010	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Phenanthrene	0.029	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Quinoline	<0.010	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	IACR (CCME)	<0.15	-	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	d8-Naphthalene	80	%	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	d10-Acenaphthene	83	%	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	d10-Phenanthrene	89	%	ALS	RG_MIDCO_SE-2_2019-09-07_1330



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	d12-Chrysene	95	%	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	% Gravel (>2 mm)	31	%	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	% Sand (2.00 mm - 1.00 mm)	14	%	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	% Sand (1.00 mm - 0.50 mm)	20	%	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	% Sand (0.50 mm - 0.25 mm)	9.9	%	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	% Sand (0.25 mm - 0.125 mm)	5.5	%	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	% Sand (0.125 mm - 0.063 mm)	3.9	%	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	% Silt (0.063 mm - 0.0312 mm)	6.4	%	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	% Silt (0.031 mm - 0.004 mm)	7.4	%	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	% Clay (<4 µm)	1.5	%	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Texture	Loamy sand	-	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Mercury (Hg)	0.017	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Aluminum (Al)	14,900	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Antimony (Sb)	0.35	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Arsenic (As)	8.1	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Barium (Ba)	108	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Beryllium (Be)	1.0	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Bismuth (Bi)	0.23	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Boron (B)	11	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Cadmium (Cd)	0.79	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Calcium (Ca)	29,500	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Chromium (Cr)	18	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Cobalt (Co)	24	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Copper (Cu)	19	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Iron (Fe)	26,700	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Lead (Pb)	13	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Lithium (Li)	28	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Magnesium (Mg)	7,190	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Manganese (Mn)	479	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Molybdenum (Mo)	1.8	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Nickel (Ni)	52	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Phosphorus (P)	1,070	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Potassium (K)	2,870	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Selenium (Se)	0.8	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Sodium (Na)	88	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Strontium (Sr)	62	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Thallium (Tl)	0.29	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Titanium (Ti)	10	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Uranium (U)	0.49	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Vanadium (V)	26	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Zinc (Zn)	124	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Zirconium (Zr)	1.2	mg/kg	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	pH (1:2 soil:water)	7.5	pH	ALS	RG_MIDCO_SE-2_2019-09-07_1330

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667711	5487625	2019	2	2019-09-07	13:30	Total Organic Carbon	2.4	%	ALS	RG_MIDCO_SE-2_2019-09-07_1330
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Moisture	28	%	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Acenaphthene	<0.0050	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Acridine	<0.010	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Anthracene	<0.0040	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Benzo(b&j)fluoranthene	<0.010	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Benzo(e)pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Chrysene	<0.010	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Fluoranthene	<0.010	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Fluorene	<0.010	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	1-Methylnaphthalene	0.022	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	2-Methylnaphthalene	0.037	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Naphthalene	0.013	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Perylene	<0.010	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Phenanthrene	0.021	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Quinoline	<0.010	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	IACR (CCME)	<0.15	-	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	d8-Naphthalene	83	%	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	d10-Acenaphthene	83	%	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	d10-Phenanthrene	87	%	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	d12-Chrysene	93	%	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	% Gravel (>2 mm)	26	%	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	% Sand (2.00 mm - 1.00 mm)	18	%	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	% Sand (1.00 mm - 0.50 mm)	26	%	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	% Sand (0.50 mm - 0.25 mm)	10	%	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	% Sand (0.25 mm - 0.125 mm)	3.6	%	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	% Sand (0.125 mm - 0.063 mm)	2.5	%	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	% Silt (0.063 mm - 0.0312 mm)	5.7	%	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	% Silt (0.031 mm - 0.004 mm)	7.0	%	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	% Clay (<4 µm)	1.3	%	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Texture	Loamy sand	-	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Mercury (Hg)	0.017	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Aluminum (Al)	19,000	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Antimony (Sb)	0.41	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Arsenic (As)	9.9	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Barium (Ba)	103	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Beryllium (Be)	1.3	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Bismuth (Bi)	0.29	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Boron (B)	13	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Cadmium (Cd)	0.84	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Calcium (Ca)	23,400	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Chromium (Cr)	22	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Cobalt (Co)	31	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Copper (Cu)	24	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Iron (Fe)	33,900	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Lead (Pb)	16	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Lithium (Li)	33	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Magnesium (Mg)	9,030	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Manganese (Mn)	700	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Molybdenum (Mo)	2.2	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Nickel (Ni)	56	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Phosphorus (P)	1,450	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Potassium (K)	3,630	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Selenium (Se)	0.55	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Sodium (Na)	101	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Strontium (Sr)	59	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Thallium (Tl)	0.33	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Titanium (Ti)	13	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Uranium (U)	0.51	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Vanadium (V)	33	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Zinc (Zn)	145	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Zirconium (Zr)	1.3	mg/kg	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	pH (1:2 soil:water)	7.3	pH	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	3	2019-09-07	14:00	Total Organic Carbon	1.8	%	ALS	RG_MIDCO_SE-3_2019-09-07_1400
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Moisture	53	%	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Acenaphthene	0.0053	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Acridine	<0.010	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Anthracene	<0.0040	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Benzo(b&j)fluoranthene	0.028	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Benzo(g_h_i)perylene	0.01	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Benzo(e)pyrene	0.037	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Chrysene	0.042	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Fluoranthene	<0.010	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Fluorene	0.017	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	1-Methylnaphthalene	0.13	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	2-Methylnaphthalene	0.2	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Naphthalene	0.072	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Perylene	<0.010	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Phenanthrene	0.11	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Pyrene	0.013	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Quinoline	<0.010	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	IACR (CCME)	0.27	-	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Benzo(b+j+k)fluoranthene	0.029	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	d8-Naphthalene	80	%	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	d10-Acenaphthene	87	%	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	d10-Phenanthrene	92	%	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	d12-Chrysene	108	%	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	% Gravel (>2 mm)	20	%	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	% Sand (2.00 mm - 1.00 mm)	25	%	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	% Sand (1.00 mm - 0.50 mm)	21	%	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	% Sand (0.50 mm - 0.25 mm)	6.7	%	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	% Sand (0.25 mm - 0.125 mm)	5.1	%	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	% Sand (0.125 mm - 0.063 mm)	5.0	%	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	% Silt (0.063 mm - 0.0312 mm)	6.4	%	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	% Silt (0.031 mm - 0.004 mm)	8.9	%	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	% Clay (<4 µm)	2.5	%	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Texture	Loamy sand	-	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Mercury (Hg)	0.021	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Aluminum (Al)	16,200	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Antimony (Sb)	0.48	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Arsenic (As)	10	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Barium (Ba)	159	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Beryllium (Be)	1.1	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Bismuth (Bi)	0.25	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Boron (B)	11	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Cadmium (Cd)	1.5	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Calcium (Ca)	40,200	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Chromium (Cr)	20	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Cobalt (Co)	51	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Copper (Cu)	21	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Iron (Fe)	29,500	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Lead (Pb)	16	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Lithium (Li)	29	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Magnesium (Mg)	9,610	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Manganese (Mn)	1,270	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Molybdenum (Mo)	2.6	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Nickel (Ni)	92	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Phosphorus (P)	1,560	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Potassium (K)	2,790	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Selenium (Se)	1.1	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Silver (Ag)	0.11	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Sodium (Na)	120	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Strontium (Sr)	74	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Thallium (Tl)	0.4	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Titanium (Ti)	17	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Uranium (U)	0.86	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Vanadium (V)	32	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Zinc (Zn)	180	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Zirconium (Zr)	1.3	mg/kg	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	pH (1:2 soil:water)	7.2	pH	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	1	2019-09-09	09:00	Total Organic Carbon	1.9	%	ALS	RG_MIDCO_SE-1_2019-09-09_0900
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Moisture	56	%	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Acenaphthene	<0.0050	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Acridine	<0.010	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Anthracene	<0.0040	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Benzo(b&j)fluoranthene	0.026	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Benzo(e)pyrene	0.036	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Chrysene	0.039	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Fluoranthene	<0.010	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Fluorene	0.018	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	1-Methylnaphthalene	0.11	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	2-Methylnaphthalene	0.18	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Naphthalene	0.062	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Perylene	<0.010	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Phenanthrene	0.095	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Pyrene	0.011	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Quinoline	<0.010	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	IACR (CCME)	0.25	-	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Benzo(b+j+k)fluoranthene	0.027	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	d8-Naphthalene	79	%	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	d10-Acenaphthene	85	%	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	d10-Phenanthrene	87	%	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	d12-Chrysene	100	%	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	% Gravel (>2 mm)	24	%	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	% Sand (2.00 mm - 1.00 mm)	32	%	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	% Sand (1.00 mm - 0.50 mm)	22	%	ALS	RG_MIDCO_SE-4_2019-09-09_1015



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	% Sand (0.50 mm - 0.25 mm)	3.8	%	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	% Sand (0.25 mm - 0.125 mm)	1.3	%	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	% Sand (0.125 mm - 0.063 mm)	1.2	%	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	% Silt (0.063 mm - 0.0312 mm)	5.1	%	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	% Silt (0.031 mm - 0.004 mm)	7.8	%	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	% Clay (<4 µm)	2.1	%	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Texture	Loamy sand	-	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Mercury (Hg)	0.024	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Aluminum (Al)	16,100	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Antimony (Sb)	0.48	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Arsenic (As)	12	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Barium (Ba)	150	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Beryllium (Be)	1.2	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Bismuth (Bi)	0.28	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Boron (B)	9.9	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Cadmium (Cd)	1.2	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Calcium (Ca)	50,500	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Chromium (Cr)	20	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Cobalt (Co)	58	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Copper (Cu)	23	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Iron (Fe)	33,000	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Lead (Pb)	17	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Lithium (Li)	31	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Magnesium (Mg)	11,100	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Manganese (Mn)	915	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Molybdenum (Mo)	2.7	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Nickel (Ni)	92	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Phosphorus (P)	1,520	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Potassium (K)	2,600	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Selenium (Se)	1.7	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Silver (Ag)	0.11	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Sodium (Na)	119	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Strontium (Sr)	94	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Sulfur (S)	1,000	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Thallium (Tl)	0.37	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Titanium (Ti)	12	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Uranium (U)	0.81	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Vanadium (V)	29	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Zinc (Zn)	169	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Zirconium (Zr)	1.2	mg/kg	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	pH (1:2 soil:water)	7.1	pH	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	4	2019-09-09	10:15	Total Organic Carbon	1.8	%	ALS	RG_MIDCO_SE-4_2019-09-09_1015
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Moisture	31	%	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Acenaphthene	<0.0050	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Acridine	<0.010	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Anthracene	<0.0040	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Benzo(b&j)fluoranthene	<0.010	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Benzo(e)pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Chrysene	0.015	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Fluoranthene	<0.010	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Fluorene	<0.010	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	1-Methylnaphthalene	0.036	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	2-Methylnaphthalene	0.057	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Naphthalene	0.021	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Perylene	<0.010	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Phenanthrene	0.035	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Quinoline	<0.010	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	IACR (CCME)	<0.15	-	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	d8-Naphthalene	73	%	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	d10-Acenaphthene	80	%	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	d10-Phenanthrene	85	%	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	d12-Chrysene	92	%	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	% Gravel (>2 mm)	14	%	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	% Sand (2.00 mm - 1.00 mm)	6.8	%	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	% Sand (1.00 mm - 0.50 mm)	14	%	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	% Sand (0.50 mm - 0.25 mm)	20	%	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	% Sand (0.25 mm - 0.125 mm)	14	%	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	% Sand (0.125 mm - 0.063 mm)	8.9	%	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	% Silt (0.063 mm - 0.0312 mm)	9.8	%	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	% Silt (0.031 mm - 0.004 mm)	10	%	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	% Clay (<4 µm)	2.6	%	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Texture	Loamy sand	-	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Mercury (Hg)	0.017	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Aluminum (Al)	14,900	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Antimony (Sb)	0.42	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Arsenic (As)	9.8	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Barium (Ba)	151	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Beryllium (Be)	1.1	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Bismuth (Bi)	0.23	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Boron (B)	9.8	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Cadmium (Cd)	0.82	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Calcium (Ca)	31,600	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Chromium (Cr)	18	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Cobalt (Co)	27	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Copper (Cu)	19	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Iron (Fe)	28,800	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Lead (Pb)	14	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Lithium (Li)	26	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Magnesium (Mg)	8,260	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Manganese (Mn)	525	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Molybdenum (Mo)	2.0	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Nickel (Ni)	55	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Phosphorus (P)	2,060	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Potassium (K)	2,840	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Selenium (Se)	0.63	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Sodium (Na)	124	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Strontium (Sr)	67	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Thallium (Tl)	0.29	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Titanium (Ti)	10	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Uranium (U)	0.78	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Vanadium (V)	28	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Zinc (Zn)	129	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Zirconium (Zr)	1.4	mg/kg	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	pH (1:2 soil:water)	7.6	pH	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIDCO	667711	5487625	2019	5	2019-09-09	11:30	Total Organic Carbon	1.6	%	ALS	RG_MIDCO_SE-5_2019-09-09_1130
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Moisture	42	%	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Acenaphthene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Acridine	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Anthracene	<0.0040	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Benzo(b&j)fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Benzo(e)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Chrysene	0.015	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Fluorene	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	1-Methylnaphthalene	0.028	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	2-Methylnaphthalene	0.039	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Naphthalene	0.016	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Perylene	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Phenanthrene	0.033	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Quinoline	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	IACR (CCME)	<0.15	-	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	d8-Naphthalene	73	%	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	d10-Acenaphthene	79	%	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	d10-Phenanthrene	80	%	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	d12-Chrysene	91	%	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	% Gravel (>2 mm)	5.1	%	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	% Sand (2.00 mm - 1.00 mm)	7.4	%	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	% Sand (1.00 mm - 0.50 mm)	13	%	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	% Sand (0.50 mm - 0.25 mm)	21	%	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	% Sand (0.25 mm - 0.125 mm)	13	%	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	% Sand (0.125 mm - 0.063 mm)	8.2	%	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	% Silt (0.063 mm - 0.0312 mm)	14	%	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	% Silt (0.031 mm - 0.004 mm)	16	%	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	% Clay (<4 µm)	2.6	%	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Texture	Sandy loam	-	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Mercury (Hg)	0.019	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Aluminum (Al)	17,500	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Antimony (Sb)	0.41	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Arsenic (As)	9.9	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Barium (Ba)	193	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Beryllium (Be)	1.1	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Bismuth (Bi)	0.27	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Boron (B)	11	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Cadmium (Cd)	0.84	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Calcium (Ca)	16,800	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Chromium (Cr)	21	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Cobalt (Co)	11	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Copper (Cu)	22	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Iron (Fe)	32,500	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Lead (Pb)	16	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Lithium (Li)	29	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Magnesium (Mg)	7,380	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Manganese (Mn)	786	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Molybdenum (Mo)	2.6	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Nickel (Ni)	32	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Phosphorus (P)	1,460	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Potassium (K)	3,100	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Selenium (Se)	0.59	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Sodium (Na)	82	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Strontium (Sr)	55	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Sulfur (S)	<1000	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Thallium (Tl)	0.37	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Titanium (Ti)	12	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Uranium (U)	0.54	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Vanadium (V)	32	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Zinc (Zn)	120	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Zirconium (Zr)	1.3	mg/kg	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	pH (1:2 soil:water)	7.3	pH	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	1	2019-09-09	13:00	Total Organic Carbon	2.0	%	ALS	RG_MIUCO_SE-1_2019-09-09_1300
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Moisture	50	%	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Acenaphthene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Acridine	<0.010	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Anthracene	<0.0040	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Benzo(b&j)fluoranthene	0.019	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Benzo(e)pyrene	0.023	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Chrysene	0.036	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Fluorene	<0.010	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	1-Methylnaphthalene	0.07	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	2-Methylnaphthalene	0.095	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Naphthalene	0.038	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Perylene	0.016	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Phenanthrene	0.081	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Quinoline	<0.010	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	IACR (CCME)	0.21	-	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Benzo(b+j+k)fluoranthene	0.021	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	d8-Naphthalene	85	%	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	d10-Acenaphthene	86	%	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	d10-Phenanthrene	89	%	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	d12-Chrysene	98	%	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	% Gravel (>2 mm)	22	%	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	% Sand (2.00 mm - 1.00 mm)	4.8	%	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	% Sand (1.00 mm - 0.50 mm)	12	%	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	% Sand (0.50 mm - 0.25 mm)	18	%	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	% Sand (0.25 mm - 0.125 mm)	12	%	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	% Sand (0.125 mm - 0.063 mm)	7.0	%	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	% Silt (0.063 mm - 0.0312 mm)	11	%	ALS	RG_MIUCO_SE-2_2019-09-09_1415

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	% Silt (0.031 mm - 0.004 mm)	12	%	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	% Clay (<4 µm)	2.5	%	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Texture	Sandy loam	-	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Mercury (Hg)	0.025	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Aluminum (Al)	15,700	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Antimony (Sb)	0.37	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Arsenic (As)	8.2	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Barium (Ba)	183	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Beryllium (Be)	1.0	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Bismuth (Bi)	0.21	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Boron (B)	12	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Cadmium (Cd)	0.84	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Calcium (Ca)	14,100	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Chromium (Cr)	19	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Cobalt (Co)	8.7	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Copper (Cu)	19	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Iron (Fe)	23,800	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Lead (Pb)	14	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Lithium (Li)	23	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Magnesium (Mg)	6,410	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Manganese (Mn)	568	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Molybdenum (Mo)	2.3	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Nickel (Ni)	28	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Phosphorus (P)	1,460	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Potassium (K)	3,210	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Selenium (Se)	0.77	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Silver (Ag)	0.1	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Sodium (Na)	80	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Strontium (Sr)	45	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Sulfur (S)	<1000	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Thallium (Tl)	0.35	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Titanium (Ti)	13	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Uranium (U)	0.65	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Vanadium (V)	30	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Zinc (Zn)	102	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Zirconium (Zr)	1.1	mg/kg	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	pH (1:2 soil:water)	7.2	pH	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	2	2019-09-09	14:15	Total Organic Carbon	2.1	%	ALS	RG_MIUCO_SE-2_2019-09-09_1415
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Moisture	44	%	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Acenaphthene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Acridine	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Anthracene	<0.0040	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Benzo(b&j)fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Benzo(e)pyrene	0.011	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Chrysene	0.017	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Fluorene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	1-Methylnaphthalene	0.028	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	2-Methylnaphthalene	0.039	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Naphthalene	0.016	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Perylene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Phenanthrene	0.034	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Quinoline	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	IACR (CCME)	<0.15	-	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	d8-Naphthalene	73	%	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	d10-Acenaphthene	83	%	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	d10-Phenanthrene	86	%	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	d12-Chrysene	99	%	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	% Gravel (>2 mm)	2.7	%	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	% Sand (2.00 mm - 1.00 mm)	15	%	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	% Sand (1.00 mm - 0.50 mm)	5.3	%	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	% Sand (0.50 mm - 0.25 mm)	5.1	%	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	% Sand (0.25 mm - 0.125 mm)	8.3	%	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	% Sand (0.125 mm - 0.063 mm)	13	%	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	% Silt (0.063 mm - 0.0312 mm)	21	%	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	% Silt (0.031 mm - 0.004 mm)	25	%	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	% Clay (<4 µm)	4.9	%	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Texture	Sandy loam	-	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Mercury (Hg)	0.024	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Aluminum (Al)	14,900	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Antimony (Sb)	0.33	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Arsenic (As)	8.2	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Barium (Ba)	143	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Beryllium (Be)	0.98	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Bismuth (Bi)	0.21	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Boron (B)	11	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Cadmium (Cd)	0.7	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Calcium (Ca)	19,400	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Chromium (Cr)	18	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Cobalt (Co)	7.2	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Copper (Cu)	20	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Iron (Fe)	23,800	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Lead (Pb)	13	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Lithium (Li)	25	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Magnesium (Mg)	6,790	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Manganese (Mn)	279	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Molybdenum (Mo)	2.1	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Nickel (Ni)	25	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Phosphorus (P)	1,300	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Potassium (K)	3,020	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Selenium (Se)	0.65	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Sodium (Na)	105	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Strontium (Sr)	46	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Sulfur (S)	<1000	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Thallium (Tl)	0.34	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Titanium (Ti)	13	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Uranium (U)	0.52	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Vanadium (V)	28	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Zinc (Zn)	100	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	pH (1:2 soil:water)	6.9	pH	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	3	2019-09-09	15:30	Total Organic Carbon	2.3	%	ALS	RG_MIUCO_SE-3_2019-09-09_1530
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Moisture	71	%	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Acenaphthene	<0.0085	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Acenaphthylene	<0.0085	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Acridine	<0.017	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Anthracene	<0.0068	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Benz(a)anthracene	<0.017	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Benzo(a)pyrene	<0.017	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Benzo(b&j)fluoranthene	<0.017	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Benzo(g_h_i)perylene	<0.017	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Benzo(k)fluoranthene	<0.017	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Benzo(e)pyrene	0.018	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Chrysene	0.027	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Dibenz(a_h)anthracene	<0.0085	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Fluoranthene	<0.017	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Fluorene	<0.017	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Indeno(1,2,3-c,d)pyrene	<0.017	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	1-Methylnaphthalene	0.031	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	2-Methylnaphthalene	0.041	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Naphthalene	0.022	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Perylene	0.032	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Phenanthrene	0.045	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Pyrene	<0.017	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Quinoline	<0.017	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	IACR (CCME)	0.19	-	ALS	RG_MIUCO_SE-4_2019-09-09_1325



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Benzo(b+j+k)fluoranthene	<0.025	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	d8-Naphthalene	75	%	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	d10-Acenaphthene	82	%	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	d10-Phenanthrene	85	%	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	d12-Chrysene	98	%	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	% Sand (1.00 mm - 0.50 mm)	<1.0	%	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	% Sand (0.50 mm - 0.25 mm)	<1.0	%	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	% Sand (0.25 mm - 0.125 mm)	2.4	%	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	% Sand (0.125 mm - 0.063 mm)	9.8	%	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	% Silt (0.063 mm - 0.0312 mm)	32	%	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	% Silt (0.031 mm - 0.004 mm)	45	%	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	% Clay (<4 µm)	9.8	%	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Texture	Silt loam	-	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Mercury (Hg)	0.032	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Aluminum (Al)	15,000	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Antimony (Sb)	0.35	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Arsenic (As)	5.6	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Barium (Ba)	173	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Beryllium (Be)	0.89	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Bismuth (Bi)	0.2	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Boron (B)	14	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Cadmium (Cd)	0.97	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Calcium (Ca)	16,300	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Chromium (Cr)	20	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Cobalt (Co)	6.8	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Copper (Cu)	20	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Iron (Fe)	20,600	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Lead (Pb)	13	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Lithium (Li)	23	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Magnesium (Mg)	6,940	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Manganese (Mn)	243	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Molybdenum (Mo)	2.0	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Nickel (Ni)	27	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Phosphorus (P)	1,520	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Potassium (K)	3,110	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Selenium (Se)	1.0	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Silver (Ag)	0.14	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Sodium (Na)	89	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Strontium (Sr)	51	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Sulfur (S)	1,100	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Thallium (Tl)	0.41	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Titanium (Ti)	19	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Uranium (U)	0.7	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Vanadium (V)	30	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Zinc (Zn)	105	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	pH (1:2 soil:water)	7.5	pH	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	4	2019-09-09	13:25	Total Organic Carbon	4.1	%	ALS	RG_MIUCO_SE-4_2019-09-09_1325
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Moisture	40	%	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Acenaphthene	0.0063	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Acridine	<0.012	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Anthracene	<0.0040	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Benzo(b&j)fluoranthene	0.029	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Benzo(e)pyrene	0.035	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Chrysene	0.047	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Fluorene	0.02	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	1-Methylnaphthalene	0.19	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	2-Methylnaphthalene	0.3	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Naphthalene	0.12	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Perylene	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Phenanthrene	0.13	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Pyrene	0.013	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Quinoline	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	IACR (CCME)	0.28	-	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Benzo(b+j+k)fluoranthene	0.031	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	d8-Naphthalene	80	%	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	d10-Acenaphthene	87	%	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	d10-Phenanthrene	86	%	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	d12-Chrysene	93	%	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	% Gravel (>2 mm)	23	%	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	% Sand (2.00 mm - 1.00 mm)	7.3	%	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	% Sand (1.00 mm - 0.50 mm)	6.9	%	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	% Sand (0.50 mm - 0.25 mm)	13	%	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	% Sand (0.25 mm - 0.125 mm)	14	%	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	% Sand (0.125 mm - 0.063 mm)	8.2	%	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	% Silt (0.063 mm - 0.0312 mm)	13	%	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	% Silt (0.031 mm - 0.004 mm)	13	%	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	% Clay (<4 µm)	2.3	%	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Texture	Sandy loam	-	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Mercury (Hg)	0.027	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Aluminum (Al)	15,000	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Antimony (Sb)	0.44	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Arsenic (As)	8.8	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Barium (Ba)	172	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Beryllium (Be)	1.1	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Bismuth (Bi)	0.23	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Boron (B)	10	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Cadmium (Cd)	0.79	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Calcium (Ca)	15,400	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Chromium (Cr)	18	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Cobalt (Co)	9.4	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Copper (Cu)	21	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Iron (Fe)	26,500	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Lead (Pb)	15	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Lithium (Li)	26	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Magnesium (Mg)	6,770	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Manganese (Mn)	450	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Molybdenum (Mo)	2.3	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Nickel (Ni)	29	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Phosphorus (P)	1,350	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Potassium (K)	2,620	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Selenium (Se)	0.57	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Sodium (Na)	94	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Strontium (Sr)	50	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Sulfur (S)	<1000	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Thallium (Tl)	0.33	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Titanium (Ti)	13	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Uranium (U)	0.58	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Vanadium (V)	30	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Zinc (Zn)	112	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Zirconium (Zr)	1.3	mg/kg	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	pH (1:2 soil:water)	7.2	pH	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIUCO	668134	5486767	2019	5	2019-09-09	15:45	Total Organic Carbon	13	%	ALS	RG_MIUCO_SE-5_2019-09-09_1545
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Moisture	39	%	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Acenaphthene	<0.0070	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Acridine	<0.010	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Anthracene	<0.0040	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Benzo(b&j)fluoranthene	0.023	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Benzo(e)pyrene	0.027	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Chrysene	0.037	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Fluoranthene	0.014	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Fluorene	0.015	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	1-Methylnaphthalene	0.15	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	2-Methylnaphthalene	0.23	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Naphthalene	0.094	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Perylene	<0.010	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Phenanthrene	0.12	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Pyrene	0.016	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Quinoline	<0.010	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	IACR (CCME)	0.23	-	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Benzo(b+j+k)fluoranthene	0.024	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	d8-Naphthalene	79	%	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	d10-Acenaphthene	85	%	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	d10-Phenanthrene	87	%	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	d12-Chrysene	93	%	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	% Gravel (>2 mm)	1.2	%	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	% Sand (2.00 mm - 1.00 mm)	8.1	%	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	% Sand (1.00 mm - 0.50 mm)	39	%	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	% Sand (0.50 mm - 0.25 mm)	26	%	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	% Sand (0.25 mm - 0.125 mm)	6.8	%	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	% Sand (0.125 mm - 0.063 mm)	3.4	%	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	% Silt (0.063 mm - 0.0312 mm)	6.5	%	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	% Silt (0.031 mm - 0.004 mm)	7.4	%	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	% Clay (<4 µm)	1.1	%	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Texture	Sandy loam	-	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Mercury (Hg)	0.02	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Aluminum (Al)	10,800	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Antimony (Sb)	0.45	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Arsenic (As)	9.1	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Barium (Ba)	102	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Beryllium (Be)	0.89	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Boron (B)	7.9	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Cadmium (Cd)	0.75	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Calcium (Ca)	60,700	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Chromium (Cr)	13	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Cobalt (Co)	20	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Copper (Cu)	15	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Iron (Fe)	21,000	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Lead (Pb)	12	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Lithium (Li)	19	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Magnesium (Mg)	7,390	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Manganese (Mn)	453	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Molybdenum (Mo)	1.9	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Nickel (Ni)	43	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Phosphorus (P)	1,190	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Potassium (K)	2,010	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Selenium (Se)	0.67	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Silver (Ag)	0.11	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Sodium (Na)	79	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Strontium (Sr)	95	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Thallium (Tl)	0.48	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Titanium (Ti)	5.8	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Uranium (U)	0.63	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Vanadium (V)	23	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Zinc (Zn)	121	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	pH (1:2 soil:water)	7.3	pH	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	1	2019-09-10	09:00	Total Organic Carbon	2.7	%	ALS	RG_MIDAG_SE-1_2019-09-10_0900
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Moisture	43	%	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Acenaphthene	<0.020	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Acridine	<0.020	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Anthracene	<0.0040	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Benz(a)anthracene	0.017	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Benzo(a)pyrene	0.014	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Benzo(b&j)fluoranthene	0.056	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Benzo(g_h_i)perylene	0.02	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Benzo(e)pyrene	0.066	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Chrysene	0.098	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Dibenz(a_h)anthracene	0.0062	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Fluoranthene	0.036	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Fluorene	0.039	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	1-Methylnaphthalene	0.25	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	2-Methylnaphthalene	0.38	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Naphthalene	0.16	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Perylene	<0.010	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Phenanthrene	0.3	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Pyrene	0.037	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Quinoline	<0.010	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	IACR (CCME)	0.55	-	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	B(a)P Total Potency Equivalent	0.03	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Benzo(b+j+k)fluoranthene	0.06	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	d8-Naphthalene	90	%	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	d10-Acenaphthene	98	%	ALS	RG_MIDAG_SE-2_2019-09-10_1130

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	d10-Phenanthrene	106	%	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	d12-Chrysene	115	%	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	% Gravel (>2 mm)	1.2	%	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	% Sand (2.00 mm - 1.00 mm)	5.7	%	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	% Sand (1.00 mm - 0.50 mm)	27	%	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	% Sand (0.50 mm - 0.25 mm)	24	%	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	% Sand (0.25 mm - 0.125 mm)	11	%	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	% Sand (0.125 mm - 0.063 mm)	6.2	%	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	% Silt (0.063 mm - 0.0312 mm)	11	%	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	% Silt (0.031 mm - 0.004 mm)	13	%	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	% Clay (<4 µm)	2.0	%	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Texture	Loamy sand	-	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Mercury (Hg)	0.026	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Aluminum (Al)	9,630	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Antimony (Sb)	0.47	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Arsenic (As)	8.7	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Barium (Ba)	120	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Beryllium (Be)	0.83	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Boron (B)	7.5	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Cadmium (Cd)	0.95	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Calcium (Ca)	74,300	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Chromium (Cr)	14	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Cobalt (Co)	26	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Copper (Cu)	14	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Iron (Fe)	19,000	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Lead (Pb)	11	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Lithium (Li)	16	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Magnesium (Mg)	11,100	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Manganese (Mn)	507	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Molybdenum (Mo)	1.7	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Nickel (Ni)	54	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Phosphorus (P)	1,420	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Potassium (K)	1,620	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Selenium (Se)	1.0	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Silver (Ag)	0.14	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Sodium (Na)	90	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Strontium (Sr)	98	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Thallium (Tl)	0.47	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Titanium (Ti)	15	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Uranium (U)	0.79	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Vanadium (V)	23	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Zinc (Zn)	129	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG_SE-2_2019-09-10_1130

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	pH (1:2 soil:water)	7.3	pH	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	2	2019-09-10	11:30	Total Organic Carbon	2.6	%	ALS	RG_MIDAG_SE-2_2019-09-10_1130
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Moisture	42	%	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Acenaphthene	<0.0050	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Acridine	<0.010	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Anthracene	<0.0040	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Benzo(b&j)fluoranthene	0.019	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Benzo(e)pyrene	0.024	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Chrysene	0.031	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Fluoranthene	0.011	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Fluorene	<0.010	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	1-Methylnaphthalene	0.073	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	2-Methylnaphthalene	0.11	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Naphthalene	0.043	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Perylene	<0.010	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Phenanthrene	0.076	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Pyrene	0.011	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Quinoline	<0.010	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	IACR (CCME)	0.21	-	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Benzo(b+j+k)fluoranthene	0.02	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	d8-Naphthalene	78	%	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	d10-Acenaphthene	84	%	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	d10-Phenanthrene	87	%	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	d12-Chrysene	98	%	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	% Gravel (>2 mm)	3.9	%	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	% Sand (2.00 mm - 1.00 mm)	14	%	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	% Sand (1.00 mm - 0.50 mm)	30	%	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	% Sand (0.50 mm - 0.25 mm)	13	%	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	% Sand (0.25 mm - 0.125 mm)	5.1	%	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	% Sand (0.125 mm - 0.063 mm)	5.2	%	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	% Silt (0.063 mm - 0.0312 mm)	12	%	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	% Silt (0.031 mm - 0.004 mm)	14	%	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	% Clay (<4 µm)	2.9	%	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Texture	Sandy loam	-	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Mercury (Hg)	0.021	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Aluminum (Al)	10,700	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Antimony (Sb)	0.34	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Arsenic (As)	7.2	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Barium (Ba)	93	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Beryllium (Be)	0.77	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Boron (B)	8.6	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Cadmium (Cd)	0.72	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Calcium (Ca)	61,700	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Chromium (Cr)	14	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Cobalt (Co)	22	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Copper (Cu)	13	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Iron (Fe)	17,500	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Lead (Pb)	9.5	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Lithium (Li)	18	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Magnesium (Mg)	9,280	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Manganese (Mn)	469	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Molybdenum (Mo)	1.5	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Nickel (Ni)	51	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Phosphorus (P)	1,010	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Potassium (K)	2,090	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Selenium (Se)	0.83	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Silver (Ag)	0.1	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Sodium (Na)	82	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Strontium (Sr)	77	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Thallium (Tl)	0.46	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Titanium (Ti)	12	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Uranium (U)	0.54	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Vanadium (V)	23	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Zinc (Zn)	115	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	pH (1:2 soil:water)	7.1	pH	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	3	2019-09-10	10:15	Total Organic Carbon	4.4	%	ALS	RG_MIDAG_SE-3_2019-09-10_1015
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Moisture	34	%	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Acenaphthene	<0.0050	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Acridine	<0.010	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Anthracene	<0.0040	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Benzo(b&j)fluoranthene	0.012	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Benzo(e)pyrene	0.016	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Chrysene	0.024	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Fluoranthene	<0.010	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Fluorene	<0.010	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	1-Methylnaphthalene	0.036	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	2-Methylnaphthalene	0.053	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Naphthalene	0.02	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Perylene	<0.010	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Phenanthrene	0.056	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Pyrene	<0.010	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Quinoline	<0.010	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	IACR (CCME)	0.16	-	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	d8-Naphthalene	74	%	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	d10-Acenaphthene	82	%	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	d10-Phenanthrene	91	%	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	d12-Chrysene	97	%	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	% Sand (2.00 mm - 1.00 mm)	5.5	%	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	% Sand (1.00 mm - 0.50 mm)	29	%	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	% Sand (0.50 mm - 0.25 mm)	26	%	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	% Sand (0.25 mm - 0.125 mm)	9.0	%	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	% Sand (0.125 mm - 0.063 mm)	4.7	%	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	% Silt (0.063 mm - 0.0312 mm)	11	%	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	% Silt (0.031 mm - 0.004 mm)	13	%	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	% Clay (<4 µm)	2.1	%	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Texture	Loamy sand	-	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Mercury (Hg)	0.018	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Aluminum (Al)	12,900	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Antimony (Sb)	0.38	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Arsenic (As)	8.6	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Barium (Ba)	106	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Beryllium (Be)	0.97	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Boron (B)	10	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Cadmium (Cd)	0.73	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Calcium (Ca)	66,100	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Chromium (Cr)	16	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Cobalt (Co)	19	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Copper (Cu)	15	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Iron (Fe)	22,300	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Lead (Pb)	11	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Lithium (Li)	21	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Magnesium (Mg)	9,520	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Manganese (Mn)	469	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Molybdenum (Mo)	1.9	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Nickel (Ni)	48	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Phosphorus (P)	1,140	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Potassium (K)	2,620	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Selenium (Se)	0.57	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Sodium (Na)	91	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Strontium (Sr)	88	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Thallium (Tl)	0.46	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Titanium (Ti)	11	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Uranium (U)	0.55	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Vanadium (V)	27	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Zinc (Zn)	119	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	pH (1:2 soil:water)	7.3	pH	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	4	2019-09-10	12:00	Total Organic Carbon	3.0	%	ALS	RG_MIDAG_SE-4_2019-09-10_1200
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Moisture	61	%	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Acenaphthene	0.0089	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Acridine	<0.012	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Anthracene	<0.0040	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Benz(a)anthracene	0.012	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Benzo(a)pyrene	0.013	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Benzo(b&j)fluoranthene	0.045	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Benzo(g_h_i)perylene	0.013	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Benzo(e)pyrene	0.055	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Chrysene	0.066	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Fluoranthene	0.019	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Fluorene	0.021	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	1-Methylnaphthalene	0.17	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	2-Methylnaphthalene	0.25	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Naphthalene	0.1	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Perylene	<0.010	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Phenanthrene	0.18	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Pyrene	0.021	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Quinoline	<0.010	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	IACR (CCME)	0.43	-	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	B(a)P Total Potency Equivalent	0.023	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Benzo(b+j+k)fluoranthene	0.049	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	d8-Naphthalene	81	%	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	d10-Acenaphthene	88	%	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	d10-Phenanthrene	92	%	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	d12-Chrysene	107	%	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIDAG_SE-5_2019-09-10_1215

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	% Sand (1.00 mm - 0.50 mm)	14	%	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	% Sand (0.50 mm - 0.25 mm)	46	%	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	% Sand (0.25 mm - 0.125 mm)	11	%	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	% Sand (0.125 mm - 0.063 mm)	4.1	%	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	% Silt (0.063 mm - 0.0312 mm)	11	%	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	% Silt (0.031 mm - 0.004 mm)	12	%	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	% Clay (<4 µm)	1.4	%	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Texture	Loamy sand	-	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Mercury (Hg)	0.025	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Aluminum (Al)	12,100	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Antimony (Sb)	0.38	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Arsenic (As)	8.5	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Barium (Ba)	116	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Beryllium (Be)	0.87	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Boron (B)	11	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Cadmium (Cd)	0.88	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Calcium (Ca)	55,300	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Chromium (Cr)	16	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Cobalt (Co)	27	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Copper (Cu)	14	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Iron (Fe)	19,300	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Lead (Pb)	11	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Lithium (Li)	17	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Magnesium (Mg)	8,790	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Manganese (Mn)	562	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Molybdenum (Mo)	1.5	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Nickel (Ni)	59	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Phosphorus (P)	1,140	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Potassium (K)	2,740	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Selenium (Se)	1.1	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Silver (Ag)	0.1	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Sodium (Na)	95	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Strontium (Sr)	78	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Thallium (Tl)	0.48	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Titanium (Ti)	11	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Uranium (U)	0.61	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Vanadium (V)	27	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Zinc (Zn)	130	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	pH (1:2 soil:water)	7.4	pH	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIDAG	665258	5489417	2019	5	2019-09-10	12:15	Total Organic Carbon	2.1	%	ALS	RG_MIDAG_SE-5_2019-09-10_1215
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Moisture	35	%	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Acenaphthene	<0.0050	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Acridine	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Anthracene	<0.0040	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Benzo(b&j)fluoranthene	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Benzo(e)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Chrysene	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Fluoranthene	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Fluorene	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	1-Methylnaphthalene	0.014	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	2-Methylnaphthalene	0.021	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Naphthalene	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Perylene	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Phenanthrene	0.02	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Quinoline	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	IACR (CCME)	<0.15	-	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	d8-Naphthalene	85	%	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	d10-Acenaphthene	86	%	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	d10-Phenanthrene	98	%	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	d12-Chrysene	105	%	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	% Sand (2.00 mm - 1.00 mm)	2.3	%	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	% Sand (1.00 mm - 0.50 mm)	15	%	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	% Sand (0.50 mm - 0.25 mm)	28	%	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	% Sand (0.25 mm - 0.125 mm)	21	%	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	% Sand (0.125 mm - 0.063 mm)	11	%	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	% Silt (0.063 mm - 0.0312 mm)	10	%	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	% Silt (0.031 mm - 0.004 mm)	9.4	%	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	% Clay (<4 µm)	2.2	%	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Texture	Loamy sand	-	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Mercury (Hg)	0.023	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Aluminum (Al)	8,120	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Antimony (Sb)	0.6	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Arsenic (As)	6.7	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Barium (Ba)	150	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Beryllium (Be)	0.71	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Boron (B)	6.7	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Cadmium (Cd)	1.0	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Calcium (Ca)	30,500	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Chromium (Cr)	13	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Cobalt (Co)	9.3	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Copper (Cu)	13	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Iron (Fe)	14,400	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Lead (Pb)	8.2	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Lithium (Li)	11	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Magnesium (Mg)	7,310	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Manganese (Mn)	127	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Molybdenum (Mo)	1.3	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Nickel (Ni)	30	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Phosphorus (P)	1,170	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Potassium (K)	1,520	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Selenium (Se)	1.5	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Silver (Ag)	0.16	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Sodium (Na)	77	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Strontium (Sr)	59	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Sulfur (S)	<1000	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Thallium (Tl)	0.32	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Titanium (Ti)	16	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Uranium (U)	0.8	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Vanadium (V)	29	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Zinc (Zn)	104	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Zirconium (Zr)	1.5	mg/kg	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	pH (1:2 soil:water)	7.9	pH	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	MIULE	660502	5493059	2019	3	2019-09-06	15:30	Total Organic Carbon	2.1	%	ALS	RG_MIULE_SE-3_2019-09-06-1530
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Moisture	90.8	%	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Acenaphthene	<0.025	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Acenaphthylene	<0.025	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Anthracene	<0.020	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Acridine	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Benz(a)anthracene	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Benzo(a)pyrene	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Benzo(b&j)fluoranthene	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Benzo(e)pyrene	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Benzo(g_h_i)perylene	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Benzo(k)fluoranthene	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Chrysene	0.064	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Dibenz(a_h)anthracene	<0.025	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Fluoranthene	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Fluorene	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Indeno(1,2,3-c,d)pyrene	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	2-Methylnaphthalene	0.120	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Naphthalene	0.061	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Perylene	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Phenanthrene	0.159	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Pyrene	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	1-Methylnaphthalene	0.094	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Quinoline	<0.050	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	IACR (CCME)	0.55	-	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	B(a)P Total Potency Equivalent	0.048	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Benzo(b+j+k)fluoranthene	<0.075	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	IACR:Coarse	<0.050	-	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	IACR:Fine	0.060	-	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	d8-Naphthalene	98.6	%	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	d10-Acenaphthene	99.9	%	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	d10-Phenanthrene	102.5	%	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	d12-Chrysene	112.1	%	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	% Gravel (>2 mm)	1.5	%	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	% Sand (2.00 mm - 1.00 mm)	4.6	%	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	% Sand (1.00 mm - 0.50 mm)	7.7	%	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	% Sand (0.50 mm - 0.25 mm)	6.8	%	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	% Sand (0.25 mm - 0.125 mm)	7.0	%	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	% Sand (0.125 mm - 0.063 mm)	8.3	%	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	% Silt (0.063 mm - 0.0312 mm)	27.8	%	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	% Silt (0.031 mm - 0.004 mm)	29.0	%	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	% Clay (<4 µm)	7.4	%	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Texture	Silt loam	-	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Mercury (Hg)	0.0437	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Aluminum (Al)	3550	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Antimony (Sb)	0.43	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Arsenic (As)	6.07	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Barium (Ba)	71.9	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Beryllium (Be)	0.44	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Boron (B)	7.0	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Cadmium (Cd)	0.558	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Calcium (Ca)	138000	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Chromium (Cr)	9.03	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Cobalt (Co)	2.28	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Copper (Cu)	6.40	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Iron (Fe)	6170	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Lead (Pb)	4.12	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Lithium (Li)	4.6	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Magnesium (Mg)	12300	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Manganese (Mn)	111	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Molybdenum (Mo)	0.70	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Nickel (Ni)	15.0	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Phosphorus (P)	830	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Potassium (K)	1090	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Selenium (Se)	1.55	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Silver (Ag)	0.13	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Sodium (Na)	149	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Strontium (Sr)	157	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Sulfur (S)	1100	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Thallium (Tl)	0.693	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Tin (Sn)	<2.0	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Titanium (Ti)	25.2	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Tungsten (W)	<0.50	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Uranium (U)	0.681	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Vanadium (V)	15.3	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Zinc (Zn)	105	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	pH (1:2 soil:water)	7.12	pH	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	AGCK	667555	5488644	2020	1	2020-09-10	16:22	Total Organic Carbon	8.9	%	ALS	RG_AGCK_SE-1_2020-09-10_1622
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Moisture	64.7	%	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Acenaphthene	<0.040	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Acenaphthylene	<0.015	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Anthracene	<0.0060	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Acridine	0.081	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Benz(a)anthracene	0.055	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Benzo(a)pyrene	0.040	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Benzo(b&j)fluoranthene	0.169	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Benzo(e)pyrene	0.205	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Benzo(g_h_i)perylene	0.096	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Benzo(k)fluoranthene	<0.015	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Chrysene	0.271	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Dibenz(a_h)anthracene	<0.025	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Fluoranthene	0.057	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Fluorene	0.141	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Indeno(1,2,3-c,d)pyrene	0.015	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	2-Methylnaphthalene	1.60	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Naphthalene	0.558	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Perylene	<0.015	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Phenanthrene	0.753	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Pyrene	0.089	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	1-Methylnaphthalene	0.955	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Quinoline	<0.015	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	IACR (CCME)	1.58	-	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	B(a)P Total Potency Equivalent	0.081	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Benzo(b+j+k)fluoranthene	0.169	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	IACR:Coarse	<0.050	-	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	IACR:Fine	0.093	-	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	d8-Naphthalene	106.0	%	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	d10-Acenaphthene	110.8	%	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	d10-Phenanthrene	106.1	%	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	d12-Chrysene	114.5	%	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	% Gravel (>2 mm)	1.2	%	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	% Sand (2.00 mm - 1.00 mm)	3.1	%	ALS	RG_RIVER_SE-5_2020-09-13_0946



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	% Sand (1.00 mm - 0.50 mm)	5.7	%	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	% Sand (0.50 mm - 0.25 mm)	15.0	%	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	% Sand (0.25 mm - 0.125 mm)	16.7	%	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	% Sand (0.125 mm - 0.063 mm)	12.9	%	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	% Silt (0.063 mm - 0.0312 mm)	17.2	%	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	% Silt (0.031 mm - 0.004 mm)	22.9	%	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	% Clay (<4 µm)	5.2	%	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Texture	Sandy loam	-	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Mercury (Hg)	0.0552	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Aluminum (Al)	3630	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Antimony (Sb)	0.32	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Arsenic (As)	3.06	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Barium (Ba)	168	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Beryllium (Be)	0.41	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Boron (B)	9.3	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Cadmium (Cd)	9.13	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Calcium (Ca)	218000	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Chromium (Cr)	5.70	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Cobalt (Co)	190	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Copper (Cu)	7.49	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Iron (Fe)	4710	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Lead (Pb)	3.95	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Lithium (Li)	4.0	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Magnesium (Mg)	6230	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Manganese (Mn)	1420	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Molybdenum (Mo)	0.70	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Nickel (Ni)	201	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Phosphorus (P)	306	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Potassium (K)	960	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Selenium (Se)	2.79	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Silver (Ag)	<0.10	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Sodium (Na)	313	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Strontium (Sr)	307	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Sulfur (S)	3200	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Thallium (Tl)	0.263	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Tin (Sn)	<2.0	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Titanium (Ti)	12.7	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Tungsten (W)	<0.50	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Uranium (U)	1.75	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Vanadium (V)	11.4	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Zinc (Zn)	842	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	pH (1:2 soil:water)	8.14	pH	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	CORCK-DUP	668556	5487388	2020	5	2020-09-13	09:46	Total Organic Carbon	8.6	%	ALS	RG_RIVER_SE-5_2020-09-13_0946
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Moisture	70.6	%	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Acenaphthene	<0.0075	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Acenaphthylene	<0.0075	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Anthracene	<0.0060	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Acridine	<0.015	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Benz(a)anthracene	<0.015	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Benzo(a)pyrene	<0.015	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Benzo(b&j)fluoranthene	0.032	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Benzo(e)pyrene	0.030	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Benzo(g_h_i)perylene	<0.015	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Benzo(k)fluoranthene	<0.015	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Chrysene	0.058	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Dibenz(a_h)anthracene	<0.0075	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Fluoranthene	<0.015	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Fluorene	0.017	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Indeno(1,2,3-c,d)pyrene	<0.015	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	2-Methylnaphthalene	0.180	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Naphthalene	0.057	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Perylene	<0.015	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Phenanthrene	0.138	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Pyrene	0.019	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	1-Methylnaphthalene	0.122	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Quinoline	<0.015	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	IACR (CCME)	0.34	-	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Benzo(b+j+k)fluoranthene	0.032	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	IACR:Coarse	<0.050	-	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	IACR:Fine	<0.050	-	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	d8-Naphthalene	106.2	%	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	d10-Acenaphthene	109.5	%	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	d10-Phenanthrene	107.7	%	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	d12-Chrysene	115.2	%	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	% Gravel (>2 mm)	<1.0	%	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	% Sand (2.00 mm - 1.00 mm)	1.3	%	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	% Sand (1.00 mm - 0.50 mm)	5.0	%	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	% Sand (0.50 mm - 0.25 mm)	7.5	%	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	% Sand (0.25 mm - 0.125 mm)	8.1	%	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	% Sand (0.125 mm - 0.063 mm)	14.6	%	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	% Silt (0.063 mm - 0.0312 mm)	26.4	%	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	% Silt (0.031 mm - 0.004 mm)	31.2	%	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	% Clay (<4 µm)	5.8	%	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Texture	Silt loam	-	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Mercury (Hg)	0.0476	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Aluminum (Al)	14200	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Antimony (Sb)	0.39	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Arsenic (As)	7.05	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Barium (Ba)	229	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Beryllium (Be)	0.84	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Boron (B)	15.3	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Cadmium (Cd)	0.869	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Calcium (Ca)	32400	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Chromium (Cr)	17.9	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Cobalt (Co)	6.95	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Copper (Cu)	19.2	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Iron (Fe)	20200	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Lead (Pb)	11.3	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Lithium (Li)	18.9	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Magnesium (Mg)	7630	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Manganese (Mn)	261	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Molybdenum (Mo)	2.13	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Nickel (Ni)	22.8	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Phosphorus (P)	1110	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Potassium (K)	3000	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Selenium (Se)	1.06	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Silver (Ag)	0.12	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Sodium (Na)	89	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Strontium (Sr)	72.2	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Sulfur (S)	<1000	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Thallium (Tl)	0.401	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Tin (Sn)	<2.0	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Titanium (Ti)	21.8	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Tungsten (W)	<0.50	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Uranium (U)	0.638	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Vanadium (V)	30.4	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Zinc (Zn)	94.4	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	pH (1:2 soil:water)	7.94	pH	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MIUCO-DUP	668134	5486767	2020	2	2020-09-12	11:37	Total Organic Carbon	5.60	%	ALS	RG_RIVER_SE-2_2020-09-12_1137
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Moisture	57.8	%	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Acenaphthene	<0.0050	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Acenaphthylene	<0.0050	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Anthracene	<0.0040	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Acridine	<0.010	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Benzo(b&j)fluoranthene	0.014	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Benzo(e)pyrene	0.016	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Chrysene	0.033	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Fluoranthene	0.012	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Fluorene	<0.010	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	2-Methylnaphthalene	0.015	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Naphthalene	<0.010	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Perylene	<0.010	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Phenanthrene	0.029	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Pyrene	0.015	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	1-Methylnaphthalene	<0.050	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Quinoline	<0.050	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	IACR (CCME)	0.17	-	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	IACR:Coarse	<0.050	-	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	IACR:Fine	<0.050	-	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	d8-Naphthalene	102.1	%	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	d10-Acenaphthene	107.2	%	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	d10-Phenanthrene	105.7	%	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	d12-Chrysene	113.5	%	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	% Gravel (>2 mm)	<1.0	%	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	% Sand (1.00 mm - 0.50 mm)	1.4	%	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	% Sand (0.50 mm - 0.25 mm)	4.4	%	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	% Sand (0.25 mm - 0.125 mm)	11.1	%	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	% Sand (0.125 mm - 0.063 mm)	19.0	%	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	% Silt (0.063 mm - 0.0312 mm)	27.0	%	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	% Silt (0.031 mm - 0.004 mm)	29.6	%	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	% Clay (<4 µm)	6.9	%	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Texture	Silt loam	-	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Mercury (Hg)	0.0606	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Aluminum (Al)	17100	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Antimony (Sb)	2.96	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Arsenic (As)	11.1	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Barium (Ba)	192	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Beryllium (Be)	0.92	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Bismuth (Bi)	0.25	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Boron (B)	17.3	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Cadmium (Cd)	1.39	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Calcium (Ca)	16600	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Chromium (Cr)	21.6	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Cobalt (Co)	8.60	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Copper (Cu)	29.4	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Iron (Fe)	21800	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Lead (Pb)	23.0	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Lithium (Li)	23.7	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Magnesium (Mg)	6910	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Manganese (Mn)	592	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Molybdenum (Mo)	6.10	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Nickel (Ni)	33.7	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Phosphorus (P)	1260	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Potassium (K)	3360	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Selenium (Se)	1.13	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Silver (Ag)	0.20	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Sodium (Na)	94	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Strontium (Sr)	49.4	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Sulfur (S)	<1000	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Thallium (Tl)	0.804	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Tin (Sn)	<2.0	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Titanium (Ti)	22.7	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Tungsten (W)	<0.50	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Uranium (U)	0.983	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Vanadium (V)	40.6	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Zinc (Zn)	143	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	pH (1:2 soil:water)	7.91	pH	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	MI25-DUP	668186	5482838	2020	1	2020-09-11	10:16	Total Organic Carbon	3.49	%	ALS	RG_RIVER_SE-1_2020-09-11_1016
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Moisture	73.1	%	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Acenaphthene	<0.020	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Acenaphthylene	<0.0085	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Anthracene	<0.017	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Acridine	<0.040	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Benz(a)anthracene	0.025	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Benzo(a)pyrene	0.019	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Benzo(b&j)fluoranthene	0.070	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Benzo(e)pyrene	0.090	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Benzo(g_h_i)perylene	0.043	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Benzo(k)fluoranthene	<0.017	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Chrysene	0.121	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Dibenz(a_h)anthracene	<0.017	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Fluoranthene	0.020	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Fluorene	0.065	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Indeno(1,2,3-c,d)pyrene	<0.017	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	2-Methylnaphthalene	0.717	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Naphthalene	0.230	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Perylene	<0.017	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Phenanthrene	0.334	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Pyrene	0.039	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	1-Methylnaphthalene	0.429	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Quinoline	<0.017	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	IACR (CCME)	0.72	-	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	B(a)P Total Potency Equivalent	0.040	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Benzo(b+j+k)fluoranthene	0.070	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	IACR:Coarse	<0.050	-	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	IACR:Fine	<0.050	-	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	d8-Naphthalene	105.4	%	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	d10-Acenaphthene	107.8	%	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	d10-Phenanthrene	106.6	%	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	d12-Chrysene	115.1	%	ALS	RG_CORCK_SE-1_2020-09-12_1614



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	% Gravel (>2 mm)	<1.0	%	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	% Sand (2.00 mm - 1.00 mm)	1.0	%	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	% Sand (1.00 mm - 0.50 mm)	2.9	%	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	% Sand (0.50 mm - 0.25 mm)	12.1	%	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	% Sand (0.25 mm - 0.125 mm)	20.2	%	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	% Sand (0.125 mm - 0.063 mm)	16.4	%	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	% Silt (0.063 mm - 0.0312 mm)	21.9	%	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	% Silt (0.031 mm - 0.004 mm)	22.7	%	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	% Clay (<4 µm)	2.9	%	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Texture	Sandy loam	-	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Mercury (Hg)	0.0295	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Aluminum (Al)	2010	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Antimony (Sb)	0.25	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Arsenic (As)	1.61	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Barium (Ba)	135	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Beryllium (Be)	0.29	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Boron (B)	6.4	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Cadmium (Cd)	7.94	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Calcium (Ca)	289000	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Chromium (Cr)	3.18	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Cobalt (Co)	244	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Copper (Cu)	4.46	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Iron (Fe)	2640	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Lead (Pb)	1.85	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Lithium (Li)	3.2	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Magnesium (Mg)	5760	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Manganese (Mn)	1640	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Molybdenum (Mo)	0.61	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Nickel (Ni)	218	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Phosphorus (P)	166	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Potassium (K)	590	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Selenium (Se)	1.56	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Silver (Ag)	<0.10	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Sodium (Na)	361	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Strontium (Sr)	392	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Sulfur (S)	4000	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Thallium (Tl)	0.191	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Tin (Sn)	<2.0	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Titanium (Ti)	10.1	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Tungsten (W)	<0.50	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Uranium (U)	2.11	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Vanadium (V)	6.08	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Zinc (Zn)	773	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	pH (1:2 soil:water)	8.17	pH	ALS	RG_CORCK_SE-1_2020-09-12_1614
SE	CORCK	668556	5487388	2020	1	2020-09-12	16:14	Total Organic Carbon	7.3	%	ALS	RG_CORCK_SE-1_2020-09-12_1614

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Moisture	70.2	%	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Acenaphthene	<0.035	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Acenaphthylene	<0.0090	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Anthracene	<0.0060	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Acridine	<0.070	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Benz(a)anthracene	0.040	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Benzo(a)pyrene	0.027	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Benzo(b&j)fluoranthene	0.118	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Benzo(e)pyrene	0.150	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Benzo(g_h_i)perylene	0.071	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Benzo(k)fluoranthene	<0.015	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Chrysene	0.193	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Dibenz(a_h)anthracene	0.019	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Fluoranthene	0.032	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Fluorene	0.106	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Indeno(1,2,3-c,d)pyrene	0.022	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	2-Methylnaphthalene	1.16	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Naphthalene	0.387	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Perylene	<0.015	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Phenanthrene	0.553	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Pyrene	0.064	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	1-Methylnaphthalene	0.690	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Quinoline	<0.015	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	IACR (CCME)	1.17	-	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	B(a)P Total Potency Equivalent	0.068	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Benzo(b+j+k)fluoranthene	0.118	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	IACR:Coarse	<0.050	-	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	IACR:Fine	0.071	-	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	d8-Naphthalene	100.1	%	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	d10-Acenaphthene	101.7	%	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	d10-Phenanthrene	101.2	%	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	d12-Chrysene	109.3	%	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	% Gravel (>2 mm)	<1.0	%	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	% Sand (1.00 mm - 0.50 mm)	<1.0	%	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	% Sand (0.50 mm - 0.25 mm)	2.9	%	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	% Sand (0.25 mm - 0.125 mm)	13.3	%	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	% Sand (0.125 mm - 0.063 mm)	16.7	%	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	% Silt (0.063 mm - 0.0312 mm)	28.8	%	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	% Silt (0.031 mm - 0.004 mm)	32.5	%	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	% Clay (<4 µm)	4.3	%	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Texture	Silt loam	-	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Mercury (Hg)	0.0172	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Aluminum (Al)	3030	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Antimony (Sb)	0.23	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Arsenic (As)	1.93	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Barium (Ba)	145	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Beryllium (Be)	0.35	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Boron (B)	9.2	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Cadmium (Cd)	9.39	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Calcium (Ca)	278000	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Chromium (Cr)	4.24	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Cobalt (Co)	191	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Copper (Cu)	5.46	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Iron (Fe)	3340	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Lead (Pb)	2.23	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Lithium (Li)	3.8	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Magnesium (Mg)	6170	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Manganese (Mn)	1530	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Molybdenum (Mo)	0.57	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Nickel (Ni)	223	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Phosphorus (P)	241	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Potassium (K)	840	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Selenium (Se)	2.86	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Silver (Ag)	<0.10	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Sodium (Na)	433	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Strontium (Sr)	411	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Sulfur (S)	4700	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Thallium (Tl)	0.165	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Tin (Sn)	<2.0	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Titanium (Ti)	10.3	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Tungsten (W)	<0.50	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Uranium (U)	2.13	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Vanadium (V)	8.51	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Zinc (Zn)	922	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	pH (1:2 soil:water)	8.10	pH	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	2	2020-09-12	16:57	Total Organic Carbon	7.7	%	ALS	RG_CORCK_SE-2_2020-09-12_1657
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Moisture	57.2	%	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Acenaphthene	<0.060	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Acenaphthylene	<0.0060	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Anthracene	0.0123	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Acridine	<0.10	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Benz(a)anthracene	0.056	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Benzo(a)pyrene	0.047	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Benzo(b&j)fluoranthene	0.179	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Benzo(e)pyrene	0.228	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Benzo(g_h_i)perylene	0.106	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Chrysene	0.285	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Dibenz(a_h)anthracene	0.0264	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Fluoranthene	0.052	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Fluorene	0.165	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Indeno(1,2,3-c,d)pyrene	0.029	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	2-Methylnaphthalene	1.67	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Naphthalene	0.561	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Perylene	<0.010	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Phenanthrene	0.813	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Pyrene	0.095	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	1-Methylnaphthalene	0.988	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Quinoline	<0.050	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	IACR (CCME)	1.72	-	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	B(a)P Total Potency Equivalent	0.104	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Benzo(b+j+k)fluoranthene	0.179	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	IACR:Coarse	0.050	-	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	IACR:Fine	0.097	-	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	d8-Naphthalene	108.9	%	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	d10-Acenaphthene	111.1	%	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	d10-Phenanthrene	109.2	%	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	d12-Chrysene	117.5	%	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	% Gravel (>2 mm)	1.2	%	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	% Sand (2.00 mm - 1.00 mm)	2.5	%	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	% Sand (1.00 mm - 0.50 mm)	4.4	%	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	% Sand (0.50 mm - 0.25 mm)	10.8	%	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	% Sand (0.25 mm - 0.125 mm)	21.0	%	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	% Sand (0.125 mm - 0.063 mm)	18.0	%	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	% Silt (0.063 mm - 0.0312 mm)	17.1	%	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	% Silt (0.031 mm - 0.004 mm)	20.5	%	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	% Clay (<4 µm)	4.5	%	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Texture	Sandy loam	-	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Mercury (Hg)	0.0237	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Aluminum (Al)	4420	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Antimony (Sb)	0.12	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Arsenic (As)	3.09	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Barium (Ba)	161	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Beryllium (Be)	0.43	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Boron (B)	9.2	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Cadmium (Cd)	8.36	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Calcium (Ca)	243000	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Chromium (Cr)	6.42	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Cobalt (Co)	247	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Copper (Cu)	7.42	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Iron (Fe)	4980	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Lead (Pb)	3.56	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Lithium (Li)	5.1	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Magnesium (Mg)	6370	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Manganese (Mn)	1610	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Molybdenum (Mo)	0.77	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Nickel (Ni)	219	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Phosphorus (P)	276	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Potassium (K)	1080	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Selenium (Se)	2.13	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Silver (Ag)	<0.10	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Sodium (Na)	324	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Strontium (Sr)	321	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Sulfur (S)	3600	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Thallium (Tl)	0.308	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Tin (Sn)	<2.0	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Titanium (Ti)	10.9	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Tungsten (W)	<0.50	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Uranium (U)	1.83	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Vanadium (V)	12.5	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Zinc (Zn)	777	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	pH (1:2 soil:water)	8.22	pH	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	3	2020-09-12	17:04	Total Organic Carbon	6.1	%	ALS	RG_CORCK_SE-3_2020-09-12_1704
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Moisture	79.6	%	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Acenaphthene	<0.060	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Acenaphthylene	<0.015	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Anthracene	<0.020	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Acridine	<0.13	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Benz(a)anthracene	0.070	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Benzo(a)pyrene	0.050	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Benzo(b&j)fluoranthene	0.217	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Benzo(e)pyrene	0.270	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Benzo(g_h_i)perylene	0.137	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Benzo(k)fluoranthene	<0.025	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Chrysene	0.362	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Dibenz(a_h)anthracene	0.034	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Fluoranthene	0.071	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Fluorene	0.219	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Indeno(1,2,3-c,d)pyrene	0.032	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	2-Methylnaphthalene	2.05	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Naphthalene	0.682	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Perylene	<0.025	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Phenanthrene	0.972	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Pyrene	0.111	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	1-Methylnaphthalene	1.20	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Quinoline	<0.025	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	IACR (CCME)	2.14	-	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	B(a)P Total Potency Equivalent	0.122	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Benzo(b+j+k)fluoranthene	0.217	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	IACR:Coarse	0.067	-	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	IACR:Fine	0.128	-	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	d8-Naphthalene	115.3	%	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	d10-Acenaphthene	118.1	%	ALS	RG_CORCK_SE-4_2020-09-13_0936



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	d10-Phenanthrene	117.9	%	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	d12-Chrysene	128.4	%	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	% Gravel (>2 mm)	<1.0	%	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	% Sand (1.00 mm - 0.50 mm)	1.1	%	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	% Sand (0.50 mm - 0.25 mm)	3.5	%	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	% Sand (0.25 mm - 0.125 mm)	14.7	%	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	% Sand (0.125 mm - 0.063 mm)	16.5	%	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	% Silt (0.063 mm - 0.0312 mm)	26.6	%	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	% Silt (0.031 mm - 0.004 mm)	30.8	%	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	% Clay (<4 µm)	5.6	%	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Texture	Silt loam	-	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Mercury (Hg)	0.0266	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Aluminum (Al)	4300	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Antimony (Sb)	0.25	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Arsenic (As)	2.48	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Barium (Ba)	201	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Beryllium (Be)	0.44	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Boron (B)	10.6	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Cadmium (Cd)	8.80	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Calcium (Ca)	255000	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Chromium (Cr)	6.77	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Cobalt (Co)	232	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Copper (Cu)	8.59	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Iron (Fe)	4300	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Lead (Pb)	3.35	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Lithium (Li)	4.3	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Magnesium (Mg)	6190	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Manganese (Mn)	1490	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Molybdenum (Mo)	0.80	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Nickel (Ni)	228	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Phosphorus (P)	285	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Potassium (K)	1140	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Selenium (Se)	4.88	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Silver (Ag)	<0.10	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Sodium (Na)	405	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Strontium (Sr)	351	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Sulfur (S)	4400	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Thallium (Tl)	0.241	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Tin (Sn)	<2.0	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Titanium (Ti)	11.5	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Tungsten (W)	<0.50	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Uranium (U)	2.10	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Vanadium (V)	13.0	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Zinc (Zn)	852	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_CORCK_SE-4_2020-09-13_0936

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	pH (1:2 soil:water)	8.00	pH	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	4	2020-09-13	09:36	Total Organic Carbon	9.2	%	ALS	RG_CORCK_SE-4_2020-09-13_0936
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Moisture	61.7	%	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Acenaphthene	0.0488	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Acenaphthylene	0.0123	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Anthracene	0.0062	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Acridine	<0.10	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Benz(a)anthracene	0.055	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Benzo(a)pyrene	0.038	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Benzo(b&j)fluoranthene	0.170	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Benzo(e)pyrene	0.203	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Benzo(g_h_i)perylene	0.092	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Chrysene	0.277	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Dibenz(a_h)anthracene	0.0246	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Fluoranthene	0.053	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Fluorene	0.139	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Indeno(1,2,3-c,d)pyrene	0.025	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	2-Methylnaphthalene	1.58	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Naphthalene	0.555	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Perylene	<0.010	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Phenanthrene	0.777	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Pyrene	0.090	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	1-Methylnaphthalene	0.943	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Quinoline	<0.050	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	IACR (CCME)	1.63	-	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	B(a)P Total Potency Equivalent	0.092	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Benzo(b+j+k)fluoranthene	0.170	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	IACR:Coarse	<0.050	-	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	IACR:Fine	0.092	-	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	d8-Naphthalene	105.5	%	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	d10-Acenaphthene	108.4	%	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	d10-Phenanthrene	104.7	%	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	d12-Chrysene	113.9	%	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	% Gravel (>2 mm)	<1.0	%	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	% Sand (1.00 mm - 0.50 mm)	5.2	%	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	% Sand (0.50 mm - 0.25 mm)	11.9	%	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	% Sand (0.25 mm - 0.125 mm)	18.9	%	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	% Sand (0.125 mm - 0.063 mm)	15.0	%	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	% Silt (0.063 mm - 0.0312 mm)	16.8	%	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	% Silt (0.031 mm - 0.004 mm)	24.7	%	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	% Clay (<4 µm)	6.2	%	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Texture	Sandy loam	-	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Mercury (Hg)	0.0251	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Aluminum (Al)	3900	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Antimony (Sb)	0.22	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Arsenic (As)	3.23	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Barium (Ba)	167	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Beryllium (Be)	0.44	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Boron (B)	9.2	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Cadmium (Cd)	9.08	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Calcium (Ca)	216000	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Chromium (Cr)	5.90	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Cobalt (Co)	191	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Copper (Cu)	8.52	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Iron (Fe)	4790	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Lead (Pb)	3.96	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Lithium (Li)	4.2	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Magnesium (Mg)	6170	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Manganese (Mn)	1360	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Molybdenum (Mo)	0.71	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Nickel (Ni)	201	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Phosphorus (P)	330	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Potassium (K)	1010	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Selenium (Se)	2.74	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Silver (Ag)	<0.10	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Sodium (Na)	328	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Strontium (Sr)	295	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Sulfur (S)	3200	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Thallium (Tl)	0.258	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Tin (Sn)	<2.0	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Titanium (Ti)	9.8	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Tungsten (W)	<0.50	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Uranium (U)	1.74	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Vanadium (V)	12.1	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Zinc (Zn)	849	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	pH (1:2 soil:water)	8.16	pH	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	CORCK	668556	5487388	2020	5	2020-09-13	09:46	Total Organic Carbon	8.9	%	ALS	RG_CORCK_SE-5_2020-09-13_0946
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Moisture	56.0	%	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Acenaphthene	<0.0050	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Anthracene	<0.0040	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Acridine	<0.010	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Benzo(b&j)fluoranthene	0.011	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Benzo(e)pyrene	0.014	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Chrysene	0.025	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Fluoranthene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Fluorene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	2-Methylnaphthalene	0.013	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Naphthalene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Perylene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Phenanthrene	0.024	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Pyrene	0.010	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	1-Methylnaphthalene	<0.050	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Quinoline	<0.050	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	IACR (CCME)	0.15	-	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	IACR:Coarse	<0.050	-	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	IACR:Fine	<0.050	-	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	d8-Naphthalene	97.1	%	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	d10-Acenaphthene	98.6	%	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	d10-Phenanthrene	98.2	%	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	d12-Chrysene	108.4	%	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	% Gravel (>2 mm)	<1.0	%	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	% Sand (1.00 mm - 0.50 mm)	1.5	%	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	% Sand (0.50 mm - 0.25 mm)	3.2	%	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	% Sand (0.25 mm - 0.125 mm)	14.0	%	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	% Sand (0.125 mm - 0.063 mm)	18.1	%	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	% Silt (0.063 mm - 0.0312 mm)	26.8	%	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	% Silt (0.031 mm - 0.004 mm)	29.1	%	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	% Clay (<4 µm)	6.9	%	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Texture	Silt loam	-	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Mercury (Hg)	0.0487	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Aluminum (Al)	16000	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Antimony (Sb)	0.57	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Arsenic (As)	10.2	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Barium (Ba)	164	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Beryllium (Be)	0.88	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Bismuth (Bi)	0.24	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Boron (B)	15.2	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Cadmium (Cd)	1.31	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Calcium (Ca)	17100	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Chromium (Cr)	20.3	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Cobalt (Co)	8.16	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Copper (Cu)	27.5	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Iron (Fe)	20900	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Lead (Pb)	16.3	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Lithium (Li)	21.3	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Magnesium (Mg)	6850	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Manganese (Mn)	551	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Molybdenum (Mo)	5.78	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Nickel (Ni)	31.4	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Phosphorus (P)	1130	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Potassium (K)	3140	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Selenium (Se)	1.02	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Silver (Ag)	0.17	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Sodium (Na)	89	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Strontium (Sr)	47.8	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Sulfur (S)	<1000	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Thallium (Tl)	0.756	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Titanium (Ti)	22.2	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Uranium (U)	0.929	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Vanadium (V)	38.4	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Zinc (Zn)	136	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Zirconium (Zr)	1.0	mg/kg	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	pH (1:2 soil:water)	8.00	pH	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	1	2020-09-11	10:16	Total Organic Carbon	3.43	%	ALS	RG_MI25_SE-1_2020-09-11_1016
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Moisture	57.4	%	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Acenaphthene	<0.0050	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Anthracene	<0.0040	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Acridine	<0.010	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Benzo(b&j)fluoranthene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Benzo(e)pyrene	0.011	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Chrysene	0.019	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Fluoranthene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Fluorene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	2-Methylnaphthalene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Naphthalene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Perylene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Phenanthrene	0.016	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	1-Methylnaphthalene	<0.050	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Quinoline	<0.050	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	IACR (CCME)	<0.15	-	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	IACR:Coarse	<0.050	-	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	IACR:Fine	<0.050	-	ALS	RG_MI25_SE-2_2020-09-11_1033

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	d8-Naphthalene	108.4	%	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	d10-Acenaphthene	110.7	%	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	d10-Phenanthrene	109.2	%	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	d12-Chrysene	116.8	%	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	% Gravel (>2 mm)	<1.0	%	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	% Sand (2.00 mm - 1.00 mm)	4.4	%	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	% Sand (1.00 mm - 0.50 mm)	15.5	%	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	% Sand (0.50 mm - 0.25 mm)	28.1	%	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	% Sand (0.25 mm - 0.125 mm)	17.9	%	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	% Sand (0.125 mm - 0.063 mm)	9.0	%	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	% Silt (0.063 mm - 0.0312 mm)	7.8	%	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	% Silt (0.031 mm - 0.004 mm)	10.5	%	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	% Clay (<4 µm)	6.1	%	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Texture	Loamy sand	-	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Mercury (Hg)	0.0416	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Aluminum (Al)	15400	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Antimony (Sb)	0.63	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Arsenic (As)	11.5	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Barium (Ba)	171	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Beryllium (Be)	0.93	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Bismuth (Bi)	0.25	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Boron (B)	13.0	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Cadmium (Cd)	1.47	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Calcium (Ca)	16700	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Chromium (Cr)	19.8	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Cobalt (Co)	9.43	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Copper (Cu)	29.4	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Iron (Fe)	24800	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Lead (Pb)	18.3	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Lithium (Li)	23.5	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Magnesium (Mg)	6570	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Manganese (Mn)	593	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Molybdenum (Mo)	5.87	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Nickel (Ni)	33.7	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Phosphorus (P)	1240	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Potassium (K)	2740	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Selenium (Se)	1.02	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Silver (Ag)	0.15	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Sodium (Na)	86	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Strontium (Sr)	49.5	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Sulfur (S)	<1000	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Thallium (Tl)	0.768	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Titanium (Ti)	17.8	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Uranium (U)	0.877	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Vanadium (V)	36.1	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Zinc (Zn)	155	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Zirconium (Zr)	1.1	mg/kg	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	pH (1:2 soil:water)	7.94	pH	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	2	2020-09-11	10:33	Total Organic Carbon	1.96	%	ALS	RG_MI25_SE-2_2020-09-11_1033
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Moisture	55.3	%	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Acenaphthene	<0.0050	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Anthracene	<0.0040	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Acridine	<0.010	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Benzo(b&j)fluoranthene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Benzo(e)pyrene	0.012	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Chrysene	<0.026	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Fluoranthene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Fluorene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	2-Methylnaphthalene	0.011	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Naphthalene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Perylene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Phenanthrene	0.023	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	1-Methylnaphthalene	<0.050	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Quinoline	<0.050	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	IACR (CCME)	<0.15	-	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	IACR:Coarse	<0.050	-	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	IACR:Fine	<0.050	-	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	d8-Naphthalene	99.2	%	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	d10-Acenaphthene	102.2	%	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	d10-Phenanthrene	99.2	%	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	d12-Chrysene	106.8	%	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	% Gravel (>2 mm)	<1.0	%	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	% Sand (1.00 mm - 0.50 mm)	<1.0	%	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	% Sand (0.50 mm - 0.25 mm)	2.7	%	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	% Sand (0.25 mm - 0.125 mm)	13.3	%	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	% Sand (0.125 mm - 0.063 mm)	20.5	%	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	% Silt (0.063 mm - 0.0312 mm)	26.6	%	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	% Silt (0.031 mm - 0.004 mm)	28.8	%	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	% Clay (<4 µm)	7.1	%	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Texture	Silt loam	-	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Mercury (Hg)	0.0448	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Aluminum (Al)	15900	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Antimony (Sb)	0.54	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Arsenic (As)	10.3	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Barium (Ba)	164	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Beryllium (Be)	0.90	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Bismuth (Bi)	0.22	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Boron (B)	16.0	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Cadmium (Cd)	1.31	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Calcium (Ca)	16500	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Chromium (Cr)	19.9	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Cobalt (Co)	8.10	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Copper (Cu)	27.3	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Iron (Fe)	21600	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Lead (Pb)	15.2	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Lithium (Li)	22.2	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Magnesium (Mg)	6780	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Manganese (Mn)	508	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Molybdenum (Mo)	6.02	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Nickel (Ni)	31.5	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Phosphorus (P)	1210	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Potassium (K)	3180	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Selenium (Se)	1.04	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Silver (Ag)	0.16	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Sodium (Na)	87	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Strontium (Sr)	49.7	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Sulfur (S)	<1000	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Thallium (Tl)	0.819	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Titanium (Ti)	21.1	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Uranium (U)	0.941	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Vanadium (V)	38.1	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Zinc (Zn)	138	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	pH (1:2 soil:water)	8.11	pH	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MI25	668186	5482838	2020	3	2020-09-11	14:55	Total Organic Carbon	2.88	%	ALS	RG_MI25_SE-3_2020-09-11_1455
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Moisture	60.6	%	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Acenaphthene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Anthracene	<0.0040	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Acridine	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Benzo(b&j)fluoranthene	0.010	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Benzo(e)pyrene	0.014	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Chrysene	<0.030	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Fluorene	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	2-Methylnaphthalene	0.027	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Naphthalene	0.016	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Perylene	0.023	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Phenanthrene	0.037	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	1-Methylnaphthalene	<0.050	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Quinoline	<0.050	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	IACR (CCME)	<0.15	-	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	IACR:Coarse	<0.050	-	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	IACR:Fine	<0.050	-	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	d8-Naphthalene	103.7	%	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	d10-Acenaphthene	104.5	%	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	d10-Phenanthrene	102.3	%	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	d12-Chrysene	111.6	%	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	% Sand (1.00 mm - 0.50 mm)	1.6	%	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	% Sand (0.50 mm - 0.25 mm)	5.1	%	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	% Sand (0.25 mm - 0.125 mm)	10.2	%	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	% Sand (0.125 mm - 0.063 mm)	17.3	%	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	% Silt (0.063 mm - 0.0312 mm)	27.1	%	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	% Silt (0.031 mm - 0.004 mm)	31.1	%	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	% Clay (<4 µm)	7.1	%	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Texture	Silt loam	-	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Mercury (Hg)	0.0330	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Aluminum (Al)	15900	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Antimony (Sb)	0.27	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Arsenic (As)	7.54	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Barium (Ba)	208	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Beryllium (Be)	0.86	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Bismuth (Bi)	0.20	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Boron (B)	17.3	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Cadmium (Cd)	0.861	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Calcium (Ca)	17900	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Chromium (Cr)	20.0	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Cobalt (Co)	8.12	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Copper (Cu)	19.5	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Iron (Fe)	21200	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Lead (Pb)	12.3	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Lithium (Li)	20.5	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Magnesium (Mg)	7050	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Manganese (Mn)	607	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Molybdenum (Mo)	2.31	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Nickel (Ni)	24.2	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Phosphorus (P)	1290	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Potassium (K)	3590	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Selenium (Se)	0.82	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Silver (Ag)	0.13	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Sodium (Na)	86	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Strontium (Sr)	51.7	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Sulfur (S)	<1000	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Thallium (Tl)	0.438	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Titanium (Ti)	19.6	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Uranium (U)	0.701	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Vanadium (V)	32.8	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Zinc (Zn)	99.1	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	pH (1:2 soil:water)	7.91	pH	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	1	2020-09-12	10:26	Total Organic Carbon	3.37	%	ALS	RG_MIUCO_SE-1_2020-09-12_1026
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Moisture	69.8	%	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Acenaphthene	<0.0080	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Acenaphthylene	<0.0080	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Anthracene	<0.0064	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Acridine	<0.016	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Benz(a)anthracene	<0.016	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Benzo(a)pyrene	<0.016	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Benzo(b&j)fluoranthene	0.028	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Benzo(e)pyrene	0.031	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Benzo(g_h_i)perylene	<0.016	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Benzo(k)fluoranthene	<0.016	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Chrysene	0.055	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Dibenz(a_h)anthracene	<0.0080	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Fluoranthene	<0.016	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Fluorene	<0.016	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Indeno(1,2,3-c,d)pyrene	<0.016	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	2-Methylnaphthalene	0.164	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Naphthalene	0.055	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Perylene	<0.016	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Phenanthrene	0.130	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Pyrene	0.018	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	1-Methylnaphthalene	0.115	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Quinoline	<0.016	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	IACR (CCME)	0.32	-	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Benzo(b+j+k)fluoranthene	0.028	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	IACR:Coarse	<0.050	-	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	IACR:Fine	<0.050	-	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	d8-Naphthalene	109.3	%	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	d10-Acenaphthene	110.9	%	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	d10-Phenanthrene	109.3	%	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	d12-Chrysene	117.6	%	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	% Sand (2.00 mm - 1.00 mm)	2.8	%	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	% Sand (1.00 mm - 0.50 mm)	4.9	%	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	% Sand (0.50 mm - 0.25 mm)	6.0	%	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	% Sand (0.25 mm - 0.125 mm)	6.4	%	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	% Sand (0.125 mm - 0.063 mm)	12.7	%	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	% Silt (0.063 mm - 0.0312 mm)	28.8	%	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	% Silt (0.031 mm - 0.004 mm)	33.1	%	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	% Clay (<4 µm)	5.2	%	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Texture	Silt loam	-	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Mercury (Hg)	0.0342	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Aluminum (Al)	14100	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Antimony (Sb)	0.15	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Arsenic (As)	6.43	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Barium (Ba)	229	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Beryllium (Be)	0.85	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Boron (B)	15.1	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Cadmium (Cd)	0.880	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Calcium (Ca)	32600	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Chromium (Cr)	18.3	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Cobalt (Co)	6.55	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Copper (Cu)	18.3	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Iron (Fe)	18800	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Lead (Pb)	10.7	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Lithium (Li)	18.6	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Magnesium (Mg)	8050	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Manganese (Mn)	264	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Molybdenum (Mo)	1.85	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Nickel (Ni)	21.9	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Phosphorus (P)	1170	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Potassium (K)	3310	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Selenium (Se)	1.12	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Silver (Ag)	0.12	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Sodium (Na)	87	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Strontium (Sr)	73.0	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Sulfur (S)	<1000	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Thallium (Tl)	0.417	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Titanium (Ti)	11.7	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Uranium (U)	0.650	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Vanadium (V)	30.8	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Zinc (Zn)	92.5	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	pH (1:2 soil:water)	7.93	pH	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	2	2020-09-12	11:37	Total Organic Carbon	5.22	%	ALS	RG_MIUCO_SE-2_2020-09-12_1137
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Moisture	39.3	%	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Acenaphthene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Anthracene	<0.0040	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Acridine	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Benzo(b&j)fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Benzo(e)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Chrysene	0.017	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Fluorene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	2-Methylnaphthalene	0.022	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Naphthalene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Perylene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Phenanthrene	0.027	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	1-Methylnaphthalene	<0.050	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Quinoline	<0.050	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	IACR (CCME)	<0.15	-	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	IACR:Coarse	<0.050	-	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	IACR:Fine	<0.050	-	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	d8-Naphthalene	103.0	%	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	d10-Acenaphthene	105.8	%	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	d10-Phenanthrene	104.2	%	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	d12-Chrysene	111.8	%	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	% Sand (2.00 mm - 1.00 mm)	1.7	%	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	% Sand (1.00 mm - 0.50 mm)	3.4	%	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	% Sand (0.50 mm - 0.25 mm)	14.2	%	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	% Sand (0.25 mm - 0.125 mm)	29.7	%	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	% Sand (0.125 mm - 0.063 mm)	24.1	%	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	% Silt (0.063 mm - 0.0312 mm)	12.4	%	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	% Silt (0.031 mm - 0.004 mm)	10.3	%	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	% Clay (<4 µm)	3.2	%	ALS	RG_MIUCO_SE-3_2020-09-12_1403

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Texture	Loamy sand	-	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Mercury (Hg)	0.0211	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Aluminum (Al)	15400	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Antimony (Sb)	0.20	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Arsenic (As)	7.01	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Barium (Ba)	223	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Beryllium (Be)	0.83	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Boron (B)	16.1	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Cadmium (Cd)	0.610	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Calcium (Ca)	18800	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Chromium (Cr)	18.3	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Cobalt (Co)	7.20	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Copper (Cu)	16.2	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Iron (Fe)	20200	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Lead (Pb)	11.3	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Lithium (Li)	20.1	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Magnesium (Mg)	6540	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Manganese (Mn)	342	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Molybdenum (Mo)	2.01	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Nickel (Ni)	20.9	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Phosphorus (P)	1300	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Potassium (K)	3610	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Selenium (Se)	0.49	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Sodium (Na)	84	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Strontium (Sr)	50.0	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Sulfur (S)	<1000	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Thallium (Tl)	0.361	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Titanium (Ti)	12.3	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Uranium (U)	0.629	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Vanadium (V)	30.8	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Zinc (Zn)	87.5	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	pH (1:2 soil:water)	8.14	pH	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	3	2020-09-12	14:03	Total Organic Carbon	1.42	%	ALS	RG_MIUCO_SE-3_2020-09-12_1403
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Moisture	46.2	%	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Acenaphthene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Anthracene	<0.0040	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Acridine	<0.010	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Benzo(b&j)fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Benzo(e)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Chrysene	0.015	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Fluorene	<0.010	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	2-Methylnaphthalene	0.012	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Naphthalene	<0.010	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Perylene	0.012	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Phenanthrene	0.022	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	1-Methylnaphthalene	<0.050	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Quinoline	<0.050	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	IACR (CCME)	<0.15	-	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	IACR:Coarse	<0.050	-	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	IACR:Fine	<0.050	-	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	d8-Naphthalene	101.9	%	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	d10-Acenaphthene	104.8	%	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	d10-Phenanthrene	101.9	%	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	d12-Chrysene	109.7	%	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	% Sand (2.00 mm - 1.00 mm)	1.0	%	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	% Sand (1.00 mm - 0.50 mm)	2.9	%	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	% Sand (0.50 mm - 0.25 mm)	14.4	%	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	% Sand (0.25 mm - 0.125 mm)	31.4	%	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	% Sand (0.125 mm - 0.063 mm)	22.7	%	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	% Silt (0.063 mm - 0.0312 mm)	12.0	%	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	% Silt (0.031 mm - 0.004 mm)	11.0	%	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	% Clay (<4 µm)	4.1	%	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Texture	Loamy sand	-	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Mercury (Hg)	0.0253	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Aluminum (Al)	15100	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Antimony (Sb)	0.33	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Arsenic (As)	8.05	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Barium (Ba)	220	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Beryllium (Be)	0.89	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Boron (B)	16.1	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Cadmium (Cd)	0.675	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Calcium (Ca)	12600	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Chromium (Cr)	19.0	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Cobalt (Co)	8.22	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Copper (Cu)	17.9	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Iron (Fe)	21500	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Lead (Pb)	11.8	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Lithium (Li)	21.3	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Magnesium (Mg)	6420	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Manganese (Mn)	396	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Molybdenum (Mo)	2.37	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Nickel (Ni)	22.8	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Phosphorus (P)	1270	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Potassium (K)	3410	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Selenium (Se)	0.53	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Silver (Ag)	0.10	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Sodium (Na)	81	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Strontium (Sr)	42.1	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Sulfur (S)	<1000	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Thallium (Tl)	0.378	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Titanium (Ti)	17.5	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Uranium (U)	0.584	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Vanadium (V)	31.9	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Zinc (Zn)	94.8	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	pH (1:2 soil:water)	8.10	pH	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	4	2020-09-12	13:48	Total Organic Carbon	2.04	%	ALS	RG_MIUCO_SE-4_2020-09-12_1348
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Moisture	43.7	%	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Acenaphthene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Anthracene	<0.0040	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Acridine	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Benzo(b&j)fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Benzo(e)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Chrysene	0.015	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Fluorene	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	2-Methylnaphthalene	0.014	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Naphthalene	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Perylene	0.013	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Phenanthrene	0.021	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	1-Methylnaphthalene	<0.050	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Quinoline	<0.050	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	IACR (CCME)	<0.15	-	ALS	RG_MIUCO_SE-5_2020-09-12_1325



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	IACR:Coarse	<0.050	-	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	IACR:Fine	<0.050	-	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	d8-Naphthalene	101.8	%	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	d10-Acenaphthene	104.6	%	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	d10-Phenanthrene	102.1	%	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	d12-Chrysene	109.8	%	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	% Sand (1.00 mm - 0.50 mm)	2.3	%	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	% Sand (0.50 mm - 0.25 mm)	10.2	%	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	% Sand (0.25 mm - 0.125 mm)	21.0	%	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	% Sand (0.125 mm - 0.063 mm)	22.4	%	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	% Silt (0.063 mm - 0.0312 mm)	18.6	%	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	% Silt (0.031 mm - 0.004 mm)	18.9	%	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	% Clay (<4 µm)	5.4	%	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Texture	Sandy loam	-	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Mercury (Hg)	0.0251	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Aluminum (Al)	15800	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Antimony (Sb)	0.34	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Arsenic (As)	7.56	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Barium (Ba)	173	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Beryllium (Be)	0.90	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Boron (B)	16.2	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Cadmium (Cd)	0.765	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Calcium (Ca)	12700	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Chromium (Cr)	19.3	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Cobalt (Co)	8.27	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Copper (Cu)	18.7	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Iron (Fe)	20800	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Lead (Pb)	11.8	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Lithium (Li)	21.2	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Magnesium (Mg)	6620	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Manganese (Mn)	430	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Molybdenum (Mo)	2.38	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Nickel (Ni)	23.5	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Phosphorus (P)	1350	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Potassium (K)	3470	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Selenium (Se)	0.58	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Sodium (Na)	79	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Strontium (Sr)	37.5	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Sulfur (S)	<1000	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Thallium (Tl)	0.391	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Titanium (Ti)	21.3	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Uranium (U)	0.661	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Vanadium (V)	32.8	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Zinc (Zn)	97.1	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Zirconium (Zr)	1.1	mg/kg	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	pH (1:2 soil:water)	8.00	pH	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIUCO	668134	5486767	2020	5	2020-09-12	13:25	Total Organic Carbon	2.38	%	ALS	RG_MIUCO_SE-5_2020-09-12_1325
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Moisture	66.7	%	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Acenaphthene	0.0076	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Acenaphthylene	<0.0075	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Anthracene	<0.0060	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Acridine	<0.015	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Benz(a)anthracene	<0.015	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Benzo(a)pyrene	<0.015	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Benzo(b&j)fluoranthene	0.034	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Benzo(e)pyrene	0.041	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Benzo(g_h_i)perylene	<0.015	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Benzo(k)fluoranthene	<0.015	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Chrysene	0.057	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Dibenz(a_h)anthracene	<0.0075	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Fluoranthene	<0.015	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Fluorene	0.024	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Indeno(1,2,3-c,d)pyrene	<0.015	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	2-Methylnaphthalene	0.242	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Naphthalene	0.094	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Perylene	<0.015	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Phenanthrene	0.145	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Pyrene	0.019	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	1-Methylnaphthalene	0.154	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Quinoline	<0.015	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	IACR (CCME)	0.35	-	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Benzo(b+j+k)fluoranthene	0.034	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	IACR:Coarse	<0.050	-	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	IACR:Fine	<0.050	-	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	d8-Naphthalene	103.5	%	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	d10-Acenaphthene	104.4	%	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	d10-Phenanthrene	102.0	%	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	d12-Chrysene	110.3	%	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	% Sand (2.00 mm - 1.00 mm)	1.6	%	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	% Sand (1.00 mm - 0.50 mm)	7.2	%	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	% Sand (0.50 mm - 0.25 mm)	17.1	%	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	% Sand (0.25 mm - 0.125 mm)	14.0	%	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	% Sand (0.125 mm - 0.063 mm)	9.2	%	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	% Silt (0.063 mm - 0.0312 mm)	20.8	%	ALS	RG_MIDCO_SE-1_2020-09-15_0801

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	% Silt (0.031 mm - 0.004 mm)	25.1	%	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	% Clay (<4 µm)	4.7	%	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Texture	Sandy loam	-	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Mercury (Hg)	0.0230	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Aluminum (Al)	10800	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Antimony (Sb)	0.36	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Arsenic (As)	6.28	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Barium (Ba)	134	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Beryllium (Be)	0.74	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Boron (B)	14.3	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Cadmium (Cd)	1.39	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Calcium (Ca)	71300	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Chromium (Cr)	13.9	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Cobalt (Co)	71.5	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Copper (Cu)	14.2	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Iron (Fe)	17500	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Lead (Pb)	9.49	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Lithium (Li)	17.4	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Magnesium (Mg)	6480	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Manganese (Mn)	904	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Molybdenum (Mo)	1.78	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Nickel (Ni)	113	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Phosphorus (P)	1040	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Potassium (K)	2440	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Selenium (Se)	1.89	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Sodium (Na)	206	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Strontium (Sr)	123	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Sulfur (S)	1400	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Thallium (Tl)	0.322	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Titanium (Ti)	22.3	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Uranium (U)	0.797	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Vanadium (V)	23.7	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Zinc (Zn)	157	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	pH (1:2 soil:water)	7.96	pH	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	1	2020-09-15	08:01	Total Organic Carbon	3.5	%	ALS	RG_MIDCO_SE-1_2020-09-15_0801
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Moisture	79.5	%	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Acenaphthene	<0.030	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Acenaphthylene	<0.011	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Anthracene	<0.0088	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Acridine	<0.040	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Benz(a)anthracene	0.028	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Benzo(a)pyrene	<0.022	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Benzo(b&j)fluoranthene	0.086	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Benzo(e)pyrene	0.099	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Benzo(g_h_i)perylene	0.046	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Benzo(k)fluoranthene	<0.022	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Chrysene	0.145	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Dibenz(a_h)anthracene	<0.022	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Fluoranthene	0.023	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Fluorene	0.069	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Indeno(1,2,3-c,d)pyrene	<0.022	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	2-Methylnaphthalene	0.649	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Naphthalene	0.238	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Perylene	<0.022	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Phenanthrene	0.384	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Pyrene	0.045	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	1-Methylnaphthalene	0.400	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Quinoline	<0.022	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	IACR (CCME)	0.85	-	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	B(a)P Total Potency Equivalent	0.037	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Benzo(b+j+k)fluoranthene	0.086	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	IACR:Coarse	<0.050	-	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	IACR:Fine	0.058	-	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	d8-Naphthalene	106.2	%	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	d10-Acenaphthene	107.4	%	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	d10-Phenanthrene	109.3	%	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	d12-Chrysene	118.1	%	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	% Sand (2.00 mm - 1.00 mm)	1.7	%	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	% Sand (1.00 mm - 0.50 mm)	6.5	%	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	% Sand (0.50 mm - 0.25 mm)	4.4	%	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	% Sand (0.25 mm - 0.125 mm)	5.9	%	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	% Sand (0.125 mm - 0.063 mm)	9.5	%	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	% Silt (0.063 mm - 0.0312 mm)	29.3	%	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	% Silt (0.031 mm - 0.004 mm)	36.4	%	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	% Clay (<4 µm)	6.3	%	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Texture	Silt loam	-	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Mercury (Hg)	0.0285	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Aluminum (Al)	9710	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Antimony (Sb)	0.31	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Arsenic (As)	4.98	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Barium (Ba)	147	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Beryllium (Be)	0.60	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Boron (B)	14.9	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Cadmium (Cd)	1.96	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Calcium (Ca)	96800	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Chromium (Cr)	13.1	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Cobalt (Co)	73.3	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Copper (Cu)	12.5	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Iron (Fe)	13800	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Lead (Pb)	7.80	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Lithium (Li)	13.9	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Magnesium (Mg)	6830	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Manganese (Mn)	664	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Molybdenum (Mo)	1.65	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Nickel (Ni)	128	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Phosphorus (P)	965	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Potassium (K)	2280	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Selenium (Se)	2.80	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Sodium (Na)	270	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Strontium (Sr)	163	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Sulfur (S)	1800	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Thallium (Tl)	0.311	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Titanium (Ti)	26.2	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Uranium (U)	0.850	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Vanadium (V)	22.5	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Zinc (Zn)	200	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	pH (1:2 soil:water)	7.98	pH	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	2	2020-09-15	08:05	Total Organic Carbon	4.7	%	ALS	RG_MIDCO_SE-2_2020-09-15_0805
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Moisture	77.4	%	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Acenaphthene	<0.011	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Acenaphthylene	<0.011	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Anthracene	<0.022	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Acridine	<0.030	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Benz(a)anthracene	<0.022	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Benzo(a)pyrene	<0.022	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Benzo(b&j)fluoranthene	0.051	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Benzo(e)pyrene	0.059	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Benzo(g_h_i)perylene	0.027	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Benzo(k)fluoranthene	<0.022	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Chrysene	0.090	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Dibenz(a_h)anthracene	<0.022	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Fluoranthene	<0.022	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Fluorene	0.037	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Indeno(1,2,3-c,d)pyrene	<0.022	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	2-Methylnaphthalene	0.368	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Naphthalene	0.147	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Perylene	<0.022	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Phenanthrene	0.230	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Pyrene	0.027	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	1-Methylnaphthalene	0.230	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Quinoline	<0.022	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	IACR (CCME)	0.55	-	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	B(a)P Total Potency Equivalent	0.032	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Benzo(b+j+k)fluoranthene	0.051	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	IACR:Coarse	<0.050	-	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	IACR:Fine	<0.050	-	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	d8-Naphthalene	103.3	%	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	d10-Acenaphthene	107.4	%	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	d10-Phenanthrene	106.3	%	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	d12-Chrysene	114.4	%	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	% Sand (2.00 mm - 1.00 mm)	1.4	%	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	% Sand (1.00 mm - 0.50 mm)	13.7	%	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	% Sand (0.50 mm - 0.25 mm)	22.1	%	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	% Sand (0.25 mm - 0.125 mm)	18.0	%	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	% Sand (0.125 mm - 0.063 mm)	10.2	%	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	% Silt (0.063 mm - 0.0312 mm)	13.5	%	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	% Silt (0.031 mm - 0.004 mm)	16.8	%	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	% Clay (<4 µm)	4.3	%	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Texture	Sandy loam	-	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Mercury (Hg)	0.0262	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Aluminum (Al)	12800	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Antimony (Sb)	0.37	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Arsenic (As)	6.56	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Barium (Ba)	148	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Beryllium (Be)	0.78	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Boron (B)	17.0	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Cadmium (Cd)	1.58	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Calcium (Ca)	80300	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Chromium (Cr)	16.4	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Cobalt (Co)	79.0	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Copper (Cu)	15.9	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Iron (Fe)	17700	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Lead (Pb)	10.2	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Lithium (Li)	18.2	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Magnesium (Mg)	7440	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Manganese (Mn)	652	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Molybdenum (Mo)	1.84	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Nickel (Ni)	127	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Phosphorus (P)	1160	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Potassium (K)	2900	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Selenium (Se)	2.15	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Sodium (Na)	210	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Strontium (Sr)	140	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Sulfur (S)	1500	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Thallium (Tl)	0.369	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Titanium (Ti)	20.6	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Uranium (U)	0.944	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Vanadium (V)	27.5	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Zinc (Zn)	173	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	pH (1:2 soil:water)	8.09	pH	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	3	2020-09-15	08:25	Total Organic Carbon	4.33	%	ALS	RG_MIDCO_SE-3_2020-09-15_0825
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Moisture	78.3	%	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Acenaphthene	<0.020	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Acenaphthylene	<0.013	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Anthracene	<0.010	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Acridine	<0.055	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Benz(a)anthracene	<0.035	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Benzo(a)pyrene	<0.025	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Benzo(b&j)fluoranthene	0.048	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Benzo(e)pyrene	0.056	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Benzo(g_h_i)perylene	0.034	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Benzo(k)fluoranthene	<0.025	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Chrysene	0.081	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Dibenz(a_h)anthracene	<0.020	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Fluoranthene	<0.035	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Fluorene	0.037	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Indeno(1,2,3-c,d)pyrene	<0.025	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	2-Methylnaphthalene	0.410	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Naphthalene	0.154	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Perylene	<0.025	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Phenanthrene	0.242	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Pyrene	0.031	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	1-Methylnaphthalene	0.251	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Quinoline	<0.025	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	IACR (CCME)	0.56	-	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	B(a)P Total Potency Equivalent	0.033	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Benzo(b+j+k)fluoranthene	0.048	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	IACR:Coarse	<0.050	-	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	IACR:Fine	<0.050	-	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	d8-Naphthalene	119.6	%	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	d10-Acenaphthene	120.0	%	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	d10-Phenanthrene	116.7	%	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	d12-Chrysene	125.2	%	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	% Sand (1.00 mm - 0.50 mm)	1.5	%	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	% Sand (0.50 mm - 0.25 mm)	5.2	%	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	% Sand (0.25 mm - 0.125 mm)	13.4	%	ALS	RG_MIDCO_SE-4_2020-09-15_0840



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	% Sand (0.125 mm - 0.063 mm)	14.7	%	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	% Silt (0.063 mm - 0.0312 mm)	28.0	%	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	% Silt (0.031 mm - 0.004 mm)	30.9	%	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	% Clay (<4 µm)	5.8	%	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Texture	Silt loam	-	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Mercury (Hg)	0.0256	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Aluminum (Al)	9880	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Antimony (Sb)	0.29	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Arsenic (As)	5.31	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Barium (Ba)	148	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Beryllium (Be)	0.61	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Boron (B)	15.8	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Cadmium (Cd)	1.75	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Calcium (Ca)	86300	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Chromium (Cr)	13.3	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Cobalt (Co)	111	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Copper (Cu)	12.7	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Iron (Fe)	13600	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Lead (Pb)	7.65	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Lithium (Li)	13.3	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Magnesium (Mg)	6770	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Manganese (Mn)	788	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Molybdenum (Mo)	1.54	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Nickel (Ni)	148	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Phosphorus (P)	962	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Potassium (K)	2480	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Selenium (Se)	2.92	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Sodium (Na)	249	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Strontium (Sr)	141	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Sulfur (S)	1800	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Thallium (Tl)	0.317	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Titanium (Ti)	18.2	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Uranium (U)	0.899	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Vanadium (V)	22.6	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Zinc (Zn)	204	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	pH (1:2 soil:water)	8.00	pH	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	4	2020-09-15	08:40	Total Organic Carbon	4.8	%	ALS	RG_MIDCO_SE-4_2020-09-15_0840
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Moisture	58.3	%	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Acenaphthene	<0.010	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Anthracene	<0.0040	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Acridine	<0.015	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Benzo(b&j)fluoranthene	0.032	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Benzo(e)pyrene	0.039	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Benzo(g_h_i)perylene	0.018	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Chrysene	0.061	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Dibenz(a_h)anthracene	<0.0060	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Fluoranthene	0.011	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Fluorene	0.024	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	2-Methylnaphthalene	0.248	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Naphthalene	0.096	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Perylene	0.012	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Phenanthrene	0.161	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Pyrene	0.019	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	1-Methylnaphthalene	0.157	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Quinoline	<0.050	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	IACR (CCME)	0.31	-	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Benzo(b+j+k)fluoranthene	0.032	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	IACR:Coarse	<0.050	-	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	IACR:Fine	<0.050	-	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	d8-Naphthalene	111.7	%	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	d10-Acenaphthene	114.1	%	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	d10-Phenanthrene	112.3	%	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	d12-Chrysene	119.0	%	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	% Sand (2.00 mm - 1.00 mm)	2.6	%	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	% Sand (1.00 mm - 0.50 mm)	8.0	%	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	% Sand (0.50 mm - 0.25 mm)	11.0	%	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	% Sand (0.25 mm - 0.125 mm)	10.4	%	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	% Sand (0.125 mm - 0.063 mm)	16.3	%	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	% Silt (0.063 mm - 0.0312 mm)	22.3	%	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	% Silt (0.031 mm - 0.004 mm)	24.2	%	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	% Clay (<4 µm)	5.1	%	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Texture	Sandy loam	-	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Mercury (Hg)	0.0254	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Aluminum (Al)	15100	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Antimony (Sb)	0.37	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Arsenic (As)	7.52	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Barium (Ba)	141	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Beryllium (Be)	0.80	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Boron (B)	16.6	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Cadmium (Cd)	1.65	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Calcium (Ca)	38400	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Chromium (Cr)	19.2	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Cobalt (Co)	40.1	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Copper (Cu)	18.2	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Iron (Fe)	19600	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Lead (Pb)	10.5	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Lithium (Li)	18.6	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Magnesium (Mg)	7690	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Manganese (Mn)	685	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Molybdenum (Mo)	2.09	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Nickel (Ni)	92.2	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Phosphorus (P)	1150	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Potassium (K)	3500	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Selenium (Se)	1.73	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Sodium (Na)	162	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Strontium (Sr)	76.1	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Thallium (Tl)	0.369	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Titanium (Ti)	16.5	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Uranium (U)	0.747	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Vanadium (V)	31.7	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Zinc (Zn)	185	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	pH (1:2 soil:water)	8.07	pH	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO	667711	5487625	2020	5	2020-09-15	11:18	Total Organic Carbon	3.47	%	ALS	RG_MIDCO_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Moisture	78.8	%	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Acenaphthene	<0.010	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Acenaphthylene	<0.010	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Anthracene	<0.0080	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Acridine	<0.020	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Benz(a)anthracene	<0.020	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Benzo(a)pyrene	<0.020	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Benzo(b&j)fluoranthene	0.045	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Benzo(e)pyrene	0.052	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Benzo(g_h_i)perylene	0.022	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Benzo(k)fluoranthene	<0.020	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Chrysene	0.073	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Dibenz(a_h)anthracene	<0.010	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Fluoranthene	<0.020	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Fluorene	0.032	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Indeno(1,2,3-c,d)pyrene	<0.020	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	2-Methylnaphthalene	0.348	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Naphthalene	0.132	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Perylene	<0.020	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Phenanthrene	0.209	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Pyrene	0.024	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	1-Methylnaphthalene	0.216	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Quinoline	<0.020	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	IACR (CCME)	0.47	-	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	B(a)P Total Potency Equivalent	0.023	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Benzo(b+j+k)fluoranthene	0.045	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	IACR:Coarse	<0.050	-	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	IACR:Fine	<0.050	-	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	d8-Naphthalene	116.3	%	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	d10-Acenaphthene	116.3	%	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	d10-Phenanthrene	114.5	%	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	d12-Chrysene	124.7	%	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	% Gravel (>2 mm)	<1.0	%	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	% Sand (2.00 mm - 1.00 mm)	3.0	%	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	% Sand (1.00 mm - 0.50 mm)	6.8	%	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	% Sand (0.50 mm - 0.25 mm)	4.4	%	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	% Sand (0.25 mm - 0.125 mm)	5.7	%	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	% Sand (0.125 mm - 0.063 mm)	9.1	%	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	% Silt (0.063 mm - 0.0312 mm)	30.1	%	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	% Silt (0.031 mm - 0.004 mm)	35.5	%	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	% Clay (<4 µm)	5.4	%	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Texture	Silt loam	-	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Mercury (Hg)	0.0250	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Aluminum (Al)	11600	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Antimony (Sb)	0.24	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Arsenic (As)	5.95	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Barium (Ba)	163	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Beryllium (Be)	0.72	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Boron (B)	17.1	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Cadmium (Cd)	2.08	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Calcium (Ca)	96400	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Chromium (Cr)	15.5	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Cobalt (Co)	80.4	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Copper (Cu)	13.5	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Iron (Fe)	14700	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Lead (Pb)	8.17	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Lithium (Li)	15.2	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Magnesium (Mg)	7530	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Manganese (Mn)	775	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Molybdenum (Mo)	1.45	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Nickel (Ni)	140	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Phosphorus (P)	958	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Potassium (K)	2940	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Selenium (Se)	2.87	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Silver (Ag)	<0.10	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Sodium (Na)	254	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Strontium (Sr)	158	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Sulfur (S)	2000	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Thallium (Tl)	0.330	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Tin (Sn)	<2.0	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Titanium (Ti)	16.2	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Tungsten (W)	<0.50	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Uranium (U)	0.868	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Vanadium (V)	25.4	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Zinc (Zn)	215	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	pH (1:2 soil:water)	8.15	pH	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	2	2020-09-15	08:05	Total Organic Carbon	4.8	%	ALS	RG_RIVER_SE-2_2020-09-15_0805
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Moisture	52.9	%	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Acenaphthene	<0.010	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Acenaphthylene	<0.0050	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Anthracene	<0.0040	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Acridine	<0.020	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Benz(a)anthracene	<0.020	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Benzo(b&j)fluoranthene	0.042	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Benzo(e)pyrene	0.047	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Benzo(g_h_i)perylene	0.019	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Chrysene	0.077	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Fluoranthene	0.016	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Fluorene	0.022	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	2-Methylnaphthalene	0.261	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Naphthalene	0.099	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Perylene	0.019	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Phenanthrene	0.174	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Pyrene	0.023	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	1-Methylnaphthalene	0.167	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Quinoline	<0.050	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	IACR (CCME)	0.39	-	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Benzo(b+j+k)fluoranthene	0.042	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	IACR:Coarse	<0.050	-	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	IACR:Fine	<0.050	-	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	d8-Naphthalene	114.0	%	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	d10-Acenaphthene	113.7	%	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	d10-Phenanthrene	113.2	%	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	d12-Chrysene	124.1	%	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	% Gravel (>2 mm)	<1.0	%	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	% Sand (2.00 mm - 1.00 mm)	3.1	%	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	% Sand (1.00 mm - 0.50 mm)	7.1	%	ALS	RG_RIVER_SE-5_2020-09-15_1118

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	% Sand (0.50 mm - 0.25 mm)	10.8	%	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	% Sand (0.25 mm - 0.125 mm)	10.5	%	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	% Sand (0.125 mm - 0.063 mm)	15.0	%	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	% Silt (0.063 mm - 0.0312 mm)	23.4	%	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	% Silt (0.031 mm - 0.004 mm)	25.6	%	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	% Clay (<4 µm)	4.4	%	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Texture	Sandy loam	-	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Mercury (Hg)	0.0271	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Aluminum (Al)	14400	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Antimony (Sb)	0.39	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Arsenic (As)	7.29	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Barium (Ba)	145	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Beryllium (Be)	0.84	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Boron (B)	16.5	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Cadmium (Cd)	1.65	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Calcium (Ca)	40400	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Chromium (Cr)	17.9	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Cobalt (Co)	39.0	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Copper (Cu)	17.5	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Iron (Fe)	20900	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Lead (Pb)	11.1	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Lithium (Li)	19.6	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Magnesium (Mg)	7950	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Manganese (Mn)	666	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Molybdenum (Mo)	2.15	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Nickel (Ni)	88.7	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Phosphorus (P)	1250	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Potassium (K)	3170	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Selenium (Se)	1.75	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Silver (Ag)	<0.10	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Sodium (Na)	153	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Strontium (Sr)	83.3	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Sulfur (S)	<1000	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Thallium (Tl)	0.392	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Tin (Sn)	<2.0	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Titanium (Ti)	22.8	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Tungsten (W)	<0.50	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Uranium (U)	0.800	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Vanadium (V)	30.5	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Zinc (Zn)	184	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	pH (1:2 soil:water)	8.05	pH	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDCO-DUP	667711	5487625	2020	5	2020-09-15	11:18	Total Organic Carbon	3.67	%	ALS	RG_RIVER_SE-5_2020-09-15_1118
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Moisture	85.5	%	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Acenaphthene	<0.018	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Acenaphthylene	<0.018	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Anthracene	<0.014	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Acridine	<0.035	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Benz(a)anthracene	<0.035	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Benzo(a)pyrene	<0.035	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Benzo(b&j)fluoranthene	0.046	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Benzo(e)pyrene	0.048	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Benzo(g_h_i)perylene	<0.035	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Benzo(k)fluoranthene	<0.035	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Chrysene	<0.090	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Dibenz(a_h)anthracene	<0.035	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Fluoranthene	0.037	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Fluorene	<0.035	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Indeno(1,2,3-c,d)pyrene	<0.035	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	2-Methylnaphthalene	0.176	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Naphthalene	0.074	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Perylene	<0.035	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Phenanthrene	0.177	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Pyrene	0.038	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	1-Methylnaphthalene	0.118	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Quinoline	<0.035	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	IACR (CCME)	0.60	-	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	B(a)P Total Potency Equivalent	0.045	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Benzo(b+j+k)fluoranthene	<0.055	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	IACR:Coarse	<0.050	-	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	IACR:Fine	0.053	-	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	d8-Naphthalene	117.7	%	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	d10-Acenaphthene	117.7	%	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	d10-Phenanthrene	116.9	%	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	d12-Chrysene	127.3	%	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	% Gravel (>2 mm)	9.8	%	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	% Sand (1.00 mm - 0.50 mm)	1.5	%	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	% Sand (0.50 mm - 0.25 mm)	2.4	%	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	% Sand (0.25 mm - 0.125 mm)	3.3	%	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	% Sand (0.125 mm - 0.063 mm)	5.2	%	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	% Silt (0.063 mm - 0.0312 mm)	31.8	%	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	% Silt (0.031 mm - 0.004 mm)	37.4	%	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	% Clay (<4 µm)	8.2	%	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Texture	Silt loam	-	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Mercury (Hg)	0.0367	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Aluminum (Al)	9420	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Antimony (Sb)	0.34	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Arsenic (As)	5.50	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Barium (Ba)	158	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Beryllium (Be)	0.62	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Boron (B)	13.9	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Cadmium (Cd)	1.25	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Calcium (Ca)	91000	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Chromium (Cr)	16.6	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Cobalt (Co)	38.5	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Copper (Cu)	12.0	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Iron (Fe)	12400	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Lead (Pb)	7.77	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Lithium (Li)	11.7	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Magnesium (Mg)	9190	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Manganese (Mn)	412	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Molybdenum (Mo)	1.34	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Nickel (Ni)	77.0	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Phosphorus (P)	994	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Potassium (K)	2450	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Selenium (Se)	4.65	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Silver (Ag)	0.13	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Sodium (Na)	199	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Strontium (Sr)	133	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Sulfur (S)	1500	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Thallium (Tl)	0.403	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Titanium (Ti)	16.0	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Uranium (U)	0.857	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Vanadium (V)	25.8	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Zinc (Zn)	117	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	pH (1:2 soil:water)	7.80	pH	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	1	2020-09-15	17:14	Total Organic Carbon	8.45	%	ALS	RG_MIDAG_SE-1_2020-09-15_1714
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Moisture	77.2	%	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Acenaphthene	<0.020	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Acenaphthylene	<0.010	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Anthracene	<0.0080	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Acridine	<0.020	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Benz(a)anthracene	<0.020	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Benzo(a)pyrene	<0.020	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Benzo(b&j)fluoranthene	0.068	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Benzo(e)pyrene	0.069	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Benzo(g_h_i)perylene	0.026	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Benzo(k)fluoranthene	<0.020	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Chrysene	0.112	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Dibenz(a_h)anthracene	<0.010	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Fluoranthene	0.040	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Fluorene	0.037	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Indeno(1,2,3-c,d)pyrene	<0.020	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	2-Methylnaphthalene	0.325	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Naphthalene	0.135	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Perylene	<0.020	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Phenanthrene	0.282	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Pyrene	0.042	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	1-Methylnaphthalene	0.216	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Quinoline	<0.020	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	IACR (CCME)	0.62	-	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	B(a)P Total Potency Equivalent	0.026	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Benzo(b+j+k)fluoranthene	0.068	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	IACR:Coarse	<0.050	-	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	IACR:Fine	<0.050	-	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	d8-Naphthalene	112.5	%	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	d10-Acenaphthene	113.8	%	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	d10-Phenanthrene	113.1	%	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	d12-Chrysene	122.4	%	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	% Sand (2.00 mm - 1.00 mm)	1.7	%	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	% Sand (1.00 mm - 0.50 mm)	6.7	%	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	% Sand (0.50 mm - 0.25 mm)	8.5	%	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	% Sand (0.25 mm - 0.125 mm)	9.0	%	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	% Sand (0.125 mm - 0.063 mm)	8.7	%	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	% Silt (0.063 mm - 0.0312 mm)	27.8	%	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	% Silt (0.031 mm - 0.004 mm)	31.5	%	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	% Clay (<4 µm)	5.3	%	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Texture	Silt loam	-	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Mercury (Hg)	0.0331	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Aluminum (Al)	10200	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Antimony (Sb)	0.36	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Arsenic (As)	6.27	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Barium (Ba)	143	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Beryllium (Be)	0.73	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Boron (B)	14.9	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Cadmium (Cd)	1.13	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Calcium (Ca)	72900	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Chromium (Cr)	16.5	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Cobalt (Co)	38.8	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Copper (Cu)	12.7	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Iron (Fe)	14100	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Lead (Pb)	8.90	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Lithium (Li)	13.6	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Magnesium (Mg)	9430	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Manganese (Mn)	445	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Molybdenum (Mo)	1.53	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Nickel (Ni)	74.9	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Phosphorus (P)	998	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Potassium (K)	2610	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Selenium (Se)	3.26	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Silver (Ag)	0.13	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Sodium (Na)	185	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Strontium (Sr)	115	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Sulfur (S)	1000	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Thallium (Tl)	0.421	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Titanium (Ti)	18.7	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Uranium (U)	0.842	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Vanadium (V)	27.3	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Zinc (Zn)	126	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	pH (1:2 soil:water)	7.90	pH	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIDAG	665258	5489417	2020	2	2020-09-15	17:23	Total Organic Carbon	5.97	%	ALS	RG_MIDAG_SE-2_2020-09-15_1723
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Moisture	56.5	%	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Acenaphthene	<0.0050	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Anthracene	<0.0040	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Acridine	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Benzo(b&j)fluoranthene	0.031	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Benzo(e)pyrene	0.032	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Benzo(g_h_i)perylene	0.011	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Chrysene	0.060	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Fluoranthene	0.017	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Fluorene	<0.020	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	2-Methylnaphthalene	0.132	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Naphthalene	0.061	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Perylene	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Phenanthrene	0.136	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Pyrene	0.021	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	1-Methylnaphthalene	0.086	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Quinoline	<0.050	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	IACR (CCME)	0.30	-	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Benzo(b+j+k)fluoranthene	0.031	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	IACR:Coarse	<0.050	-	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	IACR:Fine	<0.050	-	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	d8-Naphthalene	108.8	%	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	d10-Acenaphthene	110.1	%	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	d10-Phenanthrene	111.1	%	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	d12-Chrysene	121.1	%	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIULE_SE-1_2020-09-16_1145

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	% Sand (1.00 mm - 0.50 mm)	<1.0	%	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	% Sand (0.50 mm - 0.25 mm)	8.6	%	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	% Sand (0.25 mm - 0.125 mm)	18.2	%	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	% Sand (0.125 mm - 0.063 mm)	18.3	%	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	% Silt (0.063 mm - 0.0312 mm)	23.5	%	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	% Silt (0.031 mm - 0.004 mm)	25.5	%	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	% Clay (<4 µm)	4.5	%	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Texture	Sandy loam	-	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Mercury (Hg)	0.0352	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Aluminum (Al)	9910	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Antimony (Sb)	0.58	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Arsenic (As)	6.05	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Barium (Ba)	210	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Beryllium (Be)	0.67	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Boron (B)	11.9	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Cadmium (Cd)	1.13	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Calcium (Ca)	41900	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Chromium (Cr)	15.7	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Cobalt (Co)	11.7	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Copper (Cu)	12.6	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Iron (Fe)	14800	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Lead (Pb)	8.48	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Lithium (Li)	12.7	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Magnesium (Mg)	9350	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Manganese (Mn)	202	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Molybdenum (Mo)	1.43	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Nickel (Ni)	34.8	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Phosphorus (P)	1080	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Potassium (K)	2460	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Selenium (Se)	2.02	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Silver (Ag)	0.12	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Sodium (Na)	100	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Strontium (Sr)	73.9	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Sulfur (S)	<1000	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Thallium (Tl)	0.400	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Titanium (Ti)	29.6	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Uranium (U)	0.724	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Vanadium (V)	32.2	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Zinc (Zn)	110	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	pH (1:2 soil:water)	8.14	pH	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	1	2020-09-16	11:45	Total Organic Carbon	2.89	%	ALS	RG_MIULE_SE-1_2020-09-16_1145
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Moisture	42.3	%	ALS	RG_MIULE_SE-2_2020-09-16_1205

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Acenaphthene	<0.010	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Anthracene	<0.0040	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Acridine	<0.020	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Benzo(b&j)fluoranthene	0.046	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Benzo(e)pyrene	0.048	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Benzo(g_h_i)perylene	0.017	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Chrysene	0.083	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Dibenz(a_h)anthracene	<0.0060	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Fluoranthene	0.027	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Fluorene	0.020	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	2-Methylnaphthalene	0.185	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Naphthalene	0.082	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Perylene	<0.010	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Phenanthrene	0.180	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Pyrene	0.028	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	1-Methylnaphthalene	0.120	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Quinoline	<0.050	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	IACR (CCME)	0.40	-	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Benzo(b+j+k)fluoranthene	0.046	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	IACR:Coarse	<0.050	-	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	IACR:Fine	<0.050	-	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	d8-Naphthalene	103.9	%	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	d10-Acenaphthene	107.0	%	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	d10-Phenanthrene	105.9	%	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	d12-Chrysene	114.5	%	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	% Sand (1.00 mm - 0.50 mm)	1.8	%	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	% Sand (0.50 mm - 0.25 mm)	2.9	%	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	% Sand (0.25 mm - 0.125 mm)	10.8	%	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	% Sand (0.125 mm - 0.063 mm)	20.1	%	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	% Silt (0.063 mm - 0.0312 mm)	27.7	%	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	% Silt (0.031 mm - 0.004 mm)	30.4	%	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	% Clay (<4 µm)	5.4	%	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Texture	Silt loam	-	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Mercury (Hg)	0.0409	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Aluminum (Al)	10500	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Antimony (Sb)	0.67	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Arsenic (As)	8.51	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Barium (Ba)	249	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Beryllium (Be)	0.76	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Boron (B)	11.2	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Cadmium (Cd)	1.32	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Calcium (Ca)	44200	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Chromium (Cr)	16.7	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Cobalt (Co)	13.7	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Copper (Cu)	16.1	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Iron (Fe)	18000	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Lead (Pb)	10.3	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Lithium (Li)	14.5	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Magnesium (Mg)	11000	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Manganese (Mn)	306	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Molybdenum (Mo)	1.83	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Nickel (Ni)	40.7	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Phosphorus (P)	1210	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Potassium (K)	2390	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Selenium (Se)	1.27	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Silver (Ag)	0.17	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Sodium (Na)	103	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Strontium (Sr)	73.6	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Sulfur (S)	<1000	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Thallium (Tl)	0.497	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Titanium (Ti)	31.8	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Uranium (U)	0.785	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Vanadium (V)	34.2	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Zinc (Zn)	129	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Zirconium (Zr)	1.1	mg/kg	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	pH (1:2 soil:water)	8.09	pH	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	2	2020-09-16	12:05	Total Organic Carbon	3.42	%	ALS	RG_MIULE_SE-2_2020-09-16_1205
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Moisture	73.8	%	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Acenaphthene	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Acenaphthylene	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Anthracene	<0.0080	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Acridine	<0.020	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Benz(a)anthracene	<0.020	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Benzo(a)pyrene	<0.020	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Benzo(b&j)fluoranthene	0.038	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Benzo(e)pyrene	0.041	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Benzo(g_h_i)perylene	<0.020	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Benzo(k)fluoranthene	<0.020	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Chrysene	0.069	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Dibenz(a_h)anthracene	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Fluoranthene	0.023	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Fluorene	<0.020	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Indeno(1,2,3-c,d)pyrene	<0.020	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	2-Methylnaphthalene	0.207	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Naphthalene	0.091	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Perylene	<0.020	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Phenanthrene	0.186	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Pyrene	0.025	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	1-Methylnaphthalene	0.140	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Quinoline	<0.020	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	IACR (CCME)	0.42	-	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	B(a)P Total Potency Equivalent	0.023	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Benzo(b+j+k)fluoranthene	0.038	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	IACR:Coarse	<0.050	-	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	IACR:Fine	<0.050	-	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	d8-Naphthalene	113.1	%	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	d10-Acenaphthene	112.8	%	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	d10-Phenanthrene	111.7	%	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	d12-Chrysene	122.6	%	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	% Sand (1.00 mm - 0.50 mm)	2.7	%	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	% Sand (0.50 mm - 0.25 mm)	12.4	%	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	% Sand (0.25 mm - 0.125 mm)	24.4	%	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	% Sand (0.125 mm - 0.063 mm)	18.1	%	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	% Silt (0.063 mm - 0.0312 mm)	20.0	%	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	% Silt (0.031 mm - 0.004 mm)	18.8	%	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	% Clay (<4 µm)	3.2	%	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Texture	Sandy loam	-	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Mercury (Hg)	0.0316	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Aluminum (Al)	9290	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Antimony (Sb)	0.35	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Arsenic (As)	6.47	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Barium (Ba)	206	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Beryllium (Be)	0.65	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Boron (B)	11.0	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Cadmium (Cd)	0.994	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Calcium (Ca)	53700	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Chromium (Cr)	14.5	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Cobalt (Co)	12.9	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Copper (Cu)	11.7	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Iron (Fe)	14300	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Lead (Pb)	7.92	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Lithium (Li)	11.7	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Magnesium (Mg)	8310	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Manganese (Mn)	290	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Molybdenum (Mo)	1.46	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Nickel (Ni)	35.6	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Phosphorus (P)	1060	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Potassium (K)	2400	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Selenium (Se)	1.92	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Silver (Ag)	0.12	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Sodium (Na)	121	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Strontium (Sr)	86.7	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Sulfur (S)	<1000	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Thallium (Tl)	0.352	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Titanium (Ti)	13.3	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Uranium (U)	0.765	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Vanadium (V)	30.7	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Zinc (Zn)	100	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	pH (1:2 soil:water)	7.87	pH	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIULE	660503	5493048	2020	3	2020-09-16	14:57	Total Organic Carbon	6.95	%	ALS	RG_MIULE_SE-3_2020-09-16_1457
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Moisture	73.9	%	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Acenaphthene	<0.012	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Acenaphthylene	<0.010	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Anthracene	<0.0080	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Acridine	<0.020	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Benz(a)anthracene	<0.020	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Benzo(a)pyrene	<0.020	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Benzo(b&j)fluoranthene	0.084	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Benzo(e)pyrene	0.082	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Benzo(g_h_i)perylene	0.028	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Benzo(k)fluoranthene	<0.020	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Chrysene	0.133	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Dibenz(a_h)anthracene	<0.010	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Fluoranthene	0.044	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Fluorene	0.032	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Indeno(1,2,3-c,d)pyrene	<0.020	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	2-Methylnaphthalene	0.328	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Naphthalene	0.144	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Perylene	<0.020	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Phenanthrene	0.262	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Pyrene	0.050	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	1-Methylnaphthalene	0.224	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Quinoline	<0.020	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	IACR (CCME)	0.74	-	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	B(a)P Total Potency Equivalent	0.028	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Benzo(b+j+k)fluoranthene	0.084	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	IACR:Coarse	<0.050	-	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	IACR:Fine	0.052	-	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	d8-Naphthalene	112.3	%	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	d10-Acenaphthene	113.0	%	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	d10-Phenanthrene	114.6	%	ALS	RG_MIDAG_SE-3_2020-09-16_0805



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	d12-Chrysene	124.2	%	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	% Sand (1.00 mm - 0.50 mm)	6.3	%	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	% Sand (0.50 mm - 0.25 mm)	13.5	%	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	% Sand (0.25 mm - 0.125 mm)	11.5	%	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	% Sand (0.125 mm - 0.063 mm)	9.5	%	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	% Silt (0.063 mm - 0.0312 mm)	22.2	%	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	% Silt (0.031 mm - 0.004 mm)	27.8	%	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	% Clay (<4 µm)	8.5	%	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Texture	Silt loam	-	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Mercury (Hg)	0.0431	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Aluminum (Al)	11200	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Antimony (Sb)	<0.10	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Arsenic (As)	6.76	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Barium (Ba)	163	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Beryllium (Be)	0.80	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Boron (B)	9.2	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Cadmium (Cd)	1.26	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Calcium (Ca)	55300	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Chromium (Cr)	16.5	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Cobalt (Co)	23.3	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Copper (Cu)	15.3	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Iron (Fe)	17000	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Lead (Pb)	9.63	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Lithium (Li)	13.8	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Magnesium (Mg)	9480	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Manganese (Mn)	406	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Molybdenum (Mo)	1.14	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Nickel (Ni)	58.9	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Phosphorus (P)	1010	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Potassium (K)	2770	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Selenium (Se)	5.69	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Silver (Ag)	0.14	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Sodium (Na)	120	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Strontium (Sr)	86.8	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Sulfur (S)	1400	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Thallium (Tl)	0.434	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Titanium (Ti)	7.4	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Uranium (U)	0.810	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Vanadium (V)	28.7	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Zinc (Zn)	130	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	pH (1:2 soil:water)	7.90	pH	ALS	RG_MIDAG_SE-3_2020-09-16_0805

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665258	5489417	2020	3	2020-09-16	08:05	Total Organic Carbon	6.29	%	ALS	RG_MIDAG_SE-3_2020-09-16_0805
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Moisture	76.6	%	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Acenaphthene	<0.030	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Acenaphthylene	<0.010	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Anthracene	<0.0080	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Acridine	<0.021	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Benz(a)anthracene	<0.040	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Benzo(a)pyrene	<0.020	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Benzo(b&j)fluoranthene	0.083	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Benzo(e)pyrene	0.081	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Benzo(g_h_i)perylene	0.030	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Benzo(k)fluoranthene	<0.020	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Chrysene	0.148	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Dibenz(a_h)anthracene	<0.010	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Fluoranthene	0.119	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Fluorene	0.048	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Indeno(1,2,3-c,d)pyrene	<0.020	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	2-Methylnaphthalene	0.360	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Naphthalene	0.157	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Perylene	<0.020	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Phenanthrene	0.382	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Pyrene	0.101	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	1-Methylnaphthalene	0.239	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Quinoline	<0.020	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	IACR (CCME)	0.77	-	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	B(a)P Total Potency Equivalent	0.029	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Benzo(b+j+k)fluoranthene	0.083	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	IACR:Coarse	<0.050	-	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	IACR:Fine	0.053	-	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	d8-Naphthalene	109.8	%	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	d10-Acenaphthene	110.2	%	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	d10-Phenanthrene	111.0	%	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	d12-Chrysene	122.7	%	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	% Sand (2.00 mm - 1.00 mm)	1.4	%	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	% Sand (1.00 mm - 0.50 mm)	12.0	%	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	% Sand (0.50 mm - 0.25 mm)	14.7	%	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	% Sand (0.25 mm - 0.125 mm)	11.3	%	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	% Sand (0.125 mm - 0.063 mm)	9.0	%	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	% Silt (0.063 mm - 0.0312 mm)	21.6	%	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	% Silt (0.031 mm - 0.004 mm)	24.5	%	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	% Clay (<4 µm)	5.2	%	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Texture	Sandy loam	-	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Mercury (Hg)	0.0335	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Aluminum (Al)	11000	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Antimony (Sb)	0.16	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Arsenic (As)	6.89	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Barium (Ba)	126	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Beryllium (Be)	0.75	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Boron (B)	12.0	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Cadmium (Cd)	1.04	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Calcium (Ca)	63400	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Chromium (Cr)	16.0	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Cobalt (Co)	30.4	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Copper (Cu)	13.3	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Iron (Fe)	15600	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Lead (Pb)	8.60	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Lithium (Li)	14.9	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Magnesium (Mg)	9490	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Manganese (Mn)	327	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Molybdenum (Mo)	1.17	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Nickel (Ni)	70.8	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Phosphorus (P)	1050	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Potassium (K)	2740	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Selenium (Se)	2.45	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Silver (Ag)	0.12	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Sodium (Na)	140	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Strontium (Sr)	96.2	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Thallium (Tl)	0.432	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Titanium (Ti)	8.0	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Uranium (U)	0.806	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Vanadium (V)	27.0	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Zinc (Zn)	118	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	pH (1:2 soil:water)	7.95	pH	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	4	2020-09-16	09:22	Total Organic Carbon	6.11	%	ALS	RG_MIDAG_SE-4_2020-09-16_0922
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Moisture	75.3	%	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Acenaphthene	<0.010	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Acenaphthylene	<0.010	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Anthracene	<0.0080	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Acridine	<0.020	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Benz(a)anthracene	<0.020	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Benzo(a)pyrene	<0.020	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Benzo(b&j)fluoranthene	0.059	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Benzo(e)pyrene	0.065	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Benzo(g_h_i)perylene	0.026	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Benzo(k)fluoranthene	<0.020	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Chrysene	0.095	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Dibenz(a_h)anthracene	<0.010	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Fluoranthene	0.032	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Fluorene	<0.020	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Indeno(1,2,3-c,d)pyrene	<0.020	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	2-Methylnaphthalene	0.288	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Naphthalene	0.122	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Perylene	<0.020	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Phenanthrene	0.230	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Pyrene	0.031	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	1-Methylnaphthalene	0.191	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Quinoline	<0.020	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	IACR (CCME)	0.56	-	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	B(a)P Total Potency Equivalent	0.025	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Benzo(b+j+k)fluoranthene	0.059	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	IACR:Coarse	<0.050	-	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	IACR:Fine	<0.050	-	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	d8-Naphthalene	108.4	%	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	d10-Acenaphthene	111.5	%	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	d10-Phenanthrene	111.6	%	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	d12-Chrysene	120.3	%	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	% Sand (1.00 mm - 0.50 mm)	2.2	%	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	% Sand (0.50 mm - 0.25 mm)	6.5	%	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	% Sand (0.25 mm - 0.125 mm)	11.3	%	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	% Sand (0.125 mm - 0.063 mm)	12.3	%	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	% Silt (0.063 mm - 0.0312 mm)	28.7	%	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	% Silt (0.031 mm - 0.004 mm)	32.0	%	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	% Clay (<4 µm)	5.5	%	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Texture	Silt loam	-	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Mercury (Hg)	0.457	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Aluminum (Al)	10300	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Antimony (Sb)	0.28	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Arsenic (As)	6.11	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Barium (Ba)	135	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Beryllium (Be)	0.71	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Boron (B)	13.2	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Cadmium (Cd)	1.13	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Calcium (Ca)	65200	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Chromium (Cr)	15.8	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Cobalt (Co)	33.5	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Copper (Cu)	12.2	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Iron (Fe)	13600	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Lead (Pb)	7.89	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Lithium (Li)	13.5	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Magnesium (Mg)	10800	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Manganese (Mn)	350	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Molybdenum (Mo)	1.34	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Nickel (Ni)	74.1	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Phosphorus (P)	1010	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Potassium (K)	2560	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Selenium (Se)	3.19	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Silver (Ag)	0.12	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Sodium (Na)	186	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Strontium (Sr)	99.5	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Thallium (Tl)	0.443	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Titanium (Ti)	14.4	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Uranium (U)	0.812	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Vanadium (V)	26.8	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Zinc (Zn)	128	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	pH (1:2 soil:water)	7.97	pH	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIDAG	665258	5489417	2020	5	2020-09-16	09:32	Total Organic Carbon	5.84	%	ALS	RG_MIDAG_SE-5_2020-09-16_0932
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Moisture	40.0	%	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Acenaphthene	<0.0050	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Acenaphthylene	<0.0050	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Anthracene	<0.0040	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Acridine	<0.010	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Benzo(b&j)fluoranthene	0.041	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Benzo(e)pyrene	0.043	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Benzo(g_h_i)perylene	0.016	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Chrysene	0.076	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Fluoranthene	0.023	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Fluorene	0.019	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	2-Methylnaphthalene	0.190	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Naphthalene	0.086	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Perylene	<0.010	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Phenanthrene	0.175	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Pyrene	0.025	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	1-Methylnaphthalene	0.125	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Quinoline	<0.050	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	IACR (CCME)	0.37	-	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Benzo(b+j+k)fluoranthene	0.041	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	IACR:Coarse	<0.050	-	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	IACR:Fine	<0.050	-	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	d8-Naphthalene	105.3	%	ALS	RG_RIVER_SE-2_2020-09-16_1208

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	d10-Acenaphthene	106.2	%	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	d10-Phenanthrene	107.6	%	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	d12-Chrysene	116.5	%	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	% Gravel (>2 mm)	<1.0	%	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	% Sand (1.00 mm - 0.50 mm)	<1.0	%	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	% Sand (0.50 mm - 0.25 mm)	<1.0	%	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	% Sand (0.25 mm - 0.125 mm)	12.0	%	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	% Sand (0.125 mm - 0.063 mm)	22.6	%	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	% Silt (0.063 mm - 0.0312 mm)	26.0	%	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	% Silt (0.031 mm - 0.004 mm)	31.3	%	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	% Clay (<4 µm)	7.4	%	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Texture	Silt loam	-	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Mercury (Hg)	0.0433	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Aluminum (Al)	10000	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Antimony (Sb)	0.59	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Arsenic (As)	7.59	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Barium (Ba)	224	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Beryllium (Be)	0.69	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Boron (B)	11.7	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Cadmium (Cd)	1.23	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Calcium (Ca)	42500	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Chromium (Cr)	15.4	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Cobalt (Co)	12.3	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Copper (Cu)	14.4	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Iron (Fe)	16100	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Lead (Pb)	9.12	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Lithium (Li)	13.1	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Magnesium (Mg)	10200	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Manganese (Mn)	264	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Molybdenum (Mo)	1.63	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Nickel (Ni)	36.4	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Phosphorus (P)	1070	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Potassium (K)	2370	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Selenium (Se)	1.24	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Silver (Ag)	0.15	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Sodium (Na)	99	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Strontium (Sr)	69.9	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Sulfur (S)	<1000	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Thallium (Tl)	0.447	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Tin (Sn)	<2.0	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Titanium (Ti)	28.4	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Tungsten (W)	<0.50	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Uranium (U)	0.682	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Vanadium (V)	32.3	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Zinc (Zn)	113	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	pH (1:2 soil:water)	8.12	pH	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	MIULE-DUP	660503	5493048	2020	2	2020-09-16	12:08	Total Organic Carbon	3.34	%	ALS	RG_RIVER_SE-2_2020-09-16_1208
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Moisture	43.4	%	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Acenaphthene	<0.0050	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Acenaphthylene	<0.0050	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Anthracene	<0.0040	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Acridine	<0.010	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Benz(a)anthracene	0.018	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Benzo(b&j)fluoranthene	0.025	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Benzo(e)pyrene	0.028	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Benzo(g_h_i)perylene	0.013	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Chrysene	0.059	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Fluoranthene	0.019	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Fluorene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	2-Methylnaphthalene	0.060	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Naphthalene	0.033	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Perylene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Phenanthrene	0.143	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Pyrene	0.025	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	1-Methylnaphthalene	0.060	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Quinoline	<0.050	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	IACR (CCME)	0.30	-	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Benzo(b+j+k)fluoranthene	0.025	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	IACR:Coarse	<0.050	-	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	IACR:Fine	<0.050	-	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	d8-Naphthalene	110.3	%	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	d10-Acenaphthene	113.7	%	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	d10-Phenanthrene	112.4	%	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	d12-Chrysene	123.2	%	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	% Gravel (>2 mm)	<1.0	%	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	% Sand (1.00 mm - 0.50 mm)	1.1	%	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	% Sand (0.50 mm - 0.25 mm)	6.5	%	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	% Sand (0.25 mm - 0.125 mm)	23.9	%	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	% Sand (0.125 mm - 0.063 mm)	27.8	%	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	% Silt (0.063 mm - 0.0312 mm)	18.2	%	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	% Silt (0.031 mm - 0.004 mm)	16.6	%	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	% Clay (<4 µm)	5.2	%	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Texture	Sandy loam	-	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Mercury (Hg)	0.0654	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Aluminum (Al)	9410	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Antimony (Sb)	1.09	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Arsenic (As)	5.30	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Barium (Ba)	302	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Beryllium (Be)	0.59	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Boron (B)	<5.0	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Cadmium (Cd)	1.61	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Calcium (Ca)	5380	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Chromium (Cr)	17.5	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Cobalt (Co)	5.55	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Copper (Cu)	15.4	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Iron (Fe)	14500	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Lead (Pb)	8.48	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Lithium (Li)	9.8	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Magnesium (Mg)	2550	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Manganese (Mn)	228	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Molybdenum (Mo)	1.32	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Nickel (Ni)	23.9	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Phosphorus (P)	1170	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Potassium (K)	1680	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Selenium (Se)	0.76	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Silver (Ag)	0.25	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Sodium (Na)	<50	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Strontium (Sr)	39.7	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Sulfur (S)	<1000	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Thallium (Tl)	0.233	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Tin (Sn)	<2.0	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Titanium (Ti)	68.0	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Tungsten (W)	<0.50	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Uranium (U)	1.20	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Vanadium (V)	52.2	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Zinc (Zn)	103	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	pH (1:2 soil:water)	7.66	pH	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	1	2020-09-17	14:20	Total Organic Carbon	2.89	%	ALS	RG_LE1_SE-1_2020-09-17_1420
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Moisture	42.5	%	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Acenaphthene	<0.0050	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Acenaphthylene	<0.0050	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Anthracene	<0.0040	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Acridine	<0.015	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Benz(a)anthracene	0.024	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Benzo(b&j)fluoranthene	0.031	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Benzo(e)pyrene	0.033	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Benzo(g_h_i)perylene	0.016	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Chrysene	0.078	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Dibenz(a_h)anthracene	<0.0060	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Fluoranthene	0.022	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Fluorene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	2-Methylnaphthalene	0.088	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Naphthalene	0.039	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Perylene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Phenanthrene	0.201	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Pyrene	0.033	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	1-Methylnaphthalene	0.096	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Quinoline	<0.050	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	IACR (CCME)	0.37	-	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Benzo(b+j+k)fluoranthene	0.031	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	IACR:Coarse	<0.050	-	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	IACR:Fine	<0.050	-	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	d8-Naphthalene	109.6	%	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	d10-Acenaphthene	111.8	%	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	d10-Phenanthrene	113.4	%	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	d12-Chrysene	120.2	%	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	% Gravel (>2 mm)	<1.0	%	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	% Sand (1.00 mm - 0.50 mm)	2.1	%	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	% Sand (0.50 mm - 0.25 mm)	9.3	%	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	% Sand (0.25 mm - 0.125 mm)	31.4	%	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	% Sand (0.125 mm - 0.063 mm)	23.8	%	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	% Silt (0.063 mm - 0.0312 mm)	14.6	%	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	% Silt (0.031 mm - 0.004 mm)	14.1	%	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	% Clay (<4 µm)	4.5	%	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Texture	Sandy loam	-	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Mercury (Hg)	0.0723	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Aluminum (Al)	9650	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Antimony (Sb)	1.14	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Arsenic (As)	5.60	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Barium (Ba)	313	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Beryllium (Be)	0.66	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Boron (B)	<5.0	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Cadmium (Cd)	2.03	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Calcium (Ca)	5170	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Chromium (Cr)	18.5	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Cobalt (Co)	5.99	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Copper (Cu)	17.6	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Iron (Fe)	14400	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Lead (Pb)	9.12	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Lithium (Li)	10.6	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Magnesium (Mg)	2220	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Manganese (Mn)	251	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Molybdenum (Mo)	1.28	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Nickel (Ni)	25.9	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Phosphorus (P)	1090	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Potassium (K)	1720	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Selenium (Se)	1.01	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Silver (Ag)	0.31	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Sodium (Na)	<50	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Strontium (Sr)	43.7	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Sulfur (S)	<1000	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Thallium (Tl)	0.243	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Tin (Sn)	<2.0	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Titanium (Ti)	56.8	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Tungsten (W)	<0.50	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Uranium (U)	1.34	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Vanadium (V)	54.2	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Zinc (Zn)	107	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	pH (1:2 soil:water)	7.40	pH	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	2	2020-09-17	15:40	Total Organic Carbon	5.79	%	ALS	RG_LE1_SE-2_2020-09-17_1540
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Moisture	35.4	%	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Acenaphthene	<0.0050	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Acenaphthylene	<0.0050	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Anthracene	<0.0040	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Acridine	<0.010	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Benz(a)anthracene	<0.015	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Benzo(b&j)fluoranthene	0.019	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Benzo(e)pyrene	0.022	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Benzo(g_h_i)perylene	0.011	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Chrysene	0.043	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Fluoranthene	0.010	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Fluorene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	2-Methylnaphthalene	0.037	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Naphthalene	0.017	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Perylene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Phenanthrene	0.096	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Pyrene	0.018	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	1-Methylnaphthalene	<0.050	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Quinoline	<0.050	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	IACR (CCME)	0.22	-	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Benzo(b+j+k)fluoranthene	0.019	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	IACR:Coarse	<0.050	-	ALS	RG_LE1_SE-3_2020-09-17_1550

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	IACR:Fine	<0.050	-	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	d8-Naphthalene	105.7	%	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	d10-Acenaphthene	108.7	%	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	d10-Phenanthrene	106.8	%	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	d12-Chrysene	115.6	%	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	% Gravel (>2 mm)	<1.0	%	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	% Sand (1.00 mm - 0.50 mm)	<1.0	%	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	% Sand (0.50 mm - 0.25 mm)	9.8	%	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	% Sand (0.25 mm - 0.125 mm)	24.8	%	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	% Sand (0.125 mm - 0.063 mm)	28.3	%	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	% Silt (0.063 mm - 0.0312 mm)	17.4	%	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	% Silt (0.031 mm - 0.004 mm)	14.5	%	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	% Clay (<4 µm)	4.0	%	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Texture	Sandy loam	-	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Mercury (Hg)	0.0515	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Aluminum (Al)	10600	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Antimony (Sb)	1.16	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Arsenic (As)	5.97	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Barium (Ba)	303	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Beryllium (Be)	0.62	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Boron (B)	5.3	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Cadmium (Cd)	1.54	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Calcium (Ca)	4940	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Chromium (Cr)	19.3	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Cobalt (Co)	6.14	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Copper (Cu)	15.1	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Iron (Fe)	15300	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Lead (Pb)	8.77	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Lithium (Li)	10.8	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Magnesium (Mg)	2510	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Manganese (Mn)	273	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Molybdenum (Mo)	1.47	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Nickel (Ni)	25.7	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Phosphorus (P)	1290	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Potassium (K)	1950	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Selenium (Se)	0.60	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Silver (Ag)	0.21	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Sodium (Na)	<50	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Strontium (Sr)	41.4	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Sulfur (S)	<1000	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Thallium (Tl)	0.242	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Tin (Sn)	<2.0	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Titanium (Ti)	67.2	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Tungsten (W)	<0.50	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Uranium (U)	1.22	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Vanadium (V)	58.8	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Zinc (Zn)	109	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	pH (1:2 soil:water)	7.91	pH	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	LE1	659632	5494112	2020	3	2020-09-17	15:50	Total Organic Carbon	1.59	%	ALS	RG_LE1_SE-3_2020-09-17_1550
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Moisture	63.5	%	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Acenaphthene	<0.011	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Anthracene	<0.0040	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Acridine	0.010	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Benz(a)anthracene	0.014	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Benzo(b&j)fluoranthene	0.054	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Benzo(e)pyrene	0.053	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Benzo(g_h_i)perylene	0.018	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Chrysene	0.094	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Dibenz(a_h)anthracene	<0.0070	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Fluoranthene	0.035	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Fluorene	0.024	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	2-Methylnaphthalene	0.224	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Naphthalene	0.101	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Perylene	0.012	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Phenanthrene	0.226	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Pyrene	0.034	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	1-Methylnaphthalene	0.147	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Quinoline	<0.050	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	IACR (CCME)	0.49	-	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Benzo(b+j+k)fluoranthene	0.054	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	IACR:Coarse	<0.050	-	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	IACR:Fine	<0.050	-	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	d8-Naphthalene	109.0	%	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	d10-Acenaphthene	109.4	%	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	d10-Phenanthrene	109.6	%	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	d12-Chrysene	117.1	%	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	% Sand (1.00 mm - 0.50 mm)	1.2	%	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	% Sand (0.50 mm - 0.25 mm)	4.8	%	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	% Sand (0.25 mm - 0.125 mm)	9.9	%	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	% Sand (0.125 mm - 0.063 mm)	16.1	%	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	% Silt (0.063 mm - 0.0312 mm)	29.9	%	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	% Silt (0.031 mm - 0.004 mm)	32.9	%	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	% Clay (<4 µm)	5.1	%	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Texture	Silt loam	-	ALS	RG_MIULE_SE-4_2020-09-17_0815



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Mercury (Hg)	0.0441	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Aluminum (Al)	11500	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Antimony (Sb)	0.33	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Arsenic (As)	6.47	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Barium (Ba)	218	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Beryllium (Be)	0.78	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Boron (B)	13.2	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Cadmium (Cd)	1.29	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Calcium (Ca)	46300	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Chromium (Cr)	17.6	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Cobalt (Co)	14.2	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Copper (Cu)	14.5	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Iron (Fe)	16000	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Lead (Pb)	9.45	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Lithium (Li)	14.4	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Magnesium (Mg)	9610	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Manganese (Mn)	229	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Molybdenum (Mo)	1.42	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Nickel (Ni)	44.6	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Phosphorus (P)	1160	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Potassium (K)	2880	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Selenium (Se)	1.94	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Silver (Ag)	0.16	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Sodium (Na)	125	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Strontium (Sr)	80.2	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Sulfur (S)	<1000	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Thallium (Tl)	0.457	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Titanium (Ti)	13.3	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Uranium (U)	0.807	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Vanadium (V)	34.7	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Zinc (Zn)	124	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	pH (1:2 soil:water)	8.09	pH	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	4	2020-09-17	08:15	Total Organic Carbon	4.41	%	ALS	RG_MIULE_SE-4_2020-09-17_0815
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Moisture	78.6	%	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Acenaphthene	<0.010	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Acenaphthylene	<0.010	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Anthracene	<0.0080	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Acridine	<0.020	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Benz(a)anthracene	<0.020	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Benzo(a)pyrene	<0.020	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Benzo(b&j)fluoranthene	0.040	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Benzo(e)pyrene	0.044	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Benzo(g_h_i)perylene	<0.020	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Benzo(k)fluoranthene	<0.020	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Chrysene	0.076	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Dibenz(a_h)anthracene	<0.010	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Fluoranthene	0.036	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Fluorene	0.026	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Indeno(1,2,3-c,d)pyrene	<0.020	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	2-Methylnaphthalene	0.211	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Naphthalene	0.109	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Perylene	<0.020	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Phenanthrene	0.197	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Pyrene	0.039	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	1-Methylnaphthalene	0.139	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Quinoline	<0.020	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	IACR (CCME)	0.43	-	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	B(a)P Total Potency Equivalent	0.023	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Benzo(b+j+k)fluoranthene	0.040	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	IACR:Coarse	<0.050	-	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	IACR:Fine	<0.050	-	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	d8-Naphthalene	108.8	%	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	d10-Acenaphthene	110.2	%	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	d10-Phenanthrene	111.8	%	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	d12-Chrysene	120.6	%	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	% Sand (1.00 mm - 0.50 mm)	2.5	%	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	% Sand (0.50 mm - 0.25 mm)	7.1	%	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	% Sand (0.25 mm - 0.125 mm)	11.5	%	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	% Sand (0.125 mm - 0.063 mm)	19.7	%	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	% Silt (0.063 mm - 0.0312 mm)	27.1	%	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	% Silt (0.031 mm - 0.004 mm)	26.0	%	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	% Clay (<4 µm)	5.8	%	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Texture	Silt loam	-	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Mercury (Hg)	0.0288	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Aluminum (Al)	7430	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Antimony (Sb)	0.26	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Arsenic (As)	4.79	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Barium (Ba)	203	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Beryllium (Be)	0.52	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Boron (B)	10.4	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Cadmium (Cd)	0.974	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Calcium (Ca)	84100	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Chromium (Cr)	11.7	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Cobalt (Co)	14.0	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Copper (Cu)	9.43	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Iron (Fe)	11400	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Lead (Pb)	6.18	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Lithium (Li)	9.2	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Magnesium (Mg)	7660	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Manganese (Mn)	248	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Molybdenum (Mo)	1.06	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Nickel (Ni)	40.0	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Phosphorus (P)	912	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Potassium (K)	1900	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Selenium (Se)	2.81	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Silver (Ag)	0.10	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Sodium (Na)	167	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Strontium (Sr)	116	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Sulfur (S)	1300	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Thallium (Tl)	0.283	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Titanium (Ti)	12.2	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Uranium (U)	0.766	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Vanadium (V)	24.0	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Zinc (Zn)	88.9	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	pH (1:2 soil:water)	7.67	pH	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIULE	660503	5493048	2020	5	2020-09-17	08:40	Total Organic Carbon	8.09	%	ALS	RG_MIULE_SE-5_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Moisture	78.7	%	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Acenaphthene	<0.016	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Acenaphthylene	<0.010	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Anthracene	<0.0080	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Acridine	<0.025	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Benz(a)anthracene	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Benzo(a)pyrene	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Benzo(b&j)fluoranthene	0.077	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Benzo(e)pyrene	0.079	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Benzo(g_h_i)perylene	0.031	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Benzo(k)fluoranthene	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Chrysene	0.135	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Dibenz(a_h)anthracene	<0.010	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Fluoranthene	0.036	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Fluorene	0.048	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Indeno(1,2,3-c,d)pyrene	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	2-Methylnaphthalene	0.414	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Naphthalene	0.174	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Perylene	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Phenanthrene	0.334	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Pyrene	0.046	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	1-Methylnaphthalene	0.276	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Quinoline	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	IACR (CCME)	0.70	-	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	B(a)P Total Potency Equivalent	0.027	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Benzo(b+j+k)fluoranthene	0.077	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	IACR:Coarse	<0.050	-	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	IACR:Fine	<0.050	-	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	d8-Naphthalene	107.7	%	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	d10-Acenaphthene	108.9	%	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	d10-Phenanthrene	110.3	%	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	d12-Chrysene	119.1	%	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	% Sand (1.00 mm - 0.50 mm)	<1.0	%	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	% Sand (0.50 mm - 0.25 mm)	1.3	%	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	% Sand (0.25 mm - 0.125 mm)	4.9	%	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	% Sand (0.125 mm - 0.063 mm)	8.6	%	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	% Silt (0.063 mm - 0.0312 mm)	36.1	%	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	% Silt (0.031 mm - 0.004 mm)	40.8	%	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	% Clay (<4 µm)	7.1	%	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Texture	Silt loam	-	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Mercury (Hg)	0.0432	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Aluminum (Al)	10200	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Antimony (Sb)	0.23	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Arsenic (As)	6.26	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Barium (Ba)	151	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Beryllium (Be)	0.65	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Boron (B)	12.8	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Cadmium (Cd)	1.14	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Calcium (Ca)	74400	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Chromium (Cr)	16.1	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Cobalt (Co)	50.1	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Copper (Cu)	12.8	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Iron (Fe)	13400	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Lead (Pb)	7.92	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Lithium (Li)	12.9	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Magnesium (Mg)	10600	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Manganese (Mn)	486	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Molybdenum (Mo)	1.29	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Nickel (Ni)	87.2	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Phosphorus (P)	989	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Potassium (K)	2500	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Selenium (Se)	3.20	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Silver (Ag)	0.13	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Sodium (Na)	188	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Strontium (Sr)	113	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Sulfur (S)	1100	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Thallium (Tl)	0.451	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Titanium (Ti)	12.5	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Uranium (U)	0.923	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Vanadium (V)	26.8	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Zinc (Zn)	123	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	pH (1:2 soil:water)	7.90	pH	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	1	2020-09-17	08:40	Total Organic Carbon	7.94	%	ALS	RG_MIDAG_S2_SE-1_2020-09-17_0840
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Moisture	77.4	%	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Acenaphthene	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Acenaphthylene	<0.010	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Anthracene	<0.0080	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Acridine	<0.022	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Benz(a)anthracene	0.022	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Benzo(a)pyrene	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Benzo(b&j)fluoranthene	0.068	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Benzo(e)pyrene	0.073	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Benzo(g_h_i)perylene	0.025	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Benzo(k)fluoranthene	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Chrysene	0.112	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Dibenz(a_h)anthracene	<0.010	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Fluoranthene	0.031	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Fluorene	0.028	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Indeno(1,2,3-c,d)pyrene	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	2-Methylnaphthalene	0.336	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Naphthalene	0.150	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Perylene	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Phenanthrene	0.273	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Pyrene	0.041	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	1-Methylnaphthalene	0.224	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Quinoline	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	IACR (CCME)	0.66	-	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	B(a)P Total Potency Equivalent	0.027	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Benzo(b+j+k)fluoranthene	0.068	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	IACR:Coarse	<0.050	-	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	IACR:Fine	<0.050	-	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	d8-Naphthalene	108.6	%	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	d10-Acenaphthene	110.4	%	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	d10-Phenanthrene	111.5	%	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	d12-Chrysene	120.8	%	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	% Sand (1.00 mm - 0.50 mm)	<1.0	%	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	% Sand (0.50 mm - 0.25 mm)	2.0	%	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	% Sand (0.25 mm - 0.125 mm)	4.5	%	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	% Sand (0.125 mm - 0.063 mm)	7.4	%	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	% Silt (0.063 mm - 0.0312 mm)	35.9	%	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	% Silt (0.031 mm - 0.004 mm)	40.7	%	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	% Clay (<4 µm)	7.2	%	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Texture	Silt loam	-	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Mercury (Hg)	0.0472	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Aluminum (Al)	10400	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Antimony (Sb)	0.34	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Arsenic (As)	5.86	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Barium (Ba)	141	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Beryllium (Be)	0.64	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Boron (B)	14.6	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Cadmium (Cd)	1.04	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Calcium (Ca)	77600	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Chromium (Cr)	16.1	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Cobalt (Co)	40.0	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Copper (Cu)	12.7	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Iron (Fe)	12800	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Lead (Pb)	7.35	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Lithium (Li)	12.2	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Magnesium (Mg)	10200	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Manganese (Mn)	392	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Molybdenum (Mo)	1.28	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Nickel (Ni)	75.4	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Phosphorus (P)	1090	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Potassium (K)	2640	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Selenium (Se)	3.15	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Silver (Ag)	0.14	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Sodium (Na)	191	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Strontium (Sr)	120	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Sulfur (S)	1000	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Thallium (Tl)	0.414	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Titanium (Ti)	23.7	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Uranium (U)	0.837	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Vanadium (V)	27.4	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Zinc (Zn)	118	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	pH (1:2 soil:water)	7.72	pH	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	2	2020-09-17	12:33	Total Organic Carbon	7.06	%	ALS	RG_MIDAG_S2_SE-2_2020-09-17_1233
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Moisture	74.6	%	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Acenaphthene	<0.015	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Acenaphthylene	<0.010	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Anthracene	<0.0080	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Acridine	<0.026	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Benz(a)anthracene	0.030	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Benzo(a)pyrene	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Benzo(b&j)fluoranthene	0.078	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Benzo(e)pyrene	0.073	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Benzo(g_h_i)perylene	0.031	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Benzo(k)fluoranthene	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Chrysene	0.123	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Dibenz(a_h)anthracene	<0.010	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Fluoranthene	0.054	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Fluorene	0.036	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Indeno(1,2,3-c,d)pyrene	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	2-Methylnaphthalene	0.363	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Naphthalene	0.141	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Perylene	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Phenanthrene	0.268	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Pyrene	0.049	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	1-Methylnaphthalene	0.236	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Quinoline	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	IACR (CCME)	0.76	-	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	B(a)P Total Potency Equivalent	0.029	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Benzo(b+j+k)fluoranthene	0.078	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	IACR:Coarse	<0.050	-	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	IACR:Fine	0.052	-	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	d8-Naphthalene	104.5	%	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	d10-Acenaphthene	108.1	%	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	d10-Phenanthrene	109.4	%	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	d12-Chrysene	118.0	%	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	% Sand (1.00 mm - 0.50 mm)	2.2	%	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	% Sand (0.50 mm - 0.25 mm)	5.8	%	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	% Sand (0.25 mm - 0.125 mm)	11.2	%	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	% Sand (0.125 mm - 0.063 mm)	10.4	%	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	% Silt (0.063 mm - 0.0312 mm)	29.6	%	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	% Silt (0.031 mm - 0.004 mm)	33.8	%	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	% Clay (<4 µm)	6.2	%	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Texture	Silt loam	-	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Mercury (Hg)	0.0412	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Aluminum (Al)	9620	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Antimony (Sb)	0.43	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Arsenic (As)	6.99	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Barium (Ba)	141	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Beryllium (Be)	0.73	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Boron (B)	12.2	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Cadmium (Cd)	1.21	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Calcium (Ca)	48900	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Chromium (Cr)	15.2	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Cobalt (Co)	34.7	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Copper (Cu)	15.1	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Iron (Fe)	15100	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Lead (Pb)	9.07	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Lithium (Li)	14.0	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Magnesium (Mg)	9450	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Manganese (Mn)	482	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Molybdenum (Mo)	1.62	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Nickel (Ni)	64.2	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Phosphorus (P)	1070	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Potassium (K)	2160	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Selenium (Se)	2.64	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Silver (Ag)	0.14	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Sodium (Na)	139	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Strontium (Sr)	81.4	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Thallium (Tl)	0.490	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Titanium (Ti)	23.3	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Uranium (U)	0.897	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Vanadium (V)	26.0	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Zinc (Zn)	128	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	pH (1:2 soil:water)	7.90	pH	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	3	2020-09-17	13:14	Total Organic Carbon	8.83	%	ALS	RG_MIDAG_S2_SE-3_2020-09-17_1341
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Moisture	74.3	%	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Acenaphthene	<0.017	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Acenaphthylene	<0.010	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Anthracene	<0.0080	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Acridine	<0.035	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Benz(a)anthracene	0.028	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Benzo(a)pyrene	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Benzo(b&j)fluoranthene	0.101	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Benzo(e)pyrene	0.103	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Benzo(g_h_i)perylene	0.036	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Benzo(k)fluoranthene	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Chrysene	0.168	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Dibenz(a_h)anthracene	<0.015	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Fluoranthene	0.048	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Fluorene	<0.042	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Indeno(1,2,3-c,d)pyrene	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	2-Methylnaphthalene	0.467	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Naphthalene	0.194	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Perylene	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Phenanthrene	0.401	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Pyrene	0.056	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	1-Methylnaphthalene	0.310	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Quinoline	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	IACR (CCME)	0.92	-	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	B(a)P Total Potency Equivalent	0.034	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Benzo(b+j+k)fluoranthene	0.101	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	IACR:Coarse	<0.050	-	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	IACR:Fine	0.061	-	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	d8-Naphthalene	112.3	%	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	d10-Acenaphthene	119.5	%	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	d10-Phenanthrene	119.8	%	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	d12-Chrysene	120.1	%	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	% Gravel (>2 mm)	1.1	%	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	% Sand (2.00 mm - 1.00 mm)	1.7	%	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	% Sand (1.00 mm - 0.50 mm)	4.0	%	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	% Sand (0.50 mm - 0.25 mm)	4.6	%	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	% Sand (0.25 mm - 0.125 mm)	5.2	%	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	% Sand (0.125 mm - 0.063 mm)	8.1	%	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	% Silt (0.063 mm - 0.0312 mm)	32.9	%	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	% Silt (0.031 mm - 0.004 mm)	37.1	%	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	% Clay (<4 µm)	5.3	%	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Texture	Silt loam	-	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Mercury (Hg)	0.0458	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Aluminum (Al)	8770	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Antimony (Sb)	0.44	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Arsenic (As)	6.31	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Barium (Ba)	138	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Beryllium (Be)	0.71	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Boron (B)	12.3	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Cadmium (Cd)	1.23	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Calcium (Ca)	62500	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Chromium (Cr)	14.3	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Cobalt (Co)	45.0	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Copper (Cu)	14.3	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Iron (Fe)	13400	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Lead (Pb)	8.39	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Lithium (Li)	12.5	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Magnesium (Mg)	10500	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Manganese (Mn)	477	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Molybdenum (Mo)	1.42	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Nickel (Ni)	86.3	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Phosphorus (P)	1100	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Potassium (K)	1960	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Selenium (Se)	2.62	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Silver (Ag)	0.16	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Sodium (Na)	159	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Strontium (Sr)	99.8	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Thallium (Tl)	0.476	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Titanium (Ti)	23.5	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Uranium (U)	0.926	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Vanadium (V)	23.9	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Zinc (Zn)	117	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	pH (1:2 soil:water)	8.00	pH	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	4	2020-09-17	14:57	Total Organic Carbon	8.53	%	ALS	RG_MIDAG_S2_SE-4_2020-09-17_1457
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Moisture	75.7	%	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Acenaphthene	<0.018	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Acenaphthylene	<0.010	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Anthracene	<0.0080	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Acridine	<0.030	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Benz(a)anthracene	0.025	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Benzo(a)pyrene	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Benzo(b&j)fluoranthene	0.100	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Benzo(e)pyrene	0.098	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Benzo(g_h_i)perylene	0.039	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Benzo(k)fluoranthene	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Chrysene	0.177	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Dibenz(a_h)anthracene	<0.011	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Fluoranthene	0.041	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Fluorene	0.044	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Indeno(1,2,3-c,d)pyrene	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	2-Methylnaphthalene	0.454	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Naphthalene	0.194	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Perylene	<0.021	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Phenanthrene	0.391	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Pyrene	0.051	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	1-Methylnaphthalene	0.303	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Quinoline	<0.020	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	IACR (CCME)	0.91	-	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	B(a)P Total Potency Equivalent	0.032	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Benzo(b+j+k)fluoranthene	0.100	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	IACR:Coarse	<0.050	-	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	IACR:Fine	0.061	-	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	d8-Naphthalene	112.9	%	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	d10-Acenaphthene	118.0	%	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	d10-Phenanthrene	120.8	%	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	d12-Chrysene	120.6	%	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	% Sand (2.00 mm - 1.00 mm)	1.2	%	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	% Sand (1.00 mm - 0.50 mm)	7.6	%	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	% Sand (0.50 mm - 0.25 mm)	11.2	%	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	% Sand (0.25 mm - 0.125 mm)	10.1	%	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	% Sand (0.125 mm - 0.063 mm)	10.0	%	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	% Silt (0.063 mm - 0.0312 mm)	24.6	%	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	% Silt (0.031 mm - 0.004 mm)	29.0	%	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	% Clay (<4 µm)	5.9	%	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Texture	Silt loam	-	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Mercury (Hg)	0.0367	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Aluminum (Al)	10800	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Antimony (Sb)	0.42	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Arsenic (As)	6.94	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Barium (Ba)	137	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Beryllium (Be)	0.72	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Boron (B)	13.3	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Cadmium (Cd)	1.22	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Calcium (Ca)	50700	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Chromium (Cr)	16.5	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Cobalt (Co)	38.0	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Copper (Cu)	14.8	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Iron (Fe)	15200	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Lead (Pb)	8.87	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Lithium (Li)	14.1	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Magnesium (Mg)	9770	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Manganese (Mn)	511	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Molybdenum (Mo)	1.59	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Nickel (Ni)	65.3	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Phosphorus (P)	1080	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Potassium (K)	2590	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Selenium (Se)	2.83	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Silver (Ag)	0.13	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Sodium (Na)	148	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Strontium (Sr)	86.3	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Thallium (Tl)	0.501	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Titanium (Ti)	20.3	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Uranium (U)	0.830	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Vanadium (V)	28.2	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Zinc (Zn)	129	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	pH (1:2 soil:water)	7.74	pH	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG_S2	665770	5488854	2020	5	2020-09-17	15:14	Total Organic Carbon	7.33	%	ALS	RG_MIDAG_S2_SE-5_2020-09-17_1514
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Moisture	64.6	%	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Acenaphthene	<0.030	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Acenaphthylene	<0.0070	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Anthracene	0.0094	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Acridine	<0.014	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Benz(a)anthracene	0.030	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Benzo(a)pyrene	0.016	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Benzo(b&j)fluoranthene	0.134	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Benzo(e)pyrene	0.122	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Benzo(g_h_i)perylene	0.042	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Benzo(k)fluoranthene	<0.014	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Chrysene	<0.20	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Dibenz(a_h)anthracene	0.0116	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Fluoranthene	0.057	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Fluorene	0.049	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Indeno(1,2,3-c,d)pyrene	<0.014	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	2-Methylnaphthalene	0.574	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Naphthalene	0.240	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Perylene	0.017	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Phenanthrene	0.553	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Pyrene	0.069	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	1-Methylnaphthalene	0.405	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Quinoline	<0.014	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	IACR (CCME)	1.12	-	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	B(a)P Total Potency Equivalent	0.046	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Benzo(b+j+k)fluoranthene	0.134	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	IACR:Coarse	<0.050	-	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	IACR:Fine	0.068	-	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	d8-Naphthalene	96.3	%	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	d10-Acenaphthene	95.8	%	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	d10-Phenanthrene	96.6	%	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	d12-Chrysene	104.2	%	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	% Gravel (>2 mm)	2.3	%	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	% Sand (2.00 mm - 1.00 mm)	4.0	%	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	% Sand (1.00 mm - 0.50 mm)	4.9	%	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	% Sand (0.50 mm - 0.25 mm)	11.8	%	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	% Sand (0.25 mm - 0.125 mm)	12.1	%	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	% Sand (0.125 mm - 0.063 mm)	11.5	%	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	% Silt (0.063 mm - 0.0312 mm)	23.1	%	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	% Silt (0.031 mm - 0.004 mm)	26.3	%	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	% Clay (<4 µm)	4.1	%	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Texture	Silt loam	-	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Mercury (Hg)	0.0473	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Aluminum (Al)	9780	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Antimony (Sb)	0.51	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Arsenic (As)	7.96	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Barium (Ba)	115	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Beryllium (Be)	0.79	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Boron (B)	12.8	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Cadmium (Cd)	1.23	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Calcium (Ca)	54300	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Chromium (Cr)	17.0	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Cobalt (Co)	45.7	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Copper (Cu)	16.5	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Iron (Fe)	14400	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Lead (Pb)	9.55	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Lithium (Li)	13.4	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Magnesium (Mg)	12100	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Manganese (Mn)	483	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Molybdenum (Mo)	1.56	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Nickel (Ni)	111	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Phosphorus (P)	1170	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Potassium (K)	2090	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Selenium (Se)	2.12	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Silver (Ag)	0.19	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Sodium (Na)	196	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Strontium (Sr)	87.8	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Sulfur (S)	1100	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Thallium (Tl)	0.556	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Titanium (Ti)	26.5	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Uranium (U)	0.979	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Vanadium (V)	28.0	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Zinc (Zn)	129	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Zirconium (Zr)	1.1	mg/kg	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	pH (1:2 soil:water)	7.32	pH	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	1	2020-09-18	08:50	Total Organic Carbon	8.73	%	ALS	RG_MIDAG-S1_SE-1_2020-09-18_0850
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Moisture	66.9	%	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Acenaphthene	<0.020	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Acenaphthylene	<0.0070	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Anthracene	<0.0056	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Acridine	<0.014	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Benz(a)anthracene	0.030	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Benzo(a)pyrene	0.015	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Benzo(b&j)fluoranthene	0.088	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Benzo(e)pyrene	0.087	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Benzo(g_h_i)perylene	0.031	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Benzo(k)fluoranthene	0.016	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Chrysene	0.153	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Dibenz(a_h)anthracene	0.0087	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Fluoranthene	0.043	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Fluorene	0.039	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Indeno(1,2,3-c,d)pyrene	<0.014	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	2-Methylnaphthalene	0.424	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Naphthalene	0.193	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Perylene	0.015	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Phenanthrene	0.352	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Pyrene	<0.060	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	1-Methylnaphthalene	0.278	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Quinoline	<0.014	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	IACR (CCME)	0.90	-	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	B(a)P Total Potency Equivalent	0.040	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Benzo(b+j+k)fluoranthene	0.104	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	IACR:Coarse	<0.050	-	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	IACR:Fine	0.067	-	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	d8-Naphthalene	93.7	%	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	d10-Acenaphthene	91.0	%	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	d10-Phenanthrene	94.2	%	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	d12-Chrysene	99.2	%	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	% Sand (2.00 mm - 1.00 mm)	2.1	%	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	% Sand (1.00 mm - 0.50 mm)	5.5	%	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	% Sand (0.50 mm - 0.25 mm)	16.7	%	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	% Sand (0.25 mm - 0.125 mm)	14.6	%	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	% Sand (0.125 mm - 0.063 mm)	9.7	%	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	% Silt (0.063 mm - 0.0312 mm)	21.4	%	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	% Silt (0.031 mm - 0.004 mm)	25.4	%	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	% Clay (<4 µm)	4.4	%	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Texture	Sandy loam	-	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Mercury (Hg)	0.0452	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Aluminum (Al)	12300	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Antimony (Sb)	0.41	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Arsenic (As)	8.19	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Barium (Ba)	142	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Beryllium (Be)	0.87	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Boron (B)	16.8	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Cadmium (Cd)	1.34	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Calcium (Ca)	55900	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Chromium (Cr)	18.1	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Cobalt (Co)	41.4	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Copper (Cu)	15.7	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Iron (Fe)	15700	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Lead (Pb)	9.49	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Lithium (Li)	16.4	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Magnesium (Mg)	11000	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Manganese (Mn)	694	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Molybdenum (Mo)	1.66	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Nickel (Ni)	83.3	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Phosphorus (P)	1270	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Potassium (K)	2810	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Selenium (Se)	2.26	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Silver (Ag)	0.16	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Sodium (Na)	165	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Strontium (Sr)	85.9	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Thallium (Tl)	0.596	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Titanium (Ti)	16.9	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Uranium (U)	1.12	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Vanadium (V)	30.8	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Zinc (Zn)	133	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	pH (1:2 soil:water)	7.23	pH	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	2	2020-09-18	09:15	Total Organic Carbon	8.44	%	ALS	RG_MIDAG-S1_SE-2_2020-09-18_0915
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Moisture	65.9	%	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Acenaphthene	<0.020	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Acenaphthylene	<0.0070	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Anthracene	<0.0056	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Acridine	<0.040	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Benz(a)anthracene	<0.050	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Benzo(a)pyrene	0.018	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Benzo(b&j)fluoranthene	0.113	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Benzo(e)pyrene	0.111	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Benzo(g_h_i)perylene	0.039	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Benzo(k)fluoranthene	0.015	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Chrysene	<0.19	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Dibenz(a_h)anthracene	0.0164	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Fluoranthene	0.049	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Fluorene	0.031	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Indeno(1,2,3-c,d)pyrene	0.020	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	2-Methylnaphthalene	0.506	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Naphthalene	0.245	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Perylene	0.015	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Phenanthrene	0.477	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Pyrene	0.063	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	1-Methylnaphthalene	0.346	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Quinoline	<0.014	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	IACR (CCME)	1.05	-	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	B(a)P Total Potency Equivalent	0.053	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Benzo(b+j+k)fluoranthene	0.128	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	IACR:Coarse	<0.050	-	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	IACR:Fine	0.074	-	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	d8-Naphthalene	96.8	%	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	d10-Acenaphthene	95.0	%	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	d10-Phenanthrene	96.6	%	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	d12-Chrysene	104.8	%	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	% Sand (2.00 mm - 1.00 mm)	2.4	%	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	% Sand (1.00 mm - 0.50 mm)	6.0	%	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	% Sand (0.50 mm - 0.25 mm)	9.6	%	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	% Sand (0.25 mm - 0.125 mm)	13.1	%	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	% Sand (0.125 mm - 0.063 mm)	13.9	%	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	% Silt (0.063 mm - 0.0312 mm)	22.5	%	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	% Silt (0.031 mm - 0.004 mm)	27.0	%	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	% Clay (<4 µm)	5.1	%	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Texture	Sandy loam	-	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Mercury (Hg)	0.0475	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Aluminum (Al)	12600	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Antimony (Sb)	0.37	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Arsenic (As)	7.77	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Barium (Ba)	151	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Beryllium (Be)	0.89	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Boron (B)	14.7	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Cadmium (Cd)	1.21	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Calcium (Ca)	37100	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Chromium (Cr)	18.5	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Cobalt (Co)	32.9	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Copper (Cu)	16.5	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Iron (Fe)	15500	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Lead (Pb)	9.76	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Lithium (Li)	16.1	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Magnesium (Mg)	10400	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Manganese (Mn)	496	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Molybdenum (Mo)	1.54	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Nickel (Ni)	76.0	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Phosphorus (P)	1110	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Potassium (K)	2830	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Selenium (Se)	2.03	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Silver (Ag)	0.17	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Sodium (Na)	159	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Strontium (Sr)	69.5	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Thallium (Tl)	0.526	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Titanium (Ti)	14.1	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Uranium (U)	1.00	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Vanadium (V)	31.6	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Zinc (Zn)	127	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	pH (1:2 soil:water)	7.39	pH	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	3	2020-09-18	09:35	Total Organic Carbon	8.87	%	ALS	RG_MIDAG-S1_SE-3_2020-09-18_0935
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Moisture	65.9	%	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Acenaphthene	<0.020	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Anthracene	<0.0040	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Acridine	<0.020	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Benz(a)anthracene	0.019	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Benzo(a)pyrene	0.011	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Benzo(b&j)fluoranthene	0.080	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Benzo(e)pyrene	0.085	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Benzo(g_h_i)perylene	0.029	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Chrysene	<0.14	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Dibenz(a_h)anthracene	0.0096	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Fluoranthene	0.033	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Fluorene	0.032	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Indeno(1,2,3-c,d)pyrene	0.011	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	2-Methylnaphthalene	0.489	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Naphthalene	0.222	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Perylene	0.014	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Phenanthrene	0.353	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Pyrene	0.042	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	1-Methylnaphthalene	0.314	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Quinoline	<0.050	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	IACR (CCME)	0.70	-	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	B(a)P Total Potency Equivalent	0.033	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Benzo(b+j+k)fluoranthene	0.080	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	IACR:Coarse	<0.050	-	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	IACR:Fine	<0.050	-	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	d8-Naphthalene	100.7	%	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	d10-Acenaphthene	96.8	%	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	d10-Phenanthrene	101.6	%	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	d12-Chrysene	110.6	%	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	% Gravel (>2 mm)	1.1	%	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	% Sand (2.00 mm - 1.00 mm)	3.3	%	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	% Sand (1.00 mm - 0.50 mm)	6.9	%	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	% Sand (0.50 mm - 0.25 mm)	12.6	%	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	% Sand (0.25 mm - 0.125 mm)	13.8	%	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	% Sand (0.125 mm - 0.063 mm)	12.0	%	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	% Silt (0.063 mm - 0.0312 mm)	21.8	%	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	% Silt (0.031 mm - 0.004 mm)	24.7	%	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	% Clay (<4 µm)	3.7	%	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Texture	Sandy loam	-	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Mercury (Hg)	0.0473	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Aluminum (Al)	13200	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Antimony (Sb)	0.29	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Arsenic (As)	8.36	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Barium (Ba)	131	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Beryllium (Be)	0.86	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Boron (B)	13.9	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Cadmium (Cd)	1.29	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Calcium (Ca)	52400	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Chromium (Cr)	19.9	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Cobalt (Co)	34.5	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Copper (Cu)	16.8	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Iron (Fe)	15800	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Lead (Pb)	9.69	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Lithium (Li)	15.8	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Magnesium (Mg)	12900	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Manganese (Mn)	693	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Molybdenum (Mo)	1.60	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Nickel (Ni)	88.7	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Phosphorus (P)	1270	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Potassium (K)	3010	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Selenium (Se)	2.13	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Silver (Ag)	0.16	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Sodium (Na)	188	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Strontium (Sr)	87.0	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Thallium (Tl)	0.560	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Titanium (Ti)	12.3	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Uranium (U)	0.982	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Vanadium (V)	33.3	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Zinc (Zn)	140	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	pH (1:2 soil:water)	7.45	pH	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	4	2020-09-18	10:40	Total Organic Carbon	8.22	%	ALS	RG_MIDAG-S1_SE-4_2020-09-18_1040
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Moisture	52.1	%	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Acenaphthene	<0.020	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Anthracene	<0.0040	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Acridine	<0.010	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Benz(a)anthracene	0.017	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Benzo(b&j)fluoranthene	0.070	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Benzo(e)pyrene	0.077	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Benzo(g_h_i)perylene	0.026	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Chrysene	0.119	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Dibenz(a_h)anthracene	0.0080	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Fluoranthene	0.029	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Fluorene	0.027	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	2-Methylnaphthalene	0.341	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Naphthalene	0.152	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Perylene	0.013	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Phenanthrene	0.310	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Pyrene	0.037	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	1-Methylnaphthalene	0.230	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Quinoline	<0.050	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	IACR (CCME)	0.63	-	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	B(a)P Total Potency Equivalent	0.024	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Benzo(b+j+k)fluoranthene	0.070	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	IACR:Coarse	<0.050	-	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	IACR:Fine	<0.050	-	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	d8-Naphthalene	93.7	%	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	d10-Acenaphthene	93.6	%	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	d10-Phenanthrene	96.8	%	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	d12-Chrysene	100.4	%	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	% Sand (1.00 mm - 0.50 mm)	<1.0	%	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	% Sand (0.50 mm - 0.25 mm)	4.6	%	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	% Sand (0.25 mm - 0.125 mm)	15.4	%	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	% Sand (0.125 mm - 0.063 mm)	18.8	%	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	% Silt (0.063 mm - 0.0312 mm)	25.8	%	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	% Silt (0.031 mm - 0.004 mm)	29.3	%	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	% Clay (<4 µm)	4.8	%	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Texture	Silt loam	-	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Mercury (Hg)	0.0366	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Aluminum (Al)	11900	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Antimony (Sb)	0.35	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Arsenic (As)	8.47	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Barium (Ba)	149	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Beryllium (Be)	0.76	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Boron (B)	13.8	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Cadmium (Cd)	0.889	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Calcium (Ca)	45300	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Chromium (Cr)	17.5	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Cobalt (Co)	12.3	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Copper (Cu)	13.7	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Iron (Fe)	15400	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Lead (Pb)	8.89	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Lithium (Li)	14.6	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Magnesium (Mg)	12200	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Manganese (Mn)	867	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Molybdenum (Mo)	1.72	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Nickel (Ni)	33.2	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Phosphorus (P)	1170	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Potassium (K)	2820	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Selenium (Se)	1.72	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Silver (Ag)	0.12	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Sodium (Na)	152	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Strontium (Sr)	70.0	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Thallium (Tl)	0.453	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Titanium (Ti)	15.4	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Uranium (U)	0.901	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Vanadium (V)	31.0	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Zinc (Zn)	106	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	pH (1:2 soil:water)	7.65	pH	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	MIDAG-S1	666290	5488507	2020	5	2020-09-18	10:20	Total Organic Carbon	4.95	%	ALS	RG_MIDAG-S1_SE-5_2020-09-18_1020
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Moisture	76.1	%	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Acenaphthene	<0.010	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Acenaphthylene	<0.010	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Anthracene	<0.0080	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Acridine	<0.020	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Benz(a)anthracene	<0.020	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Benzo(a)pyrene	<0.020	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Benzo(b&j)fluoranthene	0.037	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Benzo(e)pyrene	0.048	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Benzo(g_h_i)perylene	0.020	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Benzo(k)fluoranthene	<0.020	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Chrysene	0.060	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Dibenz(a_h)anthracene	<0.010	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Fluoranthene	<0.020	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Fluorene	0.027	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Indeno(1,2,3-c,d)pyrene	<0.020	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	2-Methylnaphthalene	0.277	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Naphthalene	0.104	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Perylene	<0.020	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Phenanthrene	0.160	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Pyrene	0.023	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	1-Methylnaphthalene	0.173	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Quinoline	<0.020	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	IACR (CCME)	0.41	-	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	B(a)P Total Potency Equivalent	0.023	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Benzo(b+j+k)fluoranthene	0.037	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	IACR:Coarse	<0.050	-	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	IACR:Fine	<0.050	-	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	d8-Naphthalene	100.1	%	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	d10-Acenaphthene	102.3	%	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	d10-Phenanthrene	105.6	%	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	d12-Chrysene	117.3	%	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	% Gravel (>2 mm)	2.1	%	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	% Sand (2.00 mm - 1.00 mm)	1.9	%	ALS	CM_MC2_SE-1_2020-09-18_1408



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	% Sand (1.00 mm - 0.50 mm)	6.8	%	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	% Sand (0.50 mm - 0.25 mm)	12.1	%	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	% Sand (0.25 mm - 0.125 mm)	13.5	%	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	% Sand (0.125 mm - 0.063 mm)	10.1	%	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	% Silt (0.063 mm - 0.0312 mm)	23.7	%	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	% Silt (0.031 mm - 0.004 mm)	26.2	%	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	% Clay (<4 µm)	3.5	%	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Texture	Silt loam	-	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Mercury (Hg)	0.0116	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Aluminum (Al)	5110	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Antimony (Sb)	0.18	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Arsenic (As)	2.62	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Barium (Ba)	150	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Beryllium (Be)	0.30	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Bismuth (Bi)	<0.20	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Boron (B)	10.6	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Cadmium (Cd)	1.33	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Calcium (Ca)	210000	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Chromium (Cr)	7.15	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Cobalt (Co)	82.3	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Copper (Cu)	5.64	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Iron (Fe)	6240	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Lead (Pb)	3.58	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Lithium (Li)	6.4	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Magnesium (Mg)	6150	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Manganese (Mn)	581	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Molybdenum (Mo)	0.68	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Nickel (Ni)	123	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Phosphorus (P)	585	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Potassium (K)	1520	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Selenium (Se)	1.81	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Silver (Ag)	<0.10	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Sodium (Na)	380	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Strontium (Sr)	336	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Sulfur (S)	3800	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Thallium (Tl)	0.154	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Tin (Sn)	<2.0	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Titanium (Ti)	16.2	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Tungsten (W)	<0.50	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Uranium (U)	1.47	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Vanadium (V)	12.4	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Zinc (Zn)	113	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Zirconium (Zr)	<1.0	mg/kg	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	pH (1:2 soil:water)	6.96	pH	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	1	2020-09-18	14:08	Total Organic Carbon	4.6	%	ALS	CM_MC2_SE-1_2020-09-18_1408
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Moisture	73.4	%	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Acenaphthene	<0.010	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Acenaphthylene	<0.010	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Anthracene	0.0081	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Acridine	<0.020	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Benz(a)anthracene	<0.020	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Benzo(a)pyrene	<0.020	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Benzo(b&j)fluoranthene	0.035	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Benzo(e)pyrene	<0.020	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Benzo(g_h_i)perylene	<0.020	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Benzo(k)fluoranthene	<0.020	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Chrysene	0.063	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Dibenz(a_h)anthracene	<0.010	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Fluoranthene	<0.020	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Fluorene	<0.030	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Indeno(1,2,3-c,d)pyrene	<0.020	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	2-Methylnaphthalene	0.253	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Naphthalene	0.098	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Perylene	<0.020	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Phenanthrene	0.151	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Pyrene	<0.020	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	1-Methylnaphthalene	0.150	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Quinoline	<0.020	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	IACR (CCME)	0.40	-	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	B(a)P Total Potency Equivalent	0.022	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Benzo(b+j+k)fluoranthene	0.035	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	IACR:Coarse	<0.050	-	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	IACR:Fine	<0.050	-	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	d8-Naphthalene	95.9	%	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	d10-Acenaphthene	97.6	%	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	d10-Phenanthrene	100.4	%	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	d12-Chrysene	109.9	%	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	% Gravel (>2 mm)	<1.0	%	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	% Sand (2.00 mm - 1.00 mm)	5.8	%	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	% Sand (1.00 mm - 0.50 mm)	8.7	%	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	% Sand (0.50 mm - 0.25 mm)	11.4	%	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	% Sand (0.25 mm - 0.125 mm)	11.7	%	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	% Sand (0.125 mm - 0.063 mm)	10.7	%	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	% Silt (0.063 mm - 0.0312 mm)	22.8	%	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	% Silt (0.031 mm - 0.004 mm)	25.1	%	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	% Clay (<4 µm)	3.1	%	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Texture	Sandy loam	-	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Mercury (Hg)	0.0122	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Aluminum (Al)	7470	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Antimony (Sb)	0.24	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Arsenic (As)	3.77	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Barium (Ba)	163	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Beryllium (Be)	0.46	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Bismuth (Bi)	<0.20	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Boron (B)	12.8	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Cadmium (Cd)	1.45	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Calcium (Ca)	202000	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Chromium (Cr)	9.70	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Cobalt (Co)	86.4	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Copper (Cu)	8.04	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Iron (Fe)	9270	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Lead (Pb)	4.82	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Lithium (Li)	9.9	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Magnesium (Mg)	7150	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Manganese (Mn)	595	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Molybdenum (Mo)	0.93	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Nickel (Ni)	133	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Phosphorus (P)	727	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Potassium (K)	2050	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Selenium (Se)	2.15	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Silver (Ag)	<0.10	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Sodium (Na)	370	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Strontium (Sr)	291	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Sulfur (S)	3600	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Thallium (Tl)	0.207	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Tin (Sn)	<2.0	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Titanium (Ti)	17.0	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Tungsten (W)	<0.50	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Uranium (U)	1.21	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Vanadium (V)	16.8	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Zinc (Zn)	132	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Zirconium (Zr)	<1.0	mg/kg	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	pH (1:2 soil:water)	7.05	pH	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	2	2020-09-18	14:35	Total Organic Carbon	3.9	%	ALS	CM_MC2_SE-2_2020-09-18_1435
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Moisture	64.4	%	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Acenaphthene	0.0069	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Acenaphthylene	<0.0065	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Anthracene	<0.0052	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Acridine	<0.013	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Benz(a)anthracene	<0.013	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Benzo(a)pyrene	<0.013	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Benzo(b&j)fluoranthene	0.038	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Benzo(e)pyrene	0.045	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Benzo(g_h_i)perylene	0.016	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Benzo(k)fluoranthene	<0.013	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Chrysene	<0.070	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Dibenz(a_h)anthracene	<0.0065	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Fluoranthene	<0.013	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Fluorene	0.023	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Indeno(1,2,3-c,d)pyrene	<0.013	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	2-Methylnaphthalene	0.287	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Naphthalene	0.141	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Perylene	<0.013	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Phenanthrene	0.182	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Pyrene	0.022	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	1-Methylnaphthalene	0.177	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Quinoline	<0.013	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	IACR (CCME)	0.35	-	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Benzo(b+j+k)fluoranthene	0.038	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	IACR:Coarse	<0.050	-	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	IACR:Fine	<0.050	-	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	d8-Naphthalene	90.4	%	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	d10-Acenaphthene	94.1	%	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	d10-Phenanthrene	93.4	%	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	d12-Chrysene	107.4	%	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	% Gravel (>2 mm)	1.2	%	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	% Sand (2.00 mm - 1.00 mm)	1.6	%	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	% Sand (1.00 mm - 0.50 mm)	3.8	%	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	% Sand (0.50 mm - 0.25 mm)	18.8	%	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	% Sand (0.25 mm - 0.125 mm)	20.3	%	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	% Sand (0.125 mm - 0.063 mm)	10.5	%	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	% Silt (0.063 mm - 0.0312 mm)	19.6	%	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	% Silt (0.031 mm - 0.004 mm)	21.3	%	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	% Clay (<4 µm)	3.0	%	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Texture	Sandy loam	-	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Mercury (Hg)	0.0174	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Aluminum (Al)	9360	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Antimony (Sb)	0.30	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Arsenic (As)	5.14	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Barium (Ba)	156	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Beryllium (Be)	0.59	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Bismuth (Bi)	<0.20	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Boron (B)	13.1	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Cadmium (Cd)	1.34	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Calcium (Ca)	140000	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Chromium (Cr)	12.4	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Cobalt (Co)	70.8	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Copper (Cu)	10.6	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Iron (Fe)	12900	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Lead (Pb)	7.17	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Lithium (Li)	12.7	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Magnesium (Mg)	6870	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Manganese (Mn)	603	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Molybdenum (Mo)	1.41	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Nickel (Ni)	106	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Phosphorus (P)	978	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Potassium (K)	2350	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Selenium (Se)	1.64	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Silver (Ag)	<0.10	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Sodium (Na)	285	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Strontium (Sr)	213	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Sulfur (S)	2600	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Thallium (Tl)	0.270	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Tin (Sn)	<2.0	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Titanium (Ti)	19.1	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Tungsten (W)	<0.50	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Uranium (U)	1.14	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Vanadium (V)	21.9	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Zinc (Zn)	129	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Zirconium (Zr)	<1.0	mg/kg	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	pH (1:2 soil:water)	7.09	pH	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	3	2020-09-18	14:50	Total Organic Carbon	4.0	%	ALS	CM_MC2_SE-3_2020-09-18_1450
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Moisture	75.3	%	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Acenaphthene	<0.010	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Acenaphthylene	<0.010	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Anthracene	<0.0080	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Acridine	<0.020	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Benz(a)anthracene	<0.020	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Benzo(a)pyrene	<0.020	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Benzo(b&j)fluoranthene	0.028	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Benzo(e)pyrene	0.040	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Benzo(g_h_i)perylene	<0.020	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Benzo(k)fluoranthene	<0.020	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Chrysene	0.054	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Dibenz(a_h)anthracene	<0.010	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Fluoranthene	<0.020	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Fluorene	0.033	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Indeno(1,2,3-c,d)pyrene	<0.020	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	2-Methylnaphthalene	0.285	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Naphthalene	0.112	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Perylene	<0.020	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Phenanthrene	0.158	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Pyrene	<0.020	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	1-Methylnaphthalene	0.171	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Quinoline	<0.020	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	IACR (CCME)	0.34	-	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	B(a)P Total Potency Equivalent	0.021	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Benzo(b+j+k)fluoranthene	<0.028	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	IACR:Coarse	<0.050	-	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	IACR:Fine	<0.050	-	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	d8-Naphthalene	92.3	%	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	d10-Acenaphthene	93.6	%	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	d10-Phenanthrene	92.9	%	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	d12-Chrysene	104.5	%	ALS	CM_MC2_SE-4_2020-09-18_1458

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	% Gravel (>2 mm)	1.1	%	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	% Sand (2.00 mm - 1.00 mm)	3.5	%	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	% Sand (1.00 mm - 0.50 mm)	6.2	%	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	% Sand (0.50 mm - 0.25 mm)	7.1	%	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	% Sand (0.25 mm - 0.125 mm)	11.7	%	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	% Sand (0.125 mm - 0.063 mm)	10.6	%	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	% Silt (0.063 mm - 0.0312 mm)	27.5	%	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	% Silt (0.031 mm - 0.004 mm)	29.0	%	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	% Clay (<4 µm)	3.3	%	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Texture	Silt loam	-	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Mercury (Hg)	0.0142	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Aluminum (Al)	6270	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Antimony (Sb)	0.20	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Arsenic (As)	3.13	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Barium (Ba)	153	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Beryllium (Be)	0.39	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Bismuth (Bi)	<0.20	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Boron (B)	11.9	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Cadmium (Cd)	1.42	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Calcium (Ca)	204000	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Chromium (Cr)	8.09	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Cobalt (Co)	94.0	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Copper (Cu)	7.20	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Iron (Fe)	8400	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Lead (Pb)	4.24	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Lithium (Li)	8.6	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Magnesium (Mg)	6450	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Manganese (Mn)	752	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Molybdenum (Mo)	0.79	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Nickel (Ni)	136	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Phosphorus (P)	570	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Potassium (K)	1720	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Selenium (Se)	2.11	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Silver (Ag)	<0.10	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Sodium (Na)	360	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Strontium (Sr)	286	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Sulfur (S)	3700	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Thallium (Tl)	0.190	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Tin (Sn)	<2.0	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Titanium (Ti)	15.3	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Tungsten (W)	<0.50	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Uranium (U)	1.12	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Vanadium (V)	13.5	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Zinc (Zn)	128	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Zirconium (Zr)	<1.0	mg/kg	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	pH (1:2 soil:water)	7.04	pH	ALS	CM_MC2_SE-4_2020-09-18_1458
SE	CM_MC2	667249	5488144	2020	4	2020-09-18	14:58	Total Organic Carbon	4.4	%	ALS	CM_MC2_SE-4_2020-09-18_1458

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Moisture	72.4	%	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Acenaphthene	<0.0080	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Acenaphthylene	<0.0080	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Anthracene	0.0074	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Acridine	<0.016	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Benz(a)anthracene	<0.016	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Benzo(a)pyrene	<0.016	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Benzo(b&j)fluoranthene	0.029	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Benzo(e)pyrene	<0.016	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Benzo(g_h_i)perylene	0.017	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Benzo(k)fluoranthene	<0.016	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Chrysene	<0.060	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Dibenz(a_h)anthracene	<0.0080	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Fluoranthene	<0.016	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Fluorene	0.020	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Indeno(1,2,3-c,d)pyrene	<0.016	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	2-Methylnaphthalene	0.277	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Naphthalene	0.109	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Perylene	<0.016	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Phenanthrene	0.158	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Pyrene	0.021	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	1-Methylnaphthalene	0.171	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Quinoline	<0.016	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	IACR (CCME)	0.31	-	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Benzo(b+j+k)fluoranthene	0.029	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	IACR:Coarse	<0.050	-	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	IACR:Fine	<0.050	-	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	d8-Naphthalene	98.1	%	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	d10-Acenaphthene	98.6	%	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	d10-Phenanthrene	97.7	%	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	d12-Chrysene	114.3	%	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	% Gravel (>2 mm)	<1.0	%	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	% Sand (1.00 mm - 0.50 mm)	2.3	%	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	% Sand (0.50 mm - 0.25 mm)	8.5	%	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	% Sand (0.25 mm - 0.125 mm)	13.6	%	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	% Sand (0.125 mm - 0.063 mm)	13.7	%	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	% Silt (0.063 mm - 0.0312 mm)	28.3	%	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	% Silt (0.031 mm - 0.004 mm)	29.3	%	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	% Clay (<4 µm)	3.4	%	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Texture	Silt loam	-	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Mercury (Hg)	0.0145	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Aluminum (Al)	6800	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Antimony (Sb)	0.19	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Arsenic (As)	3.03	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Barium (Ba)	153	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Beryllium (Be)	0.38	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Bismuth (Bi)	<0.20	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Boron (B)	12.7	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Cadmium (Cd)	1.54	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Calcium (Ca)	209000	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Chromium (Cr)	9.33	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Cobalt (Co)	88.8	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Copper (Cu)	6.77	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Iron (Fe)	7440	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Lead (Pb)	3.93	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Lithium (Li)	8.2	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Magnesium (Mg)	6710	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Manganese (Mn)	595	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Molybdenum (Mo)	0.84	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Nickel (Ni)	130	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Phosphorus (P)	633	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Potassium (K)	1970	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Selenium (Se)	2.29	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Silver (Ag)	<0.10	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Sodium (Na)	329	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Strontium (Sr)	285	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Sulfur (S)	3800	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Thallium (Tl)	0.188	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Tin (Sn)	<2.0	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Titanium (Ti)	15.2	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Tungsten (W)	<0.50	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Uranium (U)	1.20	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Vanadium (V)	15.6	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Zinc (Zn)	133	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Zirconium (Zr)	<1.0	mg/kg	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	pH (1:2 soil:water)	7.02	pH	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	CM_MC2	667249	5488144	2020	5	2020-09-18	15:10	Total Organic Carbon	4.3	%	ALS	CM_MC2_SE-5_2020-09-18_1510
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Moisture	81.7	%	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Acenaphthene	<0.013	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Acenaphthylene	<0.013	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Anthracene	0.018	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Acridine	<0.025	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Benz(a)anthracene	0.029	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Benzo(a)pyrene	<0.025	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Benzo(b&j)fluoranthene	<0.025	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Benzo(e)pyrene	<0.025	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Benzo(g_h_i)perylene	<0.025	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Benzo(k)fluoranthene	<0.025	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Chrysene	0.042	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Dibenz(a_h)anthracene	<0.013	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Fluoranthene	0.049	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Fluorene	<0.025	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Indeno(1,2,3-c,d)pyrene	<0.025	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	2-Methylnaphthalene	0.065	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Naphthalene	0.042	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Perylene	<0.025	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Phenanthrene	0.110	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Pyrene	0.044	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	1-Methylnaphthalene	0.057	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Quinoline	<0.025	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	IACR (CCME)	0.33	-	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	B(a)P Total Potency Equivalent	0.026	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Benzo(b+j+k)fluoranthene	<0.035	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	IACR:Coarse	<0.050	-	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	IACR:Fine	<0.050	-	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	d8-Naphthalene	93.5	%	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	d10-Acenaphthene	97.0	%	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	d10-Phenanthrene	100.0	%	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	d12-Chrysene	95.1	%	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	% Gravel (>2 mm)	1.1	%	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	% Sand (2.00 mm - 1.00 mm)	3.8	%	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	% Sand (1.00 mm - 0.50 mm)	22.9	%	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	% Sand (0.50 mm - 0.25 mm)	26.3	%	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	% Sand (0.25 mm - 0.125 mm)	9.6	%	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	% Sand (0.125 mm - 0.063 mm)	5.0	%	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	% Silt (0.063 mm - 0.0312 mm)	12.3	%	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	% Silt (0.031 mm - 0.004 mm)	13.6	%	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	% Clay (<4 µm)	5.5	%	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Texture	Sandy loam	-	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	pH (1:9)	6.85	pH	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Mercury (Hg)	0.0242	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Aluminum (Al)	6020	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Antimony (Sb)	0.63	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Arsenic (As)	5.66	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Barium (Ba)	216	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Beryllium (Be)	0.46	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Boron (B)	7.9	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Cadmium (Cd)	1.22	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Calcium (Ca)	75600	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Chromium (Cr)	12.9	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Cobalt (Co)	5.67	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Copper (Cu)	9.93	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Iron (Fe)	11100	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Lead (Pb)	5.61	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Lithium (Li)	6.6	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Magnesium (Mg)	4970	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Manganese (Mn)	200	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Molybdenum (Mo)	1.15	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Nickel (Ni)	26.9	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Phosphorus (P)	1250	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Potassium (K)	1570	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Selenium (Se)	2.59	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Silver (Ag)	0.11	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Sodium (Na)	182	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Strontium (Sr)	114	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Sulfur (S)	1500	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Thallium (Tl)	0.172	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Titanium (Ti)	34.1	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Uranium (U)	0.967	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Vanadium (V)	31.4	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Zinc (Zn)	78.0	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	1	2020-09-19	11:25	Total Organic Carbon	7.61	%	ALS	RG_MI5_SE-1_2020-09-19_1125
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Moisture	63.9	%	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Acenaphthene	0.0067	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Acenaphthylene	<0.0065	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Anthracene	<0.0052	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Acridine	0.014	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Benz(a)anthracene	0.023	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Benzo(a)pyrene	<0.013	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Benzo(b&j)fluoranthene	0.033	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Benzo(e)pyrene	0.037	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Benzo(g_h_i)perylene	0.014	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Benzo(k)fluoranthene	<0.013	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Chrysene	0.070	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Dibenz(a_h)anthracene	<0.0065	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Fluoranthene	0.035	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Fluorene	0.019	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Indeno(1,2,3-c,d)pyrene	<0.013	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	2-Methylnaphthalene	0.208	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Naphthalene	0.106	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Perylene	<0.013	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Phenanthrene	0.256	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Pyrene	0.035	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	1-Methylnaphthalene	0.162	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Quinoline	<0.013	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	IACR (CCME)	0.39	-	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Benzo(b+j+k)fluoranthene	0.033	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	IACR:Coarse	<0.050	-	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	IACR:Fine	<0.050	-	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	d8-Naphthalene	98.6	%	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	d10-Acenaphthene	101.6	%	ALS	RG_MI5_SE-3_2020-09-19_1140



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	d10-Phenanthrene	108.7	%	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	d12-Chrysene	101.5	%	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	% Gravel (>2 mm)	3.6	%	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	% Sand (1.00 mm - 0.50 mm)	4.6	%	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	% Sand (0.50 mm - 0.25 mm)	20.0	%	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	% Sand (0.25 mm - 0.125 mm)	18.4	%	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	% Sand (0.125 mm - 0.063 mm)	12.0	%	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	% Silt (0.063 mm - 0.0312 mm)	18.6	%	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	% Silt (0.031 mm - 0.004 mm)	18.9	%	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	% Clay (<4 µm)	3.1	%	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Texture	Sandy loam	-	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	pH (1:9)	7.18	pH	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Mercury (Hg)	0.0366	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Aluminum (Al)	8670	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Antimony (Sb)	0.61	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Arsenic (As)	5.90	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Barium (Ba)	250	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Beryllium (Be)	0.56	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Boron (B)	8.6	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Cadmium (Cd)	1.20	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Calcium (Ca)	52800	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Chromium (Cr)	15.2	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Cobalt (Co)	8.41	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Copper (Cu)	11.7	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Iron (Fe)	13700	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Lead (Pb)	7.51	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Lithium (Li)	8.9	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Magnesium (Mg)	5190	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Manganese (Mn)	252	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Molybdenum (Mo)	1.42	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Nickel (Ni)	33.7	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Phosphorus (P)	1220	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Potassium (K)	1940	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Selenium (Se)	1.63	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Silver (Ag)	0.15	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Sodium (Na)	126	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Strontium (Sr)	104	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Sulfur (S)	<1000	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Thallium (Tl)	0.237	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Titanium (Ti)	30.3	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Uranium (U)	0.964	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Vanadium (V)	41.2	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Zinc (Zn)	97.4	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	3	2020-09-19	11:40	Total Organic Carbon	4.76	%	ALS	RG_MI5_SE-3_2020-09-19_1140
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Moisture	85.8	%	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Acenaphthene	<0.013	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Acenaphthylene	<0.013	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Anthracene	0.015	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Acridine	<0.025	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Benz(a)anthracene	<0.025	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Benzo(a)pyrene	<0.025	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Benzo(b&j)fluoranthene	0.031	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Benzo(e)pyrene	0.033	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Benzo(g_h_i)perylene	<0.025	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Benzo(k)fluoranthene	<0.025	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Chrysene	<0.050	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Dibenz(a_h)anthracene	<0.013	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Fluoranthene	<0.025	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Fluorene	<0.025	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Indeno(1,2,3-c,d)pyrene	<0.025	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	2-Methylnaphthalene	0.122	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Naphthalene	0.064	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Perylene	<0.025	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Phenanthrene	0.146	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Pyrene	0.027	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	1-Methylnaphthalene	0.081	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Quinoline	<0.025	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	IACR (CCME)	0.39	-	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	B(a)P Total Potency Equivalent	0.026	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Benzo(b+j+k)fluoranthene	<0.035	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	IACR:Coarse	<0.050	-	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	IACR:Fine	<0.050	-	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	d8-Naphthalene	96.8	%	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	d10-Acenaphthene	100.0	%	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	d10-Phenanthrene	105.7	%	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	d12-Chrysene	101.9	%	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	% Gravel (>2 mm)	3.2	%	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	% Sand (2.00 mm - 1.00 mm)	1.2	%	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	% Sand (1.00 mm - 0.50 mm)	<1.0	%	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	% Sand (0.50 mm - 0.25 mm)	2.0	%	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	% Sand (0.25 mm - 0.125 mm)	5.6	%	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	% Sand (0.125 mm - 0.063 mm)	6.8	%	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	% Silt (0.063 mm - 0.0312 mm)	36.6	%	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	% Silt (0.031 mm - 0.004 mm)	37.9	%	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	% Clay (<4 µm)	6.0	%	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Texture	Silt loam	-	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	pH (1:9)	6.88	pH	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Mercury (Hg)	0.0343	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Aluminum (Al)	6780	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Antimony (Sb)	0.48	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Arsenic (As)	3.93	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Barium (Ba)	300	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Beryllium (Be)	0.41	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Boron (B)	10.8	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Cadmium (Cd)	1.45	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Calcium (Ca)	99300	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Chromium (Cr)	12.5	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Cobalt (Co)	11.7	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Copper (Cu)	9.76	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Iron (Fe)	9270	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Lead (Pb)	5.71	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Lithium (Li)	6.7	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Magnesium (Mg)	5000	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Manganese (Mn)	254	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Molybdenum (Mo)	0.87	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Nickel (Ni)	39.6	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Phosphorus (P)	1140	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Potassium (K)	1590	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Selenium (Se)	4.48	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Silver (Ag)	0.17	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Sodium (Na)	259	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Strontium (Sr)	146	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Sulfur (S)	2100	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Thallium (Tl)	0.189	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Titanium (Ti)	36.1	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Uranium (U)	0.957	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Vanadium (V)	26.1	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Zinc (Zn)	80.8	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	4	2020-09-19	11:55	Total Organic Carbon	10.1	%	ALS	RG_MI5_SE-4_2020-09-19_1155
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Moisture	86.3	%	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Acenaphthene	<0.016	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Acenaphthylene	<0.015	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Anthracene	<0.025	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Acridine	<0.025	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Benz(a)anthracene	<0.025	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Benzo(a)pyrene	<0.025	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Benzo(b&j)fluoranthene	0.030	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Benzo(e)pyrene	0.036	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Benzo(g_h_i)perylene	<0.025	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Benzo(k)fluoranthene	<0.025	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Chrysene	0.069	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Dibenz(a_h)anthracene	<0.015	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Fluoranthene	0.039	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Fluorene	0.028	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Indeno(1,2,3-c,d)pyrene	<0.025	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	2-Methylnaphthalene	0.142	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Naphthalene	0.079	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Perylene	<0.025	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Phenanthrene	0.174	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Pyrene	0.035	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	1-Methylnaphthalene	0.103	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Quinoline	<0.025	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	IACR (CCME)	0.41	-	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	B(a)P Total Potency Equivalent	0.028	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Benzo(b+j+k)fluoranthene	<0.035	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	IACR:Coarse	<0.050	-	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	IACR:Fine	<0.050	-	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	d8-Naphthalene	101.1	%	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	d10-Acenaphthene	106.6	%	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	d10-Phenanthrene	111.6	%	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	d12-Chrysene	109.3	%	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	% Gravel (>2 mm)	<1.0	%	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	% Sand (2.00 mm - 1.00 mm)	1.5	%	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	% Sand (1.00 mm - 0.50 mm)	1.3	%	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	% Sand (0.50 mm - 0.25 mm)	1.4	%	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	% Sand (0.25 mm - 0.125 mm)	3.7	%	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	% Sand (0.125 mm - 0.063 mm)	6.7	%	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	% Silt (0.063 mm - 0.0312 mm)	38.4	%	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	% Silt (0.031 mm - 0.004 mm)	39.8	%	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	% Clay (<4 µm)	6.8	%	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Texture	Silt loam	-	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	pH (1:9)	6.75	pH	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Mercury (Hg)	0.0380	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Aluminum (Al)	7430	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Antimony (Sb)	0.54	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Arsenic (As)	4.08	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Barium (Ba)	254	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Beryllium (Be)	0.47	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Boron (B)	11.6	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Cadmium (Cd)	1.71	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Calcium (Ca)	84900	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Chromium (Cr)	13.8	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Cobalt (Co)	6.43	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Copper (Cu)	11.3	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Iron (Fe)	10100	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Lead (Pb)	6.18	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Lithium (Li)	7.8	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Magnesium (Mg)	5420	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Manganese (Mn)	134	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Molybdenum (Mo)	0.94	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Nickel (Ni)	37.0	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Phosphorus (P)	1360	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Potassium (K)	1820	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Selenium (Se)	4.79	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Silver (Ag)	0.17	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Sodium (Na)	283	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Strontium (Sr)	122	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Sulfur (S)	2400	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Thallium (Tl)	0.270	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Titanium (Ti)	36.0	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Uranium (U)	1.02	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Vanadium (V)	31.1	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Zinc (Zn)	97.4	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	5	2020-09-19	12:15	Total Organic Carbon	9.00	%	ALS	RG_MI5_SE-5_2020-09-19_1215
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Moisture	67.4	%	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Acenaphthene	<0.0075	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Acenaphthylene	<0.0075	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Anthracene	<0.0060	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Acridine	<0.015	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Benz(a)anthracene	0.017	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Benzo(a)pyrene	<0.015	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Benzo(b&j)fluoranthene	0.032	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Benzo(e)pyrene	0.034	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Benzo(g_h_i)perylene	<0.015	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Benzo(k)fluoranthene	<0.015	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Chrysene	<0.060	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Dibenz(a_h)anthracene	<0.0075	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Fluoranthene	0.025	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Fluorene	<0.015	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Indeno(1,2,3-c,d)pyrene	<0.015	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	2-Methylnaphthalene	0.121	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Naphthalene	0.062	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Perylene	<0.015	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Phenanthrene	0.157	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Pyrene	0.028	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	1-Methylnaphthalene	0.089	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Quinoline	<0.015	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	IACR (CCME)	0.36	-	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Benzo(b+j+k)fluoranthene	0.032	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	IACR:Coarse	<0.050	-	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	IACR:Fine	<0.050	-	ALS	RG_MI5_SE-2_2020-09-17_1700

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	d8-Naphthalene	90.4	%	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	d10-Acenaphthene	94.9	%	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	d10-Phenanthrene	101.0	%	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	d12-Chrysene	98.3	%	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	% Gravel (>2 mm)	2.1	%	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	% Sand (1.00 mm - 0.50 mm)	6.5	%	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	% Sand (0.50 mm - 0.25 mm)	30.2	%	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	% Sand (0.25 mm - 0.125 mm)	23.4	%	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	% Sand (0.125 mm - 0.063 mm)	10.8	%	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	% Silt (0.063 mm - 0.0312 mm)	12.3	%	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	% Silt (0.031 mm - 0.004 mm)	12.5	%	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	% Clay (<4 µm)	1.9	%	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Texture	Loamy sand	-	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	pH (1:9)	7.29	pH	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Mercury (Hg)	0.0397	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Aluminum (Al)	8970	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Antimony (Sb)	0.80	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Arsenic (As)	5.66	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Barium (Ba)	232	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Beryllium (Be)	0.58	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Boron (B)	8.3	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Cadmium (Cd)	1.31	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Calcium (Ca)	37200	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Chromium (Cr)	15.6	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Cobalt (Co)	8.90	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Copper (Cu)	12.6	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Iron (Fe)	13800	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Lead (Pb)	8.12	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Lithium (Li)	9.4	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Magnesium (Mg)	5950	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Manganese (Mn)	169	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Molybdenum (Mo)	1.19	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Nickel (Ni)	36.0	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Phosphorus (P)	1280	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Potassium (K)	1860	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Selenium (Se)	2.03	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Silver (Ag)	0.17	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Sodium (Na)	119	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Strontium (Sr)	70.1	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Sulfur (S)	<1000	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Thallium (Tl)	0.279	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Titanium (Ti)	44.3	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Uranium (U)	1.03	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Vanadium (V)	41.6	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Zinc (Zn)	106	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659387	5496818	2020	2	2020-09-17	17:00	Total Organic Carbon	2.53	%	ALS	RG_MI5_SE-2_2020-09-17_1700
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Moisture	36	%	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	pH (1:2 soil:water)	8.3	pH	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	% Gravel (>2 mm)	9.4	%	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	% Sand (2.00 mm - 1.00 mm)	11	%	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	% Sand (1.00 mm - 0.50 mm)	17	%	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	% Sand (0.50 mm - 0.25 mm)	28	%	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	% Sand (0.25 mm - 0.125 mm)	16	%	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	% Sand (0.125 mm - 0.063 mm)	6.5	%	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	% Silt (0.063 mm - 0.0312 mm)	5.0	%	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	% Silt (0.031 mm - 0.004 mm)	5.5	%	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	% Clay (<4 µm)	1.6	%	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Texture	Sand	-	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Total Organic Carbon	2.5	%	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Aluminum (Al)	6,000	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Antimony (Sb)	1.0	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Arsenic (As)	7.5	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Barium (Ba)	172	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Beryllium (Be)	0.54	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Boron (B)	<5.0	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Cadmium (Cd)	1.2	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Calcium (Ca)	27,400	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Chromium (Cr)	11	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Cobalt (Co)	7.4	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Copper (Cu)	13	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Iron (Fe)	16,600	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Lead (Pb)	8.3	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Lithium (Li)	7.7	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Magnesium (Mg)	4,180	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Manganese (Mn)	308	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Mercury (Hg)	0.04	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Molybdenum (Mo)	1.6	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Nickel (Ni)	29	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Phosphorus (P)	1,200	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Potassium (K)	1,100	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Selenium (Se)	0.83	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Silver (Ag)	0.14	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Sodium (Na)	62	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Strontium (Sr)	58	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Sulfur (S)	<1000	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Thallium (Tl)	0.24	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Titanium (Ti)	20	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Uranium (U)	0.93	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Vanadium (V)	36	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Zinc (Zn)	98	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Acenaphthene	<0.0050	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Acridine	<0.010	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Anthracene	<0.0040	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Benzo(b&j)fluoranthene	0.013	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Benzo(e)pyrene	0.018	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Chrysene	0.036	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Fluoranthene	<0.020	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Fluorene	<0.010	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	1-Methylnaphthalene	0.07	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	2-Methylnaphthalene	0.086	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Naphthalene	0.039	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Perylene	<0.010	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Phenanthrene	0.11	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Pyrene	<0.020	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	Quinoline	<0.050	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	d10-Acenaphthene	83	%	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	d12-Chrysene	96	%	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	d8-Naphthalene	83	%	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	d10-Phenanthrene	91	%	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	IACR:Coarse	<0.050	-	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	IACR:Fine	<0.050	-	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659530	5496485	2021	1	2021-09-16	10:45	IACR (CCME)	0.17	-	ALS	RG_MI5_SE-1_2021-09-16_1045
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Moisture	45	%	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	pH (1:2 soil:water)	8.4	pH	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	% Gravel (>2 mm)	2.4	%	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	% Sand (1.00 mm - 0.50 mm)	2.1	%	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	% Sand (0.50 mm - 0.25 mm)	20	%	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	% Sand (0.25 mm - 0.125 mm)	37	%	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	% Sand (0.125 mm - 0.063 mm)	19	%	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	% Silt (0.063 mm - 0.0312 mm)	9.3	%	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	% Silt (0.031 mm - 0.004 mm)	6.9	%	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	% Clay (<4 µm)	1.9	%	ALS	RG_MI5_SE-2_2021-09-16_0920

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Texture	Loamy sand	-	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Total Organic Carbon	1.4	%	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Aluminum (Al)	6,670	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Antimony (Sb)	1.1	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Arsenic (As)	6.8	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Barium (Ba)	208	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Beryllium (Be)	0.59	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Boron (B)	<5.0	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Cadmium (Cd)	1.1	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Calcium (Ca)	21,800	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Chromium (Cr)	12	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Cobalt (Co)	6.6	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Copper (Cu)	12	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Iron (Fe)	15,400	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Lead (Pb)	8.2	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Lithium (Li)	8.3	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Magnesium (Mg)	4,440	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Manganese (Mn)	236	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Mercury (Hg)	0.042	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Molybdenum (Mo)	1.4	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Nickel (Ni)	27	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Phosphorus (P)	1,270	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Potassium (K)	1,220	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Selenium (Se)	0.73	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Silver (Ag)	0.15	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Sodium (Na)	68	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Strontium (Sr)	53	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Sulfur (S)	<1000	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Thallium (Tl)	0.22	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Titanium (Ti)	26	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Uranium (U)	0.92	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Vanadium (V)	38	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Zinc (Zn)	90	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Acenaphthene	<0.0050	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Acridine	<0.010	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Anthracene	<0.0040	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Benzo(b&j)fluoranthene	0.018	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Benzo(b+j+k)fluoranthene	0.018	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Benzo(e)pyrene	0.023	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Chrysene	0.043	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Fluoranthene	<0.020	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Fluorene	<0.010	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	1-Methylnaphthalene	0.058	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	2-Methylnaphthalene	0.07	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Naphthalene	0.03	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Perylene	<0.010	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Phenanthrene	0.1	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Pyrene	<0.020	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	Quinoline	<0.050	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	d10-Acenaphthene	82	%	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	d12-Chrysene	98	%	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	d8-Naphthalene	83	%	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	d10-Phenanthrene	94	%	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	IACR:Coarse	<0.050	-	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	IACR:Fine	<0.050	-	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	2	2021-09-16	09:20	IACR (CCME)	0.2	-	ALS	RG_MI5_SE-2_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Moisture	53	%	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	pH (1:2 soil:water)	8.0	pH	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	% Gravel (>2 mm)	5.8	%	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	% Sand (2.00 mm - 1.00 mm)	1.6	%	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	% Sand (1.00 mm - 0.50 mm)	3.7	%	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	% Sand (0.50 mm - 0.25 mm)	17	%	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	% Sand (0.25 mm - 0.125 mm)	30	%	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	% Sand (0.125 mm - 0.063 mm)	20	%	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	% Silt (0.063 mm - 0.0312 mm)	10	%	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	% Silt (0.031 mm - 0.004 mm)	9.1	%	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	% Clay (<4 µm)	2.9	%	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Texture	Loamy sand	-	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Total Organic Carbon	1.7	%	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Aluminum (Al)	7,690	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Antimony (Sb)	0.99	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Arsenic (As)	6.3	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Barium (Ba)	204	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Beryllium (Be)	0.62	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Boron (B)	<5.0	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Cadmium (Cd)	1.2	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Calcium (Ca)	25,900	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Chromium (Cr)	14	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Cobalt (Co)	7.2	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Copper (Cu)	13	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Iron (Fe)	14,500	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Lead (Pb)	8.2	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Lithium (Li)	9.0	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Magnesium (Mg)	4,500	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Manganese (Mn)	202	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Mercury (Hg)	0.047	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Molybdenum (Mo)	1.4	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Nickel (Ni)	27	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Phosphorus (P)	1,100	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Potassium (K)	1,480	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Selenium (Se)	0.89	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Silver (Ag)	0.16	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Sodium (Na)	74	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Strontium (Sr)	68	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Sulfur (S)	<1000	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Thallium (Tl)	0.24	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Titanium (Ti)	32	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Uranium (U)	0.95	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Vanadium (V)	40	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Zinc (Zn)	96	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Acenaphthene	0.0052	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Acridine	<0.010	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Anthracene	<0.0040	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Benz(a)anthracene	0.011	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Benzo(b&j)fluoranthene	0.018	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Benzo(b+j+k)fluoranthene	0.018	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Benzo(e)pyrene	0.022	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Chrysene	0.041	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Fluoranthene	<0.020	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Fluorene	<0.010	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	1-Methylnaphthalene	0.08	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	2-Methylnaphthalene	0.09	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Naphthalene	0.042	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Perylene	<0.010	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Phenanthrene	0.12	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Pyrene	<0.030	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	Quinoline	<0.050	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	d10-Acenaphthene	78	%	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	d12-Chrysene	94	%	ALS	RG_MI5_SE-3_2021-09-16_0920

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	d8-Naphthalene	78	%	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	d10-Phenanthrene	92	%	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	IACR:Coarse	<0.050	-	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	IACR:Fine	<0.050	-	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	MI5	659493	5496565	2021	3	2021-09-16	09:20	IACR (CCME)	0.22	-	ALS	RG_MI5_SE-3_2021-09-16_0920
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Moisture	45	%	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	pH (1:2 soil:water)	7.8	pH	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	% Gravel (>2 mm)	3.3	%	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	% Sand (2.00 mm - 1.00 mm)	1.6	%	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	% Sand (1.00 mm - 0.50 mm)	15	%	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	% Sand (0.50 mm - 0.25 mm)	27	%	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	% Sand (0.25 mm - 0.125 mm)	16	%	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	% Sand (0.125 mm - 0.063 mm)	10	%	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	% Silt (0.063 mm - 0.0312 mm)	10	%	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	% Silt (0.031 mm - 0.004 mm)	13	%	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	% Clay (<4 µm)	4.2	%	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Texture	Loamy sand	-	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Total Organic Carbon	2.7	%	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Aluminum (Al)	10,000	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Antimony (Sb)	1.3	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Arsenic (As)	6.5	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Barium (Ba)	326	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Beryllium (Be)	0.75	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Boron (B)	<5.0	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Cadmium (Cd)	2.1	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Calcium (Ca)	6,230	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Chromium (Cr)	18	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Cobalt (Co)	6.7	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Copper (Cu)	17	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Iron (Fe)	16,000	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Lead (Pb)	9.8	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Lithium (Li)	11	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Magnesium (Mg)	2,450	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Manganese (Mn)	322	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Mercury (Hg)	0.067	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Molybdenum (Mo)	1.8	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Nickel (Ni)	28	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Phosphorus (P)	1,450	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Potassium (K)	1,850	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Selenium (Se)	0.93	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Silver (Ag)	0.24	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Sodium (Na)	<50	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Strontium (Sr)	44	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Sulfur (S)	<1000	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Thallium (Tl)	0.25	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Titanium (Ti)	33	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Uranium (U)	1.6	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Vanadium (V)	57	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Zinc (Zn)	114	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Acenaphthene	0.005	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Acenaphthylene	<0.0050	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Acridine	<0.010	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Anthracene	<0.0040	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Benz(a)anthracene	0.012	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Benzo(b&j)fluoranthene	0.015	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Benzo(e)pyrene	0.019	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Chrysene	0.025	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Fluoranthene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Fluorene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	1-Methylnaphthalene	0.06	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	2-Methylnaphthalene	0.052	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Naphthalene	0.023	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Perylene	<0.010	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Phenanthrene	0.12	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Pyrene	<0.020	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	Quinoline	<0.050	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	d10-Acenaphthene	81	%	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	d12-Chrysene	97	%	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	d8-Naphthalene	82	%	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	d10-Phenanthrene	94	%	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	IACR:Coarse	<0.050	-	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	IACR:Fine	<0.050	-	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659583	5494063	2021	1	2021-09-14	11:00	IACR (CCME)	0.2	-	ALS	RG_LE1_SE-1_2021-09-14_1100
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Moisture	52	%	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	pH (1:2 soil:water)	7.7	pH	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	% Gravel (>2 mm)	5.2	%	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	% Sand (2.00 mm - 1.00 mm)	5.5	%	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	% Sand (1.00 mm - 0.50 mm)	19	%	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	% Sand (0.50 mm - 0.25 mm)	32	%	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	% Sand (0.25 mm - 0.125 mm)	14	%	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	% Sand (0.125 mm - 0.063 mm)	6.3	%	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	% Silt (0.063 mm - 0.0312 mm)	5.2	%	ALS	RG_LE1_SE-2_2021-09-14_1000

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	% Silt (0.031 mm - 0.004 mm)	7.7	%	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	% Clay (<4 µm)	4.2	%	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Texture	Loamy sand	-	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Total Organic Carbon	1.8	%	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Aluminum (Al)	8,330	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Antimony (Sb)	1.3	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Arsenic (As)	6.6	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Barium (Ba)	300	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Beryllium (Be)	0.62	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Boron (B)	<5.0	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Cadmium (Cd)	2.0	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Calcium (Ca)	5,690	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Chromium (Cr)	16	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Cobalt (Co)	6.4	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Copper (Cu)	17	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Iron (Fe)	16,000	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Lead (Pb)	9.4	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Lithium (Li)	9.7	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Magnesium (Mg)	2,230	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Manganese (Mn)	296	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Mercury (Hg)	0.058	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Molybdenum (Mo)	1.6	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Nickel (Ni)	26	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Phosphorus (P)	1,330	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Potassium (K)	1,450	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Selenium (Se)	1.0	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Silver (Ag)	0.28	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Sodium (Na)	<50	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Strontium (Sr)	41	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Sulfur (S)	<1000	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Thallium (Tl)	0.22	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Titanium (Ti)	28	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Uranium (U)	1.3	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Vanadium (V)	49	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Zinc (Zn)	114	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Acenaphthene	<0.0050	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Acenaphthylene	<0.0050	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Acridine	<0.010	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Anthracene	<0.0040	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Benz(a)anthracene	0.02	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Benzo(b&j)fluoranthene	0.02	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Benzo(b+j+k)fluoranthene	0.02	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Benzo(e)pyrene	0.024	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Chrysene	0.06	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Fluoranthene	<0.030	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Fluorene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	1-Methylnaphthalene	0.15	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	2-Methylnaphthalene	0.14	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Naphthalene	0.071	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Perylene	<0.010	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Phenanthrene	0.21	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Pyrene	<0.030	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	Quinoline	<0.050	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	d10-Acenaphthene	76	%	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	d12-Chrysene	92	%	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	d8-Naphthalene	79	%	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	d10-Phenanthrene	89	%	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	IACR:Coarse	<0.050	-	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	IACR:Fine	<0.050	-	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659602	5494117	2021	2	2021-09-14	10:00	IACR (CCME)	0.27	-	ALS	RG_LE1_SE-2_2021-09-14_1000
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Moisture	61	%	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	pH (1:2 soil:water)	7.2	pH	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	% Gravel (>2 mm)	28	%	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	% Sand (2.00 mm - 1.00 mm)	12	%	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	% Sand (1.00 mm - 0.50 mm)	8.4	%	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	% Sand (0.50 mm - 0.25 mm)	7.4	%	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	% Sand (0.25 mm - 0.125 mm)	10	%	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	% Sand (0.125 mm - 0.063 mm)	9.7	%	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	% Silt (0.063 mm - 0.0312 mm)	9.2	%	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	% Silt (0.031 mm - 0.004 mm)	12	%	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	% Clay (<4 µm)	3.6	%	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Texture	Sandy loam	-	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Total Organic Carbon	2.6	%	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Aluminum (Al)	9,570	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Antimony (Sb)	1.2	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Arsenic (As)	6.2	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Barium (Ba)	348	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Beryllium (Be)	0.72	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Boron (B)	<5.0	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Cadmium (Cd)	2.0	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Calcium (Ca)	6,090	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Chromium (Cr)	18	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Cobalt (Co)	6.1	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Copper (Cu)	17	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Iron (Fe)	14,800	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Lead (Pb)	9.1	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Lithium (Li)	11	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Magnesium (Mg)	2,450	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Manganese (Mn)	297	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Mercury (Hg)	0.052	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Molybdenum (Mo)	1.4	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Nickel (Ni)	26	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Phosphorus (P)	1,200	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Potassium (K)	1,720	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Selenium (Se)	1.1	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Silver (Ag)	0.31	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Sodium (Na)	51	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Strontium (Sr)	42	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Sulfur (S)	<1000	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Thallium (Tl)	0.23	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Tin (Sn)	<2.0	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Titanium (Ti)	37	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Tungsten (W)	<0.50	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Uranium (U)	1.3	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Vanadium (V)	53	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Zinc (Zn)	110	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Acenaphthene	<0.0050	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Acenaphthylene	<0.0050	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Acridine	<0.010	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Anthracene	0.004	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Benz(a)anthracene	0.016	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Benzo(b&j)fluoranthene	0.022	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Benzo(b+j+k)fluoranthene	0.022	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Benzo(e)pyrene	0.02	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Chrysene	0.029	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Fluoranthene	0.014	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Fluorene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	1-Methylnaphthalene	0.078	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	2-Methylnaphthalene	0.083	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Naphthalene	0.04	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Perylene	<0.010	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Phenanthrene	0.15	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Pyrene	<0.030	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	Quinoline	<0.050	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	d10-Acenaphthene	75	%	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	d12-Chrysene	92	%	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	d8-Naphthalene	78	%	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	d10-Phenanthrene	88	%	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	IACR:Coarse	<0.050	-	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	IACR:Fine	<0.050	-	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	LE1	659633	5494111	2021	3	2021-09-14	09:20	IACR (CCME)	0.26	-	ALS	RG_LE1_SE-3_2021-09-14_0920
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Moisture	33	%	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	pH (1:2 soil:water)	8.2	pH	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	% Gravel (>2 mm)	10	%	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	% Sand (2.00 mm - 1.00 mm)	8.8	%	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	% Sand (1.00 mm - 0.50 mm)	19	%	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	% Sand (0.50 mm - 0.25 mm)	20	%	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	% Sand (0.25 mm - 0.125 mm)	17	%	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	% Sand (0.125 mm - 0.063 mm)	7.7	%	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	% Silt (0.063 mm - 0.0312 mm)	6.6	%	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	% Silt (0.031 mm - 0.004 mm)	8.0	%	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	% Clay (<4 µm)	3.0	%	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Texture	Loamy sand	-	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Total Organic Carbon	2.7	%	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Aluminum (Al)	9,090	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Antimony (Sb)	0.8	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Arsenic (As)	9.2	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Barium (Ba)	143	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Beryllium (Be)	0.82	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Boron (B)	8.9	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Cadmium (Cd)	1.1	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Calcium (Ca)	37,200	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Chromium (Cr)	15	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Cobalt (Co)	10	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Copper (Cu)	15	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Iron (Fe)	19,700	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Lead (Pb)	9.8	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Lithium (Li)	12	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Magnesium (Mg)	5,930	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Manganese (Mn)	316	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Mercury (Hg)	0.024	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Molybdenum (Mo)	2.5	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Nickel (Ni)	32	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Phosphorus (P)	1,270	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Potassium (K)	2,200	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Selenium (Se)	1.3	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Silver (Ag)	0.15	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Sodium (Na)	84	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Strontium (Sr)	76	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Sulfur (S)	<1000	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Thallium (Tl)	0.35	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Titanium (Ti)	16	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Uranium (U)	0.84	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Vanadium (V)	34	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Zinc (Zn)	108	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Acenaphthene	<0.0050	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Acridine	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Anthracene	<0.0040	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Benzo(b&j)fluoranthene	0.012	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Benzo(e)pyrene	0.014	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Chrysene	0.01	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Fluoranthene	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Fluorene	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	1-Methylnaphthalene	<0.050	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	2-Methylnaphthalene	0.044	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Naphthalene	0.02	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Perylene	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Phenanthrene	0.052	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	Quinoline	<0.050	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	d10-Acenaphthene	77	%	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	d12-Chrysene	93	%	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	d8-Naphthalene	77	%	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	d10-Phenanthrene	88	%	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	IACR:Coarse	<0.050	-	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	IACR:Fine	<0.050	-	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660541	5493015	2021	1	2021-09-14	14:30	IACR (CCME)	0.15	-	ALS	RG_MIULE_SE-1_2021-09-14_1430
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Moisture	76	%	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	pH (1:2 soil:water)	7.5	pH	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	% Gravel (>2 mm)	6.7	%	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	% Sand (2.00 mm - 1.00 mm)	1.9	%	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	% Sand (1.00 mm - 0.50 mm)	4.0	%	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	% Sand (0.50 mm - 0.25 mm)	13	%	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	% Sand (0.25 mm - 0.125 mm)	17	%	ALS	RG_MIULE_SE-2_2021-09-14_1345



**Appendix I:  
Sediment Screening**

**Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	% Sand (0.125 mm - 0.063 mm)	12	%	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	% Silt (0.063 mm - 0.0312 mm)	19	%	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	% Silt (0.031 mm - 0.004 mm)	22	%	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	% Clay (<4 µm)	4.3	%	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Texture	Sandy loam	-	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Total Organic Carbon	7.1	%	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Aluminum (Al)	5,730	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Antimony (Sb)	0.31	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Arsenic (As)	5.0	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Barium (Ba)	162	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Beryllium (Be)	0.47	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Boron (B)	7.4	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Cadmium (Cd)	1.1	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Calcium (Ca)	79,900	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Chromium (Cr)	9.1	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Cobalt (Co)	15	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Copper (Cu)	12	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Iron (Fe)	11,900	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Lead (Pb)	7.5	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Lithium (Li)	8.7	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Magnesium (Mg)	6,650	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Manganese (Mn)	224	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Mercury (Hg)	0.026	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Molybdenum (Mo)	1.0	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Nickel (Ni)	44	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Phosphorus (P)	978	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Potassium (K)	1,280	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Selenium (Se)	2.5	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Silver (Ag)	0.12	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Sodium (Na)	137	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Strontium (Sr)	109	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Sulfur (S)	2,200	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Thallium (Tl)	0.3	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Titanium (Ti)	14	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Uranium (U)	0.86	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Vanadium (V)	18	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Zinc (Zn)	105	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Acenaphthene	<0.020	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Acenaphthylene	<0.010	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Acridine	<0.030	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Anthracene	<0.0080	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Benz(a)anthracene	0.021	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Benzo(a)pyrene	<0.020	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Benzo(b&j)fluoranthene	0.044	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Benzo(b+j+k)fluoranthene	0.044	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Benzo(e)pyrene	0.055	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Benzo(g_h_i)perylene	<0.020	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Benzo(k)fluoranthene	<0.020	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Chrysene	0.054	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Dibenz(a_h)anthracene	<0.010	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Fluoranthene	0.043	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Fluorene	<0.020	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Indeno(1,2,3-c,d)pyrene	<0.020	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	1-Methylnaphthalene	0.23	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	2-Methylnaphthalene	0.33	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Naphthalene	0.16	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Perylene	<0.020	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Phenanthrene	0.32	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Pyrene	0.048	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	Quinoline	<0.020	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	d10-Acenaphthene	91	%	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	d12-Chrysene	109	%	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	d8-Naphthalene	93	%	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	d10-Phenanthrene	105	%	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	IACR:Coarse	<0.050	-	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	IACR:Fine	<0.050	-	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	B(a)P Total Potency Equivalent	0.024	mg/kg	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	2	2021-09-14	13:45	IACR (CCME)	0.48	-	ALS	RG_MIULE_SE-2_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Moisture	62	%	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	pH (1:2 soil:water)	7.8	pH	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	% Gravel (>2 mm)	1.3	%	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	% Sand (1.00 mm - 0.50 mm)	4.0	%	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	% Sand (0.50 mm - 0.25 mm)	17	%	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	% Sand (0.25 mm - 0.125 mm)	20	%	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	% Sand (0.125 mm - 0.063 mm)	15	%	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	% Silt (0.063 mm - 0.0312 mm)	18	%	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	% Silt (0.031 mm - 0.004 mm)	21	%	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	% Clay (<4 µm)	4.1	%	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Texture	Sandy loam	-	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Total Organic Carbon	3.9	%	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Aluminum (Al)	6,710	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Antimony (Sb)	0.41	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Arsenic (As)	5.8	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Barium (Ba)	153	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Beryllium (Be)	0.55	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Boron (B)	7.5	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Cadmium (Cd)	1.1	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Calcium (Ca)	61,900	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Chromium (Cr)	10	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Cobalt (Co)	14	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Copper (Cu)	12	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Iron (Fe)	13,800	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Lead (Pb)	8.2	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Lithium (Li)	9.6	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Magnesium (Mg)	6,870	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Manganese (Mn)	188	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Mercury (Hg)	0.026	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Molybdenum (Mo)	1.2	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Nickel (Ni)	40	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Phosphorus (P)	1,090	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Potassium (K)	1,430	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Selenium (Se)	1.9	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Silver (Ag)	0.12	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Sodium (Na)	106	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Strontium (Sr)	88	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Sulfur (S)	1,800	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Thallium (Tl)	0.32	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Titanium (Ti)	15	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Uranium (U)	0.82	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Vanadium (V)	21	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Zinc (Zn)	109	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Acenaphthene	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Acridine	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Anthracene	<0.0040	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Benz(a)anthracene	0.015	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Benzo(b&j)fluoranthene	0.034	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Benzo(b+j+k)fluoranthene	0.034	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Benzo(e)pyrene	0.039	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Benzo(g_h_i)perylene	0.012	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Chrysene	0.024	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Fluoranthene	0.029	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Fluorene	0.021	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	1-Methylnaphthalene	0.15	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	2-Methylnaphthalene	0.22	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Naphthalene	0.1	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Perylene	<0.010	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Phenanthrene	0.22	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Pyrene	0.031	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	Quinoline	<0.050	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	d10-Acenaphthene	92	%	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	d12-Chrysene	110	%	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	d8-Naphthalene	95	%	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	d10-Phenanthrene	104	%	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	IACR:Coarse	<0.050	-	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	IACR:Fine	<0.050	-	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660525	5493017	2021	3	2021-09-14	13:45	IACR (CCME)	0.33	-	ALS	RG_MIULE_SE-3_2021-09-14_1345
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Moisture	95	%	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	pH (1:2 soil:water)	7.3	pH	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	% Gravel (>2 mm)	14	%	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	% Sand (2.00 mm - 1.00 mm)	18	%	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	% Sand (1.00 mm - 0.50 mm)	23	%	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	% Sand (0.50 mm - 0.25 mm)	13	%	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	% Sand (0.25 mm - 0.125 mm)	7.3	%	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	% Sand (0.125 mm - 0.063 mm)	4.6	%	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	% Silt (0.063 mm - 0.0312 mm)	8.1	%	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	% Silt (0.031 mm - 0.004 mm)	10	%	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	% Clay (<4 µm)	2.4	%	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Texture	Loamy sand	-	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Total Organic Carbon	2.7	%	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Aluminum (Al)	4,210	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Antimony (Sb)	0.31	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Arsenic (As)	4.3	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Barium (Ba)	165	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Beryllium (Be)	0.39	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Boron (B)	7.4	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Cadmium (Cd)	1.3	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Calcium (Ca)	99,100	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Chromium (Cr)	7.1	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Cobalt (Co)	15	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Copper (Cu)	10	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Iron (Fe)	9,110	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Lead (Pb)	6.1	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Lithium (Li)	6.3	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Magnesium (Mg)	5,680	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Manganese (Mn)	273	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Mercury (Hg)	0.029	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Molybdenum (Mo)	0.96	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Nickel (Ni)	46	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Phosphorus (P)	1,000	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Potassium (K)	930	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Selenium (Se)	3.1	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Silver (Ag)	0.11	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Sodium (Na)	161	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Strontium (Sr)	130	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Sulfur (S)	2,000	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Thallium (Tl)	0.25	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Titanium (Ti)	10	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Uranium (U)	0.75	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Vanadium (V)	14	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Zinc (Zn)	102	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Acenaphthene	<0.050	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Acenaphthylene	<0.050	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Acridine	<0.10	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Anthracene	<0.040	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Benz(a)anthracene	<0.10	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Benzo(a)pyrene	<0.10	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Benzo(b&j)fluoranthene	<0.10	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Benzo(b+j+k)fluoranthene	<0.14	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Benzo(e)pyrene	<0.10	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Benzo(g_h_i)perylene	<0.10	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Benzo(k)fluoranthene	<0.10	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Chrysene	<0.10	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Dibenz(a_h)anthracene	<0.050	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Fluoranthene	<0.10	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Fluorene	<0.10	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Indeno(1,2,3-c,d)pyrene	<0.10	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	1-Methylnaphthalene	0.15	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	2-Methylnaphthalene	0.24	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Naphthalene	<0.10	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Perylene	<0.10	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Phenanthrene	0.27	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Pyrene	<0.10	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	Quinoline	<0.10	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	d10-Acenaphthene	75	%	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	d12-Chrysene	96	%	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	d8-Naphthalene	75	%	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	d10-Phenanthrene	90	%	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	IACR:Coarse	0.062	-	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	IACR:Fine	<0.12	-	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	B(a)P Total Potency Equivalent	<0.096	mg/kg	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	4	2021-09-15	12:50	IACR (CCME)	<1.1	-	ALS	RG_MIULE_SE-4_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Moisture	38	%	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	pH (1:2 soil:water)	8.0	pH	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	% Gravel (>2 mm)	31	%	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	% Sand (2.00 mm - 1.00 mm)	9.7	%	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	% Sand (1.00 mm - 0.50 mm)	14	%	ALS	RG_MIULE_SE-5_2021-09-14_1250

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	% Sand (0.50 mm - 0.25 mm)	14	%	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	% Sand (0.25 mm - 0.125 mm)	9.8	%	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	% Sand (0.125 mm - 0.063 mm)	5.7	%	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	% Silt (0.063 mm - 0.0312 mm)	5.8	%	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	% Silt (0.031 mm - 0.004 mm)	7.9	%	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	% Clay (<4 µm)	2.1	%	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Texture	Loamy sand	-	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Total Organic Carbon	2.7	%	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Aluminum (Al)	6,780	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Antimony (Sb)	0.72	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Arsenic (As)	7.9	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Barium (Ba)	147	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Beryllium (Be)	0.68	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Boron (B)	6.4	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Cadmium (Cd)	0.93	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Calcium (Ca)	50,500	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Chromium (Cr)	11	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Cobalt (Co)	11	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Copper (Cu)	13	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Iron (Fe)	17,500	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Lead (Pb)	8.3	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Lithium (Li)	9.7	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Magnesium (Mg)	5,580	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Manganese (Mn)	298	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Mercury (Hg)	0.039	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Molybdenum (Mo)	1.7	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Nickel (Ni)	36	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Phosphorus (P)	1,220	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Potassium (K)	1,440	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Selenium (Se)	1.1	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Silver (Ag)	0.11	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Sodium (Na)	89	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Strontium (Sr)	82	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Sulfur (S)	<1000	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Thallium (Tl)	0.34	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Titanium (Ti)	14	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Uranium (U)	0.79	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Vanadium (V)	27	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Zinc (Zn)	110	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Acenaphthene	<0.0050	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Acridine	<0.010	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Anthracene	<0.0040	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Benzo(b&j)fluoranthene	0.013	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Benzo(e)pyrene	0.016	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Chrysene	<0.010	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Fluoranthene	0.01	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Fluorene	<0.010	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	1-Methylnaphthalene	0.052	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	2-Methylnaphthalene	0.072	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Naphthalene	0.032	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Perylene	<0.010	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Phenanthrene	0.071	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Pyrene	0.011	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	Quinoline	<0.050	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	d10-Acenaphthene	75	%	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	d12-Chrysene	89	%	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	d8-Naphthalene	79	%	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	d10-Phenanthrene	85	%	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	IACR:Coarse	<0.050	-	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	IACR:Fine	<0.050	-	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIULE	660489	5493082	2021	5	2021-09-15	12:50	IACR (CCME)	0.15	-	ALS	RG_MIULE_SE-5_2021-09-14_1250
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Moisture	82	%	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	pH (1:2 soil:water)	8.0	pH	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	% Gravel (>2 mm)	6.7	%	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	% Sand (2.00 mm - 1.00 mm)	24	%	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	% Sand (1.00 mm - 0.50 mm)	20	%	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	% Sand (0.50 mm - 0.25 mm)	6.5	%	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	% Sand (0.25 mm - 0.125 mm)	3.7	%	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	% Sand (0.125 mm - 0.063 mm)	4.7	%	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	% Silt (0.063 mm - 0.0312 mm)	9.2	%	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	% Silt (0.031 mm - 0.004 mm)	19	%	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	% Clay (<4 µm)	6.7	%	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Texture	Sandy loam	-	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Total Organic Carbon	2.4	%	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Aluminum (Al)	6,770	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Antimony (Sb)	0.29	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Arsenic (As)	5.5	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Barium (Ba)	135	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Beryllium (Be)	0.49	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Boron (B)	7.0	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Cadmium (Cd)	1.3	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Calcium (Ca)	84,900	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Chromium (Cr)	9.4	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Cobalt (Co)	83	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Copper (Cu)	14	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Iron (Fe)	13,900	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Lead (Pb)	8.8	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Lithium (Li)	11	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Magnesium (Mg)	6,050	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Manganese (Mn)	1,040	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Mercury (Hg)	0.025	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Molybdenum (Mo)	1.4	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Nickel (Ni)	125	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Phosphorus (P)	1,010	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Potassium (K)	1,450	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Selenium (Se)	1.8	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Sodium (Na)	208	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Strontium (Sr)	130	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Sulfur (S)	2,200	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Thallium (Tl)	0.26	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Titanium (Ti)	6.1	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Uranium (U)	0.8	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Vanadium (V)	16	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Zinc (Zn)	120	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Acenaphthene	<0.025	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Acenaphthylene	<0.013	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Acridine	<0.040	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Anthracene	<0.010	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Benz(a)anthracene	0.033	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Benzo(a)pyrene	<0.025	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Benzo(b&j)fluoranthene	0.099	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Benzo(b+j+k)fluoranthene	0.099	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Benzo(e)pyrene	0.11	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Benzo(g_h_i)perylene	0.038	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Benzo(k)fluoranthene	<0.025	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Chrysene	0.12	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Dibenz(a_h)anthracene	<0.013	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Fluoranthene	<0.030	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Fluorene	0.055	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Indeno(1,2,3-c,d)pyrene	<0.025	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	1-Methylnaphthalene	0.4	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	2-Methylnaphthalene	0.61	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Naphthalene	0.23	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Perylene	<0.025	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Phenanthrene	0.4	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Pyrene	0.044	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	Quinoline	<0.025	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	d10-Acenaphthene	72	%	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	d12-Chrysene	89	%	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	d8-Naphthalene	74	%	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	d10-Phenanthrene	86	%	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	IACR:Coarse	<0.050	-	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	IACR:Fine	0.064	-	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	B(a)P Total Potency Equivalent	0.036	mg/kg	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667764	5487585	2021	1	2021-09-15	13:30	IACR (CCME)	0.92	-	ALS	RG_MIDCO_SE-1_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Moisture	83	%	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	pH (1:2 soil:water)	8.0	pH	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	% Gravel (>2 mm)	1.8	%	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	% Sand (2.00 mm - 1.00 mm)	4.0	%	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	% Sand (1.00 mm - 0.50 mm)	5.6	%	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	% Sand (0.50 mm - 0.25 mm)	4.8	%	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	% Sand (0.25 mm - 0.125 mm)	4.6	%	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	% Sand (0.125 mm - 0.063 mm)	6.6	%	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	% Silt (0.063 mm - 0.0312 mm)	26	%	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	% Silt (0.031 mm - 0.004 mm)	38	%	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	% Clay (<4 µm)	8.4	%	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Texture	Silt loam	-	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Total Organic Carbon	5.3	%	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Aluminum (Al)	8,180	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Antimony (Sb)	0.26	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Arsenic (As)	5.5	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Barium (Ba)	152	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Beryllium (Be)	0.59	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Boron (B)	10	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Cadmium (Cd)	1.3	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Calcium (Ca)	106,000	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Chromium (Cr)	11	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Cobalt (Co)	75	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Copper (Cu)	15	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Iron (Fe)	13,000	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Lead (Pb)	8.2	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Lithium (Li)	12	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Magnesium (Mg)	6,930	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Manganese (Mn)	703	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Mercury (Hg)	0.022	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Molybdenum (Mo)	1.3	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Nickel (Ni)	120	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Phosphorus (P)	1,170	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Potassium (K)	1,940	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Selenium (Se)	2.7	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Sodium (Na)	230	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Strontium (Sr)	148	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Sulfur (S)	2,600	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Thallium (Tl)	0.26	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Titanium (Ti)	17	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Uranium (U)	0.86	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Vanadium (V)	19	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Zinc (Zn)	120	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Acenaphthene	<0.035	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Acenaphthylene	<0.013	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Acridine	<0.050	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Anthracene	<0.010	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Benz(a)anthracene	0.034	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Benzo(a)pyrene	<0.025	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Benzo(b&j)fluoranthene	0.11	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Benzo(b+j+k)fluoranthene	0.11	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Benzo(e)pyrene	0.11	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Benzo(g_h_i)perylene	0.048	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Benzo(k)fluoranthene	<0.025	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Chrysene	0.088	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Dibenz(a_h)anthracene	<0.013	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Fluoranthene	0.033	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Fluorene	0.05	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Indeno(1,2,3-c,d)pyrene	<0.025	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	1-Methylnaphthalene	0.48	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	2-Methylnaphthalene	0.75	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Naphthalene	0.29	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Perylene	<0.025	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Phenanthrene	0.48	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Pyrene	<0.060	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	Quinoline	<0.025	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	d10-Acenaphthene	72	%	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	d12-Chrysene	88	%	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	d8-Naphthalene	74	%	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	d10-Phenanthrene	81	%	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	IACR:Coarse	<0.050	-	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	IACR:Fine	0.066	-	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	B(a)P Total Potency Equivalent	0.037	mg/kg	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667740	5487632	2021	2	2021-09-15	13:30	IACR (CCME)	0.96	-	ALS	RG_MIDCO_SE-2_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Moisture	59	%	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	pH (1:2 soil:water)	8.3	pH	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIDCO_SE-3_2021-09-15_1330

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	% Sand (2.00 mm - 1.00 mm)	<1.0	%	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	% Sand (1.00 mm - 0.50 mm)	3.2	%	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	% Sand (0.50 mm - 0.25 mm)	2.6	%	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	% Sand (0.25 mm - 0.125 mm)	4.9	%	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	% Sand (0.125 mm - 0.063 mm)	15	%	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	% Silt (0.063 mm - 0.0312 mm)	28	%	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	% Silt (0.031 mm - 0.004 mm)	37	%	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	% Clay (<4 µm)	7.8	%	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Texture	Silt loam	-	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Total Organic Carbon	3.2	%	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Aluminum (Al)	13,000	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Antimony (Sb)	0.4	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Arsenic (As)	7.7	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Barium (Ba)	127	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Beryllium (Be)	0.82	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Boron (B)	13	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Cadmium (Cd)	1.4	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Calcium (Ca)	36,400	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Chromium (Cr)	17	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Cobalt (Co)	32	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Copper (Cu)	18	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Iron (Fe)	19,400	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Lead (Pb)	11	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Lithium (Li)	19	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Magnesium (Mg)	7,260	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Manganese (Mn)	467	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Mercury (Hg)	0.024	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Molybdenum (Mo)	2.2	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Nickel (Ni)	77	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Phosphorus (P)	1,310	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Potassium (K)	3,030	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Selenium (Se)	2.6	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Silver (Ag)	0.11	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Sodium (Na)	137	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Strontium (Sr)	74	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Sulfur (S)	1,400	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Thallium (Tl)	0.39	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Titanium (Ti)	15	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Uranium (U)	0.78	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Vanadium (V)	28	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Zinc (Zn)	146	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Acenaphthene	<0.010	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Acridine	<0.020	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Anthracene	<0.0040	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Benz(a)anthracene	0.011	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Benzo(b&j)fluoranthene	0.039	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Benzo(b+j+k)fluoranthene	0.039	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Benzo(e)pyrene	0.048	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Benzo(g_h_i)perylene	0.016	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Chrysene	0.038	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Fluoranthene	<0.020	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Fluorene	0.025	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	1-Methylnaphthalene	0.16	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	2-Methylnaphthalene	0.24	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Naphthalene	0.093	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Perylene	0.02	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Phenanthrene	0.18	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Pyrene	<0.030	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	Quinoline	<0.050	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	d10-Acenaphthene	79	%	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	d12-Chrysene	97	%	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	d8-Naphthalene	80	%	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	d10-Phenanthrene	91	%	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	IACR:Coarse	<0.050	-	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	IACR:Fine	<0.050	-	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667713	5487624	2021	3	2021-09-15	13:30	IACR (CCME)	0.36	-	ALS	RG_MIDCO_SE-3_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Moisture	58	%	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	pH (1:2 soil:water)	8.2	pH	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	% Gravel (>2 mm)	1.1	%	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	% Sand (2.00 mm - 1.00 mm)	5.1	%	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	% Sand (1.00 mm - 0.50 mm)	13	%	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	% Sand (0.50 mm - 0.25 mm)	6.2	%	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	% Sand (0.25 mm - 0.125 mm)	5.0	%	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	% Sand (0.125 mm - 0.063 mm)	12	%	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	% Silt (0.063 mm - 0.0312 mm)	21	%	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	% Silt (0.031 mm - 0.004 mm)	29	%	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	% Clay (<4 µm)	7.3	%	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Texture	Silt loam	-	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Total Organic Carbon	2.8	%	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Aluminum (Al)	13,500	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Antimony (Sb)	0.39	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Arsenic (As)	7.1	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Barium (Ba)	134	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Beryllium (Be)	0.77	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Boron (B)	15	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Cadmium (Cd)	1.4	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Calcium (Ca)	37,400	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Chromium (Cr)	18	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Cobalt (Co)	33	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Copper (Cu)	18	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Iron (Fe)	19,600	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Lead (Pb)	11	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Lithium (Li)	20	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Magnesium (Mg)	7,280	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Manganese (Mn)	484	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Mercury (Hg)	0.025	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Molybdenum (Mo)	2.0	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Nickel (Ni)	78	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Phosphorus (P)	1,330	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Potassium (K)	3,230	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Selenium (Se)	2.8	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Silver (Ag)	0.1	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Sodium (Na)	146	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Strontium (Sr)	77	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Sulfur (S)	1,400	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Thallium (Tl)	0.4	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Titanium (Ti)	16	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Uranium (U)	0.77	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Vanadium (V)	29	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Zinc (Zn)	146	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Acenaphthene	<0.015	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Acridine	0.015	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Anthracene	<0.0040	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Benz(a)anthracene	0.014	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Benzo(b&j)fluoranthene	0.04	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Benzo(b+j+k)fluoranthene	0.04	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Benzo(e)pyrene	0.05	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Benzo(g_h_i)perylene	0.019	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Chrysene	0.06	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Fluoranthene	0.013	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Fluorene	0.027	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	1-Methylnaphthalene	0.18	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	2-Methylnaphthalene	0.27	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Naphthalene	0.1	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Perylene	0.02	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Phenanthrene	0.19	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Pyrene	0.025	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	Quinoline	<0.050	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	d10-Acenaphthene	87	%	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	d12-Chrysene	105	%	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	d8-Naphthalene	88	%	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	d10-Phenanthrene	99	%	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	IACR:Coarse	<0.050	-	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	IACR:Fine	<0.050	-	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667690	5487630	2021	4	2021-09-15	13:30	IACR (CCME)	0.38	-	ALS	RG_MIDCO_SE-4_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Moisture	89	%	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	pH (1:2 soil:water)	7.9	pH	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	% Gravel (>2 mm)	17	%	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	% Sand (2.00 mm - 1.00 mm)	8.0	%	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	% Sand (1.00 mm - 0.50 mm)	15	%	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	% Sand (0.50 mm - 0.25 mm)	13	%	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	% Sand (0.25 mm - 0.125 mm)	7.6	%	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	% Sand (0.125 mm - 0.063 mm)	6.1	%	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	% Silt (0.063 mm - 0.0312 mm)	10	%	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	% Silt (0.031 mm - 0.004 mm)	18	%	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	% Clay (<4 µm)	5.8	%	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Texture	Sandy loam	-	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Total Organic Carbon	2.9	%	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Aluminum (Al)	10,300	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Antimony (Sb)	0.33	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Arsenic (As)	6.0	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Barium (Ba)	153	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Beryllium (Be)	0.67	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Boron (B)	13	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Cadmium (Cd)	1.3	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Calcium (Ca)	82,000	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Chromium (Cr)	14	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Cobalt (Co)	73	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Copper (Cu)	16	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Iron (Fe)	15,300	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Lead (Pb)	9.3	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Lithium (Li)	15	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Magnesium (Mg)	6,730	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Manganese (Mn)	762	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Mercury (Hg)	0.03	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Molybdenum (Mo)	1.6	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Nickel (Ni)	123	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Phosphorus (P)	1,030	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Potassium (K)	2,580	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Selenium (Se)	2.6	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Silver (Ag)	0.1	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Sodium (Na)	214	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Strontium (Sr)	127	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Sulfur (S)	2,600	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Thallium (Tl)	0.35	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Titanium (Ti)	10	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Uranium (U)	0.84	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Vanadium (V)	23	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Zinc (Zn)	127	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Acenaphthene	<0.030	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Acenaphthylene	<0.020	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Acridine	<0.040	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Anthracene	<0.016	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Benz(a)anthracene	0.12	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Benzo(a)pyrene	<0.040	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Benzo(b&j)fluoranthene	0.11	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Benzo(b+j+k)fluoranthene	0.11	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Benzo(e)pyrene	0.15	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Benzo(g_h_i)perylene	0.056	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Benzo(k)fluoranthene	<0.040	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Chrysene	0.095	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Dibenz(a_h)anthracene	<0.020	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Fluoranthene	<0.040	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Fluorene	0.068	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Indeno(1,2,3-c,d)pyrene	<0.040	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	1-Methylnaphthalene	0.53	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	2-Methylnaphthalene	0.83	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Naphthalene	0.31	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Perylene	<0.040	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Phenanthrene	0.54	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Pyrene	<0.070	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	Quinoline	<0.040	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	d10-Acenaphthene	85	%	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	d12-Chrysene	106	%	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	d8-Naphthalene	86	%	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	d10-Phenanthrene	100	%	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	IACR:Coarse	0.05	-	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	IACR:Fine	0.096	-	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	B(a)P Total Potency Equivalent	0.059	mg/kg	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MIDCO	667675	5487637	2021	5	2021-09-15	13:30	IACR (CCME)	1.4	-	ALS	RG_MIDCO_SE-5_2021-09-15_1330
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Moisture	37	%	ALS	RG_MI5_SE-4_2021-09-15_1500



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	pH (1:2 soil:water)	8.3	pH	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	% Gravel (>2 mm)	1.5	%	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	% Sand (2.00 mm - 1.00 mm)	1.1	%	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	% Sand (1.00 mm - 0.50 mm)	3.3	%	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	% Sand (0.50 mm - 0.25 mm)	18	%	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	% Sand (0.25 mm - 0.125 mm)	35	%	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	% Sand (0.125 mm - 0.063 mm)	19	%	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	% Silt (0.063 mm - 0.0312 mm)	11	%	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	% Silt (0.031 mm - 0.004 mm)	9.4	%	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	% Clay (<4 µm)	2.1	%	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Texture	Loamy sand	-	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Total Organic Carbon	2.1	%	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Aluminum (Al)	7,210	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Antimony (Sb)	1.0	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Arsenic (As)	6.8	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Barium (Ba)	209	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Beryllium (Be)	0.56	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Boron (B)	<5.0	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Cadmium (Cd)	1.1	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Calcium (Ca)	21,400	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Chromium (Cr)	13	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Cobalt (Co)	6.6	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Copper (Cu)	12	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Iron (Fe)	14,900	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Lead (Pb)	8.2	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Lithium (Li)	8.4	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Magnesium (Mg)	4,550	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Manganese (Mn)	235	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Mercury (Hg)	0.024	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Molybdenum (Mo)	1.5	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Nickel (Ni)	27	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Phosphorus (P)	1,230	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Potassium (K)	1,440	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Selenium (Se)	0.76	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Silver (Ag)	0.15	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Sodium (Na)	67	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Strontium (Sr)	55	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Sulfur (S)	<1000	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Thallium (Tl)	0.25	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Titanium (Ti)	24	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Uranium (U)	0.95	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Vanadium (V)	37	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Zinc (Zn)	96	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Acenaphthene	<0.0050	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Acridine	<0.010	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Anthracene	<0.0040	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Benzo(b&j)fluoranthene	0.016	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Benzo(b+j+k)fluoranthene	0.016	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Benzo(e)pyrene	0.02	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Chrysene	0.023	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Fluoranthene	<0.020	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Fluorene	<0.010	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	1-Methylnaphthalene	0.064	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	2-Methylnaphthalene	0.075	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Naphthalene	0.034	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Perylene	<0.010	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Phenanthrene	0.11	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Pyrene	<0.020	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	Quinoline	<0.050	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	d10-Acenaphthene	85	%	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	d12-Chrysene	102	%	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	d8-Naphthalene	84	%	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	d10-Phenanthrene	96	%	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	IACR:Coarse	<0.050	-	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	IACR:Fine	<0.050	-	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659493	5496565	2021	4	2021-09-15	15:00	IACR (CCME)	0.19	-	ALS	RG_MI5_SE-4_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Moisture	50	%	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	pH (1:2 soil:water)	8.3	pH	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	% Gravel (>2 mm)	2.9	%	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	% Sand (2.00 mm - 1.00 mm)	1.1	%	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	% Sand (1.00 mm - 0.50 mm)	3.9	%	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	% Sand (0.50 mm - 0.25 mm)	19	%	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	% Sand (0.25 mm - 0.125 mm)	35	%	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	% Sand (0.125 mm - 0.063 mm)	18	%	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	% Silt (0.063 mm - 0.0312 mm)	10	%	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	% Silt (0.031 mm - 0.004 mm)	8.7	%	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	% Clay (<4 µm)	1.8	%	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Texture	Loamy sand	-	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Total Organic Carbon	1.7	%	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Aluminum (Al)	6,620	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Antimony (Sb)	1.0	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Arsenic (As)	6.5	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Barium (Ba)	214	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Beryllium (Be)	0.54	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Boron (B)	<5.0	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Cadmium (Cd)	1.1	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Calcium (Ca)	22,500	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Chromium (Cr)	12	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Cobalt (Co)	6.4	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Copper (Cu)	12	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Iron (Fe)	14,100	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Lead (Pb)	8.0	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Lithium (Li)	8.3	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Magnesium (Mg)	4,590	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Manganese (Mn)	223	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Mercury (Hg)	0.037	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Molybdenum (Mo)	1.5	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Nickel (Ni)	27	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Phosphorus (P)	1,270	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Potassium (K)	1,290	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Selenium (Se)	0.82	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Silver (Ag)	0.14	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Sodium (Na)	63	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Strontium (Sr)	57	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Sulfur (S)	<1000	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Thallium (Tl)	0.24	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Titanium (Ti)	25	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Uranium (U)	0.92	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Vanadium (V)	35	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Zinc (Zn)	91	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Acenaphthene	<0.0050	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Acridine	<0.010	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Anthracene	<0.0040	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Benzo(b&j)fluoranthene	0.018	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Benzo(b+j+k)fluoranthene	0.018	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Benzo(e)pyrene	0.021	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Chrysene	0.038	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Fluoranthene	0.014	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Fluorene	0.01	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	1-Methylnaphthalene	0.075	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	2-Methylnaphthalene	0.09	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Naphthalene	0.038	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Perylene	<0.010	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Phenanthrene	0.11	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Pyrene	<0.020	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	Quinoline	<0.050	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	d10-Acenaphthene	76	%	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	d12-Chrysene	91	%	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	d8-Naphthalene	77	%	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	d10-Phenanthrene	85	%	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	IACR:Coarse	<0.050	-	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	IACR:Fine	<0.050	-	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI5	659504	5496614	2021	5	2021-09-15	15:00	IACR (CCME)	0.2	-	ALS	RG_MI5_SE-5_2021-09-15_1500
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Moisture	38	%	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	pH (1:2 soil:water)	8.1	pH	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	% Gravel (>2 mm)	4.0	%	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	% Sand (2.00 mm - 1.00 mm)	5.1	%	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	% Sand (1.00 mm - 0.50 mm)	5.8	%	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	% Sand (0.50 mm - 0.25 mm)	12	%	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	% Sand (0.25 mm - 0.125 mm)	18	%	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	% Sand (0.125 mm - 0.063 mm)	13	%	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	% Silt (0.063 mm - 0.0312 mm)	16	%	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	% Silt (0.031 mm - 0.004 mm)	21	%	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	% Clay (<4 µm)	6.4	%	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Texture	Sandy loam	-	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Total Organic Carbon	2.1	%	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Aluminum (Al)	12,700	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Antimony (Sb)	0.64	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Arsenic (As)	12	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Barium (Ba)	151	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Beryllium (Be)	0.83	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Bismuth (Bi)	0.22	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Boron (B)	8.6	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Cadmium (Cd)	1.3	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Calcium (Ca)	15,000	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Chromium (Cr)	18	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Cobalt (Co)	8.7	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Copper (Cu)	27	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Iron (Fe)	23,800	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Lead (Pb)	17	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Lithium (Li)	22	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Magnesium (Mg)	6,530	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Manganese (Mn)	476	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Mercury (Hg)	0.027	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Molybdenum (Mo)	5.7	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Nickel (Ni)	31	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Phosphorus (P)	1,500	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Potassium (K)	2,270	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Selenium (Se)	0.94	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Silver (Ag)	0.13	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Sodium (Na)	86	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Strontium (Sr)	46	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Sulfur (S)	<1000	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Thallium (Tl)	0.65	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Titanium (Ti)	9.9	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Uranium (U)	0.86	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Vanadium (V)	32	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Zinc (Zn)	134	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Acenaphthene	<0.0050	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Acridine	<0.010	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Anthracene	<0.0040	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Benzo(b&j)fluoranthene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Benzo(e)pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Chrysene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Fluoranthene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Fluorene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	1-Methylnaphthalene	<0.050	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	2-Methylnaphthalene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Naphthalene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Perylene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Phenanthrene	<0.020	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	Quinoline	<0.050	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	d10-Acenaphthene	79	%	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	d12-Chrysene	97	%	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	d8-Naphthalene	80	%	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	d10-Phenanthrene	91	%	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	IACR:Coarse	<0.050	-	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	IACR:Fine	<0.050	-	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MI25_SE-1_2021-09-15_1200

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25	668195	5482814	2021	1	2021-09-15	12:00	IACR (CCME)	<0.15	-	ALS	RG_MI25_SE-1_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Moisture	48	%	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	pH (1:2 soil:water)	8.2	pH	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	% Gravel (>2 mm)	5.7	%	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	% Sand (2.00 mm - 1.00 mm)	7.5	%	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	% Sand (1.00 mm - 0.50 mm)	9.9	%	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	% Sand (0.50 mm - 0.25 mm)	14	%	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	% Sand (0.25 mm - 0.125 mm)	14	%	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	% Sand (0.125 mm - 0.063 mm)	11	%	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	% Silt (0.063 mm - 0.0312 mm)	14	%	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	% Silt (0.031 mm - 0.004 mm)	18	%	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	% Clay (<4 µm)	5.4	%	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Texture	Sandy loam	-	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Total Organic Carbon	1.6	%	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Aluminum (Al)	15,600	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Antimony (Sb)	0.66	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Arsenic (As)	12	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Barium (Ba)	165	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Beryllium (Be)	1.0	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Bismuth (Bi)	0.24	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Boron (B)	13	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Cadmium (Cd)	1.5	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Calcium (Ca)	14,700	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Chromium (Cr)	22	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Cobalt (Co)	8.9	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Copper (Cu)	30	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Iron (Fe)	25,500	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Lead (Pb)	19	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Lithium (Li)	24	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Magnesium (Mg)	6,390	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Manganese (Mn)	541	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Mercury (Hg)	0.026	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Molybdenum (Mo)	5.9	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Nickel (Ni)	33	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Phosphorus (P)	1,450	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Potassium (K)	3,380	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Selenium (Se)	1.9	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Silver (Ag)	0.14	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Sodium (Na)	98	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Strontium (Sr)	44	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Sulfur (S)	<1000	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Thallium (Tl)	0.75	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Titanium (Ti)	14	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Uranium (U)	0.88	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Vanadium (V)	39	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Zinc (Zn)	152	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Acenaphthene	<0.0050	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Acridine	<0.010	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Anthracene	<0.0040	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Benz(a)anthracene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Benzo(b&j)fluoranthene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Benzo(b+j+k)fluoranthene	<0.015	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Benzo(e)pyrene	0.011	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Chrysene	0.017	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Dibenz(a_h)anthracene	<0.0050	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Fluoranthene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Fluorene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	1-Methylnaphthalene	<0.050	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	2-Methylnaphthalene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Naphthalene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Perylene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Phenanthrene	0.017	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Pyrene	<0.010	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	Quinoline	<0.050	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	d10-Acenaphthene	76	%	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	d12-Chrysene	93	%	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	d8-Naphthalene	76	%	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	d10-Phenanthrene	88	%	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	IACR:Coarse	<0.050	-	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	IACR:Fine	<0.050	-	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668187	5482834	2021	2	2021-09-15	12:00	IACR (CCME)	<0.15	-	ALS	RG_MI25_SE-2_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Moisture	90	%	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	pH (1:2 soil:water)	7.6	pH	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	% Gravel (>2 mm)	6.2	%	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	% Sand (2.00 mm - 1.00 mm)	1.4	%	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	% Sand (1.00 mm - 0.50 mm)	1.8	%	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	% Sand (0.50 mm - 0.25 mm)	6.2	%	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	% Sand (0.25 mm - 0.125 mm)	13	%	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	% Sand (0.125 mm - 0.063 mm)	8.8	%	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	% Silt (0.063 mm - 0.0312 mm)	28	%	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	% Silt (0.031 mm - 0.004 mm)	29	%	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	% Clay (<4 µm)	5.2	%	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Texture	Silt loam	-	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Total Organic Carbon	2.0	%	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Aluminum (Al)	14,500	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200

Appendix I:  
Sediment Screening

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Antimony (Sb)	0.67	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Arsenic (As)	12	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Barium (Ba)	171	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Beryllium (Be)	0.91	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Bismuth (Bi)	0.22	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Boron (B)	11	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Cadmium (Cd)	1.5	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Calcium (Ca)	15,200	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Chromium (Cr)	21	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Cobalt (Co)	8.8	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Copper (Cu)	28	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Iron (Fe)	23,100	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Lead (Pb)	21	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Lithium (Li)	23	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Magnesium (Mg)	5,910	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Manganese (Mn)	512	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Mercury (Hg)	0.034	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Molybdenum (Mo)	5.3	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Nickel (Ni)	32	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Phosphorus (P)	1,460	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Potassium (K)	3,030	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Selenium (Se)	1.2	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Silver (Ag)	0.16	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Sodium (Na)	92	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Strontium (Sr)	47	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Sulfur (S)	<1000	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Thallium (Tl)	0.72	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Titanium (Ti)	8.7	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Uranium (U)	0.91	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Vanadium (V)	37	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Zinc (Zn)	141	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Acenaphthene	<0.050	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Acenaphthylene	<0.025	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Acridine	<0.050	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Anthracene	<0.020	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Benz(a)anthracene	<0.050	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Benzo(a)pyrene	<0.050	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Benzo(b&j)fluoranthene	<0.050	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Benzo(b+j+k)fluoranthene	<0.075	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Benzo(e)pyrene	<0.050	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Benzo(g_h_i)perylene	<0.050	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Benzo(k)fluoranthene	<0.050	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Chrysene	<0.050	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Dibenz(a_h)anthracene	<0.025	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Fluoranthene	<0.050	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Fluorene	<0.050	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Indeno(1,2,3-c,d)pyrene	<0.050	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	1-Methylnaphthalene	0.025	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	2-Methylnaphthalene	<0.050	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Naphthalene	<0.050	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Perylene	<0.050	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Phenanthrene	0.067	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Pyrene	<0.050	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	Quinoline	<0.050	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	d10-Acenaphthene	67	%	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	d12-Chrysene	80	%	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	d8-Naphthalene	75	%	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	d10-Phenanthrene	78	%	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	IACR:Coarse	<0.050	-	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	IACR:Fine	0.059	-	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	B(a)P Total Potency Equivalent	<0.048	mg/kg	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MI25	668173	5482859	2021	3	2021-09-15	12:00	IACR (CCME)	<0.54	-	ALS	RG_MI25_SE-3_2021-09-15_1200
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Moisture	98	%	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	pH (1:2 soil:water)	8.0	pH	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	% Gravel (>2 mm)	27	%	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	% Sand (2.00 mm - 1.00 mm)	12	%	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	% Sand (1.00 mm - 0.50 mm)	15	%	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	% Sand (0.50 mm - 0.25 mm)	8.5	%	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	% Sand (0.25 mm - 0.125 mm)	3.0	%	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	% Sand (0.125 mm - 0.063 mm)	4.7	%	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	% Silt (0.063 mm - 0.0312 mm)	11	%	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	% Silt (0.031 mm - 0.004 mm)	15	%	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	% Clay (<4 µm)	3.6	%	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Texture	Sandy loam	-	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Total Organic Carbon	4.9	%	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Aluminum (Al)	10,400	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Antimony (Sb)	0.41	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Arsenic (As)	7.8	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Barium (Ba)	166	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Beryllium (Be)	0.76	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Boron (B)	11	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Cadmium (Cd)	1.4	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Calcium (Ca)	59,700	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Chromium (Cr)	16	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Cobalt (Co)	30	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Copper (Cu)	16	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Iron (Fe)	17,100	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Lead (Pb)	9.3	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Lithium (Li)	14	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Magnesium (Mg)	9,360	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Manganese (Mn)	493	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Mercury (Hg)	0.04	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Molybdenum (Mo)	1.4	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Nickel (Ni)	80	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Phosphorus (P)	1,190	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Potassium (K)	2,390	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Selenium (Se)	2.2	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Silver (Ag)	0.15	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Sodium (Na)	151	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Strontium (Sr)	102	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Sulfur (S)	1,900	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Thallium (Tl)	0.61	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Tin (Sn)	2.1	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Titanium (Ti)	12	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Uranium (U)	0.76	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Vanadium (V)	26	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Zinc (Zn)	157	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Acenaphthene	<0.090	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Acenaphthylene	<0.090	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Acridine	<0.18	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Anthracene	<0.072	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Benz(a)anthracene	<0.18	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Benzo(a)pyrene	<0.18	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Benzo(b&j)fluoranthene	<0.18	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Benzo(b+j+k)fluoranthene	<0.27	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Benzo(e)pyrene	<0.18	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Benzo(g_h_i)perylene	<0.18	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Benzo(k)fluoranthene	<0.18	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Chrysene	<0.18	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Dibenz(a_h)anthracene	<0.090	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Fluoranthene	<0.18	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Fluorene	<0.18	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Indeno(1,2,3-c,d)pyrene	<0.18	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	1-Methylnaphthalene	0.21	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	2-Methylnaphthalene	0.28	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Naphthalene	0.19	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Perylene	<0.18	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Phenanthrene	0.34	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Pyrene	<0.18	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	Quinoline	<0.18	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	d10-Acenaphthene	64	%	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	d12-Chrysene	72	%	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	d8-Naphthalene	72	%	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	d10-Phenanthrene	71	%	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	IACR:Coarse	0.11	-	ALS	RG_MIDAG_SE-1_2021-09-15_1400

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	IACR:Fine	0.21	-	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	B(a)P Total Potency Equivalent	<0.17	mg/kg	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIDAG	665265	5489439	2021	1	2021-09-15	14:00	IACR (CCME)	<1.9	-	ALS	RG_MIDAG_SE-1_2021-09-15_1400
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Moisture	88	%	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	pH (1:2 soil:water)	7.7	pH	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	% Gravel (>2 mm)	5.6	%	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	% Sand (2.00 mm - 1.00 mm)	14	%	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	% Sand (1.00 mm - 0.50 mm)	22	%	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	% Sand (0.50 mm - 0.25 mm)	9.1	%	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	% Sand (0.25 mm - 0.125 mm)	3.7	%	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	% Sand (0.125 mm - 0.063 mm)	5.6	%	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	% Silt (0.063 mm - 0.0312 mm)	17	%	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	% Silt (0.031 mm - 0.004 mm)	19	%	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	% Clay (<4 µm)	3.5	%	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Texture	Sandy loam	-	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Total Organic Carbon	1.1	%	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Aluminum (Al)	15,000	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Antimony (Sb)	0.4	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Arsenic (As)	7.4	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Barium (Ba)	185	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Beryllium (Be)	0.96	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Bismuth (Bi)	0.21	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Boron (B)	15	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Cadmium (Cd)	1.0	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Calcium (Ca)	19,700	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Chromium (Cr)	20	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Cobalt (Co)	9.3	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Copper (Cu)	21	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Iron (Fe)	21,600	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Lead (Pb)	13	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Lithium (Li)	22	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Magnesium (Mg)	6,310	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Manganese (Mn)	585	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Mercury (Hg)	0.026	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Molybdenum (Mo)	2.2	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Nickel (Ni)	26	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Phosphorus (P)	1,450	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Potassium (K)	3,570	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Selenium (Se)	1.1	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Silver (Ag)	0.13	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Sodium (Na)	111	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Strontium (Sr)	49	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Sulfur (S)	1,000	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Thallium (Tl)	0.44	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Titanium (Ti)	11	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Uranium (U)	0.68	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Vanadium (V)	32	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Zinc (Zn)	95	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Acenaphthene	<0.020	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Acenaphthylene	<0.020	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Acridine	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Anthracene	<0.016	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Benz(a)anthracene	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Benzo(a)pyrene	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Benzo(b&j)fluoranthene	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Benzo(b+j+k)fluoranthene	<0.060	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Benzo(e)pyrene	0.048	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Benzo(g_h_i)perylene	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Benzo(k)fluoranthene	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Chrysene	0.075	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Dibenz(a_h)anthracene	<0.020	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Fluoranthene	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Fluorene	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Indeno(1,2,3-c,d)pyrene	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	1-Methylnaphthalene	0.11	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	2-Methylnaphthalene	0.15	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Naphthalene	0.098	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Perylene	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Phenanthrene	0.18	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Pyrene	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	Quinoline	<0.040	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	d10-Acenaphthene	75	%	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	d12-Chrysene	79	%	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	d8-Naphthalene	71	%	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	d10-Phenanthrene	78	%	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	IACR:Coarse	<0.050	-	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	IACR:Fine	<0.050	-	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	B(a)P Total Potency Equivalent	0.039	mg/kg	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668232	5486600	2021	1	2021-09-15	12:30	IACR (CCME)	0.45	-	ALS	RG_MIUCO_SE-1_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Moisture	86	%	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	pH (1:2 soil:water)	7.9	pH	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	% Gravel (>2 mm)	<1.0	%	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	% Sand (2.00 mm - 1.00 mm)	8.8	%	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	% Sand (1.00 mm - 0.50 mm)	11	%	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	% Sand (0.50 mm - 0.25 mm)	7.2	%	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	% Sand (0.25 mm - 0.125 mm)	4.1	%	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	% Sand (0.125 mm - 0.063 mm)	10	%	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	% Silt (0.063 mm - 0.0312 mm)	21	%	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	% Silt (0.031 mm - 0.004 mm)	30	%	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	% Clay (<4 µm)	7.2	%	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Texture	Silt loam	-	ALS	RG_MIUCO_SE-2_2021-09-15_1230



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Total Organic Carbon	2.0	%	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Aluminum (Al)	14,100	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Antimony (Sb)	0.38	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Arsenic (As)	7.1	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Barium (Ba)	264	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Beryllium (Be)	0.95	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Bismuth (Bi)	0.2	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Boron (B)	14	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Cadmium (Cd)	0.89	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Calcium (Ca)	19,200	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Chromium (Cr)	19	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Cobalt (Co)	8.6	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Copper (Cu)	20	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Iron (Fe)	22,000	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Lead (Pb)	12	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Lithium (Li)	22	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Magnesium (Mg)	6,550	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Manganese (Mn)	447	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Mercury (Hg)	0.022	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Molybdenum (Mo)	2.1	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Nickel (Ni)	24	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Phosphorus (P)	1,340	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Potassium (K)	3,180	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Selenium (Se)	0.86	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Silver (Ag)	0.11	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Sodium (Na)	127	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Strontium (Sr)	53	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Sulfur (S)	1,000	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Thallium (Tl)	0.37	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Titanium (Ti)	15	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Uranium (U)	0.55	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Vanadium (V)	30	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Zinc (Zn)	95	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Acenaphthene	<0.020	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Acenaphthylene	<0.020	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Acridine	<0.040	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Anthracene	<0.016	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Benz(a)anthracene	<0.040	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Benzo(a)pyrene	<0.040	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Benzo(b&j)fluoranthene	<0.040	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Benzo(b+j+k)fluoranthene	<0.060	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Benzo(e)pyrene	<0.040	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Benzo(g_h_i)perylene	<0.040	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Benzo(k)fluoranthene	<0.040	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Chrysene	<0.040	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Dibenz(a_h)anthracene	<0.020	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Fluoranthene	<0.040	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Fluorene	<0.040	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Indeno(1,2,3-c,d)pyrene	<0.040	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	1-Methylnaphthalene	<0.040	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	2-Methylnaphthalene	0.041	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Naphthalene	<0.040	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Perylene	<0.040	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Phenanthrene	0.071	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Pyrene	<0.040	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	Quinoline	<0.040	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	d10-Acenaphthene	71	%	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	d12-Chrysene	73	%	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	d8-Naphthalene	73	%	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	d10-Phenanthrene	72	%	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	IACR:Coarse	<0.050	-	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	IACR:Fine	<0.050	-	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	B(a)P Total Potency Equivalent	<0.038	mg/kg	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	2	2021-09-15	12:30	IACR (CCME)	<0.43	-	ALS	RG_MIUCO_SE-2_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Moisture	68	%	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	pH (1:2 soil:water)	8.1	pH	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	% Gravel (>2 mm)	3.9	%	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	% Sand (2.00 mm - 1.00 mm)	11	%	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	% Sand (1.00 mm - 0.50 mm)	9.8	%	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	% Sand (0.50 mm - 0.25 mm)	5.4	%	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	% Sand (0.25 mm - 0.125 mm)	5.3	%	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	% Sand (0.125 mm - 0.063 mm)	9.4	%	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	% Silt (0.063 mm - 0.0312 mm)	21	%	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	% Silt (0.031 mm - 0.004 mm)	28	%	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	% Clay (<4 µm)	6.3	%	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Texture	Silt loam	-	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Total Organic Carbon	2.0	%	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Aluminum (Al)	670	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Antimony (Sb)	0.15	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Arsenic (As)	1.3	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Barium (Ba)	124	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Beryllium (Be)	0.21	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Boron (B)	5.4	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Cadmium (Cd)	5.1	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Calcium (Ca)	235,000	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Chromium (Cr)	1.2	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Cobalt (Co)	170	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Copper (Cu)	3.9	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Iron (Fe)	2,210	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Lead (Pb)	1.5	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Lithium (Li)	<2.0	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Magnesium (Mg)	4,830	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Manganese (Mn)	1,730	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Mercury (Hg)	0.012	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Molybdenum (Mo)	0.23	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Nickel (Ni)	171	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Phosphorus (P)	184	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Potassium (K)	220	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Selenium (Se)	1.2	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Silver (Ag)	<0.10	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Sodium (Na)	285	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Strontium (Sr)	316	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Sulfur (S)	4,000	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Thallium (Tl)	0.091	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Titanium (Ti)	1.9	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Uranium (U)	1.5	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Vanadium (V)	2.4	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Zinc (Zn)	438	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Acenaphthene	0.0055	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Acenaphthylene	<0.0050	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Acridine	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Anthracene	<0.0040	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Benz(a)anthracene	0.011	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Benzo(a)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Benzo(b&j)fluoranthene	0.032	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Benzo(b+j+k)fluoranthene	0.032	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Benzo(e)pyrene	0.033	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Benzo(g_h_i)perylene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Chrysene	0.06	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Dibenz(a_h)anthracene	0.0069	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Fluoranthene	0.016	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Fluorene	0.013	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	1-Methylnaphthalene	0.054	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	2-Methylnaphthalene	0.079	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Naphthalene	0.06	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Perylene	0.024	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Phenanthrene	0.11	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Pyrene	0.019	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	Quinoline	<0.050	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	d10-Acenaphthene	70	%	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	d12-Chrysene	78	%	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	d8-Naphthalene	78	%	ALS	RG_MIUCO_SE-3_2021-09-15_1230



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	d10-Phenanthrene	76	%	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	IACR:Coarse	<0.050	-	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	IACR:Fine	<0.050	-	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	B(a)P Total Potency Equivalent	<0.020	mg/kg	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	MIUCO	668227	5486628	2021	3	2021-09-15	12:30	IACR (CCME)	0.34	-	ALS	RG_MIUCO_SE-3_2021-09-15_1230
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Moisture	85	%	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	pH (1:2 soil:water)	8.0	pH	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	% Gravel (>2 mm)	4.1	%	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	% Sand (2.00 mm - 1.00 mm)	1.9	%	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	% Sand (1.00 mm - 0.50 mm)	1.9	%	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	% Sand (0.50 mm - 0.25 mm)	2.3	%	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	% Sand (0.25 mm - 0.125 mm)	9.5	%	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	% Sand (0.125 mm - 0.063 mm)	16	%	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	% Silt (0.063 mm - 0.0312 mm)	26	%	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	% Silt (0.031 mm - 0.004 mm)	33	%	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	% Clay (<4 µm)	5.6	%	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Texture	Silt loam	-	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Total Organic Carbon	4.0	%	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Aluminum (Al)	867	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Antimony (Sb)	0.14	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Arsenic (As)	1.1	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Barium (Ba)	103	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Beryllium (Be)	0.19	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Boron (B)	5.5	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Cadmium (Cd)	4.4	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Calcium (Ca)	194,000	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Chromium (Cr)	1.3	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Cobalt (Co)	145	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Copper (Cu)	3.2	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Iron (Fe)	1,870	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Lead (Pb)	1.2	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Lithium (Li)	<2.0	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Magnesium (Mg)	4,200	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Manganese (Mn)	1,510	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Mercury (Hg)	0.0089	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Molybdenum (Mo)	0.24	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Nickel (Ni)	147	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Phosphorus (P)	130	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Potassium (K)	260	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Selenium (Se)	1.3	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Silver (Ag)	<0.10	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Sodium (Na)	246	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Strontium (Sr)	269	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Sulfur (S)	3,300	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Thallium (Tl)	0.084	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Titanium (Ti)	3.1	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Uranium (U)	1.3	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Vanadium (V)	2.9	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Zinc (Zn)	377	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Acenaphthene	0.082	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Acenaphthylene	0.018	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Acridine	0.14	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Anthracene	<0.012	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Benz(a)anthracene	0.095	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Benzo(a)pyrene	0.077	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Benzo(b&j)fluoranthene	0.27	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Benzo(b+j+k)fluoranthene	0.27	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Benzo(e)pyrene	0.34	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Benzo(g_h_i)perylene	0.17	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Benzo(k)fluoranthene	<0.030	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Chrysene	0.45	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Dibenz(a_h)anthracene	0.043	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Fluoranthene	0.1	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Fluorene	0.24	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Indeno(1,2,3-c,d)pyrene	0.031	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	1-Methylnaphthalene	1.5	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	2-Methylnaphthalene	2.6	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Naphthalene	0.84	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Perylene	<0.030	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Phenanthrene	1.3	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Pyrene	0.14	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	Quinoline	<0.030	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	d10-Acenaphthene	81	%	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	d12-Chrysene	74	%	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	d8-Naphthalene	72	%	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	d10-Phenanthrene	73	%	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	IACR:Coarse	0.085	-	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	IACR:Fine	0.16	-	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	B(a)P Total Potency Equivalent	0.17	mg/kg	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	1	2021-09-15	08:30	IACR (CCME)	2.7	-	ALS	RG_CORCK_SE-1_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Moisture	62	%	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	pH (1:2 soil:water)	8.3	pH	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	% Gravel (>2 mm)	<1.0	%	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	% Sand (2.00 mm - 1.00 mm)	1.7	%	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	% Sand (1.00 mm - 0.50 mm)	2.6	%	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	% Sand (0.50 mm - 0.25 mm)	7.1	%	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	% Sand (0.25 mm - 0.125 mm)	21	%	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	% Sand (0.125 mm - 0.063 mm)	23	%	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	% Silt (0.063 mm - 0.0312 mm)	21	%	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	% Silt (0.031 mm - 0.004 mm)	21	%	ALS	RG_CORCK_SE-2_2021_09-15_0830

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	% Clay (<4 µm)	3.4	%	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Texture	Sandy loam	-	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Total Organic Carbon	3.4	%	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Aluminum (Al)	823	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Antimony (Sb)	0.14	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Arsenic (As)	1.3	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Barium (Ba)	123	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Beryllium (Be)	0.19	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Boron (B)	<5.0	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Cadmium (Cd)	6.1	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Calcium (Ca)	240,000	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Chromium (Cr)	1.3	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Cobalt (Co)	232	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Copper (Cu)	4.0	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Iron (Fe)	1,860	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Lead (Pb)	1.1	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Lithium (Li)	2.1	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Magnesium (Mg)	5,140	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Manganese (Mn)	1,880	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Mercury (Hg)	0.011	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Molybdenum (Mo)	0.24	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Nickel (Ni)	189	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Phosphorus (P)	136	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Potassium (K)	240	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Selenium (Se)	1.0	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Silver (Ag)	<0.10	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Sodium (Na)	270	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Strontium (Sr)	299	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Sulfur (S)	3,500	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Thallium (Tl)	0.17	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Tin (Sn)	<2.0	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Titanium (Ti)	3.6	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Tungsten (W)	<0.50	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Uranium (U)	1.5	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Vanadium (V)	2.9	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Zinc (Zn)	486	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Acenaphthene	0.027	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Acenaphthylene	<0.0050	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Acridine	0.049	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Anthracene	<0.0040	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Benz(a)anthracene	0.035	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Benzo(a)pyrene	0.03	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Benzo(b&j)fluoranthene	0.1	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Benzo(b+j+k)fluoranthene	0.1	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Benzo(e)pyrene	0.13	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Benzo(g_h_i)perylene	0.067	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Chrysene	0.17	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Dibenz(a_h)anthracene	0.015	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Fluoranthene	0.032	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Fluorene	0.09	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Indeno(1,2,3-c,d)pyrene	0.012	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	1-Methylnaphthalene	0.62	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	2-Methylnaphthalene	1.0	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Naphthalene	0.36	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Perylene	<0.010	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Phenanthrene	0.49	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Pyrene	0.054	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	Quinoline	<0.050	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	d10-Acenaphthene	80	%	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	d12-Chrysene	77	%	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	d8-Naphthalene	76	%	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	d10-Phenanthrene	73	%	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	IACR:Coarse	<0.050	-	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	IACR:Fine	0.06	-	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	B(a)P Total Potency Equivalent	0.063	mg/kg	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668478	5487339	2021	2	2021-09-15	08:30	IACR (CCME)	1.0	-	ALS	RG_CORCK_SE-2_2021_09-15_0830
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Moisture	69	%	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	pH (1:2 soil:water)	8.1	pH	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	% Gravel (>2 mm)	<1.0	%	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	% Sand (2.00 mm - 1.00 mm)	2.0	%	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	% Sand (1.00 mm - 0.50 mm)	2.6	%	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	% Sand (0.50 mm - 0.25 mm)	6.0	%	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	% Sand (0.25 mm - 0.125 mm)	18	%	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	% Sand (0.125 mm - 0.063 mm)	20	%	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	% Silt (0.063 mm - 0.0312 mm)	22	%	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	% Silt (0.031 mm - 0.004 mm)	25	%	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	% Clay (<4 µm)	4.4	%	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Texture	Sandy loam	-	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Total Organic Carbon	3.2	%	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Aluminum (Al)	953	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Antimony (Sb)	0.15	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Arsenic (As)	1.4	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Barium (Ba)	121	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Beryllium (Be)	0.23	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Boron (B)	5.2	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Cadmium (Cd)	5.4	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Calcium (Ca)	226,000	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Chromium (Cr)	1.6	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Cobalt (Co)	203	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Copper (Cu)	4.1	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Iron (Fe)	2,310	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Lead (Pb)	1.4	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Lithium (Li)	2.1	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Magnesium (Mg)	4,720	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Manganese (Mn)	1,800	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Mercury (Hg)	0.015	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Molybdenum (Mo)	0.26	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Nickel (Ni)	180	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Phosphorus (P)	153	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Potassium (K)	270	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Selenium (Se)	1.4	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Silver (Ag)	<0.10	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Sodium (Na)	268	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Strontium (Sr)	305	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Sulfur (S)	3,800	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Thallium (Tl)	0.16	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Tin (Sn)	<2.0	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Titanium (Ti)	4.0	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Tungsten (W)	<0.50	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Uranium (U)	1.5	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Vanadium (V)	3.2	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Zinc (Zn)	458	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Acenaphthene	0.035	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Acenaphthylene	0.0088	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Acridine	0.076	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Anthracene	<0.0040	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Benz(a)anthracene	0.049	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Benzo(a)pyrene	0.041	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Benzo(b&j)fluoranthene	0.14	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Benzo(b+j+k)fluoranthene	0.14	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Benzo(e)pyrene	0.18	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Benzo(g_h_i)perylene	0.094	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Chrysene	0.23	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Dibenz(a_h)anthracene	0.027	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Fluoranthene	0.04	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Fluorene	0.13	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Indeno(1,2,3-c,d)pyrene	0.012	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	1-Methylnaphthalene	0.82	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	2-Methylnaphthalene	1.4	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Naphthalene	0.44	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Perylene	<0.010	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Phenanthrene	0.68	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Pyrene	0.072	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	Quinoline	<0.050	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	d10-Acenaphthene	85	%	ALS	RG_CORCK_SE-3_2021_09-15_0945

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	d12-Chrysene	97	%	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	d8-Naphthalene	89	%	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	d10-Phenanthrene	91	%	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	IACR:Coarse	<0.050	-	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	IACR:Fine	0.082	-	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	B(a)P Total Potency Equivalent	0.093	mg/kg	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	3	2021-09-15	09:45	IACR (CCME)	1.4	-	ALS	RG_CORCK_SE-3_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Moisture	59	%	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	pH (1:2 soil:water)	8.0	pH	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	% Gravel (>2 mm)	<1.0	%	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	% Sand (2.00 mm - 1.00 mm)	3.0	%	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	% Sand (1.00 mm - 0.50 mm)	3.7	%	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	% Sand (0.50 mm - 0.25 mm)	7.7	%	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	% Sand (0.25 mm - 0.125 mm)	18	%	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	% Sand (0.125 mm - 0.063 mm)	19	%	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	% Silt (0.063 mm - 0.0312 mm)	21	%	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	% Silt (0.031 mm - 0.004 mm)	23	%	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	% Clay (<4 µm)	4.7	%	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Texture	Sandy loam	-	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Total Organic Carbon	4.4	%	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Aluminum (Al)	2,600	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Antimony (Sb)	0.31	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Arsenic (As)	3.1	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Barium (Ba)	214	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Beryllium (Be)	0.44	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Boron (B)	7.9	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Cadmium (Cd)	9.3	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Calcium (Ca)	338,000	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Chromium (Cr)	3.8	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Cobalt (Co)	370	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Copper (Cu)	7.7	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Iron (Fe)	4,730	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Lead (Pb)	2.6	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Lithium (Li)	3.7	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Magnesium (Mg)	6,870	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Manganese (Mn)	2,720	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Mercury (Hg)	0.025	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Molybdenum (Mo)	0.78	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Nickel (Ni)	304	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Phosphorus (P)	283	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Potassium (K)	680	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Selenium (Se)	3.2	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Silver (Ag)	<0.10	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Sodium (Na)	419	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Strontium (Sr)	431	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Sulfur (S)	5,100	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Thallium (Tl)	0.41	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Tin (Sn)	<2.0	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Titanium (Ti)	8.3	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Tungsten (W)	<0.50	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Uranium (U)	2.1	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Vanadium (V)	8.3	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Zinc (Zn)	782	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Acenaphthene	0.048	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Acenaphthylene	0.0091	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Acridine	0.091	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Anthracene	<0.0040	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Benz(a)anthracene	0.063	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Benzo(a)pyrene	0.048	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Benzo(b&j)fluoranthene	0.17	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Benzo(b+j+k)fluoranthene	0.17	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Benzo(e)pyrene	0.22	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Benzo(g_h_i)perylene	0.11	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Benzo(k)fluoranthene	<0.010	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Chrysene	0.28	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Dibenz(a_h)anthracene	0.024	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Fluoranthene	0.046	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Fluorene	0.14	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Indeno(1,2,3-c,d)pyrene	0.022	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	1-Methylnaphthalene	0.94	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	2-Methylnaphthalene	1.6	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Naphthalene	0.52	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Perylene	<0.010	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Phenanthrene	0.78	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Pyrene	0.085	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	Quinoline	<0.050	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	d10-Acenaphthene	83	%	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	d12-Chrysene	94	%	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	d8-Naphthalene	84	%	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	d10-Phenanthrene	88	%	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	IACR:Coarse	<0.050	-	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	IACR:Fine	0.096	-	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	B(a)P Total Potency Equivalent	0.1	mg/kg	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668485	548357	2021	4	2021-09-15	09:45	IACR (CCME)	1.7	-	ALS	RG_CORCK_SE-4_2021_09-15_0945
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Moisture	93	%	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	pH (1:2 soil:water)	7.8	pH	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	% Gravel (>2 mm)	2.5	%	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	% Sand (2.00 mm - 1.00 mm)	4.6	%	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	% Sand (1.00 mm - 0.50 mm)	4.1	%	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	% Sand (0.50 mm - 0.25 mm)	5.4	%	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	% Sand (0.25 mm - 0.125 mm)	12	%	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	% Sand (0.125 mm - 0.063 mm)	16	%	ALS	RG_CORCK_SE-5_2021_09-15_1100

Appendix I:  
Sediment Screening

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	% Silt (0.063 mm - 0.0312 mm)	21	%	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	% Silt (0.031 mm - 0.004 mm)	28	%	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	% Clay (<4 µm)	5.9	%	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Texture	Silt loam	-	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Total Organic Carbon	4.2	%	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Aluminum (Al)	1,390	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Antimony (Sb)	0.25	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Arsenic (As)	2.1	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Barium (Ba)	178	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Beryllium (Be)	0.33	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Bismuth (Bi)	<0.20	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Boron (B)	8.0	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Cadmium (Cd)	6.9	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Calcium (Ca)	290,000	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Chromium (Cr)	2.3	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Cobalt (Co)	223	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Copper (Cu)	5.9	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Iron (Fe)	3,570	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Lead (Pb)	2.3	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Lithium (Li)	2.8	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Magnesium (Mg)	6,310	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Manganese (Mn)	2,090	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Mercury (Hg)	0.025	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Molybdenum (Mo)	0.37	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Nickel (Ni)	235	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Phosphorus (P)	308	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Potassium (K)	410	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Selenium (Se)	2.6	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Silver (Ag)	<0.10	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Sodium (Na)	418	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Strontium (Sr)	398	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Sulfur (S)	5,900	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Thallium (Tl)	0.15	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Tin (Sn)	<2.0	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Titanium (Ti)	5.4	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Tungsten (W)	<0.50	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Uranium (U)	1.9	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Vanadium (V)	4.8	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Zinc (Zn)	582	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Zirconium (Zr)	<1.0	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Acenaphthene	0.13	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Acenaphthylene	<0.035	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Acridine	0.25	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Anthracene	<0.028	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Benz(a)anthracene	0.16	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Benzo(a)pyrene	0.12	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Benzo(b&j)fluoranthene	0.48	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Benzo(b+j+k)fluoranthene	0.48	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Benzo(e)pyrene	0.59	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Benzo(g_h_i)perylene	0.29	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Benzo(k)fluoranthene	<0.070	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Chrysene	0.74	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Dibenz(a_h)anthracene	0.066	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Fluoranthene	<0.070	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Fluorene	0.41	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Indeno(1,2,3-c,d)pyrene	<0.070	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	1-Methylnaphthalene	2.6	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	2-Methylnaphthalene	4.2	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Naphthalene	1.4	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Perylene	<0.070	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Phenanthrene	2.1	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Pyrene	0.26	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	Quinoline	<0.070	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	d10-Acenaphthene	84	%	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	d12-Chrysene	96	%	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	d8-Naphthalene	87	%	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	d10-Phenanthrene	93	%	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	IACR:Coarse	0.15	-	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	IACR:Fine	0.3	-	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	B(a)P Total Potency Equivalent	0.27	mg/kg	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	CORCK	668527	5487371	2021	5	2021-09-15	11:00	IACR (CCME)	4.8	-	ALS	RG_CORCK_SE-5_2021_09-15_1100
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Moisture	66.5	%	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	pH (1:2 soil:water)	7.68	pH	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	% Clay (<4 µm)	4.2	%	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	% Silt (0.063 mm - 0.0312 mm)	14.6	%	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	% Silt (0.031 mm - 0.004 mm)	14.6	%	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	% Sand (0.125 mm - 0.063 mm)	17.4	%	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	% Sand (0.25 mm - 0.125 mm)	27.8	%	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	% Sand (0.50 mm - 0.25 mm)	16.9	%	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	% Sand (1.00 mm - 0.50 mm)	2.6	%	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	% Sand (2.00 mm - 1.00 mm)	<1	%	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	% Gravel (>2 mm)	1.4	%	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Inorganic Carbon <63 µm	1.12	%	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Total Carbon <63 µm	4.94	%	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Total Organic Carbon	3.82	%	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Inorganic Carbon (as CaCO3 equivalent)	9.36	%	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Aluminum (Al)	7640	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Antimony (Sb)	0.74	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Arsenic (As)	5.06	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Barium (Ba)	190	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Beryllium (Be)	0.61	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Boron (B)	7.9	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Cadmium (Cd)	1.41	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Calcium (Ca)	38700	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Chromium (Cr)	11.6	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Cobalt (Co)	6.09	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Copper (Cu)	11.2	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Iron (Fe)	11900	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Lead (Pb)	8.13	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Lithium (Li)	10.1	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Magnesium (Mg)	4550	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Manganese (Mn)	147	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Mercury (Hg)	0.0373	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Molybdenum (Mo)	1.26	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Nickel (Ni)	27.5	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Phosphorus (P)	1220	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Potassium (K)	1380	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Selenium (Se)	1.74	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Silver (Ag)	0.17	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Sodium (Na)	87	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Strontium (Sr)	73.3	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Sulfur (S)	<1000	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Thallium (Tl)	0.253	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Tin (Sn)	<2	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Titanium (Ti)	41.5	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Tungsten (W)	<0.5	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Uranium (U)	1.28	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Vanadium (V)	30.9	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Zinc (Zn)	94.6	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Zirconium (Zr)	1.1	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Acenaphthene	<0.05	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Acenaphthylene	<0.05	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Acridine	<0.05	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Anthracene	<0.05	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Benzo(b&j)fluoranthene	<0.05	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Benzo(b+j+k)fluoranthene	<0.075	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Benzo(g_h_i)perylene	<0.05	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Chrysene	0.073	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Fluoranthene	<0.05	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Fluorene	<0.05	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	1+2-Methylnaphthalene	0.263	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	1-Methylnaphthalene	0.118	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	2-Methylnaphthalene	0.145	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Naphthalene	0.073	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Phenanthrene	0.172	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Pyrene	<0.05	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	Quinoline	<0.05	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	B(a)P Total Potency Equivalent	<0.065	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	PAHs, total (BC Sched 3.4)	0.46	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	PAHs, total	0.32	mg/kg	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	d9-Acridine	90.9	%	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	d12-Chrysene	104	%	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	d8-Naphthalene	73.1	%	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	d10-Phenanthrene	92.8	%	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Moisture	82.1	%	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	pH (1:2 soil:water)	7.61	pH	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	% Clay (<4 µm)	7.5	%	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	% Silt (0.063 mm - 0.0312 mm)	27.3	%	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	% Silt (0.031 mm - 0.004 mm)	30	%	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	% Sand (0.125 mm - 0.063 mm)	7.5	%	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	% Sand (0.25 mm - 0.125 mm)	4.7	%	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	% Sand (0.50 mm - 0.25 mm)	3.4	%	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	% Sand (1.00 mm - 0.50 mm)	4.4	%	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	% Sand (2.00 mm - 1.00 mm)	6.2	%	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	% Gravel (>2 mm)	9	%	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Inorganic Carbon <63 µm	2.24	%	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Total Carbon <63 µm	8.87	%	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Total Organic Carbon	6.63	%	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Inorganic Carbon (as CaCO3 equivalent)	18.6	%	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Aluminum (Al)	6310	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Antimony (Sb)	0.49	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Arsenic (As)	4.85	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Barium (Ba)	200	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Beryllium (Be)	0.44	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Boron (B)	9.1	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Cadmium (Cd)	1.67	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Calcium (Ca)	65200	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Chromium (Cr)	10.1	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Cobalt (Co)	6.27	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Copper (Cu)	10.2	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Iron (Fe)	10300	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Lead (Pb)	6.49	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Lithium (Li)	8.4	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Magnesium (Mg)	5450	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Manganese (Mn)	191	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Mercury (Hg)	0.0277	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Molybdenum (Mo)	0.88	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Nickel (Ni)	29.9	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Phosphorus (P)	1210	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Potassium (K)	1130	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Selenium (Se)	2.75	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Silver (Ag)	0.15	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Sodium (Na)	123	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Strontium (Sr)	107	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Sulfur (S)	<1000	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Thallium (Tl)	0.186	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Tin (Sn)	<2	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Titanium (Ti)	25.7	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Tungsten (W)	<0.5	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Uranium (U)	0.857	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Vanadium (V)	24.1	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Zinc (Zn)	94.9	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Zirconium (Zr)	<1	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Acenaphthene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Acenaphthylene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Acridine	<0.066	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Anthracene	0.204	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Benz(a)anthracene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Benzo(a)pyrene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Benzo(b&j)fluoranthene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Benzo(b+j+k)fluoranthene	<0.093	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Benzo(g_h_i)perylene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Benzo(k)fluoranthene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Chrysene	0.081	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Dibenz(a_h)anthracene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Fluoranthene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Fluorene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Indeno(1,2,3-c,d)pyrene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	1+2-Methylnaphthalene	0.324	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	1-Methylnaphthalene	0.14	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	2-Methylnaphthalene	0.184	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Naphthalene	0.096	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Phenanthrene	0.203	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Pyrene	<0.066	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	Quinoline	<0.066	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	B(a)P Total Potency Equivalent	0.08	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	PAHs, total (BC Sched 3.4)	0.77	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	PAHs, total	0.58	mg/kg	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	d9-Acridine	105	%	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	d12-Chrysene	119	%	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	d8-Naphthalene	73.5	%	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	d10-Phenanthrene	109	%	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Moisture	50.5	%	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	pH (1:2 soil:water)	7.67	pH	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	% Clay (<4 µm)	6.1	%	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	% Silt (0.063 mm - 0.0312 mm)	18.2	%	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	% Silt (0.031 mm - 0.004 mm)	21.1	%	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	% Sand (0.125 mm - 0.063 mm)	11	%	ALS	RG_MI5_SE-3_2022-09-12_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	% Sand (0.25 mm - 0.125 mm)	13.1	%	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	% Sand (0.50 mm - 0.25 mm)	14.2	%	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	% Sand (1.00 mm - 0.50 mm)	10.5	%	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	% Sand (2.00 mm - 1.00 mm)	3.3	%	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	% Gravel (>2 mm)	2.5	%	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Inorganic Carbon <63 µm	1.42	%	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Total Carbon <63 µm	6.04	%	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Total Organic Carbon	4.62	%	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Inorganic Carbon (as CaCO3 equivalent)	11.8	%	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Aluminum (Al)	6050	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Antimony (Sb)	0.66	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Arsenic (As)	5.01	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Barium (Ba)	204	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Beryllium (Be)	0.54	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Boron (B)	7.9	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Cadmium (Cd)	1.73	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Calcium (Ca)	46100	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Chromium (Cr)	10	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Cobalt (Co)	5.96	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Copper (Cu)	10.7	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Iron (Fe)	13900	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Lead (Pb)	7.49	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Lithium (Li)	8.8	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Magnesium (Mg)	4240	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Manganese (Mn)	202	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Mercury (Hg)	0.0338	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Molybdenum (Mo)	1.17	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Nickel (Ni)	27.8	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Phosphorus (P)	1190	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Potassium (K)	1040	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Selenium (Se)	2.12	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Silver (Ag)	0.17	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Sodium (Na)	79	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Strontium (Sr)	93.2	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Sulfur (S)	<1000	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Thallium (Tl)	0.222	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Tin (Sn)	<2	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Titanium (Ti)	30.3	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Tungsten (W)	<0.5	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Uranium (U)	1.02	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Vanadium (V)	25.1	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Zinc (Zn)	91.8	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Zirconium (Zr)	<1	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Acenaphthene	<0.05	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Acenaphthylene	<0.05	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Acridine	<0.05	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Anthracene	0.099	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Benzo(b&j)fluoranthene	<0.05	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Benzo(b+j+k)fluoranthene	<0.075	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Benzo(g_h_i)perylene	<0.05	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Chrysene	<0.05	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Fluoranthene	<0.05	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Fluorene	<0.05	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	1+2-Methylnaphthalene	0.15	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	1-Methylnaphthalene	0.064	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	2-Methylnaphthalene	0.086	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Naphthalene	0.041	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Phenanthrene	0.097	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Pyrene	<0.05	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	Quinoline	<0.05	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	B(a)P Total Potency Equivalent	<0.065	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	PAHs, total (BC Sched 3.4)	0.32	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	PAHs, total	0.24	mg/kg	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	d9-Acridine	96.7	%	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	d12-Chrysene	112	%	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	d8-Naphthalene	84.5	%	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	d10-Phenanthrene	102	%	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Moisture	77	%	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	pH (1:2 soil:water)	7.33	pH	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	% Clay (<4 µm)	4	%	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	% Silt (0.063 mm - 0.0312 mm)	20.2	%	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	% Silt (0.031 mm - 0.004 mm)	20	%	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	% Sand (0.125 mm - 0.063 mm)	14.4	%	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	% Sand (0.25 mm - 0.125 mm)	15	%	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	% Sand (0.50 mm - 0.25 mm)	6.5	%	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	% Sand (1.00 mm - 0.50 mm)	2.4	%	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	% Sand (2.00 mm - 1.00 mm)	2.4	%	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	% Gravel (>2 mm)	15.1	%	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Inorganic Carbon <63 µm	1.71	%	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Total Carbon <63 µm	7.63	%	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Total Organic Carbon	5.92	%	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Inorganic Carbon (as CaCO3 equivalent)	14.3	%	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Aluminum (Al)	7070	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Antimony (Sb)	0.56	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Arsenic (As)	5.6	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Barium (Ba)	166	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Beryllium (Be)	0.62	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Boron (B)	8.8	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Cadmium (Cd)	1.19	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Calcium (Ca)	55400	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Chromium (Cr)	10.2	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Cobalt (Co)	8.97	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Copper (Cu)	11.3	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Iron (Fe)	11900	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Lead (Pb)	8.32	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Lithium (Li)	10.7	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Magnesium (Mg)	6520	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Manganese (Mn)	198	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Mercury (Hg)	0.0325	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Molybdenum (Mo)	1.39	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Nickel (Ni)	37.8	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Phosphorus (P)	1080	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Potassium (K)	1370	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Selenium (Se)	1.95	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Silver (Ag)	0.16	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Sodium (Na)	103	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Strontium (Sr)	86.1	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Sulfur (S)	1000	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Thallium (Tl)	0.327	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Tin (Sn)	<2	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Titanium (Ti)	20	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Uranium (U)	0.854	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Vanadium (V)	22.2	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Zinc (Zn)	96.5	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Zirconium (Zr)	1.2	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Acenaphthene	<0.05	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Acenaphthylene	<0.05	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Acridine	<0.05	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Anthracene	<0.05	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Benzo(b&j)fluoranthene	0.068	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Benzo(b+j+k)fluoranthene	<0.075	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Benzo(g_h_i)perylene	<0.05	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Chrysene	0.105	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Fluoranthene	<0.05	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Fluorene	<0.05	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	1+2-Methylnaphthalene	0.522	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	1-Methylnaphthalene	0.215	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	2-Methylnaphthalene	0.307	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Naphthalene	0.154	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Phenanthrene	0.272	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Pyrene	<0.05	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	Quinoline	<0.05	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	B(a)P Total Potency Equivalent	0.066	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	PAHs, total (BC Sched 3.4)	0.84	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	PAHs, total	0.6	mg/kg	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	d9-Acridine	98.5	%	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	d12-Chrysene	112	%	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	d8-Naphthalene	63.6	%	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	d10-Phenanthrene	101	%	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Moisture	73.2	%	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	pH (1:2 soil:water)	7.49	pH	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	% Clay (<4 µm)	4.9	%	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	% Silt (0.063 mm - 0.0312 mm)	20.9	%	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	% Silt (0.031 mm - 0.004 mm)	23.8	%	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	% Sand (0.125 mm - 0.063 mm)	7.8	%	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	% Sand (0.25 mm - 0.125 mm)	8	%	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	% Sand (0.50 mm - 0.25 mm)	13.1	%	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	% Sand (1.00 mm - 0.50 mm)	10.9	%	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	% Sand (2.00 mm - 1.00 mm)	5	%	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	% Gravel (>2 mm)	5.6	%	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Inorganic Carbon <63 µm	2.09	%	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Total Carbon <63 µm	7.78	%	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Total Organic Carbon	5.69	%	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Inorganic Carbon (as CaCO3 equivalent)	17.4	%	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Aluminum (Al)	6350	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Antimony (Sb)	0.6	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Arsenic (As)	5.98	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Barium (Ba)	147	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Beryllium (Be)	0.6	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Boron (B)	8.5	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Cadmium (Cd)	1.39	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Calcium (Ca)	57900	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Chromium (Cr)	10.3	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Cobalt (Co)	9.87	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Copper (Cu)	13.4	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Iron (Fe)	15400	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Lead (Pb)	8.02	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Lithium (Li)	10.7	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Magnesium (Mg)	5460	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Manganese (Mn)	217	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Mercury (Hg)	0.0271	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Molybdenum (Mo)	1.83	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Nickel (Ni)	427	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Phosphorus (P)	1160	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Potassium (K)	1220	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Selenium (Se)	2.43	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Silver (Ag)	0.14	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Sodium (Na)	105	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Strontium (Sr)	93.4	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Sulfur (S)	<1000	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Thallium (Tl)	0.305	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Tin (Sn)	<2	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Titanium (Ti)	21.6	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Uranium (U)	0.862	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Vanadium (V)	23.7	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Zinc (Zn)	121	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Zirconium (Zr)	<1	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Acenaphthene	<0.05	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Acenaphthylene	<0.05	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Acridine	<0.05	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Anthracene	<0.05	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Benzo(b&j)fluoranthene	0.059	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Benzo(b+j+k)fluoranthene	<0.075	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Benzo(g_h_i)perylene	<0.05	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Chrysene	0.1	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Fluoranthene	<0.05	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Fluorene	<0.05	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	1+2-Methylnaphthalene	0.391	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	1-Methylnaphthalene	0.163	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	2-Methylnaphthalene	0.228	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Naphthalene	0.117	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Phenanthrene	0.214	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Pyrene	<0.05	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	Quinoline	<0.05	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	B(a)P Total Potency Equivalent	<0.065	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	PAHs, total (BC Sched 3.4)	0.66	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	PAHs, total	0.49	mg/kg	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	d9-Acridine	95.9	%	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	d12-Chrysene	109	%	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	d8-Naphthalene	80.4	%	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	d10-Phenanthrene	101	%	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Moisture	79	%	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	pH (1:2 soil:water)	7.34	pH	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	% Clay (<4 µm)	6.1	%	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	% Silt (0.063 mm - 0.0312 mm)	24.7	%	ALS	RG_MIULE_SE-3_2022-09-12_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	% Silt (0.031 mm - 0.004 mm)	27.5	%	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	% Sand (0.125 mm - 0.063 mm)	6.7	%	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	% Sand (0.25 mm - 0.125 mm)	5.5	%	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	% Sand (0.50 mm - 0.25 mm)	5	%	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	% Sand (1.00 mm - 0.50 mm)	7.2	%	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	% Sand (2.00 mm - 1.00 mm)	4.6	%	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	% Gravel (>2 mm)	12.7	%	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Inorganic Carbon <63 µm	2.48	%	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Total Carbon <63 µm	9.5	%	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Total Organic Carbon	7.02	%	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Inorganic Carbon (as CaCO3 equivalent)	20.7	%	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Aluminum (Al)	5290	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Antimony (Sb)	0.5	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Arsenic (As)	4.72	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Barium (Ba)	149	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Beryllium (Be)	0.51	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Boron (B)	7.4	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Cadmium (Cd)	1.41	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Calcium (Ca)	79400	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Chromium (Cr)	8.52	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Cobalt (Co)	9.5	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Copper (Cu)	10.2	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Iron (Fe)	11000	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Lead (Pb)	6.92	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Lithium (Li)	9.8	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Magnesium (Mg)	6430	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Manganese (Mn)	212	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Mercury (Hg)	0.0277	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Molybdenum (Mo)	1.29	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Nickel (Ni)	36.6	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Phosphorus (P)	1020	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Potassium (K)	950	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Selenium (Se)	3.19	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Silver (Ag)	0.15	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Sodium (Na)	125	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Strontium (Sr)	114	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Sulfur (S)	1400	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Thallium (Tl)	0.263	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Tin (Sn)	<2	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Titanium (Ti)	14.7	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Uranium (U)	0.776	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Vanadium (V)	17.6	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Zinc (Zn)	100	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Zirconium (Zr)	1.2	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Acenaphthene	<0.05	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Acenaphthylene	<0.05	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Acridine	<0.05	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Anthracene	<0.05	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Benzo(b&j)fluoranthene	0.084	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Benzo(b+j+k)fluoranthene	0.084	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Benzo(g_h_i)perylene	<0.05	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Chrysene	0.115	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Fluoranthene	0.058	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Fluorene	<0.05	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	1+2-Methylnaphthalene	0.441	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	1-Methylnaphthalene	0.182	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	2-Methylnaphthalene	0.259	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Naphthalene	0.132	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Phenanthrene	0.243	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Pyrene	<0.05	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	Quinoline	<0.05	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	B(a)P Total Potency Equivalent	0.067	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	PAHs, total (BC Sched 3.4)	0.81	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	PAHs, total	0.63	mg/kg	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	d9-Acridine	109	%	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	d12-Chrysene	124	%	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	d8-Naphthalene	102	%	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	d10-Phenanthrene	115	%	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Moisture	85.5	%	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	pH (1:2 soil:water)	7.21	pH	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	% Clay (<4 µm)	6.5	%	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	% Silt (0.063 mm - 0.0312 mm)	30.3	%	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	% Silt (0.031 mm - 0.004 mm)	33.1	%	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	% Sand (0.125 mm - 0.063 mm)	6.1	%	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	% Sand (0.25 mm - 0.125 mm)	5.1	%	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	% Sand (0.50 mm - 0.25 mm)	7	%	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	% Sand (1.00 mm - 0.50 mm)	4.3	%	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	% Sand (2.00 mm - 1.00 mm)	2.9	%	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	% Gravel (>2 mm)	4.7	%	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Inorganic Carbon <63 µm	2.5	%	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Total Carbon <63 µm	9.97	%	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Total Organic Carbon	7.47	%	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Inorganic Carbon (as CaCO3 equivalent)	20.8	%	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Aluminum (Al)	5410	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Antimony (Sb)	0.41	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Arsenic (As)	4.3	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Barium (Ba)	153	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Beryllium (Be)	0.49	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Boron (B)	10.6	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Cadmium (Cd)	1.4	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Calcium (Ca)	83400	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Chromium (Cr)	8.24	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Cobalt (Co)	10.9	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Copper (Cu)	10	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Iron (Fe)	9640	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Lead (Pb)	6.63	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Lithium (Li)	10	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Magnesium (Mg)	5850	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Manganese (Mn)	213	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Mercury (Hg)	0.0337	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Molybdenum (Mo)	1.15	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Nickel (Ni)	39.3	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Phosphorus (P)	955	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Potassium (K)	1360	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Selenium (Se)	3.88	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Silver (Ag)	0.15	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Sodium (Na)	158	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Strontium (Sr)	114	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Sulfur (S)	1600	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Thallium (Tl)	0.258	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Tin (Sn)	<2	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Titanium (Ti)	15.8	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Uranium (U)	0.755	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Vanadium (V)	15.9	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Zinc (Zn)	99.3	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Zirconium (Zr)	1.1	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Acenaphthene	<0.068	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Acenaphthylene	<0.068	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Acridine	<0.068	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Anthracene	0.357	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Benz(a)anthracene	<0.068	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Benzo(a)pyrene	<0.068	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Benzo(b&j)fluoranthene	0.085	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Benzo(b+j+k)fluoranthene	<0.096	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Benzo(g_h_i)perylene	<0.068	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Benzo(k)fluoranthene	<0.068	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Chrysene	0.15	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Dibenz(a_h)anthracene	<0.068	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Fluoranthene	0.075	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Fluorene	<0.068	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Indeno(1,2,3-c,d)pyrene	<0.068	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	1+2-Methylnaphthalene	0.662	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	1-Methylnaphthalene	0.268	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	2-Methylnaphthalene	0.394	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Naphthalene	0.192	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Phenanthrene	0.358	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Pyrene	<0.068	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	Quinoline	<0.068	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	B(a)P Total Potency Equivalent	0.088	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	PAHs, total (BC Sched 3.4)	1.53	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	PAHs, total	1.22	mg/kg	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	d9-Acridine	122	%	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	d12-Chrysene	126	%	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	d8-Naphthalene	81.9	%	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	d10-Phenanthrene	124	%	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Moisture	69.2	%	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	pH (1:2 soil:water)	7.55	pH	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	% Clay (<4 µm)	4.9	%	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	% Silt (0.063 mm - 0.0312 mm)	17.4	%	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	% Silt (0.031 mm - 0.004 mm)	19.4	%	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	% Sand (0.125 mm - 0.063 mm)	8.2	%	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	% Sand (0.25 mm - 0.125 mm)	10.1	%	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	% Sand (0.50 mm - 0.25 mm)	19.7	%	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	% Sand (1.00 mm - 0.50 mm)	13.3	%	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	% Sand (2.00 mm - 1.00 mm)	4	%	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	% Gravel (>2 mm)	3	%	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Inorganic Carbon <63 µm	1.89	%	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Total Carbon <63 µm	6.86	%	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Total Organic Carbon	4.97	%	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Inorganic Carbon (as CaCO3 equivalent)	15.8	%	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Aluminum (Al)	6830	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Antimony (Sb)	0.52	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Arsenic (As)	5.93	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Barium (Ba)	133	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Beryllium (Be)	0.61	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Boron (B)	8.4	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Cadmium (Cd)	1.2	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Calcium (Ca)	56000	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Chromium (Cr)	9.72	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Cobalt (Co)	9.54	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Copper (Cu)	11.4	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Iron (Fe)	13300	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Lead (Pb)	8.21	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Lithium (Li)	11	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Magnesium (Mg)	5770	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Manganese (Mn)	182	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Mercury (Hg)	0.0315	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Molybdenum (Mo)	1.37	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Nickel (Ni)	35.8	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Phosphorus (P)	1080	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Potassium (K)	1280	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Selenium (Se)	2.06	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Silver (Ag)	0.13	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Sodium (Na)	90	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Strontium (Sr)	85.5	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Sulfur (S)	1100	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Thallium (Tl)	0.317	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Tin (Sn)	<2	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Titanium (Ti)	16.3	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Uranium (U)	0.806	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Vanadium (V)	21.3	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Zinc (Zn)	99.6	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Zirconium (Zr)	1.1	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Acenaphthene	<0.05	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Acenaphthylene	<0.05	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Acridine	<0.05	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Anthracene	<0.05	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Benzo(b&j)fluoranthene	<0.05	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Benzo(b+j+k)fluoranthene	<0.075	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Benzo(g_h_i)perylene	<0.05	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Chrysene	0.064	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Fluoranthene	<0.05	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Fluorene	<0.05	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	1+2-Methylnaphthalene	0.304	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	1-Methylnaphthalene	0.127	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	2-Methylnaphthalene	0.177	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Naphthalene	0.091	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Phenanthrene	0.166	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Pyrene	<0.05	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	Quinoline	<0.05	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	B(a)P Total Potency Equivalent	<0.065	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	PAHs, total (BC Sched 3.4)	0.5	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	PAHs, total	0.32	mg/kg	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	d9-Acridine	102	%	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	d12-Chrysene	117	%	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	d8-Naphthalene	83.5	%	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	d10-Phenanthrene	106	%	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Moisture	82.8	%	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	pH (1:2 soil:water)	7.57	pH	ALS	RG_MIDAG_SE-1_2022-09-13_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	% Clay (<4 µm)	5.6	%	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	% Silt (0.063 mm - 0.0312 mm)	23.6	%	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	% Silt (0.031 mm - 0.004 mm)	25.5	%	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	% Sand (0.125 mm - 0.063 mm)	9.5	%	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	% Sand (0.25 mm - 0.125 mm)	4.6	%	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	% Sand (0.50 mm - 0.25 mm)	1.6	%	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	% Sand (1.00 mm - 0.50 mm)	3.1	%	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	% Sand (2.00 mm - 1.00 mm)	7.3	%	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	% Gravel (>2 mm)	19.2	%	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Inorganic Carbon <63 µm	2.55	%	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Total Carbon <63 µm	10.2	%	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Total Organic Carbon	7.65	%	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Inorganic Carbon (as CaCO3 equivalent)	21.2	%	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Aluminum (Al)	6160	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Antimony (Sb)	0.41	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Arsenic (As)	4.9	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Barium (Ba)	107	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Beryllium (Be)	0.58	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Boron (B)	8.3	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Cadmium (Cd)	1.54	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Calcium (Ca)	73400	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Chromium (Cr)	9.44	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Cobalt (Co)	16.1	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Copper (Cu)	11	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Iron (Fe)	10300	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Lead (Pb)	7.38	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Lithium (Li)	10.8	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Magnesium (Mg)	7670	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Manganese (Mn)	156	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Mercury (Hg)	0.0401	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Molybdenum (Mo)	1.18	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Nickel (Ni)	57.7	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Phosphorus (P)	955	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Potassium (K)	1160	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Selenium (Se)	3.27	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Silver (Ag)	0.17	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Sodium (Na)	116	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Strontium (Sr)	106	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Sulfur (S)	1700	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Thallium (Tl)	0.37	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Tin (Sn)	<2	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Titanium (Ti)	17.3	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Uranium (U)	0.871	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Vanadium (V)	16.3	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Zinc (Zn)	116	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Zirconium (Zr)	1.3	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Acenaphthene	<0.071	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Acenaphthylene	<0.071	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Acridine	<0.071	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Anthracene	<0.071	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Benz(a)anthracene	<0.071	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Benzo(a)pyrene	<0.071	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Benzo(b&j)fluoranthene	0.123	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Benzo(b+j+k)fluoranthene	0.123	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Benzo(g_h_i)perylene	<0.071	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Benzo(k)fluoranthene	<0.071	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Chrysene	0.191	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Dibenz(a_h)anthracene	<0.071	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Fluoranthene	<0.071	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Fluorene	<0.071	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Indeno(1,2,3-c,d)pyrene	<0.071	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	1+2-Methylnaphthalene	1.14	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	1-Methylnaphthalene	0.465	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	2-Methylnaphthalene	0.676	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Naphthalene	0.333	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Phenanthrene	0.523	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Pyrene	<0.071	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	Quinoline	<0.071	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	B(a)P Total Potency Equivalent	0.096	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	PAHs, total (BC Sched 3.4)	1.72	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	PAHs, total	1.17	mg/kg	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	d9-Acridine	105	%	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	d12-Chrysene	123	%	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	d8-Naphthalene	84.1	%	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	d10-Phenanthrene	111	%	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Moisture	85.9	%	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	pH (1:2 soil:water)	7.42	pH	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	% Clay (<4 µm)	9.1	%	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	% Silt (0.063 mm - 0.0312 mm)	36.8	%	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	% Silt (0.031 mm - 0.004 mm)	41.1	%	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	% Sand (0.125 mm - 0.063 mm)	7.4	%	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	% Sand (0.25 mm - 0.125 mm)	3	%	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	% Sand (0.50 mm - 0.25 mm)	1.4	%	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	% Sand (1.00 mm - 0.50 mm)	1	%	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	% Sand (2.00 mm - 1.00 mm)	<1	%	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	% Gravel (>2 mm)	<1	%	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Inorganic Carbon <63 µm	2.49	%	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Total Carbon <63 µm	12.9	%	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Total Organic Carbon	10.4	%	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Inorganic Carbon (as CaCO3 equivalent)	20.7	%	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Aluminum (Al)	6530	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Antimony (Sb)	0.48	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Arsenic (As)	5.45	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Barium (Ba)	111	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Beryllium (Be)	0.61	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Boron (B)	8.7	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Cadmium (Cd)	1.68	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Calcium (Ca)	76400	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Chromium (Cr)	10.1	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Cobalt (Co)	17.5	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Copper (Cu)	11.7	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Iron (Fe)	10400	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Lead (Pb)	7.34	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Lithium (Li)	11.3	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Magnesium (Mg)	7770	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Manganese (Mn)	194	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Mercury (Hg)	0.0352	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Molybdenum (Mo)	1.23	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Nickel (Ni)	62.7	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Phosphorus (P)	1100	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Potassium (K)	1280	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Selenium (Se)	4.71	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Silver (Ag)	0.19	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Sodium (Na)	175	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Strontium (Sr)	114	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Sulfur (S)	1800	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Thallium (Tl)	0.39	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Tin (Sn)	<2	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Titanium (Ti)	13.7	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Uranium (U)	0.967	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Vanadium (V)	17.7	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Zinc (Zn)	123	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Zirconium (Zr)	1.5	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Acenaphthene	<0.069	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Acenaphthylene	<0.069	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Acridine	<0.069	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Anthracene	<0.069	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Benz(a)anthracene	<0.069	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Benzo(a)pyrene	<0.069	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Benzo(b&j)fluoranthene	0.103	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Benzo(b+j+k)fluoranthene	0.103	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Benzo(g_h_i)perylene	<0.069	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Benzo(k)fluoranthene	<0.069	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Chrysene	0.146	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Dibenz(a_h)anthracene	<0.069	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Fluoranthene	0.074	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Fluorene	<0.069	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Indeno(1,2,3-c,d)pyrene	<0.069	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	1+2-Methylnaphthalene	0.819	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	1-Methylnaphthalene	0.333	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	2-Methylnaphthalene	0.486	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Naphthalene	0.236	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Phenanthrene	0.416	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Pyrene	0.071	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	Quinoline	<0.069	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	B(a)P Total Potency Equivalent	0.091	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	PAHs, total (BC Sched 3.4)	1.43	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	PAHs, total	1.05	mg/kg	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	d9-Acridine	92.7	%	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	d12-Chrysene	105	%	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	d8-Naphthalene	70	%	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	d10-Phenanthrene	96.7	%	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Moisture	83.9	%	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	pH (1:2 soil:water)	7.28	pH	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	% Clay (<4 µm)	8.5	%	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	% Silt (0.063 mm - 0.0312 mm)	35.2	%	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	% Silt (0.031 mm - 0.004 mm)	36.7	%	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	% Sand (0.125 mm - 0.063 mm)	10.6	%	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	% Sand (0.25 mm - 0.125 mm)	5.4	%	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	% Sand (0.50 mm - 0.25 mm)	1.6	%	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	% Sand (1.00 mm - 0.50 mm)	<1	%	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	% Sand (2.00 mm - 1.00 mm)	<1	%	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	% Gravel (>2 mm)	<1	%	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Inorganic Carbon <63 µm	2.74	%	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Total Carbon <63 µm	13	%	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Total Organic Carbon	10.3	%	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Inorganic Carbon (as CaCO3 equivalent)	22.8	%	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Aluminum (Al)	5800	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Antimony (Sb)	0.38	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Arsenic (As)	4.33	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Barium (Ba)	111	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Beryllium (Be)	0.56	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Boron (B)	8	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Cadmium (Cd)	1.57	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Calcium (Ca)	81500	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Chromium (Cr)	8.97	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Cobalt (Co)	15.2	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Copper (Cu)	10.9	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Iron (Fe)	9360	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Lead (Pb)	6.96	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Lithium (Li)	11.1	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Magnesium (Mg)	7200	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Manganese (Mn)	132	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Mercury (Hg)	0.0326	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Molybdenum (Mo)	1.09	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Nickel (Ni)	57.9	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Phosphorus (P)	984	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Potassium (K)	1110	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Selenium (Se)	3.73	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Silver (Ag)	0.17	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Sodium (Na)	145	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Strontium (Sr)	116	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Sulfur (S)	1900	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Thallium (Tl)	0.356	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Tin (Sn)	<2	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Titanium (Ti)	14.1	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Uranium (U)	0.885	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Vanadium (V)	15.2	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Zinc (Zn)	115	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Zirconium (Zr)	1.3	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Acenaphthene	<0.07	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Acenaphthylene	<0.07	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Acridine	<0.07	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Anthracene	<0.07	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Benz(a)anthracene	<0.07	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Benzo(a)pyrene	<0.07	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Benzo(b&j)fluoranthene	0.11	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Benzo(b+j+k)fluoranthene	0.11	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Benzo(g_h_i)perylene	<0.07	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Benzo(k)fluoranthene	<0.07	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Chrysene	0.163	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Dibenz(a_h)anthracene	<0.07	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Fluoranthene	0.092	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Fluorene	<0.07	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Indeno(1,2,3-c,d)pyrene	<0.07	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	1+2-Methylnaphthalene	0.876	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	1-Methylnaphthalene	0.366	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	2-Methylnaphthalene	0.51	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Naphthalene	0.267	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Phenanthrene	0.44	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Pyrene	0.079	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	Quinoline	<0.07	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	B(a)P Total Potency Equivalent	0.093	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	PAHs, total (BC Sched 3.4)	1.55	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	PAHs, total	1.15	mg/kg	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	d9-Acridine	99.5	%	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	d12-Chrysene	114	%	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	d8-Naphthalene	78.8	%	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	d10-Phenanthrene	102	%	ALS	RG_MIDAG_SE-3_2022-09-13_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Moisture	90	%	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	pH (1:2 soil:water)	7.42	pH	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	% Clay (<4 µm)	9.7	%	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	% Silt (0.063 mm - 0.0312 mm)	35.5	%	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	% Silt (0.031 mm - 0.004 mm)	39.8	%	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	% Sand (0.125 mm - 0.063 mm)	8.1	%	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	% Sand (0.25 mm - 0.125 mm)	4.4	%	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	% Sand (0.50 mm - 0.25 mm)	1.6	%	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	% Sand (1.00 mm - 0.50 mm)	<1	%	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	% Sand (2.00 mm - 1.00 mm)	<1	%	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	% Gravel (>2 mm)	<1	%	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Inorganic Carbon <63 µm	2.19	%	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Total Carbon <63 µm	11.9	%	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Total Organic Carbon	9.71	%	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Inorganic Carbon (as CaCO3 equivalent)	18.2	%	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Aluminum (Al)	6920	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Antimony (Sb)	0.5	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Arsenic (As)	5.13	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Barium (Ba)	123	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Beryllium (Be)	0.62	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Boron (B)	10	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Cadmium (Cd)	1.72	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Calcium (Ca)	67600	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Chromium (Cr)	10.4	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Cobalt (Co)	20.2	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Copper (Cu)	12.6	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Iron (Fe)	10400	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Lead (Pb)	7.75	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Lithium (Li)	11.1	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Magnesium (Mg)	7190	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Manganese (Mn)	282	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Mercury (Hg)	0.0444	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Molybdenum (Mo)	1.25	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Nickel (Ni)	64.4	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Phosphorus (P)	1020	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Potassium (K)	1390	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Selenium (Se)	6.19	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Silver (Ag)	0.21	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Sodium (Na)	149	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Strontium (Sr)	102	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Sulfur (S)	2100	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Thallium (Tl)	0.379	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Tin (Sn)	<2	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Titanium (Ti)	14.2	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Uranium (U)	1.02	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Vanadium (V)	18.9	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Zinc (Zn)	125	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Zirconium (Zr)	1.4	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Acenaphthene	<0.14	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Acenaphthylene	<0.14	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Acridine	<0.14	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Anthracene	<0.14	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Benz(a)anthracene	<0.14	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Benzo(a)pyrene	<0.14	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Benzo(b&j)fluoranthene	0.212	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Benzo(b+j+k)fluoranthene	0.212	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Benzo(g_h_i)perylene	<0.14	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Benzo(k)fluoranthene	<0.14	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Chrysene	0.243	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Dibenz(a_h)anthracene	<0.14	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Fluoranthene	<0.14	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Fluorene	<0.14	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Indeno(1,2,3-c,d)pyrene	<0.14	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	1+2-Methylnaphthalene	0.986	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	1-Methylnaphthalene	0.403	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	2-Methylnaphthalene	0.583	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Naphthalene	0.296	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Phenanthrene	0.544	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Pyrene	<0.14	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	Quinoline	<0.14	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	B(a)P Total Potency Equivalent	0.185	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	PAHs, total (BC Sched 3.4)	1.67	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	PAHs, total	1.3	mg/kg	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	d9-Acridine	99.8	%	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	d12-Chrysene	114	%	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	d8-Naphthalene	74.5	%	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	d10-Phenanthrene	102	%	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Moisture	88	%	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	pH (1:2 soil:water)	7.65	pH	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	% Clay (<4 µm)	8.1	%	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	% Silt (0.063 mm - 0.0312 mm)	36.3	%	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	% Silt (0.031 mm - 0.004 mm)	39.4	%	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	% Sand (0.125 mm - 0.063 mm)	6.4	%	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	% Sand (0.25 mm - 0.125 mm)	3.4	%	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	% Sand (0.50 mm - 0.25 mm)	1.3	%	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	% Sand (1.00 mm - 0.50 mm)	<1	%	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	% Sand (2.00 mm - 1.00 mm)	<1	%	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	% Gravel (>2 mm)	3.5	%	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Inorganic Carbon <63 µm	2.97	%	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Total Carbon <63 µm	15.5	%	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Total Organic Carbon	12.5	%	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Inorganic Carbon (as CaCO3 equivalent)	24.7	%	ALS	RG_MIDAG_SE-5_2022-09-13_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Aluminum (Al)	6680	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Antimony (Sb)	0.46	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Arsenic (As)	4.66	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Barium (Ba)	117	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Beryllium (Be)	0.57	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Boron (B)	10.2	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Cadmium (Cd)	1.56	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Calcium (Ca)	92000	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Chromium (Cr)	10.4	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Cobalt (Co)	14.2	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Copper (Cu)	10.6	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Iron (Fe)	9640	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Lead (Pb)	6.82	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Lithium (Li)	11.3	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Magnesium (Mg)	7290	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Manganese (Mn)	148	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Mercury (Hg)	0.0334	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Molybdenum (Mo)	1.19	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Nickel (Ni)	57.2	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Phosphorus (P)	1010	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Potassium (K)	1390	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Selenium (Se)	5.18	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Silver (Ag)	0.17	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Sodium (Na)	162	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Strontium (Sr)	129	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Sulfur (S)	2400	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Thallium (Tl)	0.393	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Tin (Sn)	<2	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Titanium (Ti)	17.9	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Uranium (U)	0.975	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Vanadium (V)	18.1	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Zinc (Zn)	117	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Zirconium (Zr)	1.7	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Acenaphthene	<0.073	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Acenaphthylene	<0.073	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Acridine	<0.073	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Anthracene	<0.073	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Benz(a)anthracene	<0.073	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Benzo(a)pyrene	<0.073	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Benzo(b&j)fluoranthene	0.081	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Benzo(b+j+k)fluoranthene	<0.103	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Benzo(g_h_i)perylene	<0.073	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Benzo(k)fluoranthene	<0.073	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Chrysene	0.124	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Dibenz(a_h)anthracene	<0.073	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Fluoranthene	<0.073	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Fluorene	<0.073	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Indeno(1,2,3-c,d)pyrene	<0.073	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	1+2-Methylnaphthalene	0.66	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	1-Methylnaphthalene	0.276	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	2-Methylnaphthalene	0.384	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Naphthalene	0.218	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Phenanthrene	0.335	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Pyrene	<0.073	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	Quinoline	<0.073	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	B(a)P Total Potency Equivalent	0.094	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	PAHs, total (BC Sched 3.4)	1.06	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	PAHs, total	0.76	mg/kg	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	d9-Acridine	99.3	%	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	d12-Chrysene	115	%	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	d8-Naphthalene	77.5	%	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	d10-Phenanthrene	103	%	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Moisture	75.7	%	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	pH (1:2 soil:water)	7.85	pH	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	% Clay (<4 µm)	10.9	%	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	% Silt (0.063 mm - 0.0312 mm)	28.8	%	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	% Silt (0.031 mm - 0.004 mm)	39.4	%	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	% Sand (0.125 mm - 0.063 mm)	7.2	%	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	% Sand (0.25 mm - 0.125 mm)	4	%	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	% Sand (0.50 mm - 0.25 mm)	2.5	%	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	% Sand (1.00 mm - 0.50 mm)	2.6	%	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	% Sand (2.00 mm - 1.00 mm)	3.4	%	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	% Gravel (>2 mm)	1.2	%	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Inorganic Carbon <63 µm	2.33	%	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Total Carbon <63 µm	9.32	%	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Total Organic Carbon	6.99	%	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Inorganic Carbon (as CaCO3 equivalent)	19.4	%	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Aluminum (Al)	7430	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Antimony (Sb)	0.31	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Arsenic (As)	5.29	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Barium (Ba)	142	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Beryllium (Be)	0.65	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Boron (B)	10.3	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Cadmium (Cd)	1.98	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Calcium (Ca)	75500	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Chromium (Cr)	9.34	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Cobalt (Co)	81	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Copper (Cu)	13.6	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Iron (Fe)	13200	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Lead (Pb)	9.36	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Lithium (Li)	13.8	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Magnesium (Mg)	5720	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Manganese (Mn)	751	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Mercury (Hg)	0.0341	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Molybdenum (Mo)	1.48	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Nickel (Ni)	119	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Phosphorus (P)	1040	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Potassium (K)	1320	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Selenium (Se)	3.53	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Silver (Ag)	0.1	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Sodium (Na)	160	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Strontium (Sr)	133	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Sulfur (S)	1800	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Thallium (Tl)	0.267	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Tin (Sn)	<2	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Titanium (Ti)	19.1	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Uranium (U)	0.987	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Vanadium (V)	15	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Zinc (Zn)	152	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Zirconium (Zr)	1	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Acenaphthene	<0.05	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Acenaphthylene	<0.05	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Acridine	0.074	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Anthracene	<0.05	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Benzo(b&j)fluoranthene	0.168	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Benzo(b+j+k)fluoranthene	0.168	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Benzo(g_h_i)perylene	0.086	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Chrysene	0.28	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Fluoranthene	0.06	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Fluorene	0.108	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	1+2-Methylnaphthalene	1.91	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	1-Methylnaphthalene	0.744	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	2-Methylnaphthalene	1.17	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Naphthalene	0.45	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Phenanthrene	0.681	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Pyrene	0.079	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	Quinoline	<0.05	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	B(a)P Total Potency Equivalent	0.078	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	PAHs, total (BC Sched 3.4)	2.83	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	PAHs, total	1.91	mg/kg	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	d9-Acridine	98.1	%	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	d12-Chrysene	110	%	ALS	RG_MIDCO_SE-1_2022-09-13_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	d8-Naphthalene	100	%	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	d10-Phenanthrene	104	%	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Moisture	67.6	%	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	pH (1:2 soil:water)	7.89	pH	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	% Clay (<4 µm)	7.1	%	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	% Silt (0.063 mm - 0.0312 mm)	18.7	%	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	% Silt (0.031 mm - 0.004 mm)	25.6	%	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	% Sand (0.125 mm - 0.063 mm)	8.9	%	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	% Sand (0.25 mm - 0.125 mm)	5.6	%	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	% Sand (0.50 mm - 0.25 mm)	6.2	%	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	% Sand (1.00 mm - 0.50 mm)	15.5	%	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	% Sand (2.00 mm - 1.00 mm)	10	%	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	% Gravel (>2 mm)	2.4	%	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Inorganic Carbon <63 µm	1.68	%	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Total Carbon <63 µm	5.95	%	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Total Organic Carbon	4.27	%	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Inorganic Carbon (as CaCO3 equivalent)	14	%	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Aluminum (Al)	10900	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Antimony (Sb)	0.36	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Arsenic (As)	6.78	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Barium (Ba)	150	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Beryllium (Be)	0.8	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Boron (B)	12.8	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Cadmium (Cd)	2.06	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Calcium (Ca)	66200	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Chromium (Cr)	13.6	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Cobalt (Co)	64	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Copper (Cu)	16.7	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Iron (Fe)	17800	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Lead (Pb)	10.9	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Lithium (Li)	19.1	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Magnesium (Mg)	6680	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Manganese (Mn)	584	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Mercury (Hg)	0.0319	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Molybdenum (Mo)	1.67	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Nickel (Ni)	114	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Phosphorus (P)	1230	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Potassium (K)	2010	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Selenium (Se)	3.99	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Silver (Ag)	0.1	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Sodium (Na)	181	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Strontium (Sr)	120	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Sulfur (S)	2000	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Thallium (Tl)	0.321	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Tin (Sn)	<2	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Titanium (Ti)	26.6	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Uranium (U)	0.955	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Vanadium (V)	21	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Zinc (Zn)	169	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Zirconium (Zr)	1.3	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Acenaphthene	<0.05	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Acenaphthylene	<0.05	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Acridine	<0.05	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Anthracene	<0.05	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Benzo(b&j)fluoranthene	0.1	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Benzo(b+j+k)fluoranthene	0.1	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Benzo(g_h_i)perylene	0.058	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Chrysene	0.178	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Fluoranthene	<0.05	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Fluorene	0.072	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	1+2-Methylnaphthalene	1.33	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	1-Methylnaphthalene	0.513	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	2-Methylnaphthalene	0.814	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Naphthalene	0.341	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Phenanthrene	0.449	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Pyrene	0.054	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	Quinoline	<0.05	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	B(a)P Total Potency Equivalent	0.07	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	PAHs, total (BC Sched 3.4)	1.91	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	PAHs, total	1.25	mg/kg	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	d9-Acridine	90.3	%	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	d12-Chrysene	104	%	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	d8-Naphthalene	68.4	%	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	d10-Phenanthrene	95.4	%	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Moisture	78.4	%	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	pH (1:2 soil:water)	7.83	pH	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	% Clay (<4 µm)	8.3	%	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	% Silt (0.063 mm - 0.0312 mm)	22.2	%	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	% Silt (0.031 mm - 0.004 mm)	30.6	%	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	% Sand (0.125 mm - 0.063 mm)	6.6	%	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	% Sand (0.25 mm - 0.125 mm)	5.8	%	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	% Sand (0.50 mm - 0.25 mm)	7.1	%	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	% Sand (1.00 mm - 0.50 mm)	9.6	%	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	% Sand (2.00 mm - 1.00 mm)	6.4	%	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	% Gravel (>2 mm)	3.4	%	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Inorganic Carbon <63 µm	2.09	%	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Total Carbon <63 µm	7.96	%	ALS	RG_MIDCO_SE-3_2022-09-13_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Total Organic Carbon	5.87	%	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Inorganic Carbon (as CaCO3 equivalent)	17.4	%	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Aluminum (Al)	8370	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Antimony (Sb)	0.33	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Arsenic (As)	5.9	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Barium (Ba)	142	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Beryllium (Be)	0.69	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Boron (B)	10.1	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Cadmium (Cd)	1.84	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Calcium (Ca)	80000	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Chromium (Cr)	10.5	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Cobalt (Co)	65.9	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Copper (Cu)	14.8	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Iron (Fe)	15400	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Lead (Pb)	10.1	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Lithium (Li)	16.1	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Magnesium (Mg)	6930	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Manganese (Mn)	629	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Mercury (Hg)	0.0313	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Molybdenum (Mo)	1.58	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Nickel (Ni)	109	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Phosphorus (P)	1150	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Potassium (K)	1410	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Selenium (Se)	3.4	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Silver (Ag)	0.1	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Sodium (Na)	163	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Strontium (Sr)	137	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Sulfur (S)	1900	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Thallium (Tl)	0.28	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Tin (Sn)	<2	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Titanium (Ti)	21.2	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Uranium (U)	0.94	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Vanadium (V)	16.5	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Zinc (Zn)	147	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Zirconium (Zr)	1.1	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Acenaphthene	<0.05	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Acenaphthylene	<0.05	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Acridine	0.081	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Anthracene	<0.05	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Benzo(b&j)fluoranthene	0.171	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Benzo(b+j+k)fluoranthene	0.171	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Benzo(g_h_i)perylene	0.091	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Chrysene	0.276	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Fluoranthene	0.062	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Fluorene	0.104	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	1+2-Methylnaphthalene	1.91	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	1-Methylnaphthalene	0.741	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	2-Methylnaphthalene	1.17	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Naphthalene	0.495	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Phenanthrene	0.669	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Pyrene	0.081	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	Quinoline	<0.05	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	B(a)P Total Potency Equivalent	0.078	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	PAHs, total (BC Sched 3.4)	2.86	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	PAHs, total	1.95	mg/kg	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	d9-Acridine	94.8	%	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	d12-Chrysene	108	%	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	d8-Naphthalene	76.8	%	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	d10-Phenanthrene	100	%	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Moisture	76.6	%	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	pH (1:2 soil:water)	8.03	pH	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	% Clay (<4 µm)	7.3	%	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	% Silt (0.063 mm - 0.0312 mm)	21	%	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	% Silt (0.031 mm - 0.004 mm)	29.3	%	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	% Sand (0.125 mm - 0.063 mm)	4.5	%	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	% Sand (0.25 mm - 0.125 mm)	3.9	%	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	% Sand (0.50 mm - 0.25 mm)	6	%	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	% Sand (1.00 mm - 0.50 mm)	11	%	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	% Sand (2.00 mm - 1.00 mm)	13	%	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	% Gravel (>2 mm)	4	%	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Inorganic Carbon <63 µm	2.43	%	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Total Carbon <63 µm	8.31	%	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Total Organic Carbon	5.88	%	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Inorganic Carbon (as CaCO3 equivalent)	20.2	%	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Aluminum (Al)	9290	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Antimony (Sb)	0.34	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Arsenic (As)	6.69	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Barium (Ba)	161	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Beryllium (Be)	0.71	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Boron (B)	9.9	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Cadmium (Cd)	2.24	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Calcium (Ca)	73300	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Chromium (Cr)	11.8	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Cobalt (Co)	82.6	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Copper (Cu)	16.4	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Iron (Fe)	16100	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Lead (Pb)	10.4	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Lithium (Li)	15.7	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Magnesium (Mg)	6670	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Manganese (Mn)	684	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Mercury (Hg)	0.0332	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Molybdenum (Mo)	1.58	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Nickel (Ni)	134	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Phosphorus (P)	1300	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Potassium (K)	1550	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Selenium (Se)	4.2	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Silver (Ag)	0.11	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Sodium (Na)	186	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Strontium (Sr)	132	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Sulfur (S)	2100	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Thallium (Tl)	0.298	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Tin (Sn)	<2	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Titanium (Ti)	22.8	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Uranium (U)	0.994	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Vanadium (V)	18.4	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Zinc (Zn)	176	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Zirconium (Zr)	1.1	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Acenaphthene	<0.05	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Acenaphthylene	<0.05	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Acridine	0.085	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Anthracene	<0.05	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Benzo(a)pyrene	0.05	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Benzo(b&j)fluoranthene	0.203	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Benzo(b+j+k)fluoranthene	0.257	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Benzo(g_h_i)perylene	0.088	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Benzo(k)fluoranthene	0.054	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Chrysene	0.325	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Fluoranthene	0.075	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Fluorene	0.124	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	1+2-Methylnaphthalene	2.26	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	1-Methylnaphthalene	0.879	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	2-Methylnaphthalene	1.38	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Naphthalene	0.594	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Phenanthrene	0.782	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Pyrene	0.095	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	Quinoline	<0.05	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	B(a)P Total Potency Equivalent	0.11	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	PAHs, total (BC Sched 3.4)	3.42	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	PAHs, total	2.39	mg/kg	ALS	RG_MIDCO_SE-4_2022-09-13_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	d9-Acridine	92.3	%	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	d12-Chrysene	106	%	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	d8-Naphthalene	83.1	%	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	d10-Phenanthrene	97.9	%	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Moisture	73.8	%	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	pH (1:2 soil:water)	8.12	pH	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	% Clay (<4 µm)	10	%	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	% Silt (0.063 mm - 0.0312 mm)	26.5	%	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	% Silt (0.031 mm - 0.004 mm)	37.2	%	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	% Sand (0.125 mm - 0.063 mm)	5.2	%	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	% Sand (0.25 mm - 0.125 mm)	3.4	%	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	% Sand (0.50 mm - 0.25 mm)	3.9	%	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	% Sand (1.00 mm - 0.50 mm)	7	%	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	% Sand (2.00 mm - 1.00 mm)	4.5	%	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	% Gravel (>2 mm)	2.3	%	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Inorganic Carbon <63 µm	2.22	%	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Total Carbon <63 µm	9.52	%	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Total Organic Carbon	7.3	%	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Inorganic Carbon (as CaCO3 equivalent)	18.5	%	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Aluminum (Al)	11400	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Antimony (Sb)	0.28	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Arsenic (As)	6.44	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Barium (Ba)	110	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Beryllium (Be)	0.71	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Boron (B)	9.9	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Cadmium (Cd)	1.27	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Calcium (Ca)	46400	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Chromium (Cr)	13.3	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Cobalt (Co)	48.8	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Copper (Cu)	16.4	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Iron (Fe)	21200	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Lead (Pb)	10.1	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Lithium (Li)	21.6	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Magnesium (Mg)	7570	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Manganese (Mn)	605	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Mercury (Hg)	0.0233	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Molybdenum (Mo)	1.36	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Nickel (Ni)	89.4	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Phosphorus (P)	1220	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Potassium (K)	1920	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Selenium (Se)	2.25	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Silver (Ag)	<0.1	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Sodium (Na)	151	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Strontium (Sr)	91.9	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Sulfur (S)	<1000	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Thallium (Tl)	0.284	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Tin (Sn)	<2	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Titanium (Ti)	26.9	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Uranium (U)	0.692	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Vanadium (V)	20.5	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Zinc (Zn)	128	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Zirconium (Zr)	1.2	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Acenaphthene	<0.05	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Acenaphthylene	<0.05	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Acridine	0.061	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Anthracene	<0.05	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Benzo(b&j)fluoranthene	0.174	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Benzo(b+j+k)fluoranthene	0.174	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Benzo(g_h_i)perylene	0.076	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Chrysene	0.254	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Fluoranthene	0.058	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Fluorene	0.094	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	1+2-Methylnaphthalene	1.79	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	1-Methylnaphthalene	0.699	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	2-Methylnaphthalene	1.09	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Naphthalene	0.443	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Phenanthrene	0.606	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Pyrene	0.074	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	Quinoline	<0.05	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	B(a)P Total Potency Equivalent	0.078	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	PAHs, total (BC Sched 3.4)	2.62	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	PAHs, total	1.78	mg/kg	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	d9-Acridine	91.8	%	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	d12-Chrysene	106	%	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	d8-Naphthalene	78.7	%	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	d10-Phenanthrene	97.1	%	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	pH (1:2 soil:water)	8.23	pH	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	% Clay (<4 µm)	6.4	%	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	% Silt (0.063 mm - 0.0312 mm)	25.5	%	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	% Silt (0.031 mm - 0.004 mm)	28.8	%	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	% Sand (0.125 mm - 0.063 mm)	19.3	%	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	% Sand (0.25 mm - 0.125 mm)	8.7	%	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	% Sand (0.50 mm - 0.25 mm)	3.7	%	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	% Sand (1.00 mm - 0.50 mm)	1.2	%	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	% Sand (2.00 mm - 1.00 mm)	1.4	%	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	% Gravel (>2 mm)	5	%	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Inorganic Carbon <63 µm	0.77	%	ALS	RG_MIUCO_SE-1_2022-09-14_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Total Carbon <63 µm	3.49	%	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Total Organic Carbon	2.72	%	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Inorganic Carbon (as CaCO3 equivalent)	6.42	%	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Aluminum (Al)	9400	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Antimony (Sb)	0.39	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Arsenic (As)	7.23	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Barium (Ba)	558	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Beryllium (Be)	0.66	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Boron (B)	8.3	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Cadmium (Cd)	0.761	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Calcium (Ca)	25300	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Chromium (Cr)	12.8	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Cobalt (Co)	7.15	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Copper (Cu)	17.9	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Iron (Fe)	21000	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Lead (Pb)	12.4	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Lithium (Li)	19.4	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Magnesium (Mg)	6470	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Manganese (Mn)	302	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Mercury (Hg)	0.0284	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Molybdenum (Mo)	2.07	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Nickel (Ni)	21.3	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Phosphorus (P)	1320	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Potassium (K)	1630	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Selenium (Se)	0.72	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Silver (Ag)	0.12	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Sodium (Na)	244	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Strontium (Sr)	98.5	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Sulfur (S)	1000	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Thallium (Tl)	0.301	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Tin (Sn)	<2	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Titanium (Ti)	29.1	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Uranium (U)	0.628	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Vanadium (V)	20.8	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Zinc (Zn)	88.4	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668232	5486599	2022	1	2022-09-14	10:57	Zirconium (Zr)	1.7	mg/kg	ALS	RG_MIUCO_SE-1_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	pH (1:2 soil:water)	7.94	pH	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	% Clay (<4 µm)	9.2	%	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	% Silt (0.063 mm - 0.0312 mm)	17.2	%	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	% Silt (0.031 mm - 0.004 mm)	24	%	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	% Sand (0.125 mm - 0.063 mm)	12.2	%	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	% Sand (0.25 mm - 0.125 mm)	13.8	%	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	% Sand (0.50 mm - 0.25 mm)	11.6	%	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	% Sand (1.00 mm - 0.50 mm)	5.8	%	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	% Sand (2.00 mm - 1.00 mm)	3.5	%	ALS	RG_MIUCO_SE-3_2022-09-14_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	% Gravel (>2 mm)	2.7	%	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Inorganic Carbon <63 µm	0.367	%	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Total Carbon <63 µm	7.12	%	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Total Organic Carbon	6.75	%	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Inorganic Carbon (as CaCO3 equivalent)	3.06	%	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Aluminum (Al)	9830	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Antimony (Sb)	0.4	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Arsenic (As)	5.93	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Barium (Ba)	176	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Beryllium (Be)	0.77	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Bismuth (Bi)	0.21	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Boron (B)	6.7	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Cadmium (Cd)	0.901	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Calcium (Ca)	14400	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Chromium (Cr)	14.4	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Cobalt (Co)	7.4	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Copper (Cu)	18.8	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Iron (Fe)	18200	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Lead (Pb)	12.8	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Lithium (Li)	19.6	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Magnesium (Mg)	5350	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Manganese (Mn)	289	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Mercury (Hg)	0.0353	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Molybdenum (Mo)	1.61	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Nickel (Ni)	22.5	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Phosphorus (P)	1310	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Potassium (K)	1790	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Selenium (Se)	1	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Silver (Ag)	0.13	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Sodium (Na)	97	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Strontium (Sr)	55.8	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Sulfur (S)	<1000	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Thallium (Tl)	0.326	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Tin (Sn)	<2	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Titanium (Ti)	31.2	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Uranium (U)	0.924	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Vanadium (V)	23.1	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Zinc (Zn)	96	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668201	5486675	2022	3	2022-09-14	09:44	Zirconium (Zr)	1.8	mg/kg	ALS	RG_MIUCO_SE-3_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	pH (1:2 soil:water)	8.02	pH	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	% Clay (<4 µm)	4.6	%	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	% Silt (0.063 mm - 0.0312 mm)	17.7	%	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	% Silt (0.031 mm - 0.004 mm)	17.1	%	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	% Sand (0.125 mm - 0.063 mm)	19.1	%	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	% Sand (0.25 mm - 0.125 mm)	18.5	%	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	% Sand (0.50 mm - 0.25 mm)	12.8	%	ALS	RG_MIUCO_SE-4_2022-09-14_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	% Sand (1.00 mm - 0.50 mm)	6.1	%	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	% Sand (2.00 mm - 1.00 mm)	2.1	%	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	% Gravel (>2 mm)	2	%	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Inorganic Carbon <63 µm	0.36	%	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Total Carbon <63 µm	2	%	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Total Organic Carbon	1.64	%	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Inorganic Carbon (as CaCO3 equivalent)	3	%	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Aluminum (Al)	10300	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Antimony (Sb)	0.4	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Arsenic (As)	7.72	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Barium (Ba)	209	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Beryllium (Be)	0.75	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Bismuth (Bi)	0.22	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Boron (B)	6.1	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Cadmium (Cd)	0.673	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Calcium (Ca)	13200	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Chromium (Cr)	14.1	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Cobalt (Co)	8.83	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Copper (Cu)	18.3	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Iron (Fe)	23200	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Lead (Pb)	14.6	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Lithium (Li)	20.5	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Magnesium (Mg)	6020	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Manganese (Mn)	576	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Mercury (Hg)	0.0223	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Molybdenum (Mo)	2.32	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Nickel (Ni)	24.3	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Phosphorus (P)	1370	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Potassium (K)	1620	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Selenium (Se)	0.57	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Silver (Ag)	<0.1	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Sodium (Na)	81	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Strontium (Sr)	39.8	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Sulfur (S)	<1000	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Thallium (Tl)	0.322	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Tin (Sn)	2.5	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Titanium (Ti)	28.5	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Uranium (U)	0.604	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Vanadium (V)	21.9	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Zinc (Zn)	93.6	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668225	5486586	2022	4	2022-09-14	11:22	Zirconium (Zr)	1.3	mg/kg	ALS	RG_MIUCO_SE-4_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Moisture	37.9	%	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	pH (1:2 soil:water)	8.06	pH	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	% Clay (<4 µm)	5.5	%	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	% Silt (0.063 mm - 0.0312 mm)	16.3	%	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	% Silt (0.031 mm - 0.004 mm)	20.7	%	ALS	RG_MIUCO_SE-5_2022-09-14_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	% Sand (0.125 mm - 0.063 mm)	12.3	%	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	% Sand (0.25 mm - 0.125 mm)	11.7	%	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	% Sand (0.50 mm - 0.25 mm)	8.8	%	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	% Sand (1.00 mm - 0.50 mm)	10.9	%	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	% Sand (2.00 mm - 1.00 mm)	8.9	%	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	% Gravel (>2 mm)	4.9	%	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Inorganic Carbon <63 µm	0.578	%	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Total Carbon <63 µm	3.37	%	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Total Organic Carbon	2.79	%	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Inorganic Carbon (as CaCO3 equivalent)	4.81	%	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Aluminum (Al)	13200	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Antimony (Sb)	0.45	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Arsenic (As)	9.45	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Barium (Ba)	156	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Beryllium (Be)	0.86	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Bismuth (Bi)	0.25	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Boron (B)	8.1	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Cadmium (Cd)	0.669	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Calcium (Ca)	17300	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Chromium (Cr)	16.8	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Cobalt (Co)	9.77	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Copper (Cu)	20.4	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Iron (Fe)	31300	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Lead (Pb)	14.9	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Lithium (Li)	21.7	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Magnesium (Mg)	6390	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Manganese (Mn)	700	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Mercury (Hg)	0.0204	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Molybdenum (Mo)	1.89	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Nickel (Ni)	26.9	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Phosphorus (P)	1400	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Potassium (K)	2170	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Selenium (Se)	0.39	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Silver (Ag)	<0.1	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Sodium (Na)	73	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Strontium (Sr)	55.5	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Sulfur (S)	<1000	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Thallium (Tl)	0.304	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Tin (Sn)	<2	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Titanium (Ti)	12.1	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Uranium (U)	0.55	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Vanadium (V)	25.9	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Zinc (Zn)	96.1	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Zirconium (Zr)	<1	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Acenaphthene	<0.05	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Acenaphthylene	<0.05	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Acridine	<0.05	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Anthracene	<0.05	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Benzo(b&j)fluoranthene	<0.05	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Benzo(b+j+k)fluoranthene	<0.075	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Benzo(g_h_i)perylene	<0.05	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Chrysene	<0.05	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Fluoranthene	<0.05	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Fluorene	<0.05	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	1+2-Methylnaphthalene	0.125	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	1-Methylnaphthalene	0.054	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	2-Methylnaphthalene	0.071	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Naphthalene	0.044	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Phenanthrene	0.092	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Pyrene	<0.05	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	Quinoline	<0.05	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	B(a)P Total Potency Equivalent	<0.065	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	PAHs, total (BC Sched 3.4)	0.21	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	PAHs, total	<0.2	mg/kg	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	d9-Acridine	107	%	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	d12-Chrysene	129	%	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	d8-Naphthalene	114	%	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	d10-Phenanthrene	117	%	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Moisture	57	%	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	pH (1:2 soil:water)	8.14	pH	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	% Clay (<4 µm)	4.9	%	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	% Silt (0.063 mm - 0.0312 mm)	18.3	%	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	% Silt (0.031 mm - 0.004 mm)	23.8	%	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	% Sand (0.125 mm - 0.063 mm)	14.8	%	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	% Sand (0.25 mm - 0.125 mm)	13.6	%	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	% Sand (0.50 mm - 0.25 mm)	3.3	%	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	% Sand (1.00 mm - 0.50 mm)	1.9	%	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	% Sand (2.00 mm - 1.00 mm)	3.3	%	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	% Gravel (>2 mm)	16.1	%	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Inorganic Carbon <63 µm	7.39	%	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Total Carbon <63 µm	13	%	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Total Organic Carbon	5.61	%	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Inorganic Carbon (as CaCO3 equivalent)	61.6	%	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Aluminum (Al)	1950	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Antimony (Sb)	0.26	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Arsenic (As)	2.69	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Barium (Ba)	146	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Beryllium (Be)	0.33	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Boron (B)	6.5	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Cadmium (Cd)	9.08	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Calcium (Ca)	340000	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Chromium (Cr)	3.39	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Cobalt (Co)	230	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Copper (Cu)	6.64	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Iron (Fe)	4980	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Lead (Pb)	3.28	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Lithium (Li)	3	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Magnesium (Mg)	6420	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Manganese (Mn)	1950	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Mercury (Hg)	0.03	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Molybdenum (Mo)	0.55	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Nickel (Ni)	227	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Phosphorus (P)	266	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Potassium (K)	580	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Selenium (Se)	2.06	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Silver (Ag)	<0.1	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Sodium (Na)	348	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Strontium (Sr)	403	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Sulfur (S)	4900	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Thallium (Tl)	0.171	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Tin (Sn)	<2	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Titanium (Ti)	7.2	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Tungsten (W)	<0.5	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Uranium (U)	2.23	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Vanadium (V)	6.43	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Zinc (Zn)	703	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Zirconium (Zr)	<1	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Acenaphthene	<0.05	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Acenaphthylene	<0.05	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Acridine	0.058	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Anthracene	<0.05	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Benzo(b&j)fluoranthene	0.125	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Benzo(b+j+k)fluoranthene	0.125	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Benzo(g_h_i)perylene	0.066	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Chrysene	0.189	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Fluoranthene	<0.05	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Fluorene	0.08	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	1+2-Methylnaphthalene	1.56	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	1-Methylnaphthalene	0.598	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	2-Methylnaphthalene	0.964	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Naphthalene	0.341	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Phenanthrene	0.541	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Pyrene	0.056	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	Quinoline	<0.05	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	B(a)P Total Potency Equivalent	0.072	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	PAHs, total (BC Sched 3.4)	2.17	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	PAHs, total	1.4	mg/kg	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	d9-Acridine	114	%	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	d12-Chrysene	126	%	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	d8-Naphthalene	122	%	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	d10-Phenanthrene	121	%	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	pH (1:2 soil:water)	8.03	pH	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	% Clay (<4 µm)	6	%	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	% Silt (0.063 mm - 0.0312 mm)	18.9	%	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	% Silt (0.031 mm - 0.004 mm)	25.3	%	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	% Sand (0.125 mm - 0.063 mm)	16.2	%	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	% Sand (0.25 mm - 0.125 mm)	17.3	%	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	% Sand (0.50 mm - 0.25 mm)	7.4	%	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	% Sand (1.00 mm - 0.50 mm)	3.8	%	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	% Sand (2.00 mm - 1.00 mm)	2.9	%	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	% Gravel (>2 mm)	2.2	%	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Inorganic Carbon <63 µm	6.88	%	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Total Carbon <63 µm	13.4	%	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Total Organic Carbon	6.52	%	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Inorganic Carbon (as CaCO3 equivalent)	57.3	%	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Aluminum (Al)	1670	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Antimony (Sb)	0.31	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Arsenic (As)	2.01	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Barium (Ba)	146	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Beryllium (Be)	0.3	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Bismuth (Bi)	<0.48	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Boron (B)	<12	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Cadmium (Cd)	7.84	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Calcium (Ca)	284000	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Chromium (Cr)	2.9	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Cobalt (Co)	193	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Copper (Cu)	5.88	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Iron (Fe)	3180	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Lead (Pb)	2.52	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Lithium (Li)	<4.8	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Magnesium (Mg)	5720	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Manganese (Mn)	1590	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Mercury (Hg)	0.0235	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Molybdenum (Mo)	0.5	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Nickel (Ni)	199	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Phosphorus (P)	172	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Potassium (K)	560	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Selenium (Se)	2.01	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Silver (Ag)	<0.24	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Sodium (Na)	365	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Strontium (Sr)	365	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Sulfur (S)	4200	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Thallium (Tl)	0.193	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Tin (Sn)	<4.8	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Titanium (Ti)	25.9	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Tungsten (W)	<1.2	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Uranium (U)	2.02	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Vanadium (V)	5.54	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Zinc (Zn)	667	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	Zirconium (Zr)	<2.4	mg/kg	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Moisture	60.7	%	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	pH (1:2 soil:water)	7.85	pH	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	% Clay (<4 µm)	5.1	%	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	% Silt (0.063 mm - 0.0312 mm)	15.9	%	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	% Silt (0.031 mm - 0.004 mm)	21.1	%	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	% Sand (0.125 mm - 0.063 mm)	15.1	%	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	% Sand (0.25 mm - 0.125 mm)	18.4	%	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	% Sand (0.50 mm - 0.25 mm)	14.5	%	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	% Sand (1.00 mm - 0.50 mm)	6.2	%	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	% Sand (2.00 mm - 1.00 mm)	2.5	%	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	% Gravel (>2 mm)	1.2	%	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Inorganic Carbon <63 µm	7.01	%	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Total Carbon <63 µm	13.7	%	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Total Organic Carbon	6.69	%	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Inorganic Carbon (as CaCO3 equivalent)	58.4	%	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Aluminum (Al)	2180	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Antimony (Sb)	0.32	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Arsenic (As)	2.64	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Barium (Ba)	190	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Beryllium (Be)	0.42	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Boron (B)	7.9	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Cadmium (Cd)	10.7	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Calcium (Ca)	357000	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Chromium (Cr)	3.49	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Cobalt (Co)	279	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Copper (Cu)	8.03	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Iron (Fe)	4160	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Lead (Pb)	3	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Lithium (Li)	3.6	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Magnesium (Mg)	7170	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Manganese (Mn)	2200	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Mercury (Hg)	0.0285	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Molybdenum (Mo)	0.8	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Nickel (Ni)	284	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Phosphorus (P)	343	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Potassium (K)	600	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Selenium (Se)	4.55	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Silver (Ag)	<0.1	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Sodium (Na)	409	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Strontium (Sr)	426	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Sulfur (S)	5000	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Thallium (Tl)	0.297	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Tin (Sn)	<2	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Titanium (Ti)	7.2	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Tungsten (W)	<0.5	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Uranium (U)	2.98	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Vanadium (V)	7.5	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Zinc (Zn)	831	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Zirconium (Zr)	<1	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Acenaphthene	0.051	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Acenaphthylene	<0.05	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Acridine	0.094	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Anthracene	<0.05	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Benz(a)anthracene	0.052	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Benzo(a)pyrene	0.053	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Benzo(b&j)fluoranthene	0.231	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Benzo(b+j+k)fluoranthene	0.231	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Benzo(g_h_i)perylene	0.102	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Chrysene	0.314	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Fluoranthene	0.064	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Fluorene	0.15	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	1+2-Methylnaphthalene	2.89	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	1-Methylnaphthalene	1.09	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	2-Methylnaphthalene	1.8	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Naphthalene	0.677	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Phenanthrene	1.13	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Pyrene	0.098	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	Quinoline	<0.05	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	B(a)P Total Potency Equivalent	0.115	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	PAHs, total (BC Sched 3.4)	4.39	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	PAHs, total	2.92	mg/kg	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	d9-Acridine	115	%	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	d12-Chrysene	126	%	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	d8-Naphthalene	125	%	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	d10-Phenanthrene	121	%	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Moisture	59	%	ALS	RG_CORCK_SE-4_2022-09-14_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	pH (1:2 soil:water)	8.21	pH	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	% Clay (<4 µm)	6.4	%	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	% Silt (0.063 mm - 0.0312 mm)	17.8	%	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	% Silt (0.031 mm - 0.004 mm)	25.7	%	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	% Sand (0.125 mm - 0.063 mm)	15.4	%	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	% Sand (0.25 mm - 0.125 mm)	13.3	%	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	% Sand (0.50 mm - 0.25 mm)	7.1	%	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	% Sand (1.00 mm - 0.50 mm)	4.2	%	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	% Sand (2.00 mm - 1.00 mm)	4.8	%	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	% Gravel (>2 mm)	5.3	%	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Inorganic Carbon <63 µm	6.71	%	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Total Carbon <63 µm	13.2	%	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Total Organic Carbon	6.49	%	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Inorganic Carbon (as CaCO3 equivalent)	55.9	%	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Aluminum (Al)	2470	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Antimony (Sb)	0.3	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Arsenic (As)	3.36	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Barium (Ba)	143	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Beryllium (Be)	0.36	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Boron (B)	5.6	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Cadmium (Cd)	7.45	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Calcium (Ca)	253000	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Chromium (Cr)	4.56	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Cobalt (Co)	188	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Copper (Cu)	6.95	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Iron (Fe)	5280	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Lead (Pb)	3.8	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Lithium (Li)	3.2	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Magnesium (Mg)	6590	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Manganese (Mn)	1480	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Mercury (Hg)	0.0265	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Molybdenum (Mo)	0.64	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Nickel (Ni)	201	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Phosphorus (P)	440	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Potassium (K)	630	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Selenium (Se)	2.2	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Silver (Ag)	<0.1	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Sodium (Na)	263	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Strontium (Sr)	300	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Sulfur (S)	3400	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Thallium (Tl)	0.242	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Tin (Sn)	<2	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Titanium (Ti)	7.7	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Tungsten (W)	<0.5	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Uranium (U)	1.88	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Vanadium (V)	9.02	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Zinc (Zn)	593	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Zirconium (Zr)	<1	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Acenaphthene	0.058	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Acenaphthylene	<0.05	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Acridine	0.092	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Anthracene	<0.05	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Benz(a)anthracene	0.076	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Benzo(a)pyrene	0.056	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Benzo(b&j)fluoranthene	0.265	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Benzo(b+j+k)fluoranthene	0.265	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Benzo(g_h_i)perylene	0.141	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Chrysene	0.421	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Fluoranthene	0.081	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Fluorene	0.167	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	1+2-Methylnaphthalene	3.78	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	1-Methylnaphthalene	1.41	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	2-Methylnaphthalene	2.37	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Naphthalene	0.881	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Phenanthrene	1.06	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Pyrene	0.134	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	Quinoline	<0.05	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	B(a)P Total Potency Equivalent	0.126	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	PAHs, total (BC Sched 3.4)	5.3	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	PAHs, total	3.34	mg/kg	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	d9-Acridine	123	%	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	d12-Chrysene	112	%	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	d8-Naphthalene	122	%	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	d10-Phenanthrene	124	%	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Moisture	54.7	%	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	pH (1:2 soil:water)	8.15	pH	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	% Clay (<4 µm)	6	%	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	% Silt (0.063 mm - 0.0312 mm)	16.4	%	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	% Silt (0.031 mm - 0.004 mm)	22.8	%	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	% Sand (0.125 mm - 0.063 mm)	15.6	%	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	% Sand (0.25 mm - 0.125 mm)	15	%	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	% Sand (0.50 mm - 0.25 mm)	10.2	%	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	% Sand (1.00 mm - 0.50 mm)	6.2	%	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	% Sand (2.00 mm - 1.00 mm)	4.3	%	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	% Gravel (>2 mm)	3.5	%	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Inorganic Carbon <63 µm	7.92	%	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Total Carbon <63 µm	13.4	%	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Total Organic Carbon	5.48	%	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Inorganic Carbon (as CaCO3 equivalent)	66	%	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Aluminum (Al)	2100	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Antimony (Sb)	0.32	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Arsenic (As)	3.31	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Barium (Ba)	154	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Beryllium (Be)	0.38	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Boron (B)	6.8	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Cadmium (Cd)	9.16	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Calcium (Ca)	309000	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Chromium (Cr)	4.16	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Cobalt (Co)	283	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Copper (Cu)	7.6	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Iron (Fe)	4950	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Lead (Pb)	3.01	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Lithium (Li)	2.8	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Magnesium (Mg)	6510	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Manganese (Mn)	2170	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Mercury (Hg)	0.0277	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Molybdenum (Mo)	0.69	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Nickel (Ni)	267	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Phosphorus (P)	295	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Potassium (K)	590	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Selenium (Se)	2.88	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Silver (Ag)	<0.1	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Sodium (Na)	326	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Strontium (Sr)	372	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Sulfur (S)	4300	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Thallium (Tl)	0.327	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Tin (Sn)	<2	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Titanium (Ti)	8.4	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Tungsten (W)	<0.5	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Uranium (U)	2.21	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Vanadium (V)	7.81	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Zinc (Zn)	724	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Zirconium (Zr)	<1	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Acenaphthene	<0.05	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Acenaphthylene	<0.05	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Acridine	0.075	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Anthracene	<0.05	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Benzo(b&j)fluoranthene	0.191	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Benzo(b+j+k)fluoranthene	0.191	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Benzo(g_h_i)perylene	0.089	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Chrysene	0.269	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Fluoranthene	0.052	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Fluorene	0.116	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	1+2-Methylnaphthalene	2.16	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	1-Methylnaphthalene	0.829	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	2-Methylnaphthalene	1.33	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Naphthalene	0.479	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Phenanthrene	0.706	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Pyrene	0.081	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	Quinoline	<0.05	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	B(a)P Total Potency Equivalent	0.08	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	PAHs, total (BC Sched 3.4)	3.03	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	PAHs, total	1.98	mg/kg	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	d9-Acridine	110	%	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	d12-Chrysene	127	%	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	d8-Naphthalene	118	%	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	d10-Phenanthrene	116	%	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Moisture	46.4	%	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	pH (1:2 soil:water)	8.13	pH	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	% Clay (<4 µm)	5.4	%	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	% Silt (0.063 mm - 0.0312 mm)	9.2	%	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	% Silt (0.031 mm - 0.004 mm)	12.9	%	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	% Sand (0.125 mm - 0.063 mm)	6.8	%	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	% Sand (0.25 mm - 0.125 mm)	8.6	%	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	% Sand (0.50 mm - 0.25 mm)	12.6	%	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	% Sand (1.00 mm - 0.50 mm)	8.7	%	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	% Sand (2.00 mm - 1.00 mm)	3.2	%	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	% Gravel (>2 mm)	32.6	%	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Inorganic Carbon <63 µm	0.478	%	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Total Carbon <63 µm	3.11	%	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Total Organic Carbon	2.63	%	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Inorganic Carbon (as CaCO3 equivalent)	3.98	%	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Aluminum (Al)	13200	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Antimony (Sb)	0.61	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Arsenic (As)	12.1	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Barium (Ba)	150	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Beryllium (Be)	0.82	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Bismuth (Bi)	0.25	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Boron (B)	6.5	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Cadmium (Cd)	1.46	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Calcium (Ca)	18300	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Chromium (Cr)	17.5	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Cobalt (Co)	10.1	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Copper (Cu)	30	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Iron (Fe)	26600	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Lead (Pb)	16.4	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Lithium (Li)	21	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Magnesium (Mg)	6390	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Manganese (Mn)	568	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Mercury (Hg)	0.0316	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Molybdenum (Mo)	5.33	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Nickel (Ni)	36.1	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Phosphorus (P)	1390	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Potassium (K)	1970	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Selenium (Se)	0.92	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Silver (Ag)	0.14	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Sodium (Na)	72	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Strontium (Sr)	49.7	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Sulfur (S)	<1000	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Thallium (Tl)	0.679	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Tin (Sn)	<2	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Titanium (Ti)	8.3	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Tungsten (W)	<0.5	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Uranium (U)	0.816	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Vanadium (V)	30.2	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Zinc (Zn)	155	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Zirconium (Zr)	1.1	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Acenaphthene	<0.05	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Acenaphthylene	<0.05	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Acridine	<0.05	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Anthracene	<0.05	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Benzo(b&j)fluoranthene	<0.05	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Benzo(b+j+k)fluoranthene	<0.075	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Benzo(g_h_i)perylene	<0.05	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Chrysene	<0.05	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Fluoranthene	<0.05	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Fluorene	<0.05	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	1+2-Methylnaphthalene	<0.05	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	1-Methylnaphthalene	<0.03	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	2-Methylnaphthalene	<0.03	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Naphthalene	0.01	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Phenanthrene	<0.05	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Pyrene	<0.05	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	Quinoline	<0.05	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	B(a)P Total Potency Equivalent	<0.065	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	PAHs, total (BC Sched 3.4)	<0.2	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	PAHs, total	<0.2	mg/kg	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	d9-Acridine	112	%	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	d12-Chrysene	116	%	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	d8-Naphthalene	121	%	ALS	RG_MI25_SE-1_2022-09-14_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	d10-Phenanthrene	123	%	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Moisture	41.9	%	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	pH (1:2 soil:water)	8.29	pH	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	% Clay (<4 µm)	4.4	%	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	% Silt (0.063 mm - 0.0312 mm)	10.1	%	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	% Silt (0.031 mm - 0.004 mm)	12.9	%	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	% Sand (0.125 mm - 0.063 mm)	10.2	%	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	% Sand (0.25 mm - 0.125 mm)	15.5	%	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	% Sand (0.50 mm - 0.25 mm)	21.4	%	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	% Sand (1.00 mm - 0.50 mm)	12.7	%	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	% Sand (2.00 mm - 1.00 mm)	8	%	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	% Gravel (>2 mm)	4.8	%	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Inorganic Carbon <63 µm	0.543	%	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Total Carbon <63 µm	2.34	%	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Total Organic Carbon	1.8	%	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Inorganic Carbon (as CaCO3 equivalent)	4.53	%	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Aluminum (Al)	12900	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Antimony (Sb)	0.59	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Arsenic (As)	11.1	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Barium (Ba)	135	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Beryllium (Be)	0.76	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Bismuth (Bi)	0.22	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Boron (B)	9	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Cadmium (Cd)	1.26	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Calcium (Ca)	31400	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Chromium (Cr)	18.2	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Cobalt (Co)	8.4	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Copper (Cu)	25.7	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Iron (Fe)	22700	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Lead (Pb)	15.2	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Lithium (Li)	18.7	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Magnesium (Mg)	6290	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Manganese (Mn)	523	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Mercury (Hg)	0.0292	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Molybdenum (Mo)	4.98	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Nickel (Ni)	31.4	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Phosphorus (P)	1250	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Potassium (K)	2320	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Selenium (Se)	0.68	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Silver (Ag)	0.13	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Sodium (Na)	79	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Strontium (Sr)	60.4	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Sulfur (S)	<1000	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Thallium (Tl)	0.633	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Tin (Sn)	<2	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Titanium (Ti)	11.2	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Tungsten (W)	<0.5	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Uranium (U)	0.806	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Vanadium (V)	31.4	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Zinc (Zn)	132	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Zirconium (Zr)	<1	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Acenaphthene	<0.05	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Acenaphthylene	<0.05	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Acridine	<0.05	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Anthracene	<0.05	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Benzo(b&j)fluoranthene	<0.05	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Benzo(b+j+k)fluoranthene	<0.075	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Benzo(g_h_i)perylene	<0.05	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Chrysene	<0.05	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Fluoranthene	<0.05	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Fluorene	<0.05	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	1+2-Methylnaphthalene	<0.05	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	1-Methylnaphthalene	<0.03	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	2-Methylnaphthalene	<0.03	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Naphthalene	<0.01	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Phenanthrene	<0.05	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Pyrene	<0.05	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	Quinoline	<0.05	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	B(a)P Total Potency Equivalent	<0.065	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	PAHs, total (BC Sched 3.4)	<0.2	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	PAHs, total	<0.2	mg/kg	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	d9-Acridine	105	%	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	d12-Chrysene	126	%	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	d8-Naphthalene	113	%	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	d10-Phenanthrene	116	%	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Moisture	43.5	%	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	pH (1:2 soil:water)	8.24	pH	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Inorganic Carbon <63 µm	0.508	%	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Total Carbon <63 µm	2.46	%	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Total Organic Carbon	1.95	%	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Inorganic Carbon (as CaCO3 equivalent)	4.24	%	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Aluminum (Al)	15200	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Antimony (Sb)	0.59	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Arsenic (As)	11.7	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Barium (Ba)	149	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Beryllium (Be)	0.85	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Bismuth (Bi)	0.24	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Boron (B)	9.6	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Cadmium (Cd)	1.45	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Calcium (Ca)	27600	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Chromium (Cr)	20.2	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Cobalt (Co)	9.47	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Copper (Cu)	28.2	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Iron (Fe)	27400	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Lead (Pb)	19.2	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Lithium (Li)	21.9	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Magnesium (Mg)	6840	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Manganese (Mn)	708	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Mercury (Hg)	0.0267	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Molybdenum (Mo)	5.15	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Nickel (Ni)	35.1	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Phosphorus (P)	1320	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Potassium (K)	2720	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Selenium (Se)	1	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Silver (Ag)	0.29	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Sodium (Na)	80	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Strontium (Sr)	76.9	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Sulfur (S)	<1000	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Thallium (Tl)	0.677	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Tin (Sn)	<2	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Titanium (Ti)	10.4	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Tungsten (W)	<0.5	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Uranium (U)	0.758	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Vanadium (V)	34	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Zinc (Zn)	156	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Zirconium (Zr)	<1	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Acenaphthene	<0.05	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Acenaphthylene	<0.05	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Acridine	<0.05	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Anthracene	<0.05	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Benzo(b&j)fluoranthene	<0.05	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Benzo(b+j+k)fluoranthene	<0.075	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Benzo(g_h_i)perylene	<0.05	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Chrysene	<0.05	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Fluoranthene	<0.05	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Fluorene	<0.05	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	1+2-Methylnaphthalene	<0.05	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	1-Methylnaphthalene	<0.03	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	2-Methylnaphthalene	<0.03	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Naphthalene	<0.01	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Phenanthrene	<0.05	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Pyrene	<0.05	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	Quinoline	<0.05	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	B(a)P Total Potency Equivalent	<0.065	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	PAHs, total (BC Sched 3.4)	<0.2	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	PAHs, total	<0.2	mg/kg	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	d9-Acridine	119	%	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	d12-Chrysene	123	%	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	d8-Naphthalene	120	%	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	d10-Phenanthrene	119	%	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Moisture	81	%	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	pH (1:2 soil:water)	7.51	pH	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Inorganic Carbon <63 µm	3.83	%	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Total Carbon <63 µm	13.6	%	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Total Organic Carbon	9.77	%	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Inorganic Carbon (as CaCO3 equivalent)	31.9	%	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Aluminum (Al)	2780	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Antimony (Sb)	0.94	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Arsenic (As)	6.97	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Barium (Ba)	50.2	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Beryllium (Be)	0.41	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Boron (B)	<5	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Cadmium (Cd)	1.26	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Calcium (Ca)	137000	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Chromium (Cr)	10.8	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Cobalt (Co)	2.75	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Copper (Cu)	9.09	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Iron (Fe)	7250	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Lead (Pb)	4.62	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Lithium (Li)	4	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Magnesium (Mg)	12900	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Manganese (Mn)	138	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Mercury (Hg)	0.0395	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Molybdenum (Mo)	1.4	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Nickel (Ni)	24.6	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Phosphorus (P)	1050	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Potassium (K)	880	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Selenium (Se)	2.14	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Silver (Ag)	0.33	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Sodium (Na)	109	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Strontium (Sr)	140	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Sulfur (S)	<1000	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Thallium (Tl)	0.689	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Tin (Sn)	<2	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Titanium (Ti)	10.9	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Tungsten (W)	<0.5	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Uranium (U)	0.969	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Vanadium (V)	20.1	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Zinc (Zn)	147	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Zirconium (Zr)	<1	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Acenaphthene	<0.068	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Acenaphthylene	<0.068	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Acridine	<0.068	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Anthracene	<0.068	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Benz(a)anthracene	<0.068	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Benzo(a)pyrene	<0.068	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Benzo(b&j)fluoranthene	<0.068	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Benzo(b+j+k)fluoranthene	<0.096	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Benzo(g_h_i)perylene	<0.068	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Benzo(k)fluoranthene	<0.068	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Chrysene	<0.068	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Dibenz(a_h)anthracene	<0.068	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Fluoranthene	<0.068	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Fluorene	<0.068	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Indeno(1,2,3-c,d)pyrene	<0.068	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	1+2-Methylnaphthalene	0.155	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	1-Methylnaphthalene	0.069	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	2-Methylnaphthalene	0.086	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Naphthalene	0.04	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Phenanthrene	0.099	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Pyrene	<0.068	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	Quinoline	<0.068	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	B(a)P Total Potency Equivalent	0.082	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	PAHs, total (BC Sched 3.4)	<0.23	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	PAHs, total	<0.26	mg/kg	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	d9-Acridine	122	%	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	d12-Chrysene	123	%	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	d8-Naphthalene	125	%	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	d10-Phenanthrene	127	%	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Moisture	44.5	%	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	pH (1:2 soil:water)	8.06	pH	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	% Clay (<4 µm)	3.1	%	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	% Silt (0.063 mm - 0.0312 mm)	10.1	%	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	% Silt (0.031 mm - 0.004 mm)	10.3	%	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	% Sand (0.125 mm - 0.063 mm)	13.6	%	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	% Sand (0.25 mm - 0.125 mm)	16.1	%	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	% Sand (0.50 mm - 0.25 mm)	18.9	%	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	% Sand (1.00 mm - 0.50 mm)	9.5	%	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	% Sand (2.00 mm - 1.00 mm)	7.1	%	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	% Gravel (>2 mm)	11.3	%	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Inorganic Carbon <63 µm	0.174	%	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Total Carbon <63 µm	1.59	%	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Total Organic Carbon	1.42	%	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Inorganic Carbon (as CaCO3 equivalent)	1.45	%	ALS	RG_LE1_SE-1_2022-09-14_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Aluminum (Al)	7700	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Antimony (Sb)	1.33	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Arsenic (As)	6.25	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Barium (Ba)	248	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Beryllium (Be)	0.5	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Boron (B)	<5	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Cadmium (Cd)	1.65	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Calcium (Ca)	7400	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Chromium (Cr)	14.5	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Cobalt (Co)	6.43	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Copper (Cu)	17.2	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Iron (Fe)	16400	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Lead (Pb)	9.63	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Lithium (Li)	8.2	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Magnesium (Mg)	3090	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Manganese (Mn)	272	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Mercury (Hg)	0.0439	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Molybdenum (Mo)	1.54	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Nickel (Ni)	27.5	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Phosphorus (P)	1230	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Potassium (K)	1220	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Selenium (Se)	0.7	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Silver (Ag)	0.18	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Sodium (Na)	<50	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Strontium (Sr)	36.5	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Sulfur (S)	<1000	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Thallium (Tl)	0.222	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Tin (Sn)	<2	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Titanium (Ti)	34	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Tungsten (W)	<0.5	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Uranium (U)	1.27	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Vanadium (V)	46.9	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Zinc (Zn)	119	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Zirconium (Zr)	<1	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Acenaphthene	<0.05	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Acenaphthylene	<0.05	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Acridine	<0.05	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Anthracene	<0.05	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Benzo(b&j)fluoranthene	<0.05	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Benzo(b+j+k)fluoranthene	<0.075	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Benzo(g_h_i)perylene	<0.05	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Chrysene	0.082	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Fluoranthene	<0.05	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Fluorene	<0.05	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	1+2-Methylnaphthalene	0.28	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	1-Methylnaphthalene	0.14	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	2-Methylnaphthalene	0.14	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Naphthalene	0.068	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Phenanthrene	0.262	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Pyrene	<0.05	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	Quinoline	<0.05	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	B(a)P Total Potency Equivalent	<0.065	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	PAHs, total (BC Sched 3.4)	0.55	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	PAHs, total	0.41	mg/kg	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	d9-Acridine	106	%	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	d12-Chrysene	129	%	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	d8-Naphthalene	119	%	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	d10-Phenanthrene	118	%	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Moisture	46.9	%	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	pH (1:2 soil:water)	8.03	pH	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	% Clay (<4 µm)	2.6	%	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	% Silt (0.063 mm - 0.0312 mm)	12.6	%	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	% Silt (0.031 mm - 0.004 mm)	10.9	%	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	% Sand (0.125 mm - 0.063 mm)	21.2	%	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	% Sand (0.25 mm - 0.125 mm)	24.6	%	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	% Sand (0.50 mm - 0.25 mm)	14.5	%	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	% Sand (1.00 mm - 0.50 mm)	5.8	%	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	% Sand (2.00 mm - 1.00 mm)	2.5	%	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	% Gravel (>2 mm)	5.3	%	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Inorganic Carbon <63 µm	0.136	%	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Total Carbon <63 µm	1.77	%	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Total Organic Carbon	1.63	%	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Inorganic Carbon (as CaCO3 equivalent)	1.13	%	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Aluminum (Al)	7780	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Antimony (Sb)	1.3	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Arsenic (As)	6.48	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Barium (Ba)	267	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Beryllium (Be)	0.6	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Boron (B)	<5	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Cadmium (Cd)	1.64	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Calcium (Ca)	5960	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Chromium (Cr)	15	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Cobalt (Co)	6.51	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Copper (Cu)	15.4	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Iron (Fe)	15900	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Lead (Pb)	9.1	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Lithium (Li)	8.6	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Magnesium (Mg)	2450	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Manganese (Mn)	240	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Mercury (Hg)	0.0459	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Molybdenum (Mo)	1.52	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Nickel (Ni)	26.5	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Phosphorus (P)	1220	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Potassium (K)	1160	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Selenium (Se)	0.66	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Silver (Ag)	0.19	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Sodium (Na)	<50	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Strontium (Sr)	36.6	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Sulfur (S)	<1000	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Thallium (Tl)	0.196	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Tin (Sn)	<2	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Titanium (Ti)	30.6	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Tungsten (W)	<0.5	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Uranium (U)	1.23	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Vanadium (V)	46	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Zinc (Zn)	115	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Zirconium (Zr)	<1	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Acenaphthene	<0.05	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Acenaphthylene	<0.05	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Acridine	<0.05	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Anthracene	<0.05	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Benzo(b&j)fluoranthene	<0.05	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Benzo(b+j+k)fluoranthene	<0.075	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Benzo(g_h_i)perylene	<0.05	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Chrysene	0.06	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Fluoranthene	<0.05	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Fluorene	<0.05	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	1+2-Methylnaphthalene	0.134	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	1-Methylnaphthalene	0.068	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	2-Methylnaphthalene	0.066	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Naphthalene	0.033	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Phenanthrene	0.143	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Pyrene	<0.05	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	Quinoline	<0.05	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	B(a)P Total Potency Equivalent	<0.065	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	PAHs, total (BC Sched 3.4)	0.3	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	PAHs, total	0.24	mg/kg	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	d9-Acridine	108	%	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	d12-Chrysene	116	%	ALS	RG_LE1_SE-2_2022-09-14_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	d8-Naphthalene	120	%	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	d10-Phenanthrene	118	%	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Moisture	33.9	%	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	pH (1:2 soil:water)	8.04	pH	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	% Clay (<4 µm)	3.2	%	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	% Silt (0.063 mm - 0.0312 mm)	6.9	%	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	% Silt (0.031 mm - 0.004 mm)	8.3	%	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	% Sand (0.125 mm - 0.063 mm)	10	%	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	% Sand (0.25 mm - 0.125 mm)	21.3	%	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	% Sand (0.50 mm - 0.25 mm)	29.6	%	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	% Sand (1.00 mm - 0.50 mm)	14.9	%	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	% Sand (2.00 mm - 1.00 mm)	2.9	%	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	% Gravel (>2 mm)	2.9	%	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Inorganic Carbon <63 µm	0.115	%	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Total Carbon <63 µm	2.55	%	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Total Organic Carbon	2.44	%	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Inorganic Carbon (as CaCO3 equivalent)	0.96	%	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Aluminum (Al)	8320	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Antimony (Sb)	1.67	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Arsenic (As)	8.97	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Barium (Ba)	267	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Beryllium (Be)	0.76	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Boron (B)	<5	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Cadmium (Cd)	2.07	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Calcium (Ca)	5350	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Chromium (Cr)	16.5	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Cobalt (Co)	7.12	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Copper (Cu)	17.6	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Iron (Fe)	20000	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Lead (Pb)	10.5	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Lithium (Li)	8.9	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Magnesium (Mg)	2250	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Manganese (Mn)	312	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Mercury (Hg)	0.0455	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Molybdenum (Mo)	2.22	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Nickel (Ni)	31.4	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Phosphorus (P)	1320	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Potassium (K)	1320	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Selenium (Se)	0.71	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Silver (Ag)	0.21	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Sodium (Na)	<50	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Strontium (Sr)	41.5	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Sulfur (S)	<1000	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Thallium (Tl)	0.219	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Tin (Sn)	<2	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Titanium (Ti)	40.4	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Tungsten (W)	<0.5	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Uranium (U)	1.34	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Vanadium (V)	56.8	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Zinc (Zn)	133	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Zirconium (Zr)	<1	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Acenaphthene	<0.05	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Acenaphthylene	<0.05	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Acridine	<0.05	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Anthracene	<0.05	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Benzo(b&j)fluoranthene	<0.05	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Benzo(b+j+k)fluoranthene	<0.075	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Benzo(g_h_i)perylene	<0.05	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Chrysene	0.062	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Fluoranthene	<0.05	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Fluorene	<0.05	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	1+2-Methylnaphthalene	0.161	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	1-Methylnaphthalene	0.079	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	2-Methylnaphthalene	0.082	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Naphthalene	0.038	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Phenanthrene	0.162	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Pyrene	<0.05	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	Quinoline	<0.05	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	B(a)P Total Potency Equivalent	<0.065	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	PAHs, total (BC Sched 3.4)	0.34	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	PAHs, total	0.26	mg/kg	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	d9-Acridine	105	%	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	d12-Chrysene	127	%	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	d8-Naphthalene	119	%	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	d10-Phenanthrene	115	%	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Moisture	72.4	%	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	pH (1:2 soil:water)	7.55	pH	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	% Clay (<4 µm)	5	%	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	% Silt (0.063 mm - 0.0312 mm)	21.1	%	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	% Silt (0.031 mm - 0.004 mm)	23.3	%	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	% Sand (0.125 mm - 0.063 mm)	4.7	%	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	% Sand (0.25 mm - 0.125 mm)	3.1	%	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	% Sand (0.50 mm - 0.25 mm)	3.5	%	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	% Sand (1.00 mm - 0.50 mm)	9.6	%	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	% Sand (2.00 mm - 1.00 mm)	16.6	%	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	% Gravel (>2 mm)	13.1	%	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Inorganic Carbon <63 µm	1.66	%	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Total Carbon <63 µm	7.1	%	ALS	RG_MI5_SE-4_2022-09-14_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Total Organic Carbon	5.44	%	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Inorganic Carbon (as CaCO3 equivalent)	13.8	%	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Aluminum (Al)	6040	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Antimony (Sb)	0.7	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Arsenic (As)	5.68	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Barium (Ba)	182	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Beryllium (Be)	0.45	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Boron (B)	6.9	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Cadmium (Cd)	2.38	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Calcium (Ca)	54300	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Chromium (Cr)	12	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Cobalt (Co)	6.78	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Copper (Cu)	12.7	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Iron (Fe)	13200	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Lead (Pb)	7.02	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Lithium (Li)	7.4	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Magnesium (Mg)	5490	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Manganese (Mn)	196	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Mercury (Hg)	0.0416	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Molybdenum (Mo)	1.23	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Nickel (Ni)	35.1	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Phosphorus (P)	1210	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Potassium (K)	1140	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Selenium (Se)	2.56	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Silver (Ag)	0.18	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Sodium (Na)	132	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Strontium (Sr)	92.2	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Sulfur (S)	<1000	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Thallium (Tl)	0.22	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Tin (Sn)	<2	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Titanium (Ti)	30.4	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Tungsten (W)	<0.5	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Uranium (U)	0.991	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Vanadium (V)	29.4	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Zinc (Zn)	117	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Zirconium (Zr)	1.2	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Acenaphthene	<0.05	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Acenaphthylene	<0.05	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Acridine	<0.05	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Anthracene	<0.05	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Benzo(b&j)fluoranthene	<0.05	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Benzo(b+j+k)fluoranthene	<0.075	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Benzo(g_h_i)perylene	<0.05	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Chrysene	0.053	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Fluoranthene	<0.05	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Fluorene	<0.05	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	1+2-Methylnaphthalene	0.192	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	1-Methylnaphthalene	0.084	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	2-Methylnaphthalene	0.108	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Naphthalene	0.057	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Phenanthrene	0.141	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Pyrene	<0.05	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	Quinoline	<0.05	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	B(a)P Total Potency Equivalent	<0.065	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	PAHs, total (BC Sched 3.4)	0.36	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	PAHs, total	0.25	mg/kg	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	d9-Acridine	118	%	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	d12-Chrysene	112	%	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	d8-Naphthalene	126	%	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	d10-Phenanthrene	126	%	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Moisture	81.2	%	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	pH (1:2 soil:water)	7.61	pH	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	% Clay (<4 µm)	7.5	%	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	% Silt (0.063 mm - 0.0312 mm)	32.7	%	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	% Silt (0.031 mm - 0.004 mm)	35.2	%	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	% Sand (0.125 mm - 0.063 mm)	9.1	%	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	% Sand (0.25 mm - 0.125 mm)	4.3	%	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	% Sand (0.50 mm - 0.25 mm)	1.8	%	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	% Sand (1.00 mm - 0.50 mm)	1.1	%	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	% Sand (2.00 mm - 1.00 mm)	1.9	%	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	% Gravel (>2 mm)	6.4	%	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Inorganic Carbon <63 µm	2.88	%	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Total Carbon <63 µm	9.81	%	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Total Organic Carbon	6.93	%	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Inorganic Carbon (as CaCO3 equivalent)	24	%	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Aluminum (Al)	4520	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Antimony (Sb)	0.52	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Arsenic (As)	4.16	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Barium (Ba)	238	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Beryllium (Be)	0.35	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Boron (B)	7.6	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Cadmium (Cd)	1.61	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Calcium (Ca)	92200	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Chromium (Cr)	8.9	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Cobalt (Co)	7	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Copper (Cu)	9.99	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Iron (Fe)	10100	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Lead (Pb)	6.23	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Lithium (Li)	5.6	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Magnesium (Mg)	5450	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Manganese (Mn)	198	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Mercury (Hg)	0.0375	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Molybdenum (Mo)	1.04	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Nickel (Ni)	33.6	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Phosphorus (P)	1140	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Potassium (K)	950	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Selenium (Se)	2.59	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Silver (Ag)	0.16	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Sodium (Na)	140	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Strontium (Sr)	125	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Sulfur (S)	1100	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Thallium (Tl)	0.191	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Tin (Sn)	<2	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Titanium (Ti)	14.4	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Tungsten (W)	<0.5	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Uranium (U)	0.827	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Vanadium (V)	20.5	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Zinc (Zn)	102	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Zirconium (Zr)	<1	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Acenaphthene	<0.068	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Acenaphthylene	<0.068	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Acridine	<0.068	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Anthracene	<0.068	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Benz(a)anthracene	<0.068	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Benzo(a)pyrene	<0.068	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Benzo(b&j)fluoranthene	<0.068	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Benzo(b+j+k)fluoranthene	<0.096	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Benzo(g_h_i)perylene	<0.068	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Benzo(k)fluoranthene	<0.068	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Chrysene	0.084	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Dibenz(a_h)anthracene	<0.068	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Fluoranthene	<0.068	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Fluorene	<0.068	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Indeno(1,2,3-c,d)pyrene	<0.068	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	1+2-Methylnaphthalene	0.297	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	1-Methylnaphthalene	0.13	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	2-Methylnaphthalene	0.167	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Naphthalene	0.084	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Phenanthrene	0.188	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Pyrene	<0.068	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	Quinoline	<0.068	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	B(a)P Total Potency Equivalent	0.083	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	PAHs, total (BC Sched 3.4)	0.52	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	PAHs, total	0.36	mg/kg	ALS	RG_MI5_SE-5_2022-09-14_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	d9-Acridine	121	%	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	d12-Chrysene	117	%	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	d8-Naphthalene	122	%	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	d10-Phenanthrene	129	%	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Moisture	33.9	%	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	pH (1:2 soil:water)	8.33	pH	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	% Clay (<4 µm)	5.9	%	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	% Silt (0.063 mm - 0.0312 mm)	10.3	%	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	% Silt (0.031 mm - 0.004 mm)	11.2	%	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	% Sand (0.125 mm - 0.063 mm)	16.2	%	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	% Sand (0.25 mm - 0.125 mm)	20.7	%	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	% Sand (0.50 mm - 0.25 mm)	14.1	%	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	% Sand (1.00 mm - 0.50 mm)	10.9	%	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	% Sand (2.00 mm - 1.00 mm)	7.7	%	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	% Gravel (>2 mm)	3	%	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Inorganic Carbon <63 µm	0.405	%	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Total Carbon <63 µm	2.65	%	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Total Organic Carbon	2.24	%	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Inorganic Carbon (as CaCO3 equivalent)	3.38	%	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Aluminum (Al)	12600	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Antimony (Sb)	0.33	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Arsenic (As)	8.01	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Barium (Ba)	156	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Beryllium (Be)	0.87	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Bismuth (Bi)	0.22	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Boron (B)	10.1	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Cadmium (Cd)	0.583	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Calcium (Ca)	14800	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Chromium (Cr)	14.7	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Cobalt (Co)	7.09	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Copper (Cu)	16.8	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Iron (Fe)	20200	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Lead (Pb)	12.3	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Lithium (Li)	24.6	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Magnesium (Mg)	6120	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Manganese (Mn)	431	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Mercury (Hg)	0.0193	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Molybdenum (Mo)	1.94	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Nickel (Ni)	19.7	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Phosphorus (P)	1260	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Potassium (K)	2260	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Selenium (Se)	0.48	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Silver (Ag)	<0.1	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Sodium (Na)	86	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Strontium (Sr)	37.9	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Sulfur (S)	<1000	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Thallium (Tl)	0.304	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Tin (Sn)	<2	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Titanium (Ti)	7.6	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Uranium (U)	0.579	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Vanadium (V)	24.7	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Zinc (Zn)	88.4	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Zirconium (Zr)	1	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Acenaphthene	<0.05	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Acenaphthylene	<0.05	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Acridine	<0.05	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Anthracene	<0.05	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Benzo(b&j)fluoranthene	<0.05	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Benzo(b+j+k)fluoranthene	<0.075	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Benzo(g_h_i)perylene	<0.05	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Chrysene	<0.05	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Fluoranthene	<0.05	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Fluorene	<0.05	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	1+2-Methylnaphthalene	<0.05	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	1-Methylnaphthalene	<0.03	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	2-Methylnaphthalene	<0.03	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Naphthalene	<0.01	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Phenanthrene	<0.05	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Pyrene	<0.05	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	Quinoline	<0.05	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	B(a)P Total Potency Equivalent	<0.065	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	PAHs, total (BC Sched 3.4)	<0.2	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	PAHs, total	<0.2	mg/kg	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	d9-Acridine	97.4	%	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	d12-Chrysene	99.4	%	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	d8-Naphthalene	102	%	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	d10-Phenanthrene	111	%	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Moisture	41.6	%	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	pH (1:2 soil:water)	8.23	pH	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	% Clay (<4 µm)	6.4	%	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	% Silt (0.063 mm - 0.0312 mm)	11	%	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	% Silt (0.031 mm - 0.004 mm)	14.6	%	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	% Sand (0.125 mm - 0.063 mm)	10.6	%	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	% Sand (0.25 mm - 0.125 mm)	14.8	%	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	% Sand (0.50 mm - 0.25 mm)	15.6	%	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	% Sand (1.00 mm - 0.50 mm)	16.4	%	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	% Sand (2.00 mm - 1.00 mm)	8.4	%	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	% Gravel (>2 mm)	2.2	%	ALS	RG_MIUCO_SE-2_2022-10-22_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Inorganic Carbon <63 µm	0.357	%	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Total Carbon <63 µm	6.74	%	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Total Organic Carbon	6.38	%	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Inorganic Carbon (as CaCO3 equivalent)	2.98	%	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Aluminum (Al)	11700	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Antimony (Sb)	0.35	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Arsenic (As)	6.41	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Barium (Ba)	148	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Beryllium (Be)	0.84	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Bismuth (Bi)	0.21	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Boron (B)	8.7	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Cadmium (Cd)	0.695	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Calcium (Ca)	13900	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Chromium (Cr)	14.1	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Cobalt (Co)	6.97	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Copper (Cu)	18	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Iron (Fe)	17600	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Lead (Pb)	12.5	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Lithium (Li)	23.5	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Magnesium (Mg)	5490	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Manganese (Mn)	298	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Mercury (Hg)	0.0275	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Molybdenum (Mo)	1.72	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Nickel (Ni)	20.4	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Phosphorus (P)	1140	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Potassium (K)	2030	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Selenium (Se)	0.55	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Silver (Ag)	<0.1	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Sodium (Na)	74	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Strontium (Sr)	44.8	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Sulfur (S)	<1000	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Thallium (Tl)	0.283	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Tin (Sn)	<2	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Titanium (Ti)	7.8	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Uranium (U)	0.534	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Vanadium (V)	22.4	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Zinc (Zn)	92.3	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Zirconium (Zr)	1.2	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Acenaphthene	<0.05	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Acenaphthylene	<0.05	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Acridine	<0.05	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Anthracene	<0.05	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Benzo(b&j)fluoranthene	<0.05	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Benzo(b+j+k)fluoranthene	<0.075	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Benzo(g_h_i)perylene	<0.05	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Chrysene	0.06	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Fluoranthene	<0.05	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Fluorene	<0.05	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	1+2-Methylnaphthalene	0.181	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	1-Methylnaphthalene	0.078	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	2-Methylnaphthalene	0.103	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Naphthalene	0.029	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Phenanthrene	0.132	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Pyrene	<0.05	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	Quinoline	<0.05	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	B(a)P Total Potency Equivalent	<0.065	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	PAHs, total (BC Sched 3.4)	0.32	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	PAHs, total	0.22	mg/kg	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	d9-Acridine	86.9	%	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	d12-Chrysene	90.4	%	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	d8-Naphthalene	94.3	%	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	d10-Phenanthrene	99.9	%	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Moisture	45.8	%	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	pH (1:2 soil:water)	8.57	pH	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	% Clay (<4 µm)	7	%	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	% Silt (0.063 mm - 0.0312 mm)	19.1	%	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	% Silt (0.031 mm - 0.004 mm)	22.1	%	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	% Sand (0.125 mm - 0.063 mm)	20.5	%	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	% Sand (0.25 mm - 0.125 mm)	13.6	%	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	% Sand (0.50 mm - 0.25 mm)	6.6	%	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	% Sand (1.00 mm - 0.50 mm)	3.3	%	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	% Sand (2.00 mm - 1.00 mm)	3.2	%	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	% Gravel (>2 mm)	4.6	%	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Inorganic Carbon <63 µm	0.904	%	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Total Carbon <63 µm	3.4	%	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Total Organic Carbon	2.5	%	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Inorganic Carbon (as CaCO3 equivalent)	7.53	%	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Aluminum (Al)	9320	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Antimony (Sb)	0.32	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Arsenic (As)	6.51	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Barium (Ba)	610	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Beryllium (Be)	0.66	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Boron (B)	9.2	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Cadmium (Cd)	0.65	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Calcium (Ca)	26500	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Chromium (Cr)	11.7	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Cobalt (Co)	5.35	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Copper (Cu)	14.4	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Iron (Fe)	16900	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Lead (Pb)	10.3	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Lithium (Li)	19.8	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Magnesium (Mg)	6620	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Manganese (Mn)	213	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Mercury (Hg)	0.0217	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Molybdenum (Mo)	1.67	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Nickel (Ni)	16	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Phosphorus (P)	1080	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Potassium (K)	1710	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Selenium (Se)	0.42	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Silver (Ag)	<0.1	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Sodium (Na)	170	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Strontium (Sr)	89.6	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Sulfur (S)	<1000	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Thallium (Tl)	0.269	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Tin (Sn)	<2	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Titanium (Ti)	9.2	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Uranium (U)	0.504	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Vanadium (V)	19.8	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Zinc (Zn)	77.9	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Zirconium (Zr)	<1	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Acenaphthene	<0.05	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Acenaphthylene	<0.05	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Acridine	<0.05	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Anthracene	<0.05	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Benzo(b&j)fluoranthene	<0.05	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Benzo(b+j+k)fluoranthene	<0.075	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Benzo(g_h_i)perylene	<0.05	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Chrysene	<0.05	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Fluoranthene	<0.05	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Fluorene	<0.05	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	1+2-Methylnaphthalene	<0.05	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	1-Methylnaphthalene	<0.03	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	2-Methylnaphthalene	<0.03	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Naphthalene	<0.01	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Phenanthrene	<0.05	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Pyrene	<0.05	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	Quinoline	<0.05	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	B(a)P Total Potency Equivalent	<0.065	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N



Appendix I:  
Sediment Screening

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	PAHs, total (BC Sched 3.4)	<0.2	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	PAHs, total	<0.2	mg/kg	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	d9-Acridine	85.4	%	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	d12-Chrysene	92.7	%	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	d8-Naphthalene	95.1	%	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668236	5486617	2022	3	2022-10-22	13:02	d10-Phenanthrene	99.6	%	ALS	RG_MIUCO_SE-3_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Moisture	37.6	%	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	pH (1:2 soil:water)	8.29	pH	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	% Clay (<4 µm)	6.3	%	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	% Silt (0.063 mm - 0.0312 mm)	11.6	%	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	% Silt (0.031 mm - 0.004 mm)	12.3	%	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	% Sand (0.125 mm - 0.063 mm)	20	%	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	% Sand (0.25 mm - 0.125 mm)	24.6	%	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	% Sand (0.50 mm - 0.25 mm)	14.9	%	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	% Sand (1.00 mm - 0.50 mm)	6.8	%	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	% Sand (2.00 mm - 1.00 mm)	2.8	%	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	% Gravel (>2 mm)	<1	%	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Inorganic Carbon <63 µm	0.334	%	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Total Carbon <63 µm	2.35	%	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Total Organic Carbon	2.02	%	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Inorganic Carbon (as CaCO3 equivalent)	2.79	%	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Aluminum (Al)	11800	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Antimony (Sb)	0.38	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Arsenic (As)	8.04	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Barium (Ba)	191	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Beryllium (Be)	0.81	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Bismuth (Bi)	<0.2	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Boron (B)	9	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Cadmium (Cd)	0.692	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Calcium (Ca)	13000	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Chromium (Cr)	14.7	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Cobalt (Co)	7.15	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Copper (Cu)	17.4	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Iron (Fe)	19400	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Lead (Pb)	12.4	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Lithium (Li)	22.3	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Magnesium (Mg)	5580	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Manganese (Mn)	420	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Mercury (Hg)	0.0215	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Molybdenum (Mo)	2.35	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Nickel (Ni)	20.7	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Phosphorus (P)	1360	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Potassium (K)	2130	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Selenium (Se)	0.55	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Silver (Ag)	<0.1	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Sodium (Na)	67	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Strontium (Sr)	37.9	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Sulfur (S)	<1000	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Thallium (Tl)	0.342	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Tin (Sn)	<2	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Titanium (Ti)	8.3	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Tungsten (W)	<0.5	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Uranium (U)	0.603	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Vanadium (V)	24.4	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Zinc (Zn)	91.9	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Zirconium (Zr)	1.2	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Acenaphthene	<0.05	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Acenaphthylene	<0.05	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Acridine	<0.05	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Anthracene	<0.05	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Benz(a)anthracene	<0.05	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Benzo(a)pyrene	<0.05	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Benzo(b&j)fluoranthene	<0.05	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Benzo(b+j+k)fluoranthene	<0.075	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Benzo(g_h_i)perylene	<0.05	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Benzo(k)fluoranthene	<0.05	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Chrysene	<0.05	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Dibenz(a_h)anthracene	<0.05	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Fluoranthene	<0.05	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Fluorene	<0.05	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Indeno(1,2,3-c,d)pyrene	<0.05	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	1+2-Methylnaphthalene	<0.05	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	1-Methylnaphthalene	<0.03	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	2-Methylnaphthalene	<0.03	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Naphthalene	<0.01	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Phenanthrene	<0.05	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Pyrene	<0.05	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	Quinoline	<0.05	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	B(a)P Total Potency Equivalent	<0.065	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	PAHs, total (BC Sched 3.4)	<0.2	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	PAHs, total	<0.2	mg/kg	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	d9-Acridine	90	%	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	d12-Chrysene	93.3	%	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	d8-Naphthalene	96.5	%	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MIUCO	668214	5486583	2022	4	2022-10-22	13:13	d10-Phenanthrene	100	%	ALS	RG_MIUCO_SE-4_2022-10-22_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	IACR (CCME)	0.61	-	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	IACR:Coarse	<0.10	-	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659559	5496348	2022	1	2022-09-12	09:30	IACR:Fine	<0.10	-	ALS	RG_MI5_SE-1_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	IACR (CCME)	0.8	-	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	IACR:Coarse	<0.10	-	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659503	5496521	2022	2	2022-09-12	10:00	IACR:Fine	<0.10	-	ALS	RG_MI5_SE-2_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	IACR (CCME)	<0.60	-	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	IACR:Coarse	<0.10	-	ALS	RG_MI5_SE-3_2022-09-12_N
SE	RG_MI5	659499	5496580	2022	3	2022-09-12	10:30	IACR:Fine	<0.10	-	ALS	RG_MI5_SE-3_2022-09-12_N



Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	IACR (CCME)	0.9	-	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	IACR:Coarse	<0.10	-	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660482	5493070	2022	1	2022-09-12	15:41	IACR:Fine	<0.10	-	ALS	RG_MIULE_SE-1_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	IACR (CCME)	0.84	-	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	IACR:Coarse	<0.10	-	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660563	5493002	2022	2	2022-09-12	14:31	IACR:Fine	<0.10	-	ALS	RG_MIULE_SE-2_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	IACR (CCME)	1.0	-	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	IACR:Coarse	<0.10	-	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660633	5492985	2022	3	2022-09-12	13:40	IACR:Fine	<0.10	-	ALS	RG_MIULE_SE-3_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	IACR (CCME)	1.2	-	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	IACR:Coarse	<0.10	-	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660593	5492990	2022	4	2022-09-12	16:25	IACR:Fine	0.1	-	ALS	RG_MIULE_SE-4_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	IACR (CCME)	0.61	-	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	IACR:Coarse	<0.10	-	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIULE	660469	5493098	2022	5	2022-09-12	15:00	IACR:Fine	<0.10	-	ALS	RG_MIULE_SE-5_2022-09-12_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	IACR (CCME)	1.5	-	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	IACR:Coarse	<0.10	-	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	1	2022-09-13	11:07	IACR:Fine	0.12	-	ALS	RG_MIDAG_SE-1_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	IACR (CCME)	1.3	-	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	IACR:Coarse	<0.10	-	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665266	5489463	2022	2	2022-09-13	10:17	IACR:Fine	0.11	-	ALS	RG_MIDAG_SE-2_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	IACR (CCME)	1.4	-	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	IACR:Coarse	<0.10	-	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665217	5489528	2022	3	2022-09-13	09:20	IACR:Fine	0.11	-	ALS	RG_MIDAG_SE-3_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	IACR (CCME)	2.6	-	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	IACR:Coarse	<0.14	-	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665246	5489483	2022	4	2022-09-13	10:37	IACR:Fine	0.22	-	ALS	RG_MIDAG_SE-4_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	IACR (CCME)	1.2	-	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	IACR:Coarse	<0.10	-	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDAG	665189	5489543	2022	5	2022-09-13	09:10	IACR:Fine	0.11	-	ALS	RG_MIDAG_SE-5_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	IACR (CCME)	1.6	-	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	IACR:Coarse	<0.10	-	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667769	5487592	2022	1	2022-09-13	14:07	IACR:Fine	0.12	-	ALS	RG_MIDCO_SE-1_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	IACR (CCME)	1.1	-	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	IACR:Coarse	<0.10	-	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667734	5487613	2022	2	2022-09-13	15:23	IACR:Fine	<0.10	-	ALS	RG_MIDCO_SE-2_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	IACR (CCME)	1.6	-	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	IACR:Coarse	<0.10	-	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667706	5487633	2022	3	2022-09-13	14:34	IACR:Fine	0.12	-	ALS	RG_MIDCO_SE-3_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	IACR (CCME)	2.1	-	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	IACR:Coarse	<0.10	-	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667682	5487632	2022	4	2022-09-13	13:54	IACR:Fine	0.18	-	ALS	RG_MIDCO_SE-4_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	IACR (CCME)	1.6	-	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	IACR:Coarse	<0.10	-	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIDCO	667666	5487664	2022	5	2022-09-13	13:13	IACR:Fine	0.12	-	ALS	RG_MIDCO_SE-5_2022-09-13_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	IACR (CCME)	<0.60	-	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	IACR:Coarse	<0.10	-	ALS	RG_MIUCO_SE-5_2022-09-14_N

Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIUCO	668187	5486695	2022	5	2022-09-14	09:22	IACR:Fine	<0.10	-	ALS	RG_MIUCO_SE-5_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	IACR (CCME)	1.3	-	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	IACR:Coarse	<0.10	-	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668529	5487366	2022	1	2022-09-14	14:24	IACR:Fine	<0.10	-	ALS	RG_CORCK_SE-1_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	IACR (CCME)	0	-	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	IACR:Coarse	0	-	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668477	5487346	2022	2	2022-09-14	14:03	IACR:Fine	0	-	ALS	RG_CORCK_SE-2_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	IACR (CCME)	2.2	-	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	IACR:Coarse	<0.10	-	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487337	2022	3	2022-09-14	13:13	IACR:Fine	0.15	-	ALS	RG_CORCK_SE-3_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	IACR (CCME)	2.5	-	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	IACR:Coarse	<0.10	-	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668482	5487346	2022	4	2022-09-14	13:45	IACR:Fine	0.16	-	ALS	RG_CORCK_SE-4_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	IACR (CCME)	1.8	-	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	IACR:Coarse	<0.10	-	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_CORCK	668485	5487324	2022	5	2022-09-14	13:02	IACR:Fine	0.12	-	ALS	RG_CORCK_SE-5_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	IACR (CCME)	<0.60	-	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	IACR:Coarse	<0.10	-	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668209	5482811	2022	1	2022-09-15	11:25	IACR:Fine	<0.10	-	ALS	RG_MI25_SE-1_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	IACR (CCME)	<0.60	-	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	IACR:Coarse	<0.10	-	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668190	5482833	2022	2	2022-09-15	10:50	IACR:Fine	<0.10	-	ALS	RG_MI25_SE-2_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	IACR (CCME)	<0.60	-	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	IACR:Coarse	<0.10	-	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_MI25	668170	5482853	2022	3	2022-09-15	09:50	IACR:Fine	<0.10	-	ALS	RG_MI25_SE-3_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	IACR (CCME)	0.8	-	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	IACR:Coarse	<0.10	-	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_AGCK	667627	5488726	2022	1	2022-09-15	16:48	IACR:Fine	<0.10	-	ALS	RG_AGCK_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	IACR (CCME)	0.62	-	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	IACR:Coarse	<0.10	-	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659639	5494121	2022	1	2022-09-16	10:48	IACR:Fine	<0.10	-	ALS	RG_LE1_SE-1_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	IACR (CCME)	0.61	-	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	IACR:Coarse	<0.10	-	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659554	5494114	2022	2	2022-09-16	09:58	IACR:Fine	<0.10	-	ALS	RG_LE1_SE-2_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	IACR (CCME)	0.61	-	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	IACR:Coarse	<0.10	-	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_LE1	659588	5494017	2022	3	2022-09-16	09:12	IACR:Fine	<0.10	-	ALS	RG_LE1_SE-3_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	IACR (CCME)	0.6	-	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	IACR:Coarse	<0.10	-	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659565	5496335	2022	4	2022-09-16	12:00	IACR:Fine	<0.10	-	ALS	RG_MI5_SE-4_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	IACR (CCME)	0.82	-	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	IACR:Coarse	<0.10	-	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MI5	659553	5496289	2022	5	2022-09-16	12:15	IACR:Fine	<0.10	-	ALS	RG_MI5_SE-5_2022-09-14_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	IACR (CCME)	<0.60	-	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	IACR:Coarse	<0.10	-	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668201	5486681	2022	1	2022-10-22	12:53	IACR:Fine	<0.10	-	ALS	RG_MIUCO_SE-1_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	IACR (CCME)	0.61	-	ALS	RG_MIUCO_SE-2_2022-10-22_N

**Table I-1: Sediment Chemistry Data Collected from the CMm LAEMP Sampling Stations, 2012 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Time	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	IACR:Coarse	<0.10	-	ALS	RG_MIUCO_SE-2_2022-10-22_N
SE	RG_MIUCO	668215	5486651	2022	2	2022-10-22	12:59	IACR:Fine	<0.10	-	ALS	RG_MIUCO_SE-2_2022-10-22_N

Study.

- = no guideline or no data; % = percent; mg/kg = milligrams per kilogram.

Table I-2: Sediment Quality Data Screening, 2022

Location Watercourse Station Sample ID Replicate Date Parameter Unit	BC Working Sediment Quality Guidelines for the Protection of Aquatic Life		Reference Sites									Mine-Influenced Sites							
			Michel Creek			Andy Good Creek			Leach Creek			Michel Creek							
			RG_MI25_SE-1_2022-09 14_N	RG_MI25_SE-2_2022-09 14_N	RG_MI25_SE-3_2022-09 14_N	RG_AGCK_SE-1_2022-09 14_N	RG_LE1_SE-1_2022-09 14_N	RG_LE1_SE-2_2022-09 14_N	RG_LE1_SE-3_2022-09 14_N	RG_MIUCO_SE-1_2022-09 09-14_N	RG_MIUCO_SE-3_2022-09 09-14_N	RG_MIUCO_SE-4_2022-09 09-14_N	RG_MIUCO_SE-5_2022-09 09-14_N	RG_MIUCO_SE-1_2022-10 10-22_N	RG_MIUCO_SE-2_2022-10 10-22_N	RG_MIUCO_SE-3_2022-10 10-22_N	RG_MIUCO_SE-4_2022-10 10-22_N		
	Lower WSQG (mg/kg dw)	Upper WSQG (mg/kg dw)	1 15-Sep-22	2 15-Sep-22	3 15-Sep-22	1 15-Sep-22	1 16-Sep-22	2 16-Sep-22	3 16-Sep-22	1 14-Sep-22	3 14-Sep-22	4 14-Sep-22	5 14-Sep-22	1 22-Oct-22	2 22-Oct-22	3 22-Oct-22	4 22-Oct-22		
<b>Physical Tests</b>																			
Moisture	%	-	8.1	41.9	43.5	81.0	44.5	46.9	33.9	-	-	-	37.9	33.9	41.6	45.8	37.6		
pH (1:2 soil:water)	pH	-	8.1	8.3	8.2	7.5	8.1	8.0	8.0	-	7.9	8.0	8.1	8.3	8.2	8.6	8.3		
<b>Particle Size Distribution</b>																			
% Gravel (>2 mm)	%	-	32.6	4.8	-	-	11.3	5.3	2.9	5.0	2.7	2.0	4.9	3.0	2.2	4.6	<1		
% Sand (0.125 mm - 0.063 mm)	%	-	6.8	10.2	-	-	13.6	21.2	10.0	19.3	12.2	19.1	12.3	16.2	10.6	20.5	20.0		
% Sand (0.25 mm - 0.125 mm)	%	-	8.6	15.5	-	-	16.1	24.6	21.3	8.7	13.8	18.5	11.7	20.7	14.8	13.6	24.6		
% Sand (0.50 mm - 0.25 mm)	%	-	12.6	21.4	-	-	18.9	14.5	29.6	3.7	11.6	12.8	8.8	14.1	15.6	6.6	14.9		
% Sand (1.00 mm - 0.50 mm)	%	-	8.7	12.7	-	-	9.5	5.8	14.9	1.2	5.8	6.1	10.9	10.9	16.4	3.3	6.8		
% Sand (2.00 mm - 1.00 mm)	%	-	3.2	8.0	-	-	7.1	2.5	2.9	1.4	3.5	2.1	8.9	7.7	8.4	3.2	2.8		
% Silt (0.063 mm - 0.0312 mm)	%	-	9.2	10.1	-	-	10.1	12.6	6.9	25.5	17.2	17.7	16.3	10.3	11.0	19.1	11.6		
% Silt (0.031 mm - 0.004 mm)	%	-	12.9	12.9	-	-	10.3	10.9	8.3	28.8	24.0	17.1	20.7	11.2	14.6	22.1	12.3		
% Clay (<4 µm)	%	-	5.4	4.4	-	-	3.1	2.6	3.2	6.4	9.2	4.6	5.5	5.9	6.4	7.0	6.3		
<b>Organic Carbon</b>																			
Inorganic Carbon <63 µm	%	-	0.5	0.5	0.5	3.8	0.2	0.1	0.1	0.8	0.4	0.4	0.6	0.4	0.4	0.9	0.3		
Total Carbon <63 µm	%	-	3.1	2.3	2.5	13.6	1.6	1.8	2.6	3.5	7.1	2.0	3.4	2.7	6.7	3.4	2.4		
Total Organic Carbon	%	-	2.6	1.8	2.0	9.8	1.4	1.6	2.4	2.7	6.8	1.6	2.8	2.2	6.4	2.5	2.0		
Inorganic Carbon (as CaCO <sub>3</sub> equivalent)	%	-	4.0	4.5	4.2	31.9	1.5	1.1	1.0	6.4	3.1	3.0	4.8	3.4	3.0	7.5	2.8		
<b>Total Metals</b>																			
Aluminum (Al)	mg/kg	-	13200	12900	15200	2780	7700	7780	8320	9400	9830	10300	13200	12600	11700	9320	11800		
Antimony (Sb)	mg/kg	-	0.6	0.6	0.6	0.9	1.3	1.3	1.7	0.4	0.4	0.4	0.5	0.4	0.4	0.3	0.4		
Arsenic (As)	mg/kg	5.9	17	12.1	11.1	11.7	7.0	6.3	9.0	7.2	5.9	7.7	9.5	8.0	6.4	6.5	8.0		
Barium (Ba)	mg/kg	-	150.0	135.0	149.0	50.2	248.0	267.0	267.0	558.0	176.0	209.0	156.0	156.0	148.0	610.0	191.0		
Beryllium (Be)	mg/kg	-	0.8	0.8	0.9	0.4	0.5	0.6	0.8	0.7	0.8	0.8	0.9	0.9	0.8	0.7	0.8		
Bismuth (Bi)	mg/kg	-	0.3	0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	0.2	0.3	0.2	0.2	<0.2	<0.2		
Boron (B)	mg/kg	-	6.5	9.0	9.6	<5	<5	<5	<5	8.3	6.7	6.1	8.1	10.1	8.7	9.2	9.0		
Cadmium (Cd)	mg/kg	0.6	3.5	1.5	1.3	1.5	1.3	1.7	2.1	0.8	0.9	0.7	0.7	0.6	0.7	0.7	0.7		
Calcium (Ca)	mg/kg	-	18300	31400	27600	137000	7400	5960	5350	25300	14400	13200	17300	14800	13900	26500	13000		
Chromium (Cr)	mg/kg	37	90	17.5	18.2	20.2	10.8	14.5	16.5	12.8	14.4	14.1	16.8	14.1	14.1	11.7	14.7		
Cobalt (Co)	mg/kg	-	10.1	8.4	9.5	2.8	6.4	6.5	7.1	7.2	7.4	8.8	9.8	7.1	7.0	5.4	7.2		
Copper (Cu)	mg/kg	36	197	30.0	25.7	28.2	9.1	17.2	15.4	17.9	18.8	18.3	20.4	18.8	18.0	14.4	17.4		
Iron (Fe)	mg/kg	21200	43766	26600	22700	27400	7250	16400	15900	21000	18200	23200	31300	20200	17600	16900	19400		
Lead (Pb)	mg/kg	35	91	16.4	15.2	19.2	4.6	9.6	9.1	10.5	12.8	14.6	14.9	12.3	12.5	10.3	12.4		
Lithium (Li)	mg/kg	-	21.0	18.7	21.9	4.0	8.2	8.6	8.9	19.4	19.6	20.5	21.7	24.6	23.5	19.8	22.3		
Magnesium (Mg)	mg/kg	-	6390	6290	6840	12900	3090	2490	2590	6470	5390	6020	6390	6120	5490	6620	5580		
Manganese (Mn)	mg/kg	460	1100	568.0	523.0	708.0	138.0	272.0	240.0	312.0	289.0	576.0	708.0	431.0	298.0	213.0	420.0		
Mercury (Hg)	mg/kg	0.17	0.49	0.032	0.029	0.027	0.040	0.044	0.046	0.028	0.035	0.022	0.020	0.019	0.028	0.022	0.022		
Molybdenum (Mo)	mg/kg	25	23000	5.3	5.0	5.2	1.4	1.5	1.5	2.1	1.6	2.3	1.9	1.9	1.7	1.7	2.4		
Nickel (Ni)	mg/kg	16	75	36.1	31.4	35.1	24.6	27.5	31.4	21.3	22.5	24.3	26.9	19.7	20.4	16.0	20.7		
Phosphorus (P)	mg/kg	-	1390	1250	1320	1050	1230	1220	1320	1320	1310	1370	1400	1260	1140	1080	1360		
Potassium (K)	mg/kg	-	1970	2320	2720	860	1220	1160	1320	1620	1790	1620	2170	2260	2030	1710	2130		
Selenium (Se)	mg/kg	2.0	-	0.9	0.7	1.0	2.1	0.7	0.7	0.7	1.0	0.6	0.4	0.5	0.6	0.4	0.6		
Silver (Ag)	mg/kg	0.5	-	0.1	0.1	0.3	0.3	0.2	0.2	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
Sodium (Na)	mg/kg	-	72.0	79.0	80.0	109.0	<50	<50	<50	244.0	97.0	81.0	73.0	86.0	74.0	170.0	67.0		
Strontium (Sr)	mg/kg	-	49.7	60.4	76.9	140.0	36.5	36.6	41.5	98.5	55.8	39.8	55.5	37.9	44.8	89.6	37.9		
Sulfur (S)	mg/kg	-	<1000	<1000	<1000	<1000	<1000	<1000	<1000	1000	<1000	<1000	<1000	<1000	<1000	<1000	<1000		
Thallium (Tl)	mg/kg	-	0.7	0.6	0.7	0.7	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
Tin (Sn)	mg/kg	-	<2	<2	<2	<2	<2	<2	<2	<2	<2	2.5	<2	<2	<2	<2	<2		
Titanium (Ti)	mg/kg	-	8.3	11.2	10.4	10.9	34.0	30.6	40.4	29.1	31.2	28.5	12.1	7.6	7.8	9.2	8.3		
Tungsten (W)	mg/kg	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
Uranium (U)	mg/kg	-	0.8	0.8	0.8	1.0	1.3	1.2	1.3	0.6	0.9	0.6	0.6	0.5	0.5	0.5	0.6		
Vanadium (V)	mg/kg	-	30.2	31.4	34.0	20.1	46.9	46.0	56.8	20.8	23.1	21.9	25.9	24.7	22.4	19.8	24.4		
Zinc (Zn)	mg/kg	123	315	155.0	132.0	156.0	147.0	119.0	115.0	133.0	93.6	96.0	96.1	88.4	92.3	77.9	91.9		
Zirconium (Zr)	mg/kg	-	1.1	<1	<1	<1	<1	<1	<1	1.7	1.8	1.3	<1	1.0	1.2	<1	1.2		
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>																			
Acenaphthene	mg/kg	0.0067	0.089	<0.05	<0.05	<0.05	<0.068	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05		
Acenaphthylene	mg/kg	0.0059	0.13	<0.05	<0.05	<0.05	<0.068	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05		
Acridine	mg/kg	-	-	<0.05	<0.05	<0.05	<0.068	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05		
Anthracene	mg/kg	0.047	0.25	<0.05	<0.05	<0.05	<0.068	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05		
Benz(a)anthracene	mg/kg	0.032	0.39	<0.05	<0.05	<0.05	<0.068	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05		
Benzo(a)pyrene	mg/kg	0.032	0.78	<0.05	<0.05	<0.05	<0.068	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05		
Benzo(b&k)fluoranthene	mg/kg	-	-	<0.05	<0.05	<0.05	<0.068	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05		
Benzo(b+h)fluoranthene	mg/kg	-	-	<0.075	<0.075	<0.075	<0.096	<0.075	<0.075	<0.075	-	-	-	<0.075	<0.075	<0.075	<0.075		
Benzo(g,h,i)perylene	mg/kg	0.17	3.2	<0.05	<0.05	<0.05	<0.068	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05		
Benzo(k)fluoranthene	mg/kg	0.24	13.40	<0.05	<0.05	<0.05	<0.068	<0.05	<0.05	<0.05	-	-	-	<0.05	<0.05	<0.05	<0.05		
Chrysene	mg/kg	0.057	0.86	<0.05	<0.05	<0.05	<0.068	0.1	0.1	0.1	-	-	-	<0.05	<0.05	<0.05	<0.05		
Dibenz(a,h)anthracene	mg/kg	0.0062	0.14	<0.05	<0.05	<0.05	<0.068	<0.05	<0.05	<0.05	-	-							

Table I-2: Sediment Quality Data Screening, 2022

Location Watercourse Station Sample ID Replicate Date Parameter Unit	BC Working Sediment Quality Guidelines for the Protection of Aquatic Life Lower WSQG (mg/kg dw) Upper WSQG (mg/kg dw)	Mine-Influenced Sites																				
		Corbin Creek	Michel Creek								Michel Creek											
			CORCK		CORCK		CORCK		CORCK		MIDCO				MIDCO				MIDAG			
			RG_CORCK_SE-1_2022	RG_CORCK_SE-2_2022	RG_CORCK_SE-3_2022	RG_CORCK_SE-4_2022	RG_CORCK_SE-5_2022	RG_MIDCO_SE-1_2022	RG_MIDCO_SE-2_2022	RG_MIDCO_SE-3_2022	RG_MIDCO_SE-4_2022	RG_MIDCO_SE-5_2022	RG_MIDAG_SE-1_2022	RG_MIDAG_SE-2_2022	RG_MIDAG_SE-3_2022	RG_MIDAG_SE-4_2022	RG_MIDAG_SE-5_2022					
09-14_N	09-14_N	09-14_N	09-14_N	09-14_N	09-13_N	09-13_N	09-13_N	09-13_N	09-13_N	09-13_N	09-13_N	09-13_N	09-13_N	09-13_N								
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5								
14-Sep-22	14-Sep-22	14-Sep-22	14-Sep-22	14-Sep-22	13-Sep-22	13-Sep-22	13-Sep-22	13-Sep-22	13-Sep-22	13-Sep-22	13-Sep-22	13-Sep-22	13-Sep-22	13-Sep-22								
<b>Physical Tests</b>																						
Moisture	%	-	-	57.0	-	60.7	59.0	54.7	75.7	67.6	78.4	76.6	73.8	82.8	85.9	83.9	90.0	88.0				
pH (1:2 soil:water)	pH	-	-	8.1	8.0	7.9	8.2	8.2	7.9	7.9	7.8	8.0	8.1	7.6	7.4	7.3	7.4	7.7				
<b>Particle Size Distribution</b>																						
% Gravel (>2 mm)	%	-	-	16.1	2.2	1.2	5.3	3.5	1.2	2.4	3.4	4.0	2.3	19.2	<1	<1	<1	3.5				
% Sand (0.125 mm - 0.063 mm)	%	-	-	14.8	16.2	15.1	15.4	15.6	7.2	8.9	6.6	4.5	5.2	9.5	7.4	10.6	8.1	6.4				
% Sand (0.25 mm - 0.125 mm)	%	-	-	13.6	17.3	18.4	13.3	15.0	4.0	5.6	5.8	3.9	3.4	4.6	3.0	5.4	4.4	3.4				
% Sand (0.50 mm - 0.25 mm)	%	-	-	3.3	7.4	14.5	7.1	10.2	2.5	6.2	7.1	6.0	3.9	1.6	1.4	1.6	1.6	1.3				
% Sand (1.00 mm - 0.50 mm)	%	-	-	1.9	3.8	6.2	4.2	6.2	2.6	15.5	9.6	11.0	7.0	3.1	1.0	<1	<1	<1				
% Sand (2.00 mm - 1.00 mm)	%	-	-	3.3	2.9	2.5	4.8	4.3	3.4	10.0	6.4	13.0	4.5	7.3	<1	<1	<1	<1				
% Silt (0.063 mm - 0.0312 mm)	%	-	-	18.3	18.9	15.9	17.8	16.4	28.8	18.7	22.2	21.0	26.5	23.6	36.8	35.2	35.5	36.3				
% Silt (0.031 mm - 0.004 mm)	%	-	-	23.8	25.3	21.1	25.7	22.8	39.4	25.6	30.6	29.3	37.2	25.5	41.1	36.7	39.8	39.4				
% Clay (<4 µm)	%	-	-	4.9	6.0	5.1	6.4	6.0	10.9	7.1	8.3	7.3	10.0	5.6	9.1	8.5	9.7	8.1				
<b>Organic Carbon</b>																						
Inorganic Carbon <63 µm	%	-	-	7.4	6.9	7.0	6.7	7.9	2.3	1.7	2.1	2.4	2.2	2.6	2.5	2.7	2.2	3.0				
Total Carbon <63 µm	%	-	-	13.0	13.4	13.7	13.2	13.4	9.3	6.0	8.0	8.3	9.5	10.2	12.9	13.0	11.9	15.5				
Total Organic Carbon	%	-	-	5.6	6.5	6.7	6.5	5.5	7.0	4.3	5.9	5.9	7.7	10.4	10.3	9.7	12.5	12.5				
Inorganic Carbon (as CaCO <sub>3</sub> equivalent)	%	-	-	61.6	57.3	58.4	55.9	66.0	19.4	14.0	17.4	20.2	18.5	21.2	20.7	22.8	18.2	24.7				
<b>Total Metals</b>																						
Aluminum (Al)	mg/kg	-	-	1950	1670	2180	2470	2100	7430	10900	8370	9290	11400	6160	6530	5800	6920	6680				
Antimony (Sb)	mg/kg	-	-	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.5	0.4	0.5	0.5				
Arsenic (As)	mg/kg	5.9	17	2.7	2.0	2.6	3.4	3.3	5.3	6.8	5.9	6.7	6.4	4.9	5.5	4.3	5.1	4.7				
Barium (Ba)	mg/kg	-	-	146.0	143.0	190.0	143.0	154.0	142.0	161.0	110.0	110.0	110.0	110.0	111.0	123.0	117.0	117.0				
Beryllium (Be)	mg/kg	-	-	0.3	0.3	0.4	0.4	0.4	0.7	0.8	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6				
Bismuth (Bi)	mg/kg	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2				
Boron (B)	mg/kg	-	-	6.5	<12	7.9	5.6	6.8	10.3	12.8	10.1	9.9	8.3	8.7	8.0	10.0	10.2	10.2				
Cadmium (Cd)	mg/kg	0.6	3.5	<b>9.1</b>	<b>7.8</b>	<b>10.7</b>	<b>7.5</b>	<b>9.2</b>	<b>2.0</b>	<b>2.1</b>	<b>1.8</b>	<b>2.2</b>	<b>1.3</b>	<b>1.5</b>	<b>1.7</b>	<b>1.6</b>	<b>1.7</b>	<b>1.6</b>				
Calcium (Ca)	mg/kg	-	-	340000	284000	357000	253000	309000	75500	66200	80000	73300	46400	73400	76400	81500	67600	92000				
Chromium (Cr)	mg/kg	37	90	3.4	2.9	3.5	4.6	4.2	9.3	13.6	10.5	11.8	13.3	9.4	10.1	9.0	10.4	10.4				
Cobalt (Co)	mg/kg	-	-	230.0	193.0	279.0	188.0	283.0	81.0	64.0	65.9	82.6	48.8	16.1	17.5	15.2	20.2	14.2				
Copper (Cu)	mg/kg	36	197	6.6	5.9	8.0	7.0	7.6	13.6	16.7	14.8	16.4	16.4	11.0	11.7	10.9	12.6	10.6				
Iron (Fe)	mg/kg	21200	43766	4980	3180	4160	5280	4950	13200	17800	15400	16100	21200	10300	10400	9360	10400	9640				
Lead (Pb)	mg/kg	35	91	3.3	3.0	3.0	3.8	3.0	9.4	10.9	10.1	10.4	10.1	7.4	7.3	7.0	7.8	6.8				
Lithium (Li)	mg/kg	-	-	3.0	<4.8	3.6	3.2	2.8	13.8	19.1	16.1	15.7	21.6	10.8	11.3	11.1	11.1	11.3				
Magnesium (Mg)	mg/kg	-	-	6420	5720	7170	6590	6510	5720	6680	6930	6670	7570	7670	7770	7200	7190	7290				
Manganese (Mn)	mg/kg	460	1100	<b>1950.0</b>	<b>1590.0</b>	<b>2200.0</b>	<b>1480.0</b>	<b>2170.0</b>	<b>751.0</b>	<b>584.0</b>	<b>629.0</b>	<b>684.0</b>	<b>605.0</b>	156.0	194.0	132.0	282.0	148.0				
Mercury (Hg)	mg/kg	0.17	0.49	0.030	0.024	0.029	0.027	0.028	0.034	0.032	0.031	0.033	0.023	0.040	0.035	0.033	0.044	0.033				
Molybdenum (Mo)	mg/kg	25	23000	0.6	0.5	0.8	0.6	0.7	1.5	1.7	1.6	1.6	1.4	1.2	1.1	1.3	1.3	1.2				
Nickel (Ni)	mg/kg	16	75	<b>227.0</b>	<b>199.0</b>	<b>284.0</b>	<b>201.0</b>	<b>267.0</b>	<b>119.0</b>	<b>114.0</b>	<b>109.0</b>	<b>134.0</b>	<b>89.4</b>	<b>57.7</b>	<b>62.7</b>	<b>57.9</b>	<b>64.4</b>	<b>57.2</b>				
Phosphorus (P)	mg/kg	-	-	266	172	343	440	295	1040	1230	1150	1300	1220	955	1100	984	1020	1010				
Potassium (K)	mg/kg	-	-	580	600	630	590	1320	2010	1410	1550	1920	1160	1280	1110	1390	1390	1390				
Selenium (Se)	mg/kg	2.0	-	<b>2.1</b>	<b>2.0</b>	<b>4.6</b>	<b>2.2</b>	<b>2.9</b>	<b>3.5</b>	<b>4.0</b>	<b>3.4</b>	<b>4.2</b>	<b>2.3</b>	<b>3.3</b>	<b>4.7</b>	<b>3.7</b>	<b>6.2</b>	<b>5.2</b>				
Silver (Ag)	mg/kg	0.5	-	<0.1	<0.24	<0.1	<0.1	<0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2				
Sodium (Na)	mg/kg	-	-	348.0	365.0	409.0	263.0	326.0	160.0	181.0	163.0	186.0	151.0	116.0	175.0	145.0	149.0	162.0				
Strontium (Sr)	mg/kg	-	-	403.0	365.0	426.0	300.0	372.0	133.0	120.0	137.0	132.0	91.9	106.0	114.0	116.0	102.0	129.0				
Sulfur (S)	mg/kg	-	-	4900	4200	5000	3400	4300	1800	2000	1900	2100	<1000	1700	1800	1900	2100	2400				
Thallium (Tl)	mg/kg	-	-	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4				
Tin (Sn)	mg/kg	-	-	<2	<4.8	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2				
Titanium (Ti)	mg/kg	-	-	7.2	25.9	7.2	7.7	8.4	21.2	26.6	21.2	22.8	26.9	17.3	13.7	14.1	14.2	17.9				
Tungsten (W)	mg/kg	-	-	<0.5	<1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
Uranium (U)	mg/kg	-	-	2.2	2.0	3.0	1.9	2.2	1.0	1.0	0.9	1.0	0.7	0.9	1.0	0.9	1.0	1.0				
Vanadium (V)	mg/kg	-	-	6.4	5.5	7.5	9.0	7.8	15.0	21.0	16.5	18.4	20.5	16.3	17.7	15.2	18.9	18.1				
Zinc (Zn)	mg/kg	123	315	<b>703.0</b>	<b>667.0</b>	<b>831.0</b>	<b>593.0</b>	<b>724.0</b>	<b>152.0</b>	<b>169.0</b>	<b>147.0</b>	<b>176.0</b>	<b>128.0</b>	116.0	123.0	115.0	125.0	117.0				
Zirconium (Zr)	mg/kg	-	-	<1	<2.4	<1	<1	<1	1.0	1.3	1.1	1.1	1.2	1.3	1.5	1.3	1.4	1.7				
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>																						
Acenaphthene	mg/kg	0.0067	0.089	<0.05	-	<b>0.1</b>	<b>0.1</b>	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.071	<0.069	<0.07	<0.14	<0.073				
Acenaphthylene	mg/kg	0.0059	0.13	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.071	<0.069	<0.07	<0.14	<0.073				
Acridine	mg/kg	-	-	0.1	-	0.1	0.1	0.1	<0.05	0.1	0.1	0.1	0.1	<0.071	<0.069	<0.07	<0.14	<0.073				
Anthracene	mg/kg	0.047	0.25	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.071	<0.069	<0.07	<0.14	<0.073				
Benz(a)anthracene	mg/kg	0.032	0.39	<0.05	-	<b>0.1</b>	<b>0.1</b>	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.071	<0.069	<0.07	<0.14	<0.073				
Benzo(a)pyrene	mg/kg	0.032	0.78	<0.05	-	<b>0.1</b>	<b>0.1</b>	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.071	<0.069	<0.07	<0.14	<0.073				
Benzo(b&k)fluoranthene	mg/kg	-	-	0.1	-	0.2	0.3	0.2	0.2	0.1	0.2	0.2										



Table I-2: Sediment Quality Data Screening, 2022

Table with columns for Location (Watercourse, Station, Sample ID, Replicate, Date, Parameter, Unit), BC Working Sediment Quality Guidelines (Lower WSQG, Upper WSQG), and Mine-Influenced Sites (Michel Creek, MIULE SE-1 to SE-5, MIS SE-1 to SE-5). Rows include Physical Tests (Moisture, pH, Particle Size Distribution, Organic Carbon), Total Metals (Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Sulfur, Thallium, Tin, Titanium, Tungsten, Uranium, Vanadium, Zinc, Zirconium), and Polycyclic Aromatic Hydrocarbons (PAHs) (Acenaphthene, Acenaphthylene, Acridine, Anthracene, Benz(a)anthracene, Benz(a)pyrene, Benz(b&k)fluoranthene, Benz(b+h)fluoranthene, Benz(g,h,i)perylene, Benz(k)fluoranthene, Chrysene, Dibenz(a,h)anthracene, Fluoranthene, Fluorene, Indeno(1,2,3-c,d)pyrene, 1-Methylnaphthalene, 2-Methylnaphthalene, 1+2-Methylnaphthalene, Naphthalene, Phenanthrene, Pyrene, Quinoline, d9-Acridine, d12-Chrysene, db-Naphthalene, d10-Phenanthrene, B(a)p Total Potency Equivalent, LMW PAH, HMW PAH, Total PAH, PAHs total, IACR-Coarse, IACR-Fine, IACR (CCME)).

Note: Data were screened against BC working sediment quality guidelines (WSQGs) for the protection of Aquatic Life (BC ENV 21

(a) = Low molecular weight PAHs are comprised of acenaphthene, acenaphthylene, acridine, anthracene, fluorene, 1-methylnaphthalene

(b) = High molecular weight PAHs are comprised of benz(a)anthracene, benzo(a)pyrene, benzo(b&k)fluoranthene, benzo(b+h)fluoranthene

(c) = Sum of all compounds analyzed in the chemical class, values below the method detection limit were assigned a value of the C

Value = concentration exceeds the BC Lower Sediment Water Quality

Value = concentration exceeds the BC Upper Sediment Water Quality

CCME = Canadian Council of the Ministers of the Environment; LMW = low molecular weight; HMW = high molecular weight; WSQ =

= no guideline or no data; % = percent; mg/kg = milligrams per kilogram; dw = dry weight; < = less than; > = greater than; mm = n

**APPENDIX J**

**Field and Habitat Data**

Table J-1: Supporting Habitat Data at CMm LAEMP Sampling Stations, 2022

Station ID	Reference			Mine-influenced					
	MI25	AGCK	LE1	MIUCO	CORCK	MIDCO	MIDAG	MIULE	MI5
Watercourse	Michel Creek	Andy Good Creek	Leach Creek	Michel Creek	Corbin Creek	Michel Creek			
Date Sampled	15-Sep-22	15-Sep-22	16-Sep-22	14-Sep-22	14-Sep-22	13-Sep-22	13-Sep-22	12-Sep-22	12-Sep-22
UTMs: NAD 83, Zone 11 - Easting	668184	667557	659635	668135	668539	667616	665220	660503	659496
UTMs: NAD 83, Zone 11 - Northing	5482818	5488648	5494108	5486767	5487366	5487621	5489324	5493048	5496774
<b>Habitat Characteristics</b>									
Surrounding Land Use and Area Description	Forest, logging	Forest	Forest	Mining, logging, and forest	Mining, logging, and forest	Mining, logging, and forest	Mining, logging, and forest	Mining, logging, and forest	Mining and forest
Anthropogenic Influences	-	-	-	CMm downstream	CMm upstream	CMm upstream	CMm upstream	CMm upstream	CMm upstream
Length of Reach Assessed (m)	30	100	100	50	-	50	50	100	100
Substrate	% Bedrock	0	0	0	0	0	5	0	0
	% Boulder	10	20	10	5	90 <sup>(a)</sup>	10	40	20
	% Cobble	70	60	50	80	0	50	30	30
	% Gravel	10	20	20	10	0	20	20	30
	% Sand	5	0	10	0	5 <sup>(a)</sup>	10	0	10
	% Finer	5	0	10	5	5 <sup>(a)</sup>	10	5	10
Bank Stability	stable, no erosion	stable, no erosion	unstable, erosion	unstable, erosion	moderate	stable, no erosion	moderate	unstable, erosion	moderate
Water Colour and Clarity	colourless/clear	colourless/clear	colourless/clear	colourless/clear	colourless/clear	colourless/clear	colourless/clear	colourless/clear	colourless/clear
<b>Channel Measurements</b>									
Bankfull Width (m)	5.8	12.0	26.1	-	4.6	10.5	9.5	18.5	43.6
Wetted Width (m)	5.8	6.8	14.8	-	4.6	8.2	8.1	11.4	9.9

Note: Stations are ordered upstream to downstream.

a) Calcite covered most of the substrate.

- = data not available or data not recorded; % = percent; cm = centimetre; m = metre; u/s = upstream; CMm = Coal Mountain Mine; LAEMP = local aquatic effects monitoring program.

**Appendix J:  
Field and Habitat Data**

**Table J-2: Kick and Sweep Net Data for Samples Collected at CMM LAEMP Stations, 2022**

Field Parameters	Reference				Mine-Influenced				
	RG_MI25	RG_AGCK	RG_LE1	RG_MIUCO	RG_CORCK	RG_MIDCO	RG_MIDAG	RG_MIULE	RG_MI5
Date	15-Sep-22	15-Sep-22	16-Sep-22	14-Sep-22	14-Sep-22	13-Sep-22	13-Sep-22	12-Sep-22	12-Sep-22
UTMs: NAD 83, Zone 11 - Easting	668209	667627	659588	668232	668529	667769	665267	660633	659559
UTMs: NAD 83, Zone 11 - Northing	5482811	5488726	5494017	5486599	5487366	5487592	5489368	5492985	5496348
Samplers' Initials	CNE, KMI, KHI	CNE, KMI, KHI	CNE, KMI, KHI	CNE, KMI, KHI	CNE, KMI, KHI	CNE, KMI, KHI	CNE, KMI, KHI	CNE, KMI, KHI	CNE, KMI, KHI
Number of Jars	1	1	1	1	1	1	1	1	1
Total Kick Distance (m)	9	21	30	13	15	25	15	22	15
Full Transect (Yes / No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Number of Transects	5.0	5.0	2.5	4.0	3.0	2.5	1.5	2.0	-
Easting	668190	667565	659554	668204	668477	667734	665266	660563	659503
Northing	5482833	5488691	5494114	5486636	5487342	5487613	5489463	5493002	5496524
Date	15-Sep-22	15-Sep-22	16-Sep-22	14-Sep-22	14-Sep-22	13-Sep-22	13-Sep-22	12-Sep-22	12-Sep-22
Samplers' Initials	CNE, KMI, KHI	CNE, KMI, KHI	CNE, KMI, KHI	CNE, KMI, KHI	CNE, KMI, KHI	CNE, KMI, KHI	CNE, KMI, KHI	CNE, KMI, KHI	CNE, KMI, KHI
Number of Jars	1	1	1	1	2	1	1	1	1
Total Kick Distance (m)	8	19	15	20	40	30	25	25	25
Full Transect (Yes / No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Number of Transects	4.0	4.0	3.0	4.0	5.0	3.0	2.5	1.0	1.0
Easting	668170	667541	659639	668201	668482	667706	665217	660482	659499
Northing	5482853	5488612	5494121	5486675	5487337	5487633	5489528	5493070	5496580
Date	15-Sep-22	15-Sep-22	16-Sep-22	14-Sep-22	14-Sep-22	13-Sep-22	13-Sep-22	12-Sep-22	12-Sep-22
Samplers' Initials	CNE, KMI, KHI	CNE, KMI, KHI	CNE, KMI, KHI	CNE, KMI, KHI	CNE, KMI, KHI	CNE, KMI, KHI	CNE, KMI, KHI	CNE, KMI, KHI	CNE, KMI, KHI
Number of Jars	1	1	1	1	1	1	1	1	1
Total Kick Distance (m)	15	20	20	25	30	20	20	15	20
Full Transect (Yes / No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Number of Transects	4.0	5.0	2.0	4.0	5.0	2.0	1.5	1.0	1.0
Easting	-	-	-	-	-	667682	-	-	-
Northing	-	-	-	-	-	5487632	-	-	-
Date	-	-	-	-	-	13-Sep-22	-	-	-
Samplers' Initials	-	-	-	-	-	CNE, KMI, KHI	-	-	-
Number of Jars	-	-	-	-	-	1	-	-	-
Total Kick Distance (m)	-	-	-	-	-	25	-	-	-
Full Transect (Yes / No)	-	-	-	-	-	Yes	-	-	-
Number of Transects	-	-	-	-	-	5.0	-	-	-
Easting	-	-	-	-	-	667666	-	-	-
Northing	-	-	-	-	-	5487664	-	-	-
Date	-	-	-	-	-	13-Sep-22	-	-	-
Samplers' Initials	-	-	-	-	-	CNE, KMI, KHI	-	-	-
Number of Jars	-	-	-	-	-	1	-	-	-
Total Kick Distance (m)	-	-	-	-	-	30	-	-	-
Full Transect (Yes / No)	-	-	-	-	-	Yes	-	-	-
Number of Transects	-	-	-	-	-	4.0	-	-	-

- = data not available or data not recorded; m = metre; CMM = Coal Mountain Mine; LAEMP = local aquatic effects monitoring program.

Table J-3: Channel Measurements of Sampling Stations at CMm LAEMP, 2022

	Replicate	Location (UTMs) <sup>(a)</sup>		A	B	C	D	E	Mean
		Easting	Northing						
Reference Stations	MI25		668184	5482818					
	1	Depth (cm)		11.00	5.00	13.00	5.00	14.00	9.60
		Velocity (m/s)		0.33	0.17	0.18	0.34	0.08	0.22
	2	Depth (cm)		15.00	11.00	10.00	12.00	7.00	11.00
		Velocity (m/s)		0.37	0.33	0.26	0.16	0.19	0.26
	3	Depth (cm)		14.00	11.00	8.00	5.00	18.00	11.20
		Velocity (m/s)		0.40	0.26	0.21	0.47	0.39	0.35
	AGCK		667557	5488648					
	1	Depth (cm)		20.00	24.00	13.00	24.00	21.00	20.40
		Velocity (m/s)		0.68	0.50	0.45	0.55	0.54	0.54
	2	Depth (cm)		16.00	17.00	15.00	10.00	19.00	15.40
		Velocity (m/s)		0.24	0.62	0.28	0.49	0.69	0.46
	3	Depth (cm)		15.00	21.00	18.00	12.00	14.00	16.00
		Velocity (m/s)		0.66	0.44	0.19	0.20	0.64	0.43
	LE1		659635	5494108					
	1	Depth (cm)		9.00	8.00	18.00	14.00	10.00	11.80
		Velocity (m/s)		0.24	0.16	0.55	0.59	0.31	0.37
	2	Depth (cm)		12.00	15.00	14.00	13.00	17.00	14.20
Velocity (m/s)		0.17	0.37	0.46	0.50	0.54	0.41		
3	Depth (cm)		12.00	24.00	26.00	21.00	13.00	19.20	
	Velocity (m/s)		0.07	0.27	0.75	0.58	0.35	0.40	
Mine-influenced Stations	MIUCO		668135	5486767					
	1	Depth (cm)		12.00	7.00	25.00	15.00	17.00	15.20
		Velocity (m/s)		0.39	0.15	0.34	0.20	0.21	0.26
	2	Depth (cm)		16.00	16.00	11.00	12.00	20.00	15.00
		Velocity (m/s)		0.50	0.57	0.15	0.06	0.05	0.27
	3	Depth (cm)		17.00	16.00	7.00	15.00	22.00	15.40
		Velocity (m/s)		0.13	0.61	0.19	0.11	0.13	0.24
	CORCK		668539	5487366					
	1	Depth (cm)		14.00	16.00	14.00	15.00	19.00	15.60
		Velocity (m/s)		0.50	0.20	0.10	0.26	0.26	0.27
	2	Depth (cm)		15.00	24.00	8.00	8.00	24.00	15.80
		Velocity (m/s)		0.15	0.37	0.73	0.25	0.31	0.36
	3	Depth (cm)		9.00	7.00	10.00	10.00	9.00	9.00
		Velocity (m/s)		0.16	0.26	0.47	0.31	0.21	0.28
	MIDCO		667616	5487621					
	1	Depth (cm)		20.00	11.00	12.00	9.00	20.00	14.40
		Velocity (m/s)		0.13	0.05	0.13	0.37	0.34	0.20
	2	Depth (cm)		16.00	23.00	17.00	28.00	18.00	20.40
Velocity (m/s)		0.32	0.22	0.30	0.36	0.20	0.28		
3	Depth (cm)		14.00	20.00	16.00	17.00	26.00	18.60	
	Velocity (m/s)		0.18	0.19	0.29	0.35	0.27	0.26	
4	Depth (cm)		13.00	26.00	18.00	20.00	17.00	18.80	
	Velocity (m/s)		0.44	0.31	0.59	0.43	0.01	0.36	
5	Depth (cm)		17.00	15.00	20.00	11.00	41.00	20.80	
	Velocity (m/s)		0.50	0.48	0.77	0.10	0.43	0.45	
MIDAG		665220	5489324						
1	Depth (cm)		10.00	40.00	41.00	35.00	25.00	30.20	
	Velocity (m/s)		0.22	0.19	0.29	0.30	0.22	0.24	
2	Depth (cm)		25.00	20.00	32.00	30.00	12.00	23.80	
	Velocity (m/s)		0.80	0.38	0.43	0.31	0.22	0.43	
3	Depth (cm)		19.00	24.00	15.00	34.00	35.00	25.40	
	Velocity (m/s)		0.38	0.39	0.49	0.57	0.40	0.45	
MIULE		660503	5493048						
1	Depth (cm)		23.00	22.00	27.00	27.00	21.00	24.00	
	Velocity (m/s)		0.56	0.25	0.35	0.73	0.36	0.45	
2	Depth (cm)		36.00	34.00	21.00	24.00	16.00	26.20	
	Velocity (m/s)		0.31	0.59	0.63	0.41	0.30	0.45	
3	Depth (cm)		24.00	36.00	33.00	30.00	21.00	28.80	
	Velocity (m/s)		0.12	0.26	0.46	0.49	0.49	0.36	
MI5		659496	5496774						
1	Depth (cm)		22.00	25.00	26.00	18.00	17.00	21.60	
	Velocity (m/s)		0.27	0.75	0.39	0.45	0.29	0.43	
2	Depth (cm)		22.00	13.00	15.00	21.00	27.00	19.60	
	Velocity (m/s)		0.25	0.22	0.46	0.31	0.48	0.34	
3	Depth (cm)		21.00	25.00	29.00	19.00	24.00	23.60	
	Velocity (m/s)		0.50	0.37	0.46	0.57	0.28	0.43	

Notes: Stations are ordered upstream to downstream. Velocity measurements were taken at five randomly chosen locations throughout the kick sample area. Velocity was measured at the bottom of the water column.

a) UTM coordinates (NAD = 83, Zone = 11) represent the station coordinates.

- = data not available or data not recorded; % = percent; cm = centimetre; m/s = metres per second; CMm = Coal Mountain Mine; LAEMP = local aquatic effects monitoring program.



**APPENDIX K**

**Benthic Invertebrate Community Data**

Table K-1: Raw Benthic Invertebrate Community Abundance Data at CMm LAEMP Sampling Stations, 2022

Sample Name:		RG_AGCK_BIC-1_2022-09-15_N	RG_AGCK_BIC-2_2022-09-15_N	RG_AGCK_BIC-3_2022-09-15_N	RG_CORCK_BIC-1_2022-09-14_N	RG_CORCK_BIC-2_2022-09-14_N	RG_CORCK_BIC-3_2022-09-14_N	RG_MI25_BIC-1_2022-09-15_N	RG_MI25_BIC-2_2022-09-15_N	RG_MI25_BIC-3_2022-09-15_N	RG_MI5_BIC-1_2022-09-12_N	RG_MI5_BIC-2_2022-09-12_N	RG_MI5_BIC-3_2022-09-12_N
Sample Collection Date:		15-Sep-22	15-Sep-22	15-Sep-22	14-Sep-22	14-Sep-22	14-Sep-22	15-Sep-22	15-Sep-22	15-Sep-22	12-Sep-22	12-Sep-22	12-Sep-22
Chain of Custody Identification Number:		CC230922	CC230923	CC230924	CC230925	CC230926	CC230927	CC230928	CC230929	CC230930	CC230931	CC230932	CC230933
Sieve Size (µm):		400	400	400	400	400	400	400	400	400	400	400	400
Subsample proportion (%):		5	5	5	20	6	5	5	5	5	5	5	5
Phylum (sub-phylum)	Order/Class	Family (sub-family/tribe)	Genus/Species										
Arthropoda	Collembola	-	-	0	-	0	-	0	-	0	-	0	-
Arthropoda	Collembola	Sminthuridae	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	-	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Ameletidae	Ameletus sp.	8	-	19	-	6	-	0	-	4	-
Arthropoda (Hexapoda)	Ephemeroptera	Baetidae	-	1	-	2	-	2	ND	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Baetidae	Baetis sp.	0	-	0	-	2	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Baetidae	Baetis fuscatus group	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Baetidae	Baetis rhodani group	8	-	2	-	6	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Baetidae	Baetis bicaudatus	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Baetidae	Dipheter hageni	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	-	114	-	154	-	132	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	Caudatella sp.	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	Drunella sp.	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	Drunella grandis group	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	Drunella coloradensis	1	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	Drunella doddsii	6	-	7	-	4	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	Ephemerella sp.	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	Ephemerella tibialis	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Heptageniidae	-	13	-	12	-	3	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Heptageniidae	Cinygmula sp.	375	-	340	-	324	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Heptageniidae	Epeorus sp.	15	-	10	-	14	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Heptageniidae	Rhithrogena sp.	14	-	12	-	21	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Leptophlebiidae	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Leptophlebiidae	Neoleptophlebia sp.	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	-	-	0	-	1	ND	0	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Capniidae	-	1	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Capniidae	Eucapnopsis brevicauda	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Chloroperlidae	-	0	-	0	-	2	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Chloroperlidae	Haploperla sp.	0	-	1	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Chloroperlidae	Plumiperla sp.	0	-	0	-	1	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Chloroperlidae	Swellia sp.	2	-	6	-	7	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Leuctridae	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Leuctridae	Paraleuctra sp.	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Nemouridae	-	2	ND	2	ND	2	ND	1	ND	0	-
Arthropoda (Hexapoda)	Plecoptera	Nemouridae	Malenka sp.	0	-	0	-	0	-	1	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Nemouridae	Zapada sp.	27	ND	32	-	16	ND	1	-	2	ND
Arthropoda (Hexapoda)	Plecoptera	Nemouridae	Zapada oregonensis group	6	-	0	-	1	-	0	-	1	-
Arthropoda (Hexapoda)	Plecoptera	Nemouridae	Zapada cinctipes	3	-	1	-	3	-	33	-	42	-
Arthropoda (Hexapoda)	Plecoptera	Nemouridae	Zapada columbiana	4	-	2	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Peltopteridae	Yoraperla sp.	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Perlidae	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Perlidae	Doroneuria sp.	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Perlodidae	-	0	-	1	-	1	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Perlodidae	Kogotus sp.	4	-	0	-	5	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Perlodidae	Megarcys sp.	8	-	0	-	2	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Perlodidae	Skwala sp.	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Taeniopterygidae	-	130	-	91	-	106	-	3	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Taeniopterygidae	Taenionema sp.	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Trichoptera	-	-	7	ND	2	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Trichoptera	Apataniidae	Apatania sp.	0	-	2	-	2	-	0	-	0	-
Arthropoda (Hexapoda)	Trichoptera	Brachycentridae	-	0	-	0	-	0	-	3	ND	2	ND
Arthropoda (Hexapoda)	Trichoptera	Brachycentridae	Brachycentrus sp.	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Trichoptera	Brachycentridae	Brachycentrus americanus	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Trichoptera	Brachycentridae	Micrasema sp.	0	-	0	-	0	-	11	-	2	-
Arthropoda (Hexapoda)	Trichoptera	Glossosomatidae	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Trichoptera	Glossosomatidae	Glossosoma sp.	0	-	1	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Trichoptera	Hydropsychidae	-	2	-	8	-	8	-	0	-	0	-
Arthropoda (Hexapoda)	Trichoptera	Hydropsychidae	Arctopsyche sp.	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Trichoptera	Hydropsychidae	Parapsyche sp.	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Trichoptera	Hydropsychidae	Parapsyche elsis	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Trichoptera	Hydroptilidae	-	0	-	0	-	0	-	5	ND	0	-
Arthropoda (Hexapoda)	Trichoptera	Hydroptilidae	Hydroptila sp.	0	-	0	-	0	-	13	-	21	-
Arthropoda (Hexapoda)	Trichoptera	Hydroptilidae	Metrichia sp.	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Trichoptera	Lepidostomatidae	Lepidostoma sp.	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Trichoptera	Limnephilidae	-	1	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Trichoptera	Limnephilidae	Dicosmoecus sp.	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Trichoptera	Rhyacophilidae	Rhyacophila sp.	6	-	1	-	1	ND	35	-	9	-
Arthropoda (Hexapoda)	Trichoptera	Rhyacophilidae	Rhyacophila betteni group	1	-	1	-	1	-	0	-	0	-
Arthropoda (Hexapoda)	Trichoptera	Rhyacophilidae	Rhyacophila brunnea/verna sp. group	1	-	0	-	4	-	5	-	2	-
Arthropoda (Hexapoda)	Trichoptera	Rhyacophilidae	Rhyacophila hyalinata group	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Trichoptera	Rhyacophilidae	Rhyacophila vofixa group	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Trichoptera	Rhyacophilidae	Rhyacophila atrata complex	0	-	0	-	3	-	0	-	0	-
Arthropoda (Hexapoda)	Trichoptera	Rhyacophilidae	Rhyacophila narvae	0	-	0	-	0	-	0	-	0	-

Table K-1: Raw Benthic Invertebrate Community Abundance Data at CMm LAEMP Sampling Stations, 2022

Sample Name:		RG_AGCK_BIC-1_2022-09-15_N	RG_AGCK_BIC-2_2022-09-15_N	RG_AGCK_BIC-3_2022-09-15_N	RG_CORCK_BIC-1_2022-09-14_N	RG_CORCK_BIC-2_2022-09-14_N	RG_CORCK_BIC-3_2022-09-14_N	RG_MI25_BIC-1_2022-09-15_N	RG_MI25_BIC-2_2022-09-15_N	RG_MI25_BIC-3_2022-09-15_N	RG_MI5_BIC-1_2022-09-12_N	RG_MI5_BIC-2_2022-09-12_N	RG_MI5_BIC-3_2022-09-12_N
Sample Collection Date:		15-Sep-22	15-Sep-22	15-Sep-22	14-Sep-22	14-Sep-22	14-Sep-22	15-Sep-22	15-Sep-22	15-Sep-22	12-Sep-22	12-Sep-22	12-Sep-22
Chain of Custody Identification Number:		CC230922	CC230923	CC230924	CC230925	CC230926	CC230927	CC230928	CC230929	CC230930	CC230931	CC230932	CC230933
Sieve Size (µm):		400	400	400	400	400	400	400	400	400	400	400	400
Subsample proportion (%):		5	5	5	20	6	5	5	5	5	5	5	5
Phylum (sub-phylum)	Order/Class	Family (sub-family/tribe)		Genus/Species									
Arthropoda (Hexapoda)	Trichoptera	Thremmatidae		<i>Oligophlebodes</i> sp.									
Arthropoda (Hexapoda)	Coleoptera	-		-									
Arthropoda (Hexapoda)	Coleoptera	Elmidae		-									
Arthropoda (Hexapoda)	Coleoptera	Elmidae		<i>Heterlimnius</i> sp.									
Arthropoda (Hexapoda)	Coleoptera	Halipidae		<i>Brychius</i> sp.									
Arthropoda (Hexapoda)	Diptera	Ceratopogonidae		<i>Bezzia</i> sp./ <i>Palpomyia</i> sp.									
Arthropoda (Hexapoda)	Diptera	Ceratopogonidae		<i>Mallochohelea</i> sp.									
Arthropoda (Hexapoda)	Diptera	Chironomidae		-									
Arthropoda (Hexapoda)	Diptera	Chironomidae (Chironominae/Chironomini)		-									
Arthropoda (Hexapoda)	Diptera	Chironomidae (Chironominae/Chironomini)		<i>Cryptochironomus</i> sp.									
Arthropoda (Hexapoda)	Diptera	Chironomidae (Chironominae/Chironomini)		<i>Stictochironomus</i> sp.									
Arthropoda (Hexapoda)	Diptera	Chironomidae (Chironominae/Tanytarsini)		-									
Arthropoda (Hexapoda)	Diptera	Chironomidae (Chironominae/Tanytarsini)		<i>Constempellina</i> sp.									
Arthropoda (Hexapoda)	Diptera	Chironomidae (Chironominae/Tanytarsini)		<i>Micropsectra</i> sp.									
Arthropoda (Hexapoda)	Diptera	Chironomidae (Diamesinae/Diamesini)		<i>Diamesa</i> sp.									
Arthropoda (Hexapoda)	Diptera	Chironomidae (Diamesinae/Diamesini)		<i>Pagastia</i> sp.									
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)		-									
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)		<i>Brillia</i> sp.									
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)		<i>Corynoneura</i> sp.									
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)		<i>Cricotopus</i> sp. ( <i>Nostococcladius</i> sp.)									
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)		<i>Eukiefferiella</i> sp.									
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)		<i>Hydrobaenus</i> sp.									
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)		<i>Orthoclaadius</i> sp. complex									
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)		<i>Orthoclaadius lignicola</i>									
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)		<i>Parorthoclaadius</i> sp.									
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)		<i>Rheocricotopus</i> sp.									
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)		<i>Tvetenia</i> sp.									
Arthropoda (Hexapoda)	Diptera	Chironomidae (Tanytarsinae/Pentaneurini)		<i>Thienemannimyia</i> sp. group									
Arthropoda (Hexapoda)	Diptera	Empididae		-									
Arthropoda (Hexapoda)	Diptera	Empididae		<i>Chelifera</i> sp./ <i>Metachela</i> sp.									
Arthropoda (Hexapoda)	Diptera	Empididae		<i>Neoplasta</i> sp.									
Arthropoda (Hexapoda)	Diptera	Empididae		<i>Roederiodocera</i> sp.									
Arthropoda (Hexapoda)	Diptera	Empididae		<i>Trichoclinocera</i> sp.									
Arthropoda (Hexapoda)	Diptera	Pelecarrhynchidae		<i>Glutops</i> sp.									
Arthropoda (Hexapoda)	Diptera	Psychodidae		<i>Pericoma</i> sp./ <i>Telmatoscopus</i> sp.									
Arthropoda (Hexapoda)	Diptera	Simuliidae		-									
Arthropoda (Hexapoda)	Diptera	Simuliidae		<i>Simulium</i> sp.									
Arthropoda (Hexapoda)	Diptera	Tipulidae		-									
Arthropoda (Hexapoda)	Diptera	Tipulidae		<i>Antocha</i> sp.									
Arthropoda (Hexapoda)	Diptera	Tipulidae		<i>Dicranota</i> sp.									
Arthropoda (Hexapoda)	Diptera	Tipulidae		<i>Gonomyia</i> sp.									
Arthropoda (Hexapoda)	Diptera	Tipulidae		<i>Hexatoma</i> sp.									
Arthropoda (Hexapoda)	Diptera	Tipulidae		<i>Tipula</i> sp.									
Arthropoda (Hexapoda)	Thysanoptera	-		-									
Arthropoda (Chelicerata)	Trombidiformes	-		-									
Arthropoda (Chelicerata)	Trombidiformes	Aturidae		-									
Arthropoda (Chelicerata)	Trombidiformes	Aturidae		<i>Aturus</i> sp.									
Arthropoda (Chelicerata)	Trombidiformes	Feltriidae		<i>Feltria</i> sp.									
Arthropoda (Chelicerata)	Trombidiformes	Hydryphantidae		<i>Protzia</i> sp.									
Arthropoda (Chelicerata)	Trombidiformes	Hygrobatidae		<i>Atractides</i> sp.									
Arthropoda (Chelicerata)	Trombidiformes	Hygrobatidae		<i>Hygrobatos</i> sp.									
Arthropoda (Chelicerata)	Trombidiformes	Lebertiidae		<i>Lebertia</i> sp.									
Arthropoda (Chelicerata)	Trombidiformes	Sperchontidae		<i>Sperchon</i> sp.									
Arthropoda (Chelicerata)	Trombidiformes	Torrenicolidae		<i>Testudacarus</i> sp.									
Arthropoda (Chelicerata)	Trombidiformes	Torrenicolidae		<i>Torrenticola</i> sp.									
Arthropoda (Chelicerata)	Trombidiformes - Prostigmata	Stygothrombidiidae		<i>Stygothrombium</i> sp.									
Arthropoda (Chelicerata)	Tubificida	Enchytraeidae		<i>Enchytraeus</i> sp.									
Arthropoda (Chelicerata)	Tubificida	Naididae		<i>Nais</i> sp.									
Arthropoda (Chelicerata)	Tubificida	Naididae (Subfamily: Tubificinae without hair chaetae)		-									
Arthropoda (Hexapoda)	Diptera	Cecidomyiidae		-									
Arthropoda (Hexapoda)	Hemiptera	Cicadellidae		-									
Arthropoda (Crustacea)	Class: Ostracoda	-		-									
Arthropoda (Crustacea)	Order: Cladocera	-		-									
Arthropoda (Crustacea)	Class: Copepoda	-		-									
Nematoda	-	-		-									
Platyhelminthes	Class: Turbellaria	-		-									
<b>Total Benthic Invertebrate Abundance:</b>		<b>812</b>	<b>803</b>	<b>766</b>	<b>364</b>	<b>372</b>	<b>361</b>	<b>365</b>	<b>338</b>	<b>630</b>	<b>361</b>	<b>334</b>	<b>329</b>

Notes: Grey cells represent taxa that were present in the samples but were not included in the calculations because they are non-benthic taxa. The ND designation represents a non-distinct taxa.

- = no data; CMm = Coal Mountain Mine; LAEMP = local aquatic effects monitoring program.

Samples collected by Minnow Environmental (BC) and submitted to Cordillera Consulting Inc. for taxonomic identification and enumeration. Taxonomist contact information: Scott Finlayson; scottfinlayson@cordilleraconsulting.ca; +1-250-494-7553.

Table K-1: Raw Benthic Invertebrate Community Abundance Data at CMm LAEMP Sampling Stations, 2022

Phylum (sub-phylum)	Order/Class	Family (sub-family/tribe)	Genus/Species	Sample Name:																											
				RG_MIDAG_BIC-1_2022-09-13_N	RG_MIDAG_BIC-2_2022-09-13_N	RG_MIDAG_BIC-3_2022-09-13_N	RG_MIDCO_BIC-1_2022-09-13_N	RG_MIDCO_BIC-2_2022-09-13_N	RG_MIDCO_BIC-3_2022-09-13_N	RG_MIDCO_BIC-4_2022-09-13_N	RG_MIDCO_BIC-5_2022-09-13_N	RG_MIUCO_BIC-1_2022-09-14_N	RG_MIUCO_BIC-2_2022-09-14_N	RG_MIUCO_BIC-3_2022-09-14_N	RG_MIULE_BIC-1_2022-09-12_N																
				Sample Collection Date: 13-Sep-22																											
				Chain of Custody Identification Number: CC230934 CC230935 CC230936 CC230937 CC230938 CC230939 CC230940 CC230941 CC230942 CC230943 CC230944 CC230945																											
				Sieve Size (µm): 400 400 400 400 400 400 400 400 400 400 400 400																											
Subsample proportion (%): 5 5 5 5 5 5 5 5 5 12 11 20 5																															
Arthropoda	Collembola	-	-	0	-	0	-	0	-	0	-	1	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-		
Arthropoda	Collembola	Sminthuridae	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-		
Arthropoda (Hexapoda)	Ephemeroptera	-	-	0	-	0	-	0	-	0	-	0	-	0	-	1	-	ND	-	0	-	0	-	0	-	0	-	0	-		
Arthropoda (Hexapoda)	Ephemeroptera	Ameletidae	<i>Ameletus</i> sp.	0	-	0	-	1	-	0	-	0	-	0	-	0	-	0	-	0	-	1	-	0	-	6	-	1	-		
Arthropoda (Hexapoda)	Ephemeroptera	Baetidae	-	24	-	ND	-	12	-	ND	-	22	-	ND	-	6	-	3	-	6	-	9	-	ND	-	2	-	ND	-		
Arthropoda (Hexapoda)	Ephemeroptera	Baetidae	<i>Baetis</i> sp.	4	-	2	-	2	-	2	-	0	-	0	-	1	-	1	-	1	-	0	-	1	-	0	-	2	-		
Arthropoda (Hexapoda)	Ephemeroptera	Baetidae	<i>Baetis fuscatus</i> group	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	1	-
Arthropoda (Hexapoda)	Ephemeroptera	Baetidae	<i>Baetis rhodani</i> group	61	-	37	-	47	-	16	-	15	-	20	-	5	-	10	-	13	-	14	-	7	-	136	-	-	-		
Arthropoda (Hexapoda)	Ephemeroptera	Baetidae	<i>Baetis bicaudatus</i>	2	-	4	-	1	-	0	-	0	-	0	-	0	-	0	-	1	-	0	-	0	-	0	-	11	-		
Arthropoda (Hexapoda)	Ephemeroptera	Baetidae	<i>Diphetero hageni</i>	0	-	0	-	1	-	0	-	0	-	0	-	0	-	0	-	1	-	3	-	2	-	0	-	0	-		
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	-	48	-	ND	-	41	-	ND	-	96	-	47	-	37	-	71	-	14	-	11	-	9	-	ND	-	29	-	90	-
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	<i>Caudatella</i> sp.	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	4	-
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	<i>Drunella</i> sp.	0	-	1	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	<i>Drunella grandis</i> group	3	-	0	-	1	-	1	-	7	-	3	-	4	-	1	-	0	-	0	-	0	-	0	-	0	-	2	-
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	<i>Drunella coloradensis</i>	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	<i>Drunella doddsii</i>	16	-	21	-	15	-	8	-	12	-	11	-	8	-	9	-	9	-	9	-	10	-	8	-	15	-	15	-
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	<i>Ephemerella</i> sp.	1	-	2	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	1	-	0	-	0	-	3	-
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	<i>Ephemerella tibialis</i>	1	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Heptageniidae	-	2	-	4	-	2	-	0	-	0	-	0	-	0	-	1	-	0	-	0	-	6	-	4	-	2	-	1	-
Arthropoda (Hexapoda)	Ephemeroptera	Heptageniidae	<i>Cinygmula</i> sp.	9	-	31	-	32	-	1	-	7	-	8	-	3	-	9	-	33	-	27	-	52	-	13	-	-	-		
Arthropoda (Hexapoda)	Ephemeroptera	Heptageniidae	<i>Epeorus</i> sp.	0	-	2	-	0	-	2	-	0	-	0	-	0	-	0	-	1	-	3	-	0	-	0	-	3	-	-	
Arthropoda (Hexapoda)	Ephemeroptera	Heptageniidae	<i>Rhithrogena</i> sp.	2	-	12	-	4	-	1	-	0	-	1	-	0	-	3	-	5	-	13	-	11	-	16	-	-	-		
Arthropoda (Hexapoda)	Ephemeroptera	Leptophlebiidae	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	1	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Ephemeroptera	Leptophlebiidae	<i>Neoleptophlebia</i> sp.	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	1	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	-	-	0	-	0	-	0	-	0	-	1	-	ND	-	0	-	0	-	0	-	0	-	1	-	ND	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Capniidae	-	4	-	0	-	1	-	2	-	3	-	2	-	2	-	5	-	2	-	2	-	0	-	6	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Capniidae	<i>Eucapnopsis brevicauda</i>	0	-	4	-	5	-	1	-	1	-	0	-	0	-	4	-	0	-	0	-	0	-	1	-	1	-	1	-
Arthropoda (Hexapoda)	Plecoptera	Chloroperlidae	-	0	-	0	-	1	-	1	-	0	-	2	-	0	-	1	-	1	-	1	-	0	-	1	-	2	-	-	
Arthropoda (Hexapoda)	Plecoptera	Chloroperlidae	<i>Haploperla</i> sp.	0	-	1	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	1	-	2	-	-	
Arthropoda (Hexapoda)	Plecoptera	Chloroperlidae	<i>Plumipera</i> sp.	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Chloroperlidae	<i>Sweltsa</i> sp.	4	-	4	-	3	-	1	-	1	-	1	-	1	-	4	-	7	-	1	-	9	-	2	-	-	-		
Arthropoda (Hexapoda)	Plecoptera	Leuctridae	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	1	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Leuctridae	<i>Paraleuctra</i> sp.	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	1	-	0	-	1	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Nemouridae	-	6	-	0	-	7	-	9	-	1	-	13	-	1	-	2	-	0	-	0	-	0	-	0	-	3	-	-	
Arthropoda (Hexapoda)	Plecoptera	Nemouridae	<i>Malenka</i> sp.	0	-	0	-	0	-	0	-	0	-	0	-	1	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Nemouridae	<i>Zapada</i> sp.	24	-	ND	-	7	-	ND	-	22	-	21	-	11	-	17	-	13	-	ND	-	31	-	ND	-	16	-	ND	-
Arthropoda (Hexapoda)	Plecoptera	Nemouridae	<i>Zapada oregonensis</i> group	6	-	4	-	3	-	0	-	1	-	4	-	3	-	2	-	3	-	2	-	3	-	2	-	2	-	2	-
Arthropoda (Hexapoda)	Plecoptera	Nemouridae	<i>Zapada cinctipes</i>	40	-	15	-	12	-	16	-	21	-	12	-	39	-	46	-	31	-	12	-	4	-	4	-	37	-	-	
Arthropoda (Hexapoda)	Plecoptera	Nemouridae	<i>Zapada columbiana</i>	3	-	1	-	0	-	0	-	0	-	1	-	0	-	2	-	5	-	2	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Peltopteridae	<i>Yoraperla</i> sp.	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Perlidae	-	1	-	2	-	1	-	1	-	1	-	1	-	0	-	1	-	1	-	0	-	1	-	ND	-	1	-	ND	-
Arthropoda (Hexapoda)	Plecoptera	Perlidae	<i>Doroneuria</i> sp.	0	-	0	-	0	-	0	-	0	-	0	-	0	-	2	-	0	-	0	-	1	-	0	-	1	-	1	-
Arthropoda (Hexapoda)	Plecoptera	Perlodidae	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	1	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Perlodidae	<i>Kogotus</i> sp.	11	-	10	-	9	-	4	-	2	-	3	-	1	-	4	-	6	-	8	-	6	-	6	-	5	-	-	
Arthropoda (Hexapoda)	Plecoptera	Perlodidae	<i>Megarcys</i> sp.	5	-	1	-	1	-	3	-	2	-	2	-	2	-	2	-	0	-	1	-	3	-	1	-	1	-	-	
Arthropoda (Hexapoda)	Plecoptera	Perlodidae	<i>Skwala</i> sp.	0	-	1	-	1	-	0	-	2	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Plecoptera	Taeniopterygidae	-	65	-	30	-	48	-	21	-	9	-	6	-	15	-	41	-	22	-	31	-	24	-	49	-	-	-		
Arthropoda (Hexapoda)	Plecoptera	Taeniopterygidae	<i>Taenionema</i> sp.	1	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Trichoptera	-	-	0	-	0	-	1	-	ND	-	1	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Trichoptera	Apataniidae	<i>Apatania</i> sp.	1	-	0	-	2	-	0	-	0	-	0	-	0	-	1	-	0	-										

## Benthic Invertebrate Community Data

Table K-1: Raw Benthic Invertebrate Community Abundance Data at CMm LAEMP Sampling Stations, 2022

Sample Name:	RG_MIDAG_BIC-1_2022-09-13_N	RG_MIDAG_BIC-2_2022-09-13_N	RG_MIDAG_BIC-3_2022-09-13_N	RG_MIDCO_BIC-1_2022-09-13_N	RG_MIDCO_BIC-2_2022-09-13_N	RG_MIDCO_BIC-3_2022-09-13_N	RG_MIDCO_BIC-4_2022-09-13_N	RG_MIDCO_BIC-5_2022-09-13_N	RG_MIUCO_BIC-1_2022-09-14_N	RG_MIUCO_BIC-2_2022-09-14_N	RG_MIUCO_BIC-3_2022-09-14_N	RG_MIULE_BIC-1_2022-09-12_N															
	13-Sep-22	13-Sep-22	13-Sep-22	13-Sep-22	13-Sep-22	13-Sep-22	13-Sep-22	13-Sep-22	14-Sep-22	14-Sep-22	14-Sep-22	12-Sep-22															
Chain of Custody Identification Number:	CC230934	CC230935	CC230936	CC230937	CC230938	CC230939	CC230940	CC230941	CC230942	CC230943	CC230944	CC230945															
Sieve Size (µm):	400	400	400	400	400	400	400	400	400	400	400	400															
Subsample proportion (%):	5	5	5	5	5	5	5	5	12	11	20	5															
Phylum (sub-phylum)	Order/Class	Family (sub-family/tribe)	Genus/Species																								
Arthropoda (Hexapoda)	Trichoptera	Thremmatidae	<i>Oligophlebodes</i> sp.	42	-	52	-	44	-	10	-	7	-	5	-	6	-	8	-	0	-	1	-	0	-	1	-
Arthropoda (Hexapoda)	Coleoptera	-	-	0	-	0	-	0	-	0	-	18	-	0	-	0	-	12	-	0	-	0	-	1	-	0	-
Arthropoda (Hexapoda)	Coleoptera	Elmidae	-	0	-	0	-	2	ND	2	ND	ND	ND	4	ND	0	-	1	ND	2	ND	3	ND	6	ND	0	-
Arthropoda (Hexapoda)	Coleoptera	Elmidae	<i>Heterlimnius</i> sp.	8	-	8	-	6	-	14	-	17	-	15	-	7	-	11	-	25	-	22	-	38	-	14	-
Arthropoda (Hexapoda)	Coleoptera	Halipidae	<i>Brychius</i> sp.	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Diptera	Ceratopogonidae	<i>Bezzia</i> sp./ <i>Palpomyia</i> sp.	1	-	1	-	1	-	0	-	0	-	0	-	0	-	0	-	0	-	1	-	2	-	0	-
Arthropoda (Hexapoda)	Diptera	Ceratopogonidae	<i>Mallochochelea</i> sp.	0	-	0	-	2	-	3	-	1	-	5	-	3	-	3	-	0	-	1	-	3	-	0	-
Arthropoda (Hexapoda)	Diptera	Chironomidae	-	2	ND	1	-	3	ND	9	ND	6	ND	3	ND	7	ND	5	ND	2	ND	0	-	1	ND	3	ND
Arthropoda (Hexapoda)	Diptera	Chironomidae (Chironominae/Chironomini)	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Diptera	Chironomidae (Chironominae/Chironomini)	<i>Cryptochironomus</i> sp.	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	1	-
Arthropoda (Hexapoda)	Diptera	Chironomidae (Chironominae/Chironomini)	<i>Stictochironomus</i> sp.	0	-	0	-	0	-	2	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Diptera	Chironomidae (Chironominae/Tanytarsini)	-	0	-	0	-	0	-	1	-	0	-	3	-	0	-	0	-	0	-	0	-	4	-	0	-
Arthropoda (Hexapoda)	Diptera	Chironomidae (Chironominae/Tanytarsini)	<i>Constempellina</i> sp.	0	-	0	-	0	-	0	-	0	-	0	-	1	-	0	-	0	-	1	-	1	-	0	-
Arthropoda (Hexapoda)	Diptera	Chironomidae (Chironominae/Tanytarsini)	<i>Micropsectra</i> sp.	1	-	0	-	0	-	7	-	0	-	3	-	2	-	1	-	0	-	0	-	0	-	3	-
Arthropoda (Hexapoda)	Diptera	Chironomidae (Diamasinae/Diamesini)	<i>Diamesa</i> sp.	1	-	0	-	0	-	0	-	1	-	1	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Diptera	Chironomidae (Diamesinae/Diamesini)	<i>Pagastia</i> sp.	1	-	0	-	0	-	5	-	1	-	7	-	3	-	2	-	0	-	2	-	0	-	0	-
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	-	0	-	0	-	0	-	1	ND	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	<i>Brillia</i> sp.	1	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	1	-	0	-
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	<i>Corynoneura</i> sp.	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	<i>Cricotopus</i> sp. ( <i>Nostococladius</i> sp.)	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	4	-	0	-	4	-	0	-
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	<i>Eukiefferella</i> sp.	11	-	0	-	2	-	4	-	2	-	3	-	10	-	0	-	0	-	0	-	0	-	10	-
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	<i>Hydrobaenus</i> sp.	0	-	0	-	0	-	2	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	<i>Orthocladius</i> sp. complex	13	-	0	-	1	-	75	-	57	-	65	-	38	-	41	-	1	-	1	-	2	-	7	-
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	<i>Orthocladius lignicola</i>	0	-	0	-	0	-	0	-	0	-	1	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	<i>Parorthocladius</i> sp.	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	<i>Rheocricotopus</i> sp.	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	<i>Tvetenia</i> sp.	0	-	0	-	0	-	0	-	1	-	0	-	0	-	1	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Diptera	Chironomidae (Tanypodinae/Pentaneurini)	<i>Thienemannimyia</i> sp. group	0	-	1	-	3	-	2	-	3	-	7	-	2	-	4	-	7	-	1	-	7	-	0	-
Arthropoda (Hexapoda)	Diptera	Empididae	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	1	-
Arthropoda (Hexapoda)	Diptera	Empididae	<i>Chelifera</i> sp./ <i>Metachela</i> sp.	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Diptera	Empididae	<i>Neoplasta</i> sp.	0	-	0	-	0	-	0	-	0	-	0	-	0	-	1	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Diptera	Empididae	<i>Roederiodoxa</i> sp.	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Diptera	Empididae	<i>Trichoclinocera</i> sp.	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Diptera	Pelecophoridae	<i>Glutops</i> sp.	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Diptera	Psychodidae	<i>Pericoma</i> sp./ <i>Telmatoscopus</i> sp.	22	-	53	-	44	-	129	-	92	-	188	-	109	-	95	-	38	-	69	-	89	-	22	-
Arthropoda (Hexapoda)	Diptera	Simuliidae	-	1	-	0	-	0	-	2	-	1	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Diptera	Simuliidae	<i>Simulium</i> sp.	6	-	1	-	0	-	1	-	0	-	0	-	3	-	2	-	1	-	0	-	0	-	5	-
Arthropoda (Hexapoda)	Diptera	Tipulidae	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Diptera	Tipulidae	<i>Antocha</i> sp.	0	-	0	-	0	-	1	-	2	-	2	-	3	-	0	-	0	-	0	-	0	-	2	-
Arthropoda (Hexapoda)	Diptera	Tipulidae	<i>Dicranota</i> sp.	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Diptera	Tipulidae	<i>Gonomyia</i> sp.	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Diptera	Tipulidae	<i>Hexatoma</i> sp.	1	-	0	-	0	-	0	-	2	-	0	-	0	-	1	-	1	-	0	-	3	-	1	-
Arthropoda (Hexapoda)	Diptera	Tipulidae	<i>Tipula</i> sp.	0	-	0	-	0	-	0	-	1	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Hexapoda)	Thysanoptera	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	2	-	0	-	0	-	0	-	0	-
Arthropoda (Chelicerata)	Trombidiformes	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Chelicerata)	Trombidiformes	Aturidae	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Chelicerata)	Trombidiformes	Aturidae	<i>Aturus</i> sp.	0	-	0	-	0	-	0	-	0	-	1	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Chelicerata)	Trombidiformes	Feltriidae	<i>Feltria</i> sp.	0	-	0	-	1	-	0	-	0	-	1	-	0	-	0	-	0	-	0	-	0	-	0	-
Arthropoda (Chelicerata)	Trombidiformes	Hydryphantidae	<i>Protzia</i> sp.	1	-	0	-	0	-	0	-	1	-	0	-	0	-	0	-	0	-	0	-	0	-	1	-
Arthropoda (Chelicerata)	Trombidiformes	Hygrobatidae	<i>Atractides</i> sp.	0	-	0	-	0	-	0	-	0	-	1	-	0	-	0	-	0	-	0	-	0	-	1	-
Arthropoda (Chelicerata)	Trombidiformes	Hygrobatidae	<i>Hygrobatas</i> sp.	0	-	0	-	0	-	0	-	2	-	0	-	0	-	2	-	1	-	1	-	2	-	0	-
Arthropoda (Chelicerata)	Trombidiformes	Lebertiidae	<i>Lebertia</i> sp.	6	-	4	-	10	-	8	-	15	-	12	-	6	-	5	-	7	-	1	-	3	-	8	-
Arthropoda (Chelicerata)	Trombidiformes	Sperchontidae	<i>Sperchon</i> sp.	1	-	3	-																				



Table K-1: Raw Benthic Invertebrate Community Abundance Data at CMm LAEMP Sampling Stations, 2022

Sample Name:		RG_MIULE_BIC-2_2022-09-12_N	RG_MIULE_BIC-3_2022-09-12_N	RG_LE1_BIC-1_2022-09-16_N	RG_LE1_BIC-2_2022-09-16_N	RG_LE1_BIC-3_2022-09-16_N
Sample Collection Date:		12-Sep-22	12-Sep-22	16-Sep-22	16-Sep-22	16-Sep-22
Chain of Custody Identification Number:		CC230946	CC230947	CC230948	CC230949	CC230950
Sieve Size (µm):		400	400	400	400	400
Subsample proportion (%):		5	5	5	5	9
Phylum (sub-phylum)	Order/Class	Family (sub-family/tribe)	Genus/Species			
Arthropoda	Collembola	-	-	0	-	0
Arthropoda	Collembola	Sminthuridae	-	0	-	0
Arthropoda (Hexapoda)	Ephemeroptera	-	-	0	-	0
Arthropoda (Hexapoda)	Ephemeroptera	Ameletidae	Ameletus sp.	0	-	0
Arthropoda (Hexapoda)	Ephemeroptera	Baetidae	-	16	ND	16
Arthropoda (Hexapoda)	Ephemeroptera	Baetidae	Baetis sp.	4	-	7
Arthropoda (Hexapoda)	Ephemeroptera	Baetidae	Baetis fuscatus group	0	-	0
Arthropoda (Hexapoda)	Ephemeroptera	Baetidae	Baetis rhodani group	103	-	69
Arthropoda (Hexapoda)	Ephemeroptera	Baetidae	Baetis bicaudatus	6	-	5
Arthropoda (Hexapoda)	Ephemeroptera	Baetidae	Dipheter hageni	0	-	0
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	-	133	ND	100
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	Caudatella sp.	0	-	0
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	Drunella sp.	0	-	0
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	Drunella grandis group	1	-	1
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	Drunella coloradensis	0	-	1
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	Drunella dodsii	28	-	15
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	Ephemerella sp.	12	-	5
Arthropoda (Hexapoda)	Ephemeroptera	Ephemerellidae	Ephemerella tibialis	0	-	0
Arthropoda (Hexapoda)	Ephemeroptera	Heptageniidae	-	2	-	1
Arthropoda (Hexapoda)	Ephemeroptera	Heptageniidae	Cinygmula sp.	10	-	13
Arthropoda (Hexapoda)	Ephemeroptera	Heptageniidae	Epeorus sp.	0	-	1
Arthropoda (Hexapoda)	Ephemeroptera	Heptageniidae	Rhithrogena sp.	7	-	2
Arthropoda (Hexapoda)	Ephemeroptera	Leptophlebiidae	-	0	-	0
Arthropoda (Hexapoda)	Ephemeroptera	Leptophlebiidae	Neoleptophlebia sp.	0	-	0
Arthropoda (Hexapoda)	Plecoptera	-	-	2	ND	0
Arthropoda (Hexapoda)	Plecoptera	Capniidae	-	1	-	0
Arthropoda (Hexapoda)	Plecoptera	Capniidae	Eucapnopsis brevicauda	3	-	4
Arthropoda (Hexapoda)	Plecoptera	Chloroperlidae	-	0	-	0
Arthropoda (Hexapoda)	Plecoptera	Chloroperlidae	Haploperla sp.	0	-	0
Arthropoda (Hexapoda)	Plecoptera	Chloroperlidae	Plumiperla sp.	0	-	1
Arthropoda (Hexapoda)	Plecoptera	Chloroperlidae	Sweltsa sp.	3	-	0
Arthropoda (Hexapoda)	Plecoptera	Leuctridae	-	0	-	0
Arthropoda (Hexapoda)	Plecoptera	Leuctridae	Paraleuctra sp.	0	-	0
Arthropoda (Hexapoda)	Plecoptera	Nemouridae	-	4	-	3
Arthropoda (Hexapoda)	Plecoptera	Nemouridae	Malenka sp.	0	-	0
Arthropoda (Hexapoda)	Plecoptera	Nemouridae	Zapada sp.	13	-	4
Arthropoda (Hexapoda)	Plecoptera	Nemouridae	Zapada oregonensis group	0	-	0
Arthropoda (Hexapoda)	Plecoptera	Nemouridae	Zapada cinctipes	17	-	15
Arthropoda (Hexapoda)	Plecoptera	Nemouridae	Zapada columbiana	0	-	0
Arthropoda (Hexapoda)	Plecoptera	Peltopteridae	Yoraperla sp.	0	-	0
Arthropoda (Hexapoda)	Plecoptera	Perlidae	-	1	-	1
Arthropoda (Hexapoda)	Plecoptera	Perlidae	Doroneuria sp.	0	-	1
Arthropoda (Hexapoda)	Plecoptera	Perlidae	-	0	-	0
Arthropoda (Hexapoda)	Plecoptera	Perlidae	Kogotus sp.	2	-	1
Arthropoda (Hexapoda)	Plecoptera	Perlidae	Megarcys sp.	0	-	0
Arthropoda (Hexapoda)	Plecoptera	Perlidae	Skwala sp.	1	-	1
Arthropoda (Hexapoda)	Plecoptera	Taeniopterygidae	-	25	-	12
Arthropoda (Hexapoda)	Plecoptera	Taeniopterygidae	Taenionema sp.	0	-	0
Arthropoda (Hexapoda)	Trichoptera	-	-	0	-	0
Arthropoda (Hexapoda)	Trichoptera	Apataniidae	Apatania sp.	0	-	0
Arthropoda (Hexapoda)	Trichoptera	Brachycentridae	-	0	-	0
Arthropoda (Hexapoda)	Trichoptera	Brachycentridae	Brachycentrus sp.	0	-	2
Arthropoda (Hexapoda)	Trichoptera	Brachycentridae	Brachycentrus americanus	0	-	0
Arthropoda (Hexapoda)	Trichoptera	Brachycentridae	Micrasema sp.	0	-	0
Arthropoda (Hexapoda)	Trichoptera	Glossosomatidae	-	0	-	3
Arthropoda (Hexapoda)	Trichoptera	Glossosomatidae	Glossosoma sp.	35	-	5
Arthropoda (Hexapoda)	Trichoptera	Hydropsychidae	-	1	-	0
Arthropoda (Hexapoda)	Trichoptera	Hydropsychidae	Arctopsyche sp.	0	-	0
Arthropoda (Hexapoda)	Trichoptera	Hydropsychidae	Parapsyche sp.	0	-	0
Arthropoda (Hexapoda)	Trichoptera	Hydropsychidae	Parapsyche elsis	0	-	0
Arthropoda (Hexapoda)	Trichoptera	Hydroptilidae	-	0	-	0
Arthropoda (Hexapoda)	Trichoptera	Hydroptilidae	Hydroptila sp.	0	-	0
Arthropoda (Hexapoda)	Trichoptera	Hydroptilidae	Metrichia sp.	0	-	0
Arthropoda (Hexapoda)	Trichoptera	Lepidostomatidae	Lepidostoma sp.	0	-	0
Arthropoda (Hexapoda)	Trichoptera	Limnephilidae	-	0	-	0
Arthropoda (Hexapoda)	Trichoptera	Limnephilidae	Dicosmoecus sp.	0	-	0
Arthropoda (Hexapoda)	Trichoptera	Rhyacophilidae	Rhyacophila sp.	49	-	7
Arthropoda (Hexapoda)	Trichoptera	Rhyacophilidae	Rhyacophila betteni group	0	-	0
Arthropoda (Hexapoda)	Trichoptera	Rhyacophilidae	Rhyacophila brunnea/verna sp. group	0	-	2
Arthropoda (Hexapoda)	Trichoptera	Rhyacophilidae	Rhyacophila hyalinata group	0	-	0
Arthropoda (Hexapoda)	Trichoptera	Rhyacophilidae	Rhyacophila vofixa group	0	-	0
Arthropoda (Hexapoda)	Trichoptera	Rhyacophilidae	Rhyacophila atrata complex	1	-	2
Arthropoda (Hexapoda)	Trichoptera	Rhyacophilidae	Rhyacophila narvae	1	-	1

Table K-1: Raw Benthic Invertebrate Community Abundance Data at CMm LAEMP Sampling Stations, 2022

Sample Name:		RG_MIULE_BIC-2_2022-09-12_N	RG_MIULE_BIC-3_2022-09-12_N	RG_LE1_BIC-1_2022-09-16_N	RG_LE1_BIC-2_2022-09-16_N	RG_LE1_BIC-3_2022-09-16_N
Sample Collection Date:		12-Sep-22	12-Sep-22	16-Sep-22	16-Sep-22	16-Sep-22
Chain of Custody Identification Number:		CC230946	CC230947	CC230948	CC230949	CC230950
Sieve Size (µm):		400	400	400	400	400
Subsample proportion (%):		5	5	5	5	9
Phylum (sub-phylum)	Order/Class	Family (sub-family/tribe)	Genus/Species			
Arthropoda (Hexapoda)	Trichoptera	Thremmatidae	<i>Oligophlebodes</i> sp.	4	-	1
Arthropoda (Hexapoda)	Coleoptera	-	-	0	-	0
Arthropoda (Hexapoda)	Coleoptera	Elmidae	-	4	ND	3
Arthropoda (Hexapoda)	Coleoptera	Elmidae	<i>Heterlimnius</i> sp.	9	-	11
Arthropoda (Hexapoda)	Coleoptera	Halipidae	<i>Brychius</i> sp.	0	-	0
Arthropoda (Hexapoda)	Diptera	Ceratopogonidae	<i>Bezzia</i> sp./ <i>Palpomyia</i> sp.	0	-	0
Arthropoda (Hexapoda)	Diptera	Ceratopogonidae	<i>Mallochohelea</i> sp.	1	-	2
Arthropoda (Hexapoda)	Diptera	Chironomidae	-	4	ND	4
Arthropoda (Hexapoda)	Diptera	Chironomidae (Chironominae/Chironomini)	-	0	-	0
Arthropoda (Hexapoda)	Diptera	Chironomidae (Chironominae/Chironomini)	<i>Cryptochironomus</i> sp.	0	-	0
Arthropoda (Hexapoda)	Diptera	Chironomidae (Chironominae/Chironomini)	<i>Stictochironomus</i> sp.	0	-	6
Arthropoda (Hexapoda)	Diptera	Chironomidae (Chironominae/Tanytarsini)	-	0	-	0
Arthropoda (Hexapoda)	Diptera	Chironomidae (Chironominae/Tanytarsini)	<i>Constempellina</i> sp.	0	-	1
Arthropoda (Hexapoda)	Diptera	Chironomidae (Chironominae/Tanytarsini)	<i>Micropsectra</i> sp.	0	-	0
Arthropoda (Hexapoda)	Diptera	Chironomidae (Diamesinae/Diamesini)	<i>Diamesa</i> sp.	0	-	0
Arthropoda (Hexapoda)	Diptera	Chironomidae (Diamesinae/Diamesini)	<i>Pagastia</i> sp.	2	-	0
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	-	0	-	0
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	<i>Brillia</i> sp.	0	-	0
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	<i>Corynoneura</i> sp.	0	-	0
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	<i>Cricotopus</i> sp. ( <i>Nostococladus</i> sp.)	0	-	0
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	<i>Eukiefferiella</i> sp.	10	-	11
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	<i>Hydrobaenus</i> sp.	0	-	4
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	<i>Orthocladus</i> sp. complex	1	-	4
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	<i>Orthocladus lignicola</i>	0	-	0
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	<i>Parorthocladus</i> sp.	0	-	0
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	<i>Rheocricotopus</i> sp.	0	-	0
Arthropoda (Hexapoda)	Diptera	Chironomidae (Orthoclaadiinae)	<i>Tvetenia</i> sp.	0	-	0
Arthropoda (Hexapoda)	Diptera	Chironomidae (Tanypodinae/Pentaneurini)	<i>Thienemannimyia</i> sp. group	3	-	5
Arthropoda (Hexapoda)	Diptera	Empididae	-	1	-	3
Arthropoda (Hexapoda)	Diptera	Empididae	<i>Chelifera</i> sp./ <i>Metachela</i> sp.	0	-	0
Arthropoda (Hexapoda)	Diptera	Empididae	<i>Neoplasta</i> sp.	0	-	0
Arthropoda (Hexapoda)	Diptera	Empididae	<i>Roederiodus</i> sp.	0	-	0
Arthropoda (Hexapoda)	Diptera	Empididae	<i>Trichoclinocera</i> sp.	0	-	0
Arthropoda (Hexapoda)	Diptera	Pelecorynchidae	<i>Glutops</i> sp.	0	-	0
Arthropoda (Hexapoda)	Diptera	Psychodidae	<i>Pericoma</i> sp./ <i>Telmatoscopus</i> sp.	85	-	32
Arthropoda (Hexapoda)	Diptera	Simuliidae	-	0	-	1
Arthropoda (Hexapoda)	Diptera	Simuliidae	<i>Simulium</i> sp.	1	-	0
Arthropoda (Hexapoda)	Diptera	Tipulidae	-	0	-	1
Arthropoda (Hexapoda)	Diptera	Tipulidae	<i>Antocha</i> sp.	0	-	0
Arthropoda (Hexapoda)	Diptera	Tipulidae	<i>Dicranota</i> sp.	1	-	2
Arthropoda (Hexapoda)	Diptera	Tipulidae	<i>Gonomyia</i> sp.	0	-	0
Arthropoda (Hexapoda)	Diptera	Tipulidae	<i>Hexatoma</i> sp.	0	-	2
Arthropoda (Hexapoda)	Diptera	Tipulidae	<i>Tipula</i> sp.	0	-	0
Arthropoda (Hexapoda)	Thysanoptera	-	-	0	-	0
Arthropoda (Chelicerata)	Trombidiformes	-	-	0	-	0
Arthropoda (Chelicerata)	Trombidiformes	Aturidae	-	0	-	0
Arthropoda (Chelicerata)	Trombidiformes	Aturidae	<i>Aturus</i> sp.	0	-	0
Arthropoda (Chelicerata)	Trombidiformes	Feltriidae	<i>Feltria</i> sp.	1	-	0
Arthropoda (Chelicerata)	Trombidiformes	Hydryphantidae	<i>Protzia</i> sp.	1	-	0
Arthropoda (Chelicerata)	Trombidiformes	Hygrobatidae	<i>Atractides</i> sp.	0	-	0
Arthropoda (Chelicerata)	Trombidiformes	Hygrobatidae	<i>Hygrobates</i> sp.	0	-	0
Arthropoda (Chelicerata)	Trombidiformes	Lebertiidae	<i>Lebertia</i> sp.	19	-	5
Arthropoda (Chelicerata)	Trombidiformes	Sperchontidae	<i>Sperchon</i> sp.	2	-	6
Arthropoda (Chelicerata)	Trombidiformes	Torrenticolidae	<i>Testudacarus</i> sp.	0	-	0
Arthropoda (Chelicerata)	Trombidiformes	Torrenticolidae	<i>Torrenticola</i> sp.	0	-	0
Arthropoda (Chelicerata)	Trombidiformes - Prostigmata	Stygothrombidiidae	<i>Stygothrombium</i> sp.	0	-	0
Annelida (Clitellata)	Tubificida	Enchytraeidae	<i>Enchytraeus</i> sp.	0	-	0
Annelida (Clitellata)	Tubificida	Naididae	<i>Nais</i> sp.	6	-	0
Annelida (Clitellata)	Tubificida	Naididae (Subfamily: Tubificinae without hair chaetae)	-	0	-	0
Arthropoda (Hexapoda)	Diptera	Cecidomyiidae	-	0	-	0
Arthropoda (Hexapoda)	Hemiptera	Cicadellidae	-	0	-	0
Arthropoda (Crustacea)	Class: Ostracoda	-	-	1	-	1
Arthropoda (Crustacea)	Order: Cladocera	-	-	0	-	0
Arthropoda (Crustacea)	Class: Copepoda	-	-	0	-	0
Nematoda	-	-	-	1	-	1
Platyhelminthes	Class: Turbellaria	-	-	1	-	1
<b>Total Benthic Invertebrate Abundance:</b>				<b>639</b>		<b>408</b>

Notes: Grey cells represent taxa that were present in the samples but were not included in the calculations because they are non-benthic taxa. The ND designation represents a non-distinct taxa.

-- = no data; CMm = Coal Mountain Mine; LAEMP = local aquatic effects monitoring program

Samples collected by Minnow Environmental (BC) and submitted to Cordillera Consulting Inc. for taxonomic identification and enumeration. Taxonomist contact information: Scott Finlayson; scottfinlayson@cordilleraconsulting.ca; +1-250-494-7553.

Table K-2: Benthic Invertebrate Community Data at CMm LAEMP Sampling Stations, 2012 to 2021

Watercourse	Station	Reference or Mine-influenced	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Sample	Richness (# of taxa)	Abundance (# of individuals)	Percent Dominance (%)	Simpson's Diversity	Shannon's Diversity	Simpson's Dominance	Simpson's Evenness	EPT Richness (# of taxa)
			Easting	Northing											
Michel Creek	MI25	Reference	668184	5482818	2012	1	RG MI25 BIC-1 2012-09-15	40	2,050	17.5	0.9	3.0	1.1	0.3	29
Michel Creek	MI25	Reference	668184	5482818	2013	1	RG MI25 BIC-1 2013-09-15	28	26,100	43.4	0.7	1.6	1.5	0.1	20
Michel Creek	MI25	Reference	668184	5482818	2015	1	RG MI25 BIC-1 2015-09-10	37	7,140	16.5	0.9	2.7	1.1	0.3	23
Michel Creek	MI25	Reference	668184	5482818	2016	1	RG MI25 BIC-1 2016-09-13	45	16,160	29.2	0.9	2.6	1.2	0.2	26
Michel Creek	MI25	Reference	668184	5482818	2017	1	RG MI25 BIC-1 2017-09-14	39	25,200	27.3	0.9	2.4	1.2	0.2	22
Michel Creek	MI25	Reference	668184	5482818	2018	1	RG MI25 BIC-1 2018-09-10	41	14,560	35.7	0.8	2.4	1.2	0.1	23
Michel Creek	MI25	Reference	668184	5482818	2019	1	RG MI25 BIC-1 2019-09-04	37	6,420	24.0	0.9	2.5	1.2	0.2	27
Michel Creek	MI25	Reference	668184	5482818	2020	1	RG MI25 BIC-1 2020-09-11	41	9,300	18.8	0.9	2.8	1.1	0.2	28
Michel Creek	MI25	Reference	668184	5482818	2021	1	RG MI25 BIC-1 2021-09-13	42	12,620	0.4	0.8	2.4	1.2	0.1	26
Michel Creek	MI25	Reference	668184	5482818	2022	1	RG MI25 BIC-1 2022-09-15 N	34	7,260	0.2	0.9	2.7	1.1	0.3	28
Michel Creek	MI25	Reference	668184	5482818	2013	2	RG MI25 BIC-2 2013-09-15	30	10,500	35.3	0.8	2.0	1.3	0.2	25
Michel Creek	MI25	Reference	668184	5482818	2015	2	RG MI25 BIC-2 2015-09-10	32	7,200	24.7	0.9	2.6	1.1	0.3	19
Michel Creek	MI25	Reference	668184	5482818	2018	2	RG MI25 BIC-2 2018-09-10	40	5,014	18.2	0.9	3.0	1.1	0.3	22
Michel Creek	MI25	Reference	668184	5482818	2019	2	RG MI25 BIC-2 2019-09-04	39	4,200	23.2	0.9	2.8	1.1	0.2	20
Michel Creek	MI25	Reference	668184	5482818	2020	2	RG MI25 BIC-2 2020-09-11	45	4,113	12.6	0.9	3.2	1.1	0.4	32
Michel Creek	MI25	Reference	668184	5482818	2021	2	RG MI25 BIC-2 2021-09-13	39	13,180	0.3	0.8	2.5	1.2	0.2	27
Michel Creek	MI25	Reference	668184	5482818	2022	2	RG MI25 BIC-2 2022-09-15 N	23	6,700	0.3	0.8	2.1	1.3	0.2	20
Michel Creek	MI25	Reference	668184	5482818	2013	3	RG MI25 BIC-3 2013-09-15	29	17,300	46.9	0.7	1.7	1.4	0.1	20
Michel Creek	MI25	Reference	668184	5482818	2015	3	RG MI25 BIC-3 2015-09-10	34	6,640	19.9	0.9	2.7	1.1	0.3	23
Michel Creek	MI25	Reference	668184	5482818	2018	3	RG MI25 BIC-3 2018-09-10	52	14,340	21.3	0.9	3.0	1.1	0.2	28
Michel Creek	MI25	Reference	668184	5482818	2019	3	RG MI25 BIC-3 2019-09-04	40	6,440	25.8	0.9	2.8	1.1	0.2	23
Michel Creek	MI25	Reference	668184	5482818	2020	3	RG MI25 BIC-3 2020-09-11	44	2,285	13.6	0.9	3.1	1.1	0.3	28
Michel Creek	MI25	Reference	668184	5482818	2021	3	RG MI25 BIC-3 2021-09-13	36	7,420	0.3	0.9	2.7	1.1	0.2	26
Michel Creek	MI25	Reference	668184	5482818	2022	3	RG MI25 BIC-3 2022-09-15 N	33	12,560	0.5	0.8	2.2	1.3	0.1	23
Andy Good Creek	AGCK	Reference	667557	5488648	2012	1	AGCK BIC-1 2012-09-16	27	11,980	66.4	0.5	1.5	1.8	0.1	18
Andy Good Creek	AGCK	Reference	667557	5488648	2013	1	AGCK BIC-1 2013-09-15	29	27,840	65.4	0.5	1.4	1.8	0.1	24
Andy Good Creek	AGCK	Reference	667557	5488648	2015	1	AGCK BIC-1 2015-09-12	27	7,180	59.6	0.6	1.5	1.7	0.1	20
Andy Good Creek	AGCK	Reference	667557	5488648	2018	1	AGCK BIC-1 2018-09-08	27	10,500	50.9	0.7	1.6	1.5	0.1	18
Andy Good Creek	AGCK	Reference	667557	5488648	2019	1	AGCK BIC-1 2019-09-06	27	16,280	57.1	0.6	1.5	1.6	0.1	15
Andy Good Creek	AGCK	Reference	667557	5488648	2020	1	AGCK BIC-1 2020-09-10	33	9,400	35.5	0.8	2.5	1.2	0.2	24
Andy Good Creek	AGCK	Reference	667557	5488648	2021	1	RG AGCK BIC-1 2021-09-11	31	8,360	0.3	0.8	2.4	1.2	0.2	20
Andy Good Creek	AGCK	Reference	667557	5488648	2022	1	RG AGCK BIC-1 2022-09-15 N	32	16,200	0.5	0.7	2.0	1.4	0.1	23
Andy Good Creek	AGCK	Reference	667557	5488648	2018	2	AGCK BIC-2 2018-09-08	33	11,200	37.3	0.8	2.0	1.3	0.1	17
Andy Good Creek	AGCK	Reference	667557	5488648	2019	2	AGCK BIC-2 2019-09-06	30	14,760	62.2	0.6	1.5	1.7	0.1	16
Andy Good Creek	AGCK	Reference	667557	5488648	2020	2	AGCK BIC-2 2020-09-10	32	12,180	39.9	0.8	2.1	1.3	0.1	22
Andy Good Creek	AGCK	Reference	667557	5488648	2021	2	RG AGCK BIC-2 2021-09-11	23	5,850	0.3	0.8	2.3	1.2	0.3	17
Andy Good Creek	AGCK	Reference	667557	5488648	2022	2	RG AGCK BIC-2 2022-09-15 N	31	16,040	0.4	0.8	2.0	1.3	0.1	20
Andy Good Creek	AGCK	Reference	667557	5488648	2018	3	AGCK BIC-3 2018-09-08	32	13,760	37.5	0.8	2.1	1.3	0.1	20
Andy Good Creek	AGCK	Reference	667557	5488648	2019	3	AGCK BIC-3 2019-09-06	31	12,220	57.3	0.6	1.8	1.6	0.1	20
Andy Good Creek	AGCK	Reference	667557	5488648	2020	3	AGCK BIC-3 2020-09-10	34	10,240	43.4	0.8	2.2	1.3	0.1	27
Andy Good Creek	AGCK	Reference	667557	5488648	2021	3	RG AGCK BIC-3 2021-09-11	29	5,657	0.2	0.9	2.5	1.1	0.3	19
Andy Good Creek	AGCK	Reference	667557	5488648	2022	3	RG AGCK BIC-3 2022-09-15 N	28	15,280	0.4	0.8	2.0	1.3	0.2	22
Leach Creek	LE1	Reference	659635	5494108	2018	1	LE1 BIC-1 2018-09-13	46	17,300	14.0	0.9	3.1	1.1	0.3	25
Leach Creek	LE1	Reference	659635	5494108	2019	1	LE1 BIC-1 2019-09-05	41	7,360	19.0	0.9	2.9	1.1	0.3	23
Leach Creek	LE1	Reference	659635	5494108	2020	1	LE1 BIC-1 2020-09-17	43	7,020	14.2	0.9	3.1	1.1	0.3	29
Leach Creek	LE1	Reference	659635	5494108	2021	1	RG LE1 BIC-1 2021-09-14	37	7,520	0.2	0.9	2.7	1.1	0.3	23
Leach Creek	LE1	Reference	659635	5494108	2022	1	RG LE1 BIC-1 2022-09-16 N	29	6,520	0.2	0.9	2.5	1.1	0.3	21
Leach Creek	LE1	Reference	659635	5494108	2019	2	LE1 BIC-2 2019-09-05	36	9,480	29.1	0.9	2.6	1.2	0.2	22
Leach Creek	LE1	Reference	659635	5494108	2020	2	LE1 BIC-2 2020-09-17	42	4,230	13.7	0.9	3.1	1.1	0.4	27
Leach Creek	LE1	Reference	659635	5494108	2021	2	RG LE1 BIC-2 2021-09-14	42	8,520	0.2	0.9	3.0	1.1	0.3	25
Leach Creek	LE1	Reference	659635	5494108	2022	2	RG LE1 BIC-2 2022-09-16 N	42	11,540	0.2	0.9	2.8	1.1	0.3	33
Leach Creek	LE1	Reference	659635	5494108	2019	3	LE1 BIC-3 2019-09-05	43	8,640	26.6	0.9	2.6	1.1	0.2	26
Leach Creek	LE1	Reference	659635	5494108	2020	3	LE1 BIC-3 2020-09-17	43	6,600	13.0	0.9	3.1	1.1	0.4	34
Leach Creek	LE1	Reference	659635	5494108	2021	3	RG LE1 BIC-3 2021-09-14	45	12,080	0.3	0.9	2.7	1.1	0.2	27
Leach Creek	LE1	Reference	659635	5494108	2022	3	RG LE1 BIC-3 2022-09-16 N	45	4,167	0.2	0.9	2.9	1.1	0.2	36
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2012	1	RG MIUCO BIC-1 2012-09-15	38	1,806	19.1	0.9	2.9	1.1	0.3	29
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2015	1	RG MIUCO BIC-1 2015-09-10	37	7,820	24.0	0.9	2.6	1.1	0.2	23
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2016	1	RG MIUCO BIC-1 2016-09-13	37	4,175	20.1	0.9	2.9	1.1	0.3	25
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2017	1	RG MIUCO BIC-1 2017-09-14	38	7,120	20.5	0.9	2.8	1.1	0.3	26
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2018	1	RG MIUCO BIC-1 2018-09-10	39	8,400	13.1	0.9	3.0	1.1	0.4	27
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2019	1	RG MIUCO BIC-1 2019-09-09	47	10,280	20.9	0.9	3.2	1.1	0.3	32
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2020	1	RG MIUCO BIC-1 2020-09-12	46	3,190	23.8	0.9	3.0	1.1	0.2	31
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2021	1	RG MIUCO BIC-1 2021-09-12	52	5,130	0.2	0.9	3.0	1.1	0.2	35
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2022	1	RG MIUCO BIC-1 2022-09-14 N	44	3,050	0.2	0.9	3.0	1.1	0.3	32
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2018	2	RG MIUCO BIC-2 2018-09-10	34	3,200	20.6	0.9	2.8	1.1	0.3	22
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2019	2	RG MIUCO BIC-2 2019-09-09	41	5,229	18.0	0.9	2.9	1.1	0.3	27
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2020	2	RG MIUCO BIC-2 2020-09-12	47	3,136	21.2	0.9	3.1	1.1	0.3	33
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2021	2	RG MIUCO BIC-2 2021-09-12	38	4,063	0.2	0.9	2.7	1.1	0.2	26
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2022	2	RG MIUCO BIC-2 2022-09-14 N	36	3,236	0.2	0.9	2.8	1.1	0.3	24
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2018	3	RG MIUCO BIC-3 2018-09-10	35	7,680	18.0	0.9	2.8	1.1	0.3	23
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2019	3	RG MIUCO BIC-3 2019-09-09	44	5,200	16.5	0.9	3.0	1.1	0.3	26
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2020	3	RG MIUCO BIC-3 2020-09-12	42	2,508	16.0	0.9	3.1	1.1	0.3	30
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2021	3	RG MIUCO BIC-3 2021-09-12	48	4,530	0.2	0.9	2.9	1.1	0.2	31
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2022	3	RG MIUCO BIC-3 2022-09-14 N	45	2,505	0.2	0.9	2.8	1.1	0.2	30
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2012	1	RG CORCK BIC-1 2012-09-15	30	1,230	28.3	0.9	2.5	1.2	0.2	18
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2015	1	RG CORCK BIC-1 2015-09-11	36	29,180	53.1	0.7	1.9	1.4	0.1	13



Table K-2: Benthic Invertebrate Community Data at CMm LAEMP Sampling Stations, 2012 to 2021

Watercourse	Station	Reference or Mine-influenced	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Sample	Richness (# of taxa)	Abundance (# of individuals)	Percent Dominance (%)	Simpson's Diversity	Shannon's Diversity	Simpson's Dominance	Simpson's Evenness	EPT Richness (# of taxa)
			Easting	Northing											
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2016	1	RG CORCK BIC-1 2016-09-13	37	16,180	12.7	0.9	2.7	1.1	0.3	12
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2017	1	RG CORCK BIC-1 2017-09-14	28	10,000	26.6	0.8	2.3	1.2	0.2	8
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2018	1	RG CORCK BIC-1 2018-09-08	31	1,560	19.1	0.9	2.7	1.1	0.3	13
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2019	1	RG CORCK BIC-1 2019-09-07	30	11,580	23.2	0.9	2.4	1.1	0.3	11
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2020	1	RG CORCK BIC-1 2020-09-12	24	5,463	25.7	0.9	2.4	1.2	0.3	10
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2021	1	RG CORCK BIC-1 2021-09-14	27	8,880	0.2	0.9	2.4	1.1	0.3	11
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2022	1	CORCK BIC-1 2022-09-14 N	23	1,805	0.2	0.9	2.5	1.1	0.4	8
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2018	2	RG CORCK BIC-2 2018-09-08	25	3,073	23.3	0.9	2.4	1.2	0.3	7
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2019	2	RG CORCK BIC-2 2019-09-07	28	22,360	17.6	0.9	2.5	1.1	0.3	8
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2020	2	RG CORCK BIC-2 2020-09-12	21	6,300	35.1	0.8	2.2	1.2	0.3	8
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2021	2	RG CORCK BIC-2 2021-09-14	31	13,080	0.2	0.9	2.4	1.1	0.3	12
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2022	2	CORCK BIC-2 2022-09-14 N	25	6,150	0.3	0.9	2.4	1.1	0.3	9
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2018	3	RG CORCK BIC-3 2018-09-08	24	5,433	20.2	0.9	2.5	1.1	0.4	9
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2019	3	RG CORCK BIC-3 2019-09-07	28	14,500	18.6	0.9	2.5	1.1	0.3	10
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2020	3	RG CORCK BIC-3 2020-09-12	27	17,960	24.8	0.9	2.4	1.2	0.3	9
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2021	3	RG CORCK BIC-3 2021-09-14	19	9,060	0.2	0.8	2.1	1.2	0.4	7
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2022	3	CORCK BIC-3 2022-09-14 N	22	7,180	0.2	0.9	2.4	1.1	0.4	8
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2012	1	RG MIDCO BIC-1 2012-09-15	38	11,667	15.7	0.9	2.8	1.1	0.3	25
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2015	1	RG MIDCO BIC-1 2015-09-11	37	12,360	22.8	0.9	2.7	1.1	0.3	22
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2016	1	RG MIDCO BIC-1 2016-09-13	46	7,500	19.7	0.9	3.2	1.1	0.3	26
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2017	1	RG MIDCO BIC-1 2017-09-14	46	17,580	15.5	0.9	3.0	1.1	0.3	28
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2018	1	RG MIDCO BIC-1 2018-09-09	44	7,100	23.7	0.9	2.8	1.1	0.2	21
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2019	1	RG MIDCO BIC-1 2019-09-09	46	18,980	29.7	0.9	2.7	1.1	0.2	22
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2020	1	RG MIDCO BIC-1 2020-09-13	47	16,280	29.2	0.9	2.8	1.1	0.2	27
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2021	1	RG MIDCO BIC-1 2021-09-13	31	9,520	0.3	0.8	2.2	1.2	0.2	19
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2022	1	RG MIDCO BIC-1 2022-09-13 N	37	9,960	0.3	0.9	2.6	1.1	0.2	22
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2018	2	RG MIDCO BIC-2 2018-09-09	34	6,050	22.0	0.9	2.7	1.1	0.3	19
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2019	2	RG MIDCO BIC-2 2019-09-09	46	34,580	49.0	0.7	2.1	1.4	0.1	23
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2020	2	RG MIDCO BIC-2 2020-09-13	49	18,200	33.4	0.9	2.6	1.2	0.1	28
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2021	2	RG MIDCO BIC-2 2021-09-12	40	12,400	0.4	0.8	2.4	1.2	0.1	24
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2022	2	RG MIDCO BIC-2 2022-09-13 N	44	8,180	0.2	0.9	2.8	1.1	0.2	26
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2018	3	RG MIDCO BIC-3 2018-09-09	36	6,140	25.7	0.9	2.7	1.1	0.2	17
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2019	3	RG MIDCO BIC-3 2019-09-09	40	12,040	20.8	0.9	2.7	1.1	0.2	21
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2020	3	RG MIDCO BIC-3 2020-09-13	50	17,140	33.3	0.9	2.7	1.2	0.1	31
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2021	3	RG MIDCO BIC-3 2021-09-12	48	12,420	0.3	0.9	2.6	1.2	0.1	27
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2022	3	RG MIDCO BIC-3 2022-09-13 N	41	11,520	0.3	0.8	2.5	1.2	0.2	23
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2018	4	RG MIDCO BIC-4 2018-09-09	38	7,000	24.1	0.9	2.7	1.1	0.2	24
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2019	4	RG MIDCO BIC-4 2019-09-09	46	30,340	46.9	0.7	2.1	1.3	0.1	27
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2020	4	RG MIDCO BIC-4 2020-09-13	54	19,280	26.1	0.9	2.9	1.1	0.2	35
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2021	4	RG MIDCO BIC-4 2021-09-12	39	11,300	0.3	0.8	2.4	1.2	0.2	23
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2022	4	RG MIDCO BIC-4 2022-09-13 N	42	7,620	0.3	0.9	2.7	1.1	0.2	26
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2018	5	RG MIDCO BIC-5 2018-09-09	38	6,350	47.0	0.8	2.3	1.3	0.1	20
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2019	5	RG MIDCO BIC-5 2019-09-09	44	25,920	34.0	0.8	2.3	1.2	0.1	25
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2020	5	RG MIDCO BIC-5 2020-09-13	44	12,180	38.1	0.8	2.5	1.2	0.1	26
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2021	5	RG MIDCO BIC-5 2021-09-12	38	11,760	0.3	0.8	2.3	1.2	0.1	22
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2022	5	RG MIDCO BIC-5 2022-09-13 N	40	9,000	0.2	0.9	2.8	1.1	0.2	24
Michel Creek	CM MC2	Mine-influenced	667249	5488144	2020	1	CM MC2 BIC-1 2020-09-19	46	13,100	37.7	0.8	2.6	1.2	0.1	26
Michel Creek	CM MC2	Mine-influenced	667249	5488144	2020	2	CM MC2 BIC-2 2020-09-19	45	11,060	18.0	0.9	2.9	1.1	0.3	28
Michel Creek	CM MC2	Mine-influenced	667249	5488144	2020	3	CM MC2 BIC-3 2020-09-19	40	8,380	27.9	0.9	2.7	1.1	0.2	24
Michel Creek	MIDAG-S1	Mine-influenced	666290	5488507	2020	1	RG MIDAG-S1 BIC-1 2020-09-18	49	29,200	27.2	0.9	2.9	1.1	0.2	32
Michel Creek	MIDAG-S1	Mine-influenced	666290	5488507	2020	2	RG MIDAG-S1 BIC-2 2020-09-18	50	28,800	45.4	0.8	2.4	1.3	0.1	34
Michel Creek	MIDAG-S1	Mine-influenced	666290	5488507	2020	3	RG MIDAG-S1 BIC-3 2020-09-18	46	21,320	14.1	0.9	3.0	1.1	0.3	31
Michel Creek	MIDAG-S2	Mine-influenced	665770	5488854	2020	1	RG MIDAG-S2 BIC-1 2020-09-17	59	37,060	25.4	0.9	2.8	1.1	0.2	37
Michel Creek	MIDAG-S2	Mine-influenced	665770	5488854	2020	2	RG MIDAG-S2 BIC-2 2020-09-17	49	24,240	26.6	0.9	2.7	1.1	0.2	34
Michel Creek	MIDAG-S2	Mine-influenced	665770	5488854	2020	3	RG MIDAG-S2 BIC-3 2020-09-17	52	33,920	24.2	0.9	2.8	1.1	0.2	36
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2012	1	RG MIDAG BIC-1 2012-09-16	33	10,067	23.5	0.9	2.6	1.1	0.2	23
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2015	1	RG MIDAG BIC-1 2015-09-12	36	14,520	23.0	0.9	2.4	1.2	0.2	21
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2018	1	RG MIDAG BIC-1 2018-09-08	42	6,160	16.6	0.9	3.0	1.1	0.3	23
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2019	1	RG MIDAG BIC-1 2019-09-10	40	6,860	25.9	0.9	2.7	1.1	0.2	19
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2020	1	RG MIDAG BIC-1 2020-09-15	47	13,860	22.7	0.9	3.0	1.1	0.2	31
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2021	1	RG MIDAG BIC-1 2021-09-11	39	11,940	0.3	0.9	2.7	1.1	0.2	27
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2022	1	RG MIDAG BIC-1 2022-09-13 N	39	9,820	0.2	0.9	2.8	1.1	0.3	25
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2018	2	RG MIDAG BIC-2 2018-09-08	41	16,220	12.1	0.9	3.0	1.1	0.4	27
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2019	2	RG MIDAG BIC-2 2019-09-10	54	26,120	18.9	0.9	2.8	1.1	0.2	31
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2020	2	RG MIDAG BIC-2 2020-09-15	53	30,340	20.6	0.9	2.9	1.1	0.2	35
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2021	2	RG MIDAG BIC-2 2021-09-11	41	10,800	0.2	0.9	2.8	1.1	0.2	27
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2022	2	RG MIDAG BIC-2 2022-09-13 N	35	8,200	0.1	0.9	2.8	1.1	0.3	28
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2018	3	RG MIDAG BIC-3 2018-09-08	31	7,220	14.2	0.9	2.9	1.1	0.4	19
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2019	3	RG MIDAG BIC-3 2019-09-10	37	3,489	46.1	0.8	2.3	1.3	0.1	16
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2020	3	RG MIDAG BIC-3 2020-09-15	58	24,760	22.1	0.9	3.0	1.1	0.2	37
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2021	3	RG MIDAG BIC-3 2021-09-11	35	3,940	0.2	0.9	2.6	1.1	0.2	24
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2022	3	RG MIDAG BIC-3 2022-09-13 N	38	9,780	0.2	0.9	2.7	1.1	0.3	28
Michel Creek	MIULE	Mine-influenced	660503	5493048	2018	1	RG MIULE BIC-1 2018-09-11	31	7,080	19.0	0.9	2.8	1.1	0.4	17
Michel Creek	MIULE	Mine-influenced	660503	5493048	2019	1	RG MIULE BIC-1 2019-09-06	41	12,940	19.8	0.9	3.0	1.1	0.3	25
Michel Creek	MIULE	Mine-influenced	660503	5493048	2020	1	RG MIULE BIC-1 2020-09-16	55	18,180	15.5	0.9	3.0	1.1	0.2	32
Michel Creek	MIULE	Mine-influenced	660503	5493048	2021	1	RG MIULE BIC-1 2021-09-14	42	12,240	0.3	0.9	2.6	1.2	0.2	25

Table K-2: Benthic Invertebrate Community Data at CMm LAEMP Sampling Stations, 2012 to 2021

Watercourse	Station	Reference or Mine-influenced	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Sample	Richness (# of taxa)	Abundance (# of individuals)	Percent Dominance (%)	Simpson's Diversity	Shannon's Diversity	Simpson's Dominance	Simpson's Evenness	EPT Richness (# of taxa)
			Eastings	Northing											
Michel Creek	MIULE	Mine-influenced	660503	5493048	2022	1	RG MIULE BIC-1 2022-09-12 N	44	12,580	0.3	0.9	2.6	1.1	0.2	30
Michel Creek	MIULE	Mine-influenced	660503	5493048	2018	2	RG MIULE BIC-2 2018-09-11	41	16,420	16.7	0.9	2.9	1.1	0.3	24
Michel Creek	MIULE	Mine-influenced	660503	5493048	2019	2	RG MIULE BIC-2 2019-09-06	48	17,800	23.3	0.9	2.8	1.1	0.2	26
Michel Creek	MIULE	Mine-influenced	660503	5493048	2020	2	RG MIULE BIC-2 2020-09-16	48	15,480	15.4	0.9	3.0	1.1	0.3	32
Michel Creek	MIULE	Mine-influenced	660503	5493048	2021	2	RG MIULE BIC-2 2021-09-14	37	10,580	0.4	0.8	2.5	1.2	0.2	22
Michel Creek	MIULE	Mine-influenced	660503	5493048	2022	2	RG MIULE BIC-2 2022-09-12 N	37	12,720	0.2	0.9	2.5	1.1	0.2	22
Michel Creek	MIULE	Mine-influenced	660503	5493048	2018	3	RG MIULE BIC-3 2019-09-06	40	17,740	27.2	0.9	2.6	1.1	0.2	21
Michel Creek	MIULE	Mine-influenced	660503	5493048	2019	3	RG MIULE BIC-3 2018-09-11	40	8,160	15.9	0.9	2.9	1.1	0.3	23
Michel Creek	MIULE	Mine-influenced	660503	5493048	2020	3	RG MIULE BIC-3 2020-09-16	41	11,520	18.6	0.9	2.7	1.1	0.2	25
Michel Creek	MIULE	Mine-influenced	660503	5493048	2021	3	RG MIULE BIC-3 2021-09-14	40	10,120	0.3	0.9	2.6	1.2	0.2	27
Michel Creek	MIULE	Mine-influenced	660503	5493048	2022	3	RG MIULE BIC-3 2022-09-12 N	40	8,100	0.2	0.9	2.6	1.2	0.2	25
Michel Creek	MI5	Mine-influenced	659496	5496774	2012	1	RG MI5 BIC-1 2012-09-16	38	7,600	10.9	0.9	3.1	1.1	0.4	26
Michel Creek	MI5	Mine-influenced	659496	5496774	2015	1	RG MI5 BIC-1 2015-09-13	26	7,120	37.3	0.8	2.2	1.2	0.2	18
Michel Creek	MI5	Mine-influenced	659496	5496774	2018	1	RG MI5 BIC-1 2018-09-11	42	14,040	20.2	0.9	2.8	1.1	0.3	28
Michel Creek	MI5	Mine-influenced	659496	5496774	2019	1	RG MI5 BIC-1 2019-09-05	37	14,560	30.9	0.8	2.3	1.2	0.2	19
Michel Creek	MI5	Mine-influenced	659496	5496774	2020	1	RG MI5 BIC-1 2020-09-17	44	12,260	19.4	0.9	2.9	1.1	0.2	27
Michel Creek	MI5	Mine-influenced	659496	5496774	2021	1	RG MI5 BIC-1 2021-09-16 <sup>(b)</sup>	-	-	-	-	-	-	-	-
Michel Creek	MI5	Mine-influenced	659496	5496774	2022	1	RG MI5 BIC-1 2022-09-12 N	36	7,180	0.4	0.8	2.3	1.2	0.2	26
Michel Creek	MI5	Mine-influenced	659496	5496774	2018	2	RG MI5 BIC-2 2018-09-11	35	6,480	15.7	0.9	2.8	1.1	0.3	20
Michel Creek	MI5	Mine-influenced	659496	5496774	2019	2	RG MI5 BIC-2 2019-09-05	43	16,220	24.4	0.9	2.7	1.1	0.2	23
Michel Creek	MI5	Mine-influenced	659496	5496774	2020	2	RG MI5 BIC-2 2020-09-17	44	16,720	16.5	0.9	2.9	1.1	0.3	29
Michel Creek	MI5	Mine-influenced	659496	5496774	2021	2	RG MI5 BIC-2 2021-09-16	43	21,620	0.3	0.8	2.4	1.2	0.1	28
Michel Creek	MI5	Mine-influenced	659496	5496774	2022	2	RG MI5 BIC-2 2022-09-12 N	35	6,620	0.4	0.8	2.3	1.3	0.1	24
Michel Creek	MI5	Mine-influenced	659496	5496774	2018	3	RG MI5 BIC-3 2018-09-11	30	8,880	20.1	0.9	2.7	1.1	0.4	20
Michel Creek	MI5	Mine-influenced	659496	5496774	2019	3	RG MI5 BIC-3 2019-09-05	35	7,960	24.4	0.9	2.5	1.1	0.2	18
Michel Creek	MI5	Mine-influenced	659496	5496774	2020	3	RG MI5 BIC-3 2020-09-17	45	10,140	24.2	0.9	2.8	1.1	0.2	31
Michel Creek	MI5	Mine-influenced	659496	5496774	2021	3	RG MI5 BIC-3 2021-09-16	34	6,640	0.4	0.8	2.4	1.2	0.2	25
Michel Creek	MI5	Mine-influenced	659496	5496774	2022	3	RG MI5 BIC-3 2022-09-12 N	33	6,540	0.3	0.9	2.7	1.1	0.3	22

a) UTM coordinates represent the station coordinates. Stations CM-MC2, MIDAG-S1, and MIDAG-S2 were only sampled in 2020 as part of the Nickel Benchmark Study.

b) In 2021, the MI5, replicate 1 sample was inadequately preserved and data were excluded.

- = data not available; % = percent; EPT = Ephemeroptera, Plecoptera, Trichoptera; CMm = Coal Mountain Mine; LAEMP = local aquatic effects monitoring program.



Table K-2: Benthic Invertebrate Community Data at CMm LAEMP Sampling Stations, 2012 to 2021

Watercourse	Station	Reference or Mine-influenced	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Sample	Percent EPT (%)	Ephemeroptera Richness (# of taxa)	Percent Ephemeroptera (%)	Trichoptera Richness (# of taxa)	Percent Trichoptera (%)	Plecoptera Richness (# of taxa)	Percent Plecoptera (%)	Chironomidae Richness (# of taxa)	Percent Chironomidae (%)	Percent Oligochaeta (%)
			Easting	Northing													
Michel Creek	MI25	Reference	668184	5482818	2012	1	RG MI25 BIC-1 2012-09-15	91.8	9	12.2	7	23.8	13	55.8	3	3.4	1
Michel Creek	MI25	Reference	668184	5482818	2013	1	RG MI25 BIC-1 2013-09-15	97.6	7	49.0	5	1.5	8	47.2	2	1.3	0
Michel Creek	MI25	Reference	668184	5482818	2015	1	RG MI25 BIC-1 2015-09-10	83.8	8	47.1	6	5.0	9	31.7	10	14.3	0
Michel Creek	MI25	Reference	668184	5482818	2016	1	RG MI25 BIC-1 2016-09-13	68.1	7	50.4	9	5.1	10	12.6	13	30.0	0
Michel Creek	MI25	Reference	668184	5482818	2017	1	RG MI25 BIC-1 2017-09-14	77.6	7	53.4	7	4.3	8	19.9	9	19.8	0
Michel Creek	MI25	Reference	668184	5482818	2018	1	RG MI25 BIC-1 2018-09-10	85.9	7	62.2	7	9.6	9	14.0	9	12.5	0
Michel Creek	MI25	Reference	668184	5482818	2019	1	RG MI25 BIC-1 2019-09-04	80.1	8	49.5	8	10.3	11	20.2	8	18.7	1
Michel Creek	MI25	Reference	668184	5482818	2020	1	RG MI25 BIC-1 2020-09-11	90.5	8	60.6	9	8.6	11	21.3	8	7.3	0
Michel Creek	MI25	Reference	668184	5482818	2021	1	RG MI25 BIC-1 2021-09-13	0.9	8	0.5	9	0.1	9	0.2	8	0.1	0
Michel Creek	MI25	Reference	668184	5482818	2022	1	RG MI25 BIC-1 2022-09-15 N	1.0	8	0.6	9	0.1	11	0.3	3	0.0	0
Michel Creek	MI25	Reference	668184	5482818	2013	2	RG MI25 BIC-2 2013-09-15	99.0	8	44.8	9	3.8	8	50.5	2	0.4	0
Michel Creek	MI25	Reference	668184	5482818	2015	2	RG MI25 BIC-2 2015-09-10	79.7	8	49.7	4	5.0	7	25.0	7	17.5	0
Michel Creek	MI25	Reference	668184	5482818	2018	2	RG MI25 BIC-2 2018-09-10	63.2	7	23.1	7	21.4	8	18.8	10	30.2	2
Michel Creek	MI25	Reference	668184	5482818	2019	2	RG MI25 BIC-2 2019-09-04	60.1	7	33.6	4	11.0	9	15.5	10	30.4	0
Michel Creek	MI25	Reference	668184	5482818	2020	2	RG MI25 BIC-2 2020-09-11	84.2	11	19.1	9	33.4	12	31.6	6	10.9	0
Michel Creek	MI25	Reference	668184	5482818	2021	2	RG MI25 BIC-2 2021-09-13	0.9	9	0.5	8	0.1	10	0.2	6	0.1	0
Michel Creek	MI25	Reference	668184	5482818	2022	2	RG MI25 BIC-2 2022-09-15 N	1.0	7	0.7	5	0.1	8	0.2	3	0.0	0
Michel Creek	MI25	Reference	668184	5482818	2013	3	RG MI25 BIC-3 2013-09-15	97.6	8	44.5	4	0.9	8	52.1	5	1.3	0
Michel Creek	MI25	Reference	668184	5482818	2015	3	RG MI25 BIC-3 2015-09-10	69.3	8	42.8	7	5.4	8	21.1	9	27.1	0
Michel Creek	MI25	Reference	668184	5482818	2018	3	RG MI25 BIC-3 2018-09-10	86.2	10	44.2	7	18.3	11	23.7	13	9.2	1
Michel Creek	MI25	Reference	668184	5482818	2019	3	RG MI25 BIC-3 2019-09-04	83.9	8	46.0	6	18.0	9	19.9	10	11.8	1
Michel Creek	MI25	Reference	668184	5482818	2020	3	RG MI25 BIC-3 2020-09-11	85.8	9	35.7	8	17.3	11	32.8	7	9.4	0
Michel Creek	MI25	Reference	668184	5482818	2021	3	RG MI25 BIC-3 2021-09-13	0.9	5	0.5	9	0.2	12	0.2	6	0.1	0
Michel Creek	MI25	Reference	668184	5482818	2022	3	RG MI25 BIC-3 2022-09-15 N	0.9	9	0.6	7	0.1	7	0.2	6	0.1	0
Andy Good Creek	AGCK	Reference	667557	5488648	2012	1	AGCK BIC-1 2012-09-16	89.0	8	80.8	3	1.0	7	7.2	5	10.4	0
Andy Good Creek	AGCK	Reference	667557	5488648	2013	1	AGCK BIC-1 2013-09-15	95.1	9	76.4	6	1.3	9	17.4	1	1.7	3
Andy Good Creek	AGCK	Reference	667557	5488648	2015	1	AGCK BIC-1 2015-09-12	97.2	9	68.2	4	4.5	7	24.5	5	1.9	0
Andy Good Creek	AGCK	Reference	667557	5488648	2018	1	AGCK BIC-1 2018-09-08	96.0	10	88.6	2	0.4	6	7.0	6	3.0	0
Andy Good Creek	AGCK	Reference	667557	5488648	2019	1	AGCK BIC-1 2019-09-06	92.6	9	86.4	2	3.4	4	2.8	8	4.7	0
Andy Good Creek	AGCK	Reference	667557	5488648	2020	1	AGCK BIC-1 2020-09-10	86.4	9	66.2	4	5.5	11	14.7	5	11.5	0
Andy Good Creek	AGCK	Reference	667557	5488648	2021	1	RG AGCK BIC-1 2021-09-11	0.8	7	0.6	4	0.0	9	0.2	7	0.2	0
Andy Good Creek	AGCK	Reference	667557	5488648	2022	1	RG AGCK BIC-1 2022-09-15 N	0.9	9	0.7	6	0.0	8	0.2	8	0.1	0
Andy Good Creek	AGCK	Reference	667557	5488648	2018	2	AGCK BIC-2 2018-09-08	88.9	9	81.4	2	1.4	6	6.1	12	9.1	0
Andy Good Creek	AGCK	Reference	667557	5488648	2019	2	AGCK BIC-2 2019-09-06	89.6	9	83.9	2	2.8	5	2.8	7	8.3	1
Andy Good Creek	AGCK	Reference	667557	5488648	2020	2	AGCK BIC-2 2020-09-10	86.4	9	75.5	5	4.8	8	6.1	8	11.3	0
Andy Good Creek	AGCK	Reference	667557	5488648	2021	2	RG AGCK BIC-2 2021-09-11	0.9	9	0.6	2	0.0	6	0.2	4	0.1	0
Andy Good Creek	AGCK	Reference	667557	5488648	2022	2	RG AGCK BIC-2 2022-09-15 N	0.9	8	0.7	6	0.0	6	0.2	8	0.1	0
Andy Good Creek	AGCK	Reference	667557	5488648	2018	3	AGCK BIC-3 2018-09-08	85.2	9	69.0	3	2.0	8	14.1	7	13.5	0
Andy Good Creek	AGCK	Reference	667557	5488648	2019	3	AGCK BIC-3 2019-09-06	87.6	10	76.6	3	3.9	7	7.0	5	6.5	1
Andy Good Creek	AGCK	Reference	667557	5488648	2020	3	AGCK BIC-3 2020-09-10	84.4	7	65.8	9	5.9	11	12.7	5	14.8	0
Andy Good Creek	AGCK	Reference	667557	5488648	2021	3	RG AGCK BIC-3 2021-09-11	0.8	9	0.6	5	0.0	5	0.2	6	0.2	0
Andy Good Creek	AGCK	Reference	667557	5488648	2022	3	RG AGCK BIC-3 2022-09-15 N	0.9	8	0.7	6	0.0	8	0.2	4	0.1	0
Leach Creek	LE1	Reference	659635	5494108	2018	1	LE1 BIC-1 2018-09-13	75.7	7	39.3	7	11.3	11	25.1	10	11.0	0
Leach Creek	LE1	Reference	659635	5494108	2019	1	LE1 BIC-1 2019-09-05	71.5	5	28.8	10	29.9	8	12.8	5	6.0	0
Leach Creek	LE1	Reference	659635	5494108	2020	1	LE1 BIC-1 2020-09-17	86.3	9	43.9	11	10.3	9	32.2	7	3.1	0
Leach Creek	LE1	Reference	659635	5494108	2021	1	RG LE1 BIC-1 2021-09-14	0.9	8	0.5	8	0.1	7	0.3	5	0.0	0
Leach Creek	LE1	Reference	659635	5494108	2022	1	RG LE1 BIC-1 2022-09-16 N	0.8	9	0.5	4	0.1	8	0.3	2	0.0	0
Leach Creek	LE1	Reference	659635	5494108	2019	2	LE1 BIC-2 2019-09-05	81.4	7	35.0	6	34.0	9	12.4	6	7.8	0
Leach Creek	LE1	Reference	659635	5494108	2020	2	LE1 BIC-2 2020-09-17	81.8	9	37.8	9	12.8	9	31.2	4	3.8	0
Leach Creek	LE1	Reference	659635	5494108	2021	2	RG LE1 BIC-2 2021-09-14	0.7	8	0.4	8	0.1	9	0.2	8	0.1	0
Leach Creek	LE1	Reference	659635	5494108	2022	2	RG LE1 BIC-2 2022-09-16 N	0.9	11	0.3	11	0.1	11	0.4	4	0.0	0
Leach Creek	LE1	Reference	659635	5494108	2019	3	LE1 BIC-3 2019-09-05	78.2	8	32.4	7	33.1	11	12.7	9	7.6	0
Leach Creek	LE1	Reference	659635	5494108	2020	3	LE1 BIC-3 2020-09-17	75.8	9	28.5	11	11.8	14	35.5	2	1.5	0
Leach Creek	LE1	Reference	659635	5494108	2021	3	RG LE1 BIC-3 2021-09-14	0.8	10	0.5	8	0.1	9	0.3	8	0.1	0
Leach Creek	LE1	Reference	659635	5494108	2022	3	RG LE1 BIC-3 2022-09-16 N	0.9	14	0.6	9	0.1	13	0.2	3	0.0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2012	1	RG MIUCO BIC-1 2012-09-15	87.4	8	46.2	10	12.0	11	29.2	1	0.3	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2015	1	RG MIUCO BIC-1 2015-09-10	72.4	9	53.2	8	7.2	6	12.0	8	4.3	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2016	1	RG MIUCO BIC-1 2016-09-13	80.5	9	45.8	8	19.2	8	15.6	3	4.8	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2017	1	RG MIUCO BIC-1 2017-09-14	81.7	7	43.5	9	26.1	10	12.1	4	3.4	1
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2018	1	RG MIUCO BIC-1 2018-09-10	69.3	8	42.6	10	9.5	9	17.1	4	4.3	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2019	1	RG MIUCO BIC-1 2019-09-09	54.7	9	26.8	11	11.3	12	16.5	6	12.1	1
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2020	1	RG MIUCO BIC-1 2020-09-12	58.6	10	24.1	8	17.6	13	16.9	4	2.5	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2021	1	RG MIUCO BIC-1 2021-09-12	0.7	15	0.4	7	0.0	13	0.3	6	0.0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2022	1	RG MIUCO BIC-1 2022-09-14 N	0.7	10	0.4	11	0.1	11	0.3	3	0.0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2018	2	RG MIUCO BIC-2 2018-09-10	71.3	8	50.9	6	6.9	8	13.4	4	5.9	1
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2019	2	RG MIUCO BIC-2 2019-09-09	61.2	9	33.1	9	18.9	9	9.3	5	9.1	1
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2020	2	RG MIUCO BIC-2 2020-09-12	62.0	10	36.5	9	11.0	14	14.5	3	2.9	1
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2021	2	RG MIUCO BIC-2 2021-09-12	0.7	11	0.5	8	0.0	7	0.2	8	0.1	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2022	2	RG MIUCO BIC-2 2022-09-14 N	0.7	9	0.4	8	0.1	7	0.2	4	0.0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2018	3	RG MIUCO BIC-3 2018-09-10	66.1	9	38.8	7	10.9	7	16.4	3	2.1	1
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2019	3	RG MIUCO BIC-3 2019-09-09	56.2	11	30.2	6	11.0	9	15.0	8	7.3	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2020	3	RG MIUCO BIC-3 2020-09-12	65.6	11	28.5	8	17.8	11	19.3	3	1.5	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2021	3	RG MIUCO BIC-3 2021-09-12	0.7	10	0.4	10	0.1	11	0.2	8	0.1	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2022	3	RG MIUCO BIC-3 20										

Table K-2: Benthic Invertebrate Community Data at CMm LAEMP Sampling Stations, 2012 to 2021

Watercourse	Station	Reference or Mine-influenced	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Sample	Percent EPT (%)	Ephemeroptera Richness (# of taxa)	Percent Ephemeroptera (%)	Trichoptera Richness (# of taxa)	Percent Trichoptera (%)	Plecoptera Richness (# of taxa)	Percent Plecoptera (%)	Chironomidae Richness (# of taxa)	Percent Chironomidae (%)	Percent Oligochaeta (%)
			Eastings	Northing													
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2016	1	RG CORCK BIC-1 2016-09-13	28.6	3	0.5	4	12.2	5	15.8	10	39.3	10
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2017	1	RG CORCK BIC-1 2017-09-14	33.8	1	0.2	5	26.4	2	7.2	9	30.0	2
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2018	1	RG CORCK BIC-1 2018-09-08	37.2	4	11.2	4	19.6	5	6.4	5	37.8	9
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2019	1	RG CORCK BIC-1 2019-09-07	15.2	1	0.2	6	8.5	4	6.6	6	58.9	6
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2020	1	RG CORCK BIC-1 2020-09-12	26.8	0	0.0	6	22.4	4	4.3	5	46.7	14
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2021	1	RG CORCK BIC-1 2021-09-14	0.2	2	0.0	6	0.1	3	0.1	6	0.5	0
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2022	1	CORCK BIC-1 2022-09-14 N	31.0	0	0.0	4	19.9	4	11.1	5	44.6	3
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2018	2	RG CORCK BIC-2 2018-09-08	13.0	1	0.3	5	10.4	1	2.4	7	62.4	10
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2019	2	RG CORCK BIC-2 2019-09-07	11.1	0	0.0	5	8.5	3	2.6	7	57.2	15
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2020	2	RG CORCK BIC-2 2020-09-12	18.1	0	0.0	6	14.9	2	3.2	4	65.1	5
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2021	2	RG CORCK BIC-2 2021-09-14	0.2	1	0.0	5	0.1	6	0.2	5	0.5	0
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2022	2	CORCK BIC-2 2022-09-14 N	23.0	0	0.0	5	10.3	4	12.7	5	46.6	14
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2018	3	RG CORCK BIC-3 2018-09-08	20.9	0	0.0	5	10.1	4	10.7	4	43.9	15
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2019	3	RG CORCK BIC-3 2019-09-07	18.3	1	0.1	6	10.8	3	7.4	5	54.8	11
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2020	3	RG CORCK BIC-3 2020-09-12	14.1	0	0.0	5	5.1	4	9.0	5	54.6	15
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2021	3	RG CORCK BIC-3 2021-09-14	0.2	0	0.0	4	0.1	3	0.1	5	0.5	0
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2022	3	CORCK BIC-3 2022-09-14 N	23.1	0	0.0	6	8.6	2	14.5	5	52.1	10
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2012	1	RG MIDCO BIC-1 2012-09-15	57.7	6	27.7	6	7.1	13	22.9	3	14.3	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2015	1	RG MIDCO BIC-1 2015-09-11	51.5	7	22.3	7	8.6	8	20.6	7	20.6	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2016	1	RG MIDCO BIC-1 2016-09-13	50.1	6	5.9	9	16.0	11	28.3	7	33.9	6
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2017	1	RG MIDCO BIC-1 2017-09-14	47.3	6	15.1	10	13.3	12	18.9	7	15.7	15
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2018	1	RG MIDCO BIC-1 2018-09-09	35.5	5	2.8	6	17.7	10	14.9	8	24.2	3
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2019	1	RG MIDCO BIC-1 2019-09-09	26.4	5	13.9	9	5.7	8	6.8	9	21.0	11
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2020	1	RG MIDCO BIC-1 2020-09-13	41.8	7	11.3	10	11.3	10	19.2	8	16.0	1
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2021	1	RG MIDCO BIC-1 2021-09-13	0.5	5	0.1	8	0.0	6	0.4	6	0.2	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2022	1	RG MIDCO BIC-1 2022-09-13 N	0.4	7	0.2	7	0.1	8	0.2	7	0.2	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2018	2	RG MIDCO BIC-2 2018-09-09	21.5	4	2.2	8	7.2	7	12.1	6	37.7	5
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2019	2	RG MIDCO BIC-2 2019-09-09	22.0	6	13.1	7	4.8	10	4.1	8	13.0	49
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2020	2	RG MIDCO BIC-2 2020-09-13	37.7	7	13.0	11	9.6	10	15.2	8	14.1	1
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2021	2	RG MIDCO BIC-2 2021-09-12	0.4	5	0.1	9	0.0	10	0.3	7	0.1	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2022	2	RG MIDCO BIC-2 2022-09-13 N	0.4	5	0.2	11	0.1	10	0.1	6	0.2	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2018	3	RG MIDCO BIC-3 2018-09-09	26.4	2	1.0	7	13.4	8	12.1	8	36.2	1
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2019	3	RG MIDCO BIC-3 2019-09-09	44.0	7	28.4	7	7.1	7	8.5	8	11.5	21
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2020	3	RG MIDCO BIC-3 2020-09-13	39.6	8	8.5	13	13.0	10	18.1	6	19.1	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2021	3	RG MIDCO BIC-3 2021-09-12	0.4	8	0.1	10	0.1	9	0.2	7	0.2	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2022	3	RG MIDCO BIC-3 2022-09-13 N	0.4	6	0.2	9	0.0	8	0.1	6	0.2	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2018	4	RG MIDCO BIC-4 2018-09-09	38.0	6	4.3	9	7.1	9	26.6	6	28.1	2
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2019	4	RG MIDCO BIC-4 2019-09-09	15.8	6	6.9	12	3.9	9	4.9	9	18.9	47
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2020	4	RG MIDCO BIC-4 2020-09-13	49.4	8	10.8	14	13.1	13	25.5	8	14.8	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2021	4	RG MIDCO BIC-4 2021-09-12	0.4	6	0.1	8	0.0	9	0.3	6	0.2	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2022	4	RG MIDCO BIC-4 2022-09-13 N	0.5	6	0.1	10	0.1	10	0.2	7	0.1	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2018	5	RG MIDCO BIC-5 2018-09-09	20.5	6	3.9	7	8.1	7	8.4	8	18.6	4
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2019	5	RG MIDCO BIC-5 2019-09-09	26.2	7	16.5	8	3.9	10	5.9	9	14.7	34
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2020	5	RG MIDCO BIC-5 2020-09-13	37.8	5	13.5	10	4.9	11	19.4	6	10.8	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2021	5	RG MIDCO BIC-5 2021-09-12	0.5	5	0.1	11	0.1	6	0.3	7	0.2	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2022	5	RG MIDCO BIC-5 2022-09-13 N	0.5	6	0.1	9	0.1	9	0.3	6	0.1	0
Michel Creek	CM MC2	Mine-influenced	667249	5488144	2020	1	CM MC2 BIC-1 2020-09-19	34.2	5	7.9	11	7.8	10	18.5	5	12.4	1
Michel Creek	CM MC2	Mine-influenced	667249	5488144	2020	2	CM MC2 BIC-2 2020-09-19	47.0	5	4.9	12	12.7	11	29.5	6	13.1	0
Michel Creek	CM MC2	Mine-influenced	667249	5488144	2020	3	CM MC2 BIC-3 2020-09-19	38.2	4	8.1	12	9.8	8	20.3	5	10.3	0
Michel Creek	MIDAG-S1	Mine-influenced	666290	5488507	2020	1	RG MIDAG-S1 BIC-1 2020-09-18	79.5	7	18.0	12	11.6	13	49.9	7	8.6	0
Michel Creek	MIDAG-S1	Mine-influenced	666290	5488507	2020	2	RG MIDAG-S1 BIC-2 2020-09-18	92.0	9	19.4	13	9.5	12	63.1	7	1.0	0
Michel Creek	MIDAG-S1	Mine-influenced	666290	5488507	2020	3	RG MIDAG-S1 BIC-3 2020-09-18	72.0	9	29.2	10	11.6	12	31.1	6	10.2	0
Michel Creek	MIDAG-S2	Mine-influenced	665770	5488854	2020	1	RG MIDAG-S2 BIC-1 2020-09-17	80.7	10	37.1	13	9.3	14	34.3	8	8.8	0
Michel Creek	MIDAG-S2	Mine-influenced	665770	5488854	2020	2	RG MIDAG-S2 BIC-2 2020-09-17	81.1	12	41.9	10	7.2	12	32.0	7	10.5	0
Michel Creek	MIDAG-S2	Mine-influenced	665770	5488854	2020	3	RG MIDAG-S2 BIC-3 2020-09-17	77.5	12	40.3	12	7.0	12	30.2	7	10.6	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2012	1	RG MIDAG BIC-1 2012-09-16	86.1	8	62.9	8	7.6	7	15.6	4	2.0	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2015	1	RG MIDAG BIC-1 2015-09-12	72.2	10	42.8	5	13.4	6	16.0	7	2.2	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2018	1	RG MIDAG BIC-1 2018-09-08	64.6	9	38.3	4	12.3	10	14.0	9	8.1	2
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2019	1	RG MIDAG BIC-1 2019-09-10	37.3	7	23.9	4	4.7	8	8.7	9	24.8	5
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2020	1	RG MIDAG BIC-1 2020-09-15	80.2	10	42.7	10	17.2	11	20.3	6	8.4	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2021	1	RG MIDAG BIC-1 2021-09-11	0.7	8	0.5	9	0.1	10	0.2	6	0.1	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2022	1	RG MIDAG BIC-1 2022-09-13 N	0.8	9	0.4	7	0.1	9	0.3	6	0.1	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2018	2	RG MIDAG BIC-2 2018-09-08	70.0	8	34.5	7	7.5	12	28.0	6	11.8	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2019	2	RG MIDAG BIC-2 2019-09-10	60.4	10	37.8	11	11.0	10	11.6	12	13.5	3
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2020	2	RG MIDAG BIC-2 2020-09-15	71.4	12	37.0	10	10.1	13	24.3	8	15.1	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2021	2	RG MIDAG BIC-2 2021-09-11	0.7	9	0.4	9	0.1	9	0.1	6	0.1	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2022	2	RG MIDAG BIC-2 2022-09-13 N	0.8	8	0.4	9	0.2	11	0.2	1	0.0	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2018	3	RG MIDAG BIC-3 2018-09-08	74.8	6	37.4	5	24.1	8	13.3	5	14.4	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2019	3	RG MIDAG BIC-3 2019-09-10	34.1	7	20.4	4	7.0	5	6.7	9	9.3	4
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2020	3	RG MIDAG BIC-3 2020-09-15	79.2	11	43.2	12	14.4	14	21.6	8	11.3	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2021	3	RG MIDAG BIC-3 2021-09-11	0.8	9	0.5	6	0.1	9	0.1	5	0.0	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2022	3	RG MIDAG BIC-3 2022-09-13 N	0.8	9	0.5	9	0.1	10	0.2	3	0.0	0
Michel Creek	MIULE	Mine-influenced	660503	5493048	2018	1	RG MIULE BIC										

Table K-2: Benthic Invertebrate Community Data at CMm LAEMP Sampling Stations, 2012 to 2021

Watercourse	Station	Reference or Mine-influenced	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Sample	Percent EPT (%)	Ephemeroptera Richness (# of taxa)	Percent Ephemeroptera (%)	Trichoptera Richness (# of taxa)	Percent Trichoptera (%)	Plecoptera Richness (# of taxa)	Percent Plecoptera (%)	Chironomidae Richness (# of taxa)	Percent Chironomidae (%)	Percent Oligochaeta (%)
			Eastings	Northing													
Michel Creek	MIULE	Mine-influenced	660503	5493048	2022	1	RG MIULE BIC-1 2022-09-12 N	0.9	12	0.5	8	0.2	10	0.2	4	0.0	0
Michel Creek	MIULE	Mine-influenced	660503	5493048	2018	2	RG MIULE BIC-2 2018-09-11	70.5	8	42.4	6	10.1	10	18.0	7	9.4	1
Michel Creek	MIULE	Mine-influenced	660503	5493048	2019	2	RG MIULE BIC-2 2019-09-06	61.3	9	41.9	8	11.5	9	8.0	10	15.2	3
Michel Creek	MIULE	Mine-influenced	660503	5493048	2020	2	RG MIULE BIC-2 2020-09-16	71.3	12	37.2	10	11.6	10	22.5	4	14.7	0
Michel Creek	MIULE	Mine-influenced	660503	5493048	2021	2	RG MIULE BIC-2 2021-09-14	0.8	8	0.5	7	0.1	7	0.2	6	0.1	0
Michel Creek	MIULE	Mine-influenced	660503	5493048	2022	2	RG MIULE BIC-2 2022-09-12 N	0.8	8	0.5	6	0.1	8	0.1	4	0.0	0
Michel Creek	MIULE	Mine-influenced	660503	5493048	2018	3	RG MIULE BIC-3 2019-09-06	69.9	8	41.0	6	24.8	7	4.1	8	10.6	3
Michel Creek	MIULE	Mine-influenced	660503	5493048	2019	3	RG MIULE BIC-3 2018-09-11	72.3	7	41.9	7	15.4	9	15.0	6	7.8	2
Michel Creek	MIULE	Mine-influenced	660503	5493048	2020	3	RG MIULE BIC-3 2020-09-16	66.0	10	38.9	8	12.2	7	14.9	5	9.9	0
Michel Creek	MIULE	Mine-influenced	660503	5493048	2021	3	RG MIULE BIC-3 2021-09-14	0.8	10	0.5	8	0.1	9	0.2	6	0.1	0
Michel Creek	MIULE	Mine-influenced	660503	5493048	2022	3	RG MIULE BIC-3 2022-09-12 N	0.7	10	0.6	7	0.1	8	0.1	6	0.1	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2012	1	RG MI5 BIC-1 2012-09-16	71.4	10	42.8	6	10.9	10	17.8	3	8.6	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2015	1	RG MI5 BIC-1 2015-09-13	86.5	8	30.1	3	49.7	7	6.7	3	5.1	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2018	1	RG MI5 BIC-1 2018-09-11	78.6	8	42.9	9	10.0	11	25.8	5	4.1	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2019	1	RG MI5 BIC-1 2019-09-05	81.0	6	33.8	7	44.0	6	3.3	9	5.5	1
Michel Creek	MI5	Mine-influenced	659496	5496774	2020	1	RG MI5 BIC-1 2020-09-17	69.8	10	34.9	9	15.3	8	19.6	7	3.4	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2021	1	RG MI5 BIC-1 2021-09-16 <sup>(b)</sup>	-	-	-	-	-	-	-	-	-	-
Michel Creek	MI5	Mine-influenced	659496	5496774	2022	1	RG MI5 BIC-1 2022-09-12 N	0.9	11	0.6	7	0.1	8	0.1	4	0.0	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2018	2	RG MI5 BIC-2 2018-09-11	68.2	6	44.4	4	14.5	10	9.3	6	4.9	2
Michel Creek	MI5	Mine-influenced	659496	5496774	2019	2	RG MI5 BIC-2 2019-09-05	77.1	8	31.4	8	38.2	7	7.4	8	6.5	2
Michel Creek	MI5	Mine-influenced	659496	5496774	2020	2	RG MI5 BIC-2 2020-09-17	74.6	9	41.3	11	12.2	9	21.2	3	1.4	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2021	2	RG MI5 BIC-2 2021-09-16	0.9	9	0.4	8	0.1	11	0.4	5	0.0	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2022	2	RG MI5 BIC-2 2022-09-12 N	0.9	9	0.7	6	0.0	9	0.2	5	0.0	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2018	3	RG MI5 BIC-3 2018-09-11	87.2	9	47.7	5	18.7	6	20.7	2	2.7	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2019	3	RG MI5 BIC-3 2019-09-05	75.4	7	35.7	7	35.2	4	4.5	7	5.0	1
Michel Creek	MI5	Mine-influenced	659496	5496774	2020	3	RG MI5 BIC-3 2020-09-17	86.8	10	46.5	10	14.4	11	25.8	3	1.2	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2021	3	RG MI5 BIC-3 2021-09-16	0.9	9	0.5	7	0.2	9	0.2	2	0.0	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2022	3	RG MI5 BIC-3 2022-09-12 N	0.9	9	0.5	3	0.1	10	0.2	6	0.0	0

a) UTM coordinates represent the station coordinates. Stations CM-MC2, MIDAG-S1, and MIDAG-S2 were only sampled in 2020 as part of the Nickel Benchmark Study.

b) In 2021, the MI5, replicate 1 sample was inadequately preserved and data were excluded.

- = data not available; % = percent; EPT = Ephemeroptera, Plecoptera, Trichoptera; CMm = Coal Mountain Mine; LAEMP = local aquatic effects monitoring program.



Table K-2: Benthic Invertebrate Community Data at CMm LAEMP Sampling Stations, 2012 to 2021

Watercourse	Station	Reference or Mine-influenced	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Sample	Diptera Richness (# of taxa)	Percent Diptera (%)	Percent Acari (%)	Percent Mollusca (%)	Percent Bivalvia (%)
			Easting	Northing								
Michel Creek	MI25	Reference	668184	5482818	2012	1	RG MI25 BIC-1 2012-09-15	6	5	2	0	0
Michel Creek	MI25	Reference	668184	5482818	2013	1	RG MI25 BIC-1 2013-09-15	6	2	0	0	0
Michel Creek	MI25	Reference	668184	5482818	2015	1	RG MI25 BIC-1 2015-09-10	13	16	1	0	0
Michel Creek	MI25	Reference	668184	5482818	2016	1	RG MI25 BIC-1 2016-09-13	16	31	0	0	0
Michel Creek	MI25	Reference	668184	5482818	2017	1	RG MI25 BIC-1 2017-09-14	13	21	0	0	0
Michel Creek	MI25	Reference	668184	5482818	2018	1	RG MI25 BIC-1 2018-09-10	14	13	1	0	0
Michel Creek	MI25	Reference	668184	5482818	2019	1	RG MI25 BIC-1 2019-09-04	8	19	0	0	0
Michel Creek	MI25	Reference	668184	5482818	2020	1	RG MI25 BIC-1 2020-09-11	9	8	1	0	0
Michel Creek	MI25	Reference	668184	5482818	2021	1	RG MI25 BIC-1 2021-09-13	13	0	0	0	0
Michel Creek	MI25	Reference	668184	5482818	2022	1	RG MI25 BIC-1 2022-09-15 N	5	0	0	0	0
Michel Creek	MI25	Reference	668184	5482818	2013	2	RG MI25 BIC-2 2013-09-15	3	1	0	0	0
Michel Creek	MI25	Reference	668184	5482818	2015	2	RG MI25 BIC-2 2015-09-10	11	19	0	0	0
Michel Creek	MI25	Reference	668184	5482818	2018	2	RG MI25 BIC-2 2018-09-10	13	33	1	0	0
Michel Creek	MI25	Reference	668184	5482818	2019	2	RG MI25 BIC-2 2019-09-04	15	34	3	0	0
Michel Creek	MI25	Reference	668184	5482818	2020	2	RG MI25 BIC-2 2020-09-11	10	13	0	0	0
Michel Creek	MI25	Reference	668184	5482818	2021	2	RG MI25 BIC-2 2021-09-13	9	0	0	0	0
Michel Creek	MI25	Reference	668184	5482818	2022	2	RG MI25 BIC-2 2022-09-15 N	3	0	0	0	0
Michel Creek	MI25	Reference	668184	5482818	2013	3	RG MI25 BIC-3 2013-09-15	6	2	0	0	0
Michel Creek	MI25	Reference	668184	5482818	2015	3	RG MI25 BIC-3 2015-09-10	11	31	0	0	0
Michel Creek	MI25	Reference	668184	5482818	2018	3	RG MI25 BIC-3 2018-09-10	18	11	1	0	0
Michel Creek	MI25	Reference	668184	5482818	2019	3	RG MI25 BIC-3 2019-09-04	14	14	0	0	0
Michel Creek	MI25	Reference	668184	5482818	2020	3	RG MI25 BIC-3 2020-09-11	13	12	0	0	0
Michel Creek	MI25	Reference	668184	5482818	2021	3	RG MI25 BIC-3 2021-09-13	7	0	0	0	0
Michel Creek	MI25	Reference	668184	5482818	2022	3	RG MI25 BIC-3 2022-09-15 N	9	0	0	0	0
Andy Good Creek	AGCK	Reference	667557	5488648	2012	1	AGCK BIC-1 2012-09-16	6	11	1	0	0
Andy Good Creek	AGCK	Reference	667557	5488648	2013	1	AGCK BIC-1 2013-09-15	2	2	0	0	0
Andy Good Creek	AGCK	Reference	667557	5488648	2015	1	AGCK BIC-1 2015-09-12	6	3	0	0	0
Andy Good Creek	AGCK	Reference	667557	5488648	2018	1	AGCK BIC-1 2018-09-08	8	4	0	0	0
Andy Good Creek	AGCK	Reference	667557	5488648	2019	1	AGCK BIC-1 2019-09-06	10	7	0	0	0
Andy Good Creek	AGCK	Reference	667557	5488648	2020	1	AGCK BIC-1 2020-09-10	7	13	1	0	0
Andy Good Creek	AGCK	Reference	667557	5488648	2021	1	RG AGCK BIC-1 2021-09-11	11	0	0	0	0
Andy Good Creek	AGCK	Reference	667557	5488648	2022	1	RG AGCK BIC-1 2022-09-15 N	9	0	0	0	0
Andy Good Creek	AGCK	Reference	667557	5488648	2018	2	AGCK BIC-2 2018-09-08	14	11	0	0	0
Andy Good Creek	AGCK	Reference	667557	5488648	2019	2	AGCK BIC-2 2019-09-06	11	10	0	0	0
Andy Good Creek	AGCK	Reference	667557	5488648	2020	2	AGCK BIC-2 2020-09-10	9	13	0	0	0
Andy Good Creek	AGCK	Reference	667557	5488648	2021	2	RG AGCK BIC-2 2021-09-11	4	0	0	0	0
Andy Good Creek	AGCK	Reference	667557	5488648	2022	2	RG AGCK BIC-2 2022-09-15 N	11	0	0	0	0
Andy Good Creek	AGCK	Reference	667557	5488648	2018	3	AGCK BIC-3 2018-09-08	10	14	0	0	0
Andy Good Creek	AGCK	Reference	667557	5488648	2019	3	AGCK BIC-3 2019-09-06	8	11	0	0	0
Andy Good Creek	AGCK	Reference	667557	5488648	2020	3	AGCK BIC-3 2020-09-10	7	16	0	0	0
Andy Good Creek	AGCK	Reference	667557	5488648	2021	3	RG AGCK BIC-3 2021-09-11	7	0	0	0	0
Andy Good Creek	AGCK	Reference	667557	5488648	2022	3	RG AGCK BIC-3 2022-09-15 N	5	0	0	0	0
Leach Creek	LE1	Reference	659635	5494108	2018	1	LE1 BIC-1 2018-09-13	16	19	1	0	0
Leach Creek	LE1	Reference	659635	5494108	2019	1	LE1 BIC-1 2019-09-05	10	21	3	0	0
Leach Creek	LE1	Reference	659635	5494108	2020	1	LE1 BIC-1 2020-09-17	11	9	3	0	0
Leach Creek	LE1	Reference	659635	5494108	2021	1	RG LE1 BIC-1 2021-09-14	12	0	0	0	0
Leach Creek	LE1	Reference	659635	5494108	2022	1	RG LE1 BIC-1 2022-09-16 N	5	0	0	0	0
Leach Creek	LE1	Reference	659635	5494108	2019	2	LE1 BIC-2 2019-09-05	10	16	1	0	0
Leach Creek	LE1	Reference	659635	5494108	2020	2	LE1 BIC-2 2020-09-17	10	12	3	0	0
Leach Creek	LE1	Reference	659635	5494108	2021	2	RG LE1 BIC-2 2021-09-14	12	0	0	0	0
Leach Creek	LE1	Reference	659635	5494108	2022	2	RG LE1 BIC-2 2022-09-16 N	7	0	0	0	0
Leach Creek	LE1	Reference	659635	5494108	2019	3	LE1 BIC-3 2019-09-05	12	19	1	0	0
Leach Creek	LE1	Reference	659635	5494108	2020	3	LE1 BIC-3 2020-09-17	5	15	3	0	0
Leach Creek	LE1	Reference	659635	5494108	2021	3	RG LE1 BIC-3 2021-09-14	13	0	0	0	0
Leach Creek	LE1	Reference	659635	5494108	2022	3	RG LE1 BIC-3 2022-09-16 N	6	0	0	0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2012	1	RG MIUCO BIC-1 2012-09-15	5	6	2	0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2015	1	RG MIUCO BIC-1 2015-09-10	12	23	1	0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2016	1	RG MIUCO BIC-1 2016-09-13	7	13	1	0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2017	1	RG MIUCO BIC-1 2017-09-14	7	12	3	0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2018	1	RG MIUCO BIC-1 2018-09-10	9	21	5	0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2019	1	RG MIUCO BIC-1 2019-09-09	10	37	3	0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2020	1	RG MIUCO BIC-1 2020-09-12	10	29	3	0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2021	1	RG MIUCO BIC-1 2021-09-12	12	0	0	0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2022	1	RG MIUCO BIC-1 2022-09-14 N	6	0	0	0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2018	2	RG MIUCO BIC-2 2018-09-10	8	19	2	0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2019	2	RG MIUCO BIC-2 2019-09-09	10	27	2	0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2020	2	RG MIUCO BIC-2 2020-09-12	9	26	2	0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2021	2	RG MIUCO BIC-2 2021-09-12	10	0	0	0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2022	2	RG MIUCO BIC-2 2022-09-14 N	7	0	0	0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2018	3	RG MIUCO BIC-3 2018-09-10	7	23	4	0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2019	3	RG MIUCO BIC-3 2019-09-09	13	27	6	0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2020	3	RG MIUCO BIC-3 2020-09-12	7	19	3	0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2021	3	RG MIUCO BIC-3 2021-09-12	14	0	0	0	0
Michel Creek	MIUCO	Mine-influenced	668135	5486767	2022	3	RG MIUCO BIC-3 2022-09-14 N	9	0	0	0	0
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2012	1	RG CORCK BIC-1 2012-09-15	8	24	2	0	0
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2015	1	RG CORCK BIC-1 2015-09-11	16	78	1	0	0

Table K-2: Benthic Invertebrate Community Data at CMm LAEMP Sampling Stations, 2012 to 2021

Watercourse	Station	Reference or Mine-influenced	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Sample	Diptera Richness (# of taxa)	Percent Diptera (%)	Percent Acari (%)	Percent Mollusca (%)	Percent Bivalvia (%)
			Easting	Northing								
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2016	1	RG CORCK BIC-1 2016-09-13	16	57	4	0	0
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2017	1	RG CORCK BIC-1 2017-09-14	15	61	2	0	0
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2018	1	RG CORCK BIC-1 2018-09-08	12	49	4	0	0
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2019	1	RG CORCK BIC-1 2019-09-07	13	76	2	0	0
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2020	1	RG CORCK BIC-1 2020-09-12	11	58	0	0	0
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2021	1	RG CORCK BIC-1 2021-09-14	11	1	0	0	0
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2022	1	CORCK BIC-1 2022-09-14 N	12	63	2	0	0
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2018	2	RG CORCK BIC-2 2018-09-08	13	75	1	0	0
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2019	2	RG CORCK BIC-2 2019-09-07	13	69	4	0	0
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2020	2	RG CORCK BIC-2 2020-09-12	12	77	0	0	0
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2021	2	RG CORCK BIC-2 2021-09-14	14	1	0	0	0
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2022	2	CORCK BIC-2 2022-09-14 N	11	60	2	0	0
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2018	3	RG CORCK BIC-3 2018-09-08	10	61	3	0	0
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2019	3	RG CORCK BIC-3 2019-09-07	12	67	4	0	0
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2020	3	RG CORCK BIC-3 2020-09-12	13	70	1	0	0
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2021	3	RG CORCK BIC-3 2021-09-14	9	1	0	0	0
Corbin Creek	CORCK	Mine-influenced	668539	5487366	2022	3	CORCK BIC-3 2022-09-14 N	9	63	3	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2012	1	RG MIDCO BIC-1 2012-09-15	6	31	1	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2015	1	RG MIDCO BIC-1 2015-09-11	12	45	0	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2016	1	RG MIDCO BIC-1 2016-09-13	13	40	2	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2017	1	RG MIDCO BIC-1 2017-09-14	13	32	2	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2018	1	RG MIDCO BIC-1 2018-09-09	15	54	6	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2019	1	RG MIDCO BIC-1 2019-09-09	17	54	7	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2020	1	RG MIDCO BIC-1 2020-09-13	14	46	9	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2021	1	RG MIDCO BIC-1 2021-09-13	9	0	0	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2022	1	RG MIDCO BIC-1 2022-09-13 N	11	0	0	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2018	2	RG MIDCO BIC-2 2018-09-09	11	64	9	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2019	2	RG MIDCO BIC-2 2019-09-09	16	24	4	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2020	2	RG MIDCO BIC-2 2020-09-13	15	49	10	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2021	2	RG MIDCO BIC-2 2021-09-12	12	0	0	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2022	2	RG MIDCO BIC-2 2022-09-13 N	11	0	0	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2018	3	RG MIDCO BIC-3 2018-09-09	12	64	7	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2019	3	RG MIDCO BIC-3 2019-09-09	14	28	4	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2020	3	RG MIDCO BIC-3 2020-09-13	11	54	4	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2021	3	RG MIDCO BIC-3 2021-09-12	14	1	0	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2022	3	RG MIDCO BIC-3 2022-09-13 N	10	0	0	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2018	4	RG MIDCO BIC-4 2018-09-09	10	56	4	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2019	4	RG MIDCO BIC-4 2019-09-09	14	35	2	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2020	4	RG MIDCO BIC-4 2020-09-13	14	44	4	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2021	4	RG MIDCO BIC-4 2021-09-12	11	0	0	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2022	4	RG MIDCO BIC-4 2022-09-13 N	11	0	0	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2018	5	RG MIDCO BIC-5 2018-09-09	11	67	7	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2019	5	RG MIDCO BIC-5 2019-09-09	14	37	2	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2020	5	RG MIDCO BIC-5 2020-09-13	14	52	8	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2021	5	RG MIDCO BIC-5 2021-09-12	11	0	0	0	0
Michel Creek	MIDCO	Mine-influenced	667616	5487621	2022	5	RG MIDCO BIC-5 2022-09-13 N	11	0	0	0	0
Michel Creek	CM MC2	Mine-influenced	667249	5488144	2020	1	CM MC2 BIC-1 2020-09-19	12	57	7	0	0
Michel Creek	CM MC2	Mine-influenced	667249	5488144	2020	2	CM MC2 BIC-2 2020-09-19	12	47	5	0	0
Michel Creek	CM MC2	Mine-influenced	667249	5488144	2020	3	CM MC2 BIC-3 2020-09-19	11	52	9	0	0
Michel Creek	MIDAG-S1	Mine-influenced	666290	5488507	2020	1	RG MIDAG-S1 BIC-1 2020-09-18	12	17	3	0	0
Michel Creek	MIDAG-S1	Mine-influenced	666290	5488507	2020	2	RG MIDAG-S1 BIC-2 2020-09-18	13	7	1	0	0
Michel Creek	MIDAG-S1	Mine-influenced	666290	5488507	2020	3	RG MIDAG-S1 BIC-3 2020-09-18	11	25	3	0	0
Michel Creek	MIDAG-S2	Mine-influenced	665770	5488854	2020	1	RG MIDAG-S2 BIC-1 2020-09-17	14	15	3	0	0
Michel Creek	MIDAG-S2	Mine-influenced	665770	5488854	2020	2	RG MIDAG-S2 BIC-2 2020-09-17	11	15	3	0	0
Michel Creek	MIDAG-S2	Mine-influenced	665770	5488854	2020	3	RG MIDAG-S2 BIC-3 2020-09-17	13	19	3	0	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2012	1	RG MIDAG BIC-1 2012-09-16	6	10	3	0	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2015	1	RG MIDAG BIC-1 2015-09-12	11	26	0	0	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2018	1	RG MIDAG BIC-1 2018-09-08	14	25	7	0	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2019	1	RG MIDAG BIC-1 2019-09-10	14	53	3	0	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2020	1	RG MIDAG BIC-1 2020-09-15	11	15	3	0	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2021	1	RG MIDAG BIC-1 2021-09-11	8	0	0	0	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2022	1	RG MIDAG BIC-1 2022-09-13 N	10	0	0	0	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2018	2	RG MIDAG BIC-2 2018-09-08	10	27	1	0	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2019	2	RG MIDAG BIC-2 2019-09-10	17	34	2	0	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2020	2	RG MIDAG BIC-2 2020-09-15	13	26	2	0	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2021	2	RG MIDAG BIC-2 2021-09-11	11	0	0	0	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2022	2	RG MIDAG BIC-2 2022-09-13 N	4	0	0	0	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2018	3	RG MIDAG BIC-3 2018-09-08	9	20	4	0	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2019	3	RG MIDAG BIC-3 2019-09-10	15	58	2	0	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2020	3	RG MIDAG BIC-3 2020-09-15	14	18	2	0	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2021	3	RG MIDAG BIC-3 2021-09-11	8	0	0	0	0
Michel Creek	MIDAG	Mine-influenced	665220	5489324	2022	3	RG MIDAG BIC-3 2022-09-13 N	6	0	0	0	0
Michel Creek	MIULE	Mine-influenced	660503	5493048	2018	1	RG MIULE BIC-1 2018-09-11	9	28	8	0	0
Michel Creek	MIULE	Mine-influenced	660503	5493048	2019	1	RG MIULE BIC-1 2019-09-06	10	29	6	0	0
Michel Creek	MIULE	Mine-influenced	660503	5493048	2020	1	RG MIULE BIC-1 2020-09-16	19	31	6	0	0
Michel Creek	MIULE	Mine-influenced	660503	5493048	2021	1	RG MIULE BIC-1 2021-09-14	13	0	0	0	0



Table K-2: Benthic Invertebrate Community Data at CMm LAEMP Sampling Stations, 2012 to 2021

Watercourse	Station	Reference or Mine-influenced	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Sample	Diptera Richness (# of taxa)	Percent Diptera (%)	Percent Acari (%)	Percent Mollusca (%)	Percent Bivalvia (%)
			Easting	Northing								
Michel Creek	MIULE	Mine-influenced	660503	5493048	2022	1	RG MIULE BIC-1 2022-09-12 N	9	0	0	0	0
Michel Creek	MIULE	Mine-influenced	660503	5493048	2018	2	RG MIULE BIC-2 2018-09-11	13	22	5	0	0
Michel Creek	MIULE	Mine-influenced	660503	5493048	2019	2	RG MIULE BIC-2 2019-09-06	15	30	4	0	0
Michel Creek	MIULE	Mine-influenced	660503	5493048	2020	2	RG MIULE BIC-2 2020-09-16	10	23	3	0	0
Michel Creek	MIULE	Mine-influenced	660503	5493048	2021	2	RG MIULE BIC-2 2021-09-14	12	0	0	0	0
Michel Creek	MIULE	Mine-influenced	660503	5493048	2022	2	RG MIULE BIC-2 2022-09-12 N	9	0	0	0	0
Michel Creek	MIULE	Mine-influenced	660503	5493048	2018	3	RG MIULE BIC-3 2019-09-06	14	22	3	0	0
Michel Creek	MIULE	Mine-influenced	660503	5493048	2019	3	RG MIULE BIC-3 2018-09-11	12	21	4	0	0
Michel Creek	MIULE	Mine-influenced	660503	5493048	2020	3	RG MIULE BIC-3 2020-09-16	10	29	4	0	0
Michel Creek	MIULE	Mine-influenced	660503	5493048	2021	3	RG MIULE BIC-3 2021-09-14	8	0	0	0	0
Michel Creek	MIULE	Mine-influenced	660503	5493048	2022	3	RG MIULE BIC-3 2022-09-12 N	12	0	0	0	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2012	1	RG MI5 BIC-1 2012-09-16	8	22	3	0	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2015	1	RG MI5 BIC-1 2015-09-13	6	10	0	0	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2018	1	RG MI5 BIC-1 2018-09-11	11	20	1	0	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2019	1	RG MI5 BIC-1 2019-09-05	12	15	2	0	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2020	1	RG MI5 BIC-1 2020-09-17	11	24	5	0	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2021	1	RG MI5 BIC-1 2021-09-16 <sup>(b)</sup>	-	-	-	-	-
Michel Creek	MI5	Mine-influenced	659496	5496774	2022	1	RG MI5 BIC-1 2022-09-12 N	7	0	0	0	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2018	2	RG MI5 BIC-2 2018-09-11	10	25	3	0	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2019	2	RG MI5 BIC-2 2019-09-05	12	17	3	0	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2020	2	RG MI5 BIC-2 2020-09-17	9	21	3	0	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2021	2	RG MI5 BIC-2 2021-09-16	12	0	0	0	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2022	2	RG MI5 BIC-2 2022-09-12 N	8	0	0	0	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2018	3	RG MI5 BIC-3 2018-09-11	6	9	2	0	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2019	3	RG MI5 BIC-3 2019-09-05	11	20	3	0	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2020	3	RG MI5 BIC-3 2020-09-17	9	8	2	0	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2021	3	RG MI5 BIC-3 2021-09-16	7	0	0	0	0
Michel Creek	MI5	Mine-influenced	659496	5496774	2022	3	RG MI5 BIC-3 2022-09-12 N	10	0	0	0	0

a) UTM coordinates represent the station coordinates. Stations CM-MC2, MIDAG-S1, and MIDAG-S2 were only sampled in 2020 as part of the Nickel Benchmark Study.

b) In 2021, the MI5, replicate 1 sample was inadequately preserved and data were excluded.

- = data not available; % = percent; EPT = Ephemeroptera, Plecoptera, Trichoptera; CMm = Coal Mountain Mine; LAEMP = local aquatic effects monitoring program.

Table K-3: Site-specific Normal Ranges at CMM LAEMP Sampling Stations, 2012 to 2022

Variable	Station	Year	Replicate	Reference or Mine-influenced	Lower Bound	Upper Bound
Richness	RG_MI25	2012	1	Reference	27	42
Richness	RG_MI25	2013	1	Reference	28	43
Richness	RG_MI25	2013	2	Reference	28	43
Richness	RG_MI25	2013	3	Reference	28	43
Richness	RG_MI25	2015	1	Reference	28	42
Richness	RG_MI25	2015	2	Reference	28	42
Richness	RG_MI25	2015	3	Reference	28	42
Richness	RG_MI25	2016	1	Reference	28	42
Richness	RG_MI25	2017	1	Reference	29	44
Richness	RG_MI25	2018	1	Reference	29	44
Richness	RG_MI25	2018	2	Reference	29	44
Richness	RG_MI25	2018	3	Reference	29	43
Richness	RG_MI25	2019	1	Reference	29	44
Richness	RG_MI25	2019	2	Reference	29	43
Richness	RG_MI25	2019	3	Reference	28	42
Richness	RG_MI25	2020	1	Reference	28	43
Richness	RG_MI25	2020	2	Reference	27	41
Richness	RG_MI25	2020	3	Reference	27	42
Richness	RG_MI25	2021	1	Reference	29	43
Richness	RG_MI25	2021	2	Reference	29	44
Richness	RG_MI25	2021	3	Reference	28	42
Richness	RG_MI25	2022	1	Reference	29	43
Richness	RG_MI25	2022	2	Reference	29	43
Richness	RG_MI25	2022	3	Reference	30	44
Richness	RG_AGCK	2012	1	Reference	21	36
Richness	RG_AGCK	2013	1	Reference	22	36
Richness	RG_AGCK	2015	1	Reference	22	36
Richness	RG_AGCK	2018	1	Reference	22	37
Richness	RG_AGCK	2018	2	Reference	22	36
Richness	RG_AGCK	2018	3	Reference	23	37
Richness	RG_AGCK	2019	1	Reference	22	36
Richness	RG_AGCK	2019	2	Reference	21	35
Richness	RG_AGCK	2019	3	Reference	22	36
Richness	RG_AGCK	2020	1	Reference	20	34
Richness	RG_AGCK	2020	2	Reference	23	37
Richness	RG_AGCK	2020	3	Reference	21	36
Richness	RG_AGCK	2021	1	Reference	21	35
Richness	RG_AGCK	2021	2	Reference	23	37
Richness	RG_AGCK	2021	3	Reference	23	37
Richness	RG_AGCK	2022	1	Reference	23	37
Richness	RG_AGCK	2022	2	Reference	23	37
Richness	RG_AGCK	2022	3	Reference	23	37
Richness	RG_LE1	2018	1	Reference	31	45
Richness	RG_LE1	2019	1	Reference	30	44
Richness	RG_LE1	2019	2	Reference	28	43
Richness	RG_LE1	2019	3	Reference	29	43
Richness	RG_LE1	2020	1	Reference	29	43
Richness	RG_LE1	2020	2	Reference	29	44
Richness	RG_LE1	2020	3	Reference	30	44
Richness	RG_LE1	2021	1	Reference	30	45
Richness	RG_LE1	2021	2	Reference	29	43
Richness	RG_LE1	2021	3	Reference	30	44
Richness	RG_LE1	2022	1	Reference	31	46
Richness	RG_LE1	2022	2	Reference	31	45
Richness	RG_LE1	2022	3	Reference	28	43
Richness	RG_MIUCO	2012	1	Mine-influenced	27	41
Richness	RG_MIUCO	2015	1	Mine-influenced	26	41
Richness	RG_MIUCO	2016	1	Mine-influenced	27	42
Richness	RG_MIUCO	2017	1	Mine-influenced	26	40
Richness	RG_MIUCO	2018	1	Mine-influenced	27	41
Richness	RG_MIUCO	2018	2	Mine-influenced	27	42
Richness	RG_MIUCO	2018	3	Mine-influenced	27	42
Richness	RG_MIUCO	2019	1	Mine-influenced	25	40
Richness	RG_MIUCO	2019	2	Mine-influenced	25	40
Richness	RG_MIUCO	2019	3	Mine-influenced	25	40
Richness	RG_MIUCO	2020	1	Mine-influenced	26	41
Richness	RG_MIUCO	2020	2	Mine-influenced	26	41
Richness	RG_MIUCO	2020	3	Mine-influenced	25	40
Richness	RG_MIUCO	2021	1	Mine-influenced	27	41
Richness	RG_MIUCO	2021	2	Mine-influenced	27	42
Richness	RG_MIUCO	2021	3	Mine-influenced	27	41
Richness	RG_MIUCO	2022	1	Mine-influenced	27	42
Richness	RG_MIUCO	2022	2	Mine-influenced	27	41
Richness	RG_MIUCO	2022	3	Mine-influenced	27	41
Richness	RG_CORCK	2012	1	Mine-influenced	26	40
Richness	RG_CORCK	2015	1	Mine-influenced	26	40
Richness	RG_CORCK	2016	1	Mine-influenced	26	40
Richness	RG_CORCK	2017	1	Mine-influenced	25	39
Richness	RG_CORCK	2018	1	Mine-influenced	23	37
Richness	RG_CORCK	2018	2	Mine-influenced	25	39
Richness	RG_CORCK	2018	3	Mine-influenced	25	38
Richness	RG_CORCK	2019	1	Mine-influenced	25	39
Richness	RG_CORCK	2019	2	Mine-influenced	24	39
Richness	RG_CORCK	2019	3	Mine-influenced	24	38
Richness	RG_CORCK	2020	1	Mine-influenced	21	36

Table K-3: Site-specific Normal Ranges at CMM LAEMP Sampling Stations, 2012 to 2022

Variable	Station	Year	Replicate	Reference or Mine-influenced	Lower Bound	Upper Bound
Richness	RG CORCK	2020	2	Mine-influenced	23	37
Richness	RG CORCK	2020	3	Mine-influenced	21	36
Richness	RG CORCK	2021	1	Mine-influenced	23	37
Richness	RG CORCK	2021	2	Mine-influenced	22	37
Richness	RG CORCK	2021	3	Mine-influenced	21	36
Richness	RG CORCK	2022	1	Mine-influenced	25	39
Richness	RG CORCK	2022	2	Mine-influenced	23	37
Richness	RG CORCK	2022	3	Mine-influenced	23	37
Richness	RG MIDCO	2012	1	Mine-influenced	26	40
Richness	RG MIDCO	2015	1	Mine-influenced	26	40
Richness	RG MIDCO	2016	1	Mine-influenced	26	41
Richness	RG MIDCO	2017	1	Mine-influenced	25	40
Richness	RG MIDCO	2018	1	Mine-influenced	26	40
Richness	RG MIDCO	2018	2	Mine-influenced	25	40
Richness	RG MIDCO	2018	3	Mine-influenced	23	38
Richness	RG MIDCO	2018	4	Mine-influenced	25	40
Richness	RG MIDCO	2018	5	Mine-influenced	27	41
Richness	RG MIDCO	2019	1	Mine-influenced	26	41
Richness	RG MIDCO	2019	2	Mine-influenced	24	39
Richness	RG MIDCO	2019	3	Mine-influenced	25	39
Richness	RG MIDCO	2019	4	Mine-influenced	25	39
Richness	RG MIDCO	2019	5	Mine-influenced	26	40
Richness	RG MIDCO	2020	1	Mine-influenced	26	40
Richness	RG MIDCO	2020	2	Mine-influenced	26	40
Richness	RG MIDCO	2020	3	Mine-influenced	24	39
Richness	RG MIDCO	2020	4	Mine-influenced	25	40
Richness	RG MIDCO	2020	5	Mine-influenced	26	40
Richness	RG MIDCO	2021	1	Mine-influenced	26	40
Richness	RG MIDCO	2021	2	Mine-influenced	26	40
Richness	RG MIDCO	2021	3	Mine-influenced	26	41
Richness	RG MIDCO	2021	4	Mine-influenced	25	40
Richness	RG MIDCO	2021	5	Mine-influenced	26	41
Richness	RG MIDCO	2022	1	Mine-influenced	27	41
Richness	RG MIDCO	2022	2	Mine-influenced	26	40
Richness	RG MIDCO	2022	3	Mine-influenced	27	41
Richness	RG MIDCO	2022	4	Mine-influenced	25	40
Richness	RG MIDCO	2022	5	Mine-influenced	27	41
Richness	RG MIDAG	2012	1	Mine-influenced	24	39
Richness	RG MIDAG	2015	1	Mine-influenced	25	39
Richness	RG MIDAG	2018	1	Mine-influenced	25	39
Richness	RG MIDAG	2018	2	Mine-influenced	25	39
Richness	RG MIDAG	2018	3	Mine-influenced	25	39
Richness	RG MIDAG	2019	1	Mine-influenced	23	37
Richness	RG MIDAG	2019	2	Mine-influenced	24	39
Richness	RG MIDAG	2019	3	Mine-influenced	24	39
Richness	RG MIDAG	2020	1	Mine-influenced	22	37
Richness	RG MIDAG	2020	2	Mine-influenced	25	39
Richness	RG MIDAG	2020	3	Mine-influenced	24	38
Richness	RG MIDAG	2021	1	Mine-influenced	25	40
Richness	RG MIDAG	2021	2	Mine-influenced	25	40
Richness	RG MIDAG	2021	3	Mine-influenced	26	40
Richness	RG MIDAG	2022	1	Mine-influenced	25	40
Richness	RG MIDAG	2022	2	Mine-influenced	26	40
Richness	RG MIDAG	2022	3	Mine-influenced	26	40
Richness	RG MIULE	2018	1	Mine-influenced	25	39
Richness	RG MIULE	2018	2	Mine-influenced	26	41
Richness	RG MIULE	2018	3	Mine-influenced	26	40
Richness	RG MIULE	2019	1	Mine-influenced	24	39
Richness	RG MIULE	2019	2	Mine-influenced	25	40
Richness	RG MIULE	2019	3	Mine-influenced	25	40
Richness	RG MIULE	2020	1	Mine-influenced	23	38
Richness	RG MIULE	2020	2	Mine-influenced	23	38
Richness	RG MIULE	2020	3	Mine-influenced	25	39
Richness	RG MIULE	2021	1	Mine-influenced	24	39
Richness	RG MIULE	2021	2	Mine-influenced	25	39
Richness	RG MIULE	2021	3	Mine-influenced	25	40
Richness	RG MIULE	2022	1	Mine-influenced	27	41
Richness	RG MIULE	2022	2	Mine-influenced	26	41
Richness	RG MIULE	2022	3	Mine-influenced	25	40
Richness	RG MI5	2012	1	Mine-influenced	27	41
Richness	RG MI5	2015	1	Mine-influenced	26	40
Richness	RG MI5	2018	1	Mine-influenced	28	43
Richness	RG MI5	2018	2	Mine-influenced	28	42
Richness	RG MI5	2018	3	Mine-influenced	27	41
Richness	RG MI5	2019	1	Mine-influenced	27	41
Richness	RG MI5	2019	2	Mine-influenced	27	41
Richness	RG MI5	2019	3	Mine-influenced	26	40
Richness	RG MI5	2020	1	Mine-influenced	28	42
Richness	RG MI5	2020	2	Mine-influenced	28	42
Richness	RG MI5	2020	3	Mine-influenced	27	41
Richness	RG MI5	2021	1	Mine-influenced	27	42
Richness	RG MI5	2021	2	Mine-influenced	28	42
Richness	RG MI5	2021	3	Mine-influenced	27	41
Richness	RG MI5	2022	1	Mine-influenced	29	43
Richness	RG MI5	2022	2	Mine-influenced	28	42

Table K-3: Site-specific Normal Ranges at CMM LAEMP Sampling Stations, 2012 to 2022

Variable	Station	Year	Replicate	Reference or Mine-influenced	Lower Bound	Upper Bound
Richness	RG MI5	2022	3	Mine-influenced	27	41
Abundance	RG MI25	2012	1	Reference	8,776	74,299
Abundance	RG MI25	2013	1	Reference	7,606	65,581
Abundance	RG MI25	2013	2	Reference	7,540	64,657
Abundance	RG MI25	2013	3	Reference	7,677	63,072
Abundance	RG MI25	2015	1	Reference	7,668	64,415
Abundance	RG MI25	2015	2	Reference	7,422	65,430
Abundance	RG MI25	2015	3	Reference	7,492	66,327
Abundance	RG MI25	2016	1	Reference	7,359	68,096
Abundance	RG MI25	2017	1	Reference	7,650	64,546
Abundance	RG MI25	2018	1	Reference	7,093	63,579
Abundance	RG MI25	2018	2	Reference	4,300	62,951
Abundance	RG MI25	2018	3	Reference	7,180	62,952
Abundance	RG MI25	2019	1	Reference	8,319	69,551
Abundance	RG MI25	2019	2	Reference	7,440	64,504
Abundance	RG MI25	2019	3	Reference	7,301	63,364
Abundance	RG MI25	2020	1	Reference	7,608	65,466
Abundance	RG MI25	2020	2	Reference	7,012	63,731
Abundance	RG MI25	2020	3	Reference	7,586	65,041
Abundance	RG MI25	2021	1	Reference	8,062	67,189
Abundance	RG MI25	2021	2	Reference	7,508	66,411
Abundance	RG MI25	2021	3	Reference	8,130	67,706
Abundance	RG MI25	2022	1	Reference	8,198	67,703
Abundance	RG MI25	2022	2	Reference	7,863	65,812
Abundance	RG MI25	2022	3	Reference	7,348	63,731
Abundance	RG AGCK	2012	1	Reference	2,767	13,955
Abundance	RG AGCK	2013	1	Reference	2,524	12,378
Abundance	RG AGCK	2015	1	Reference	2,429	12,179
Abundance	RG AGCK	2018	1	Reference	2,531	13,531
Abundance	RG AGCK	2018	2	Reference	2,495	13,264
Abundance	RG AGCK	2018	3	Reference	2,452	12,882
Abundance	RG AGCK	2019	1	Reference	2,605	12,865
Abundance	RG AGCK	2019	2	Reference	2,444	12,231
Abundance	RG AGCK	2019	3	Reference	2,528	12,720
Abundance	RG AGCK	2020	1	Reference	2,254	11,344
Abundance	RG AGCK	2020	2	Reference	2,550	12,458
Abundance	RG AGCK	2020	3	Reference	2,463	12,214
Abundance	RG AGCK	2021	1	Reference	2,527	12,423
Abundance	RG AGCK	2021	2	Reference	2,517	12,586
Abundance	RG AGCK	2021	3	Reference	2,455	12,145
Abundance	RG AGCK	2022	1	Reference	2,314	11,320
Abundance	RG AGCK	2022	2	Reference	2,493	12,124
Abundance	RG AGCK	2022	3	Reference	2,531	12,099
Abundance	RG LE1	2018	1	Reference	2,245	11,668
Abundance	RG LE1	2019	1	Reference	2,192	11,926
Abundance	RG LE1	2019	2	Reference	2,159	11,997
Abundance	RG LE1	2019	3	Reference	2,132	11,805
Abundance	RG LE1	2020	1	Reference	2,129	12,398
Abundance	RG LE1	2020	2	Reference	2,279	11,897
Abundance	RG LE1	2020	3	Reference	2,209	11,431
Abundance	RG LE1	2021	1	Reference	2,193	11,599
Abundance	RG LE1	2021	2	Reference	2,293	12,143
Abundance	RG LE1	2021	3	Reference	2,198	11,406
Abundance	RG LE1	2022	1	Reference	2,250	12,270
Abundance	RG LE1	2022	2	Reference	2,235	11,657
Abundance	RG LE1	2022	3	Reference	2,103	11,581
Abundance	RG MIUCO	2012	1	Mine-influenced	6,073	52,853
Abundance	RG MIUCO	2015	1	Mine-influenced	5,342	46,857
Abundance	RG MIUCO	2016	1	Mine-influenced	5,551	45,637
Abundance	RG MIUCO	2017	1	Mine-influenced	5,512	46,339
Abundance	RG MIUCO	2018	1	Mine-influenced	5,001	47,359
Abundance	RG MIUCO	2018	2	Mine-influenced	5,316	47,690
Abundance	RG MIUCO	2018	3	Mine-influenced	5,135	49,110
Abundance	RG MIUCO	2019	1	Mine-influenced	5,077	48,689
Abundance	RG MIUCO	2019	2	Mine-influenced	5,222	48,037
Abundance	RG MIUCO	2019	3	Mine-influenced	5,198	46,506
Abundance	RG MIUCO	2020	1	Mine-influenced	4,899	44,161
Abundance	RG MIUCO	2020	2	Mine-influenced	5,545	47,853
Abundance	RG MIUCO	2020	3	Mine-influenced	5,024	43,578
Abundance	RG MIUCO	2021	1	Mine-influenced	5,458	45,994
Abundance	RG MIUCO	2021	2	Mine-influenced	5,587	47,898
Abundance	RG MIUCO	2021	3	Mine-influenced	5,459	46,807
Abundance	RG MIUCO	2022	1	Mine-influenced	5,487	46,436
Abundance	RG MIUCO	2022	2	Mine-influenced	5,324	47,698
Abundance	RG MIUCO	2022	3	Mine-influenced	5,624	47,506
Abundance	RG CORCK	2012	1	Mine-influenced	3,833	18,760
Abundance	RG CORCK	2015	1	Mine-influenced	3,561	18,382
Abundance	RG CORCK	2016	1	Mine-influenced	3,781	18,801
Abundance	RG CORCK	2017	1	Mine-influenced	3,754	18,034
Abundance	RG CORCK	2018	1	Mine-influenced	3,632	19,206
Abundance	RG CORCK	2018	2	Mine-influenced	3,643	17,972
Abundance	RG CORCK	2018	3	Mine-influenced	3,509	18,908
Abundance	RG CORCK	2019	1	Mine-influenced	3,582	17,849
Abundance	RG CORCK	2019	2	Mine-influenced	3,729	19,344
Abundance	RG CORCK	2019	3	Mine-influenced	3,426	18,341



Table K-3: Site-specific Normal Ranges at CMm LAEMP Sampling Stations, 2012 to 2022

Variable	Station	Year	Replicate	Reference or Mine-influenced	Lower Bound	Upper Bound
Abundance	RG CORCK	2020	1	Mine-influenced	3,711	18,632
Abundance	RG CORCK	2020	2	Mine-influenced	3,684	18,284
Abundance	RG CORCK	2020	3	Mine-influenced	3,483	22,058
Abundance	RG CORCK	2021	1	Mine-influenced	3,913	19,613
Abundance	RG CORCK	2021	2	Mine-influenced	3,716	21,875
Abundance	RG CORCK	2021	3	Mine-influenced	3,682	21,558
Abundance	RG CORCK	2022	1	Mine-influenced	3,674	18,429
Abundance	RG CORCK	2022	2	Mine-influenced	3,148	22,366
Abundance	RG CORCK	2022	3	Mine-influenced	3,613	24,289
Abundance	RG MIDCO	2012	1	Mine-influenced	3,584	21,499
Abundance	RG MIDCO	2015	1	Mine-influenced	3,521	20,830
Abundance	RG MIDCO	2016	1	Mine-influenced	3,484	20,965
Abundance	RG MIDCO	2017	1	Mine-influenced	3,543	20,879
Abundance	RG MIDCO	2018	1	Mine-influenced	3,227	20,066
Abundance	RG MIDCO	2018	2	Mine-influenced	3,531	21,196
Abundance	RG MIDCO	2018	3	Mine-influenced	3,454	21,283
Abundance	RG MIDCO	2018	4	Mine-influenced	3,638	21,770
Abundance	RG MIDCO	2018	5	Mine-influenced	3,441	21,225
Abundance	RG MIDCO	2019	1	Mine-influenced	3,355	20,749
Abundance	RG MIDCO	2019	2	Mine-influenced	3,489	20,717
Abundance	RG MIDCO	2019	3	Mine-influenced	3,541	20,432
Abundance	RG MIDCO	2019	4	Mine-influenced	3,713	21,941
Abundance	RG MIDCO	2019	5	Mine-influenced	3,643	21,091
Abundance	RG MIDCO	2020	1	Mine-influenced	3,351	19,948
Abundance	RG MIDCO	2020	2	Mine-influenced	3,474	20,598
Abundance	RG MIDCO	2020	3	Mine-influenced	3,093	19,614
Abundance	RG MIDCO	2020	4	Mine-influenced	3,575	21,190
Abundance	RG MIDCO	2020	5	Mine-influenced	3,280	20,613
Abundance	RG MIDCO	2021	1	Mine-influenced	3,547	21,264
Abundance	RG MIDCO	2021	2	Mine-influenced	3,580	21,461
Abundance	RG MIDCO	2021	3	Mine-influenced	3,301	20,247
Abundance	RG MIDCO	2021	4	Mine-influenced	3,495	21,187
Abundance	RG MIDCO	2021	5	Mine-influenced	3,618	21,623
Abundance	RG MIDCO	2022	1	Mine-influenced	3,792	22,147
Abundance	RG MIDCO	2022	2	Mine-influenced	3,448	20,925
Abundance	RG MIDCO	2022	3	Mine-influenced	3,512	20,617
Abundance	RG MIDCO	2022	4	Mine-influenced	3,324	20,751
Abundance	RG MIDCO	2022	5	Mine-influenced	3,199	19,923
Abundance	RG MIDAG	2012	1	Mine-influenced	2,707	16,246
Abundance	RG MIDAG	2015	1	Mine-influenced	2,444	14,899
Abundance	RG MIDAG	2018	1	Mine-influenced	2,429	15,651
Abundance	RG MIDAG	2018	2	Mine-influenced	2,363	14,535
Abundance	RG MIDAG	2018	3	Mine-influenced	2,374	14,645
Abundance	RG MIDAG	2019	1	Mine-influenced	2,494	15,335
Abundance	RG MIDAG	2019	2	Mine-influenced	2,396	15,697
Abundance	RG MIDAG	2019	3	Mine-influenced	2,722	15,685
Abundance	RG MIDAG	2020	1	Mine-influenced	2,089	14,575
Abundance	RG MIDAG	2020	2	Mine-influenced	2,520	15,613
Abundance	RG MIDAG	2020	3	Mine-influenced	2,445	15,383
Abundance	RG MIDAG	2021	1	Mine-influenced	2,349	15,070
Abundance	RG MIDAG	2021	2	Mine-influenced	2,258	15,110
Abundance	RG MIDAG	2021	3	Mine-influenced	2,432	15,710
Abundance	RG MIDAG	2022	1	Mine-influenced	2,288	14,763
Abundance	RG MIDAG	2022	2	Mine-influenced	2,419	15,143
Abundance	RG MIDAG	2022	3	Mine-influenced	2,303	14,928
Abundance	RG MIULE	2018	1	Mine-influenced	787	6,878
Abundance	RG MIULE	2018	2	Mine-influenced	824	7,224
Abundance	RG MIULE	2018	3	Mine-influenced	820	6,990
Abundance	RG MIULE	2019	1	Mine-influenced	840	7,057
Abundance	RG MIULE	2019	2	Mine-influenced	830	7,037
Abundance	RG MIULE	2019	3	Mine-influenced	913	7,667
Abundance	RG MIULE	2020	1	Mine-influenced	857	6,645
Abundance	RG MIULE	2020	2	Mine-influenced	848	6,513
Abundance	RG MIULE	2020	3	Mine-influenced	872	6,782
Abundance	RG MIULE	2021	1	Mine-influenced	913	7,074
Abundance	RG MIULE	2021	2	Mine-influenced	860	6,606
Abundance	RG MIULE	2021	3	Mine-influenced	841	6,581
Abundance	RG MIULE	2022	1	Mine-influenced	855	6,631
Abundance	RG MIULE	2022	2	Mine-influenced	824	6,519
Abundance	RG MIULE	2022	3	Mine-influenced	828	6,496
Abundance	RG MI5	2012	1	Mine-influenced	2,096	11,506
Abundance	RG MI5	2015	1	Mine-influenced	1,982	10,830
Abundance	RG MI5	2018	1	Mine-influenced	1,795	10,317
Abundance	RG MI5	2018	2	Mine-influenced	1,894	10,471
Abundance	RG MI5	2018	3	Mine-influenced	2,025	10,871
Abundance	RG MI5	2019	1	Mine-influenced	1,884	10,161
Abundance	RG MI5	2019	2	Mine-influenced	2,186	11,955
Abundance	RG MI5	2019	3	Mine-influenced	2,000	10,589
Abundance	RG MI5	2020	1	Mine-influenced	1,744	10,439
Abundance	RG MI5	2020	2	Mine-influenced	2,043	11,666
Abundance	RG MI5	2020	3	Mine-influenced	1,704	10,286
Abundance	RG MI5	2021	1	Mine-influenced	2,148	11,743
Abundance	RG MI5	2021	2	Mine-influenced	1,964	10,563
Abundance	RG MI5	2021	3	Mine-influenced	1,859	10,415
Abundance	RG MI5	2022	1	Mine-influenced	1,920	10,585



**Table K-3: Site-specific Normal Ranges at CMm LAEMP Sampling Stations, 2012 to 2022**

Variable	Station	Year	Replicate	Reference or Mine-influenced	Lower Bound	Upper Bound
Abundance	RG_MI5	2022	2	Mine-influenced	2,062	10,878
Abundance	RG_MI5	2022	3	Mine-influenced	1,881	10,502
EPT Abundance	RG_MI25	2012	1	Reference	5,531	66,010
EPT Abundance	RG_MI25	2013	1	Reference	4,695	57,943
EPT Abundance	RG_MI25	2013	2	Reference	4,691	57,276
EPT Abundance	RG_MI25	2013	3	Reference	4,777	55,899
EPT Abundance	RG_MI25	2015	1	Reference	4,637	56,467
EPT Abundance	RG_MI25	2015	2	Reference	4,531	57,282
EPT Abundance	RG_MI25	2015	3	Reference	4,527	57,974
EPT Abundance	RG_MI25	2016	1	Reference	4,442	59,845
EPT Abundance	RG_MI25	2017	1	Reference	4,872	57,783
EPT Abundance	RG_MI25	2018	1	Reference	4,491	56,770
EPT Abundance	RG_MI25	2018	2	Reference	2,090	54,389
EPT Abundance	RG_MI25	2018	3	Reference	4,422	55,531
EPT Abundance	RG_MI25	2019	1	Reference	5,468	63,162
EPT Abundance	RG_MI25	2019	2	Reference	4,800	57,748
EPT Abundance	RG_MI25	2019	3	Reference	4,553	56,149
EPT Abundance	RG_MI25	2020	1	Reference	4,717	58,083
EPT Abundance	RG_MI25	2020	2	Reference	4,029	55,116
EPT Abundance	RG_MI25	2020	3	Reference	4,733	57,591
EPT Abundance	RG_MI25	2021	1	Reference	5,125	60,153
EPT Abundance	RG_MI25	2021	2	Reference	4,736	59,024
EPT Abundance	RG_MI25	2021	3	Reference	5,009	59,713
EPT Abundance	RG_MI25	2022	1	Reference	5,264	60,783
EPT Abundance	RG_MI25	2022	2	Reference	5,035	58,955
EPT Abundance	RG_MI25	2022	3	Reference	4,677	57,021
EPT Abundance	RG_AGCK	2012	1	Reference	2,158	13,280
EPT Abundance	RG_AGCK	2013	1	Reference	1,966	11,739
EPT Abundance	RG_AGCK	2015	1	Reference	1,877	11,527
EPT Abundance	RG_AGCK	2018	1	Reference	1,966	12,858
EPT Abundance	RG_AGCK	2018	2	Reference	1,956	12,640
EPT Abundance	RG_AGCK	2018	3	Reference	1,931	12,265
EPT Abundance	RG_AGCK	2019	1	Reference	2,042	12,244
EPT Abundance	RG_AGCK	2019	2	Reference	1,864	11,577
EPT Abundance	RG_AGCK	2019	3	Reference	1,976	12,095
EPT Abundance	RG_AGCK	2020	1	Reference	1,657	10,638
EPT Abundance	RG_AGCK	2020	2	Reference	2,003	11,844
EPT Abundance	RG_AGCK	2020	3	Reference	1,881	11,528
EPT Abundance	RG_AGCK	2021	1	Reference	1,897	11,678
EPT Abundance	RG_AGCK	2021	2	Reference	1,977	11,987
EPT Abundance	RG_AGCK	2021	3	Reference	1,942	11,596
EPT Abundance	RG_AGCK	2022	1	Reference	1,795	10,741
EPT Abundance	RG_AGCK	2022	2	Reference	1,926	11,496
EPT Abundance	RG_AGCK	2022	3	Reference	1,989	11,508
EPT Abundance	RG_LE1	2018	1	Reference	1,382	10,292
EPT Abundance	RG_LE1	2019	1	Reference	1,326	10,446
EPT Abundance	RG_LE1	2019	2	Reference	1,242	10,255
EPT Abundance	RG_LE1	2019	3	Reference	1,247	10,153
EPT Abundance	RG_LE1	2020	1	Reference	1,161	10,433
EPT Abundance	RG_LE1	2020	2	Reference	1,355	10,290
EPT Abundance	RG_LE1	2020	3	Reference	1,318	9,932
EPT Abundance	RG_LE1	2021	1	Reference	1,348	10,184
EPT Abundance	RG_LE1	2021	2	Reference	1,360	10,501
EPT Abundance	RG_LE1	2021	3	Reference	1,315	9,898
EPT Abundance	RG_LE1	2022	1	Reference	1,402	10,884
EPT Abundance	RG_LE1	2022	2	Reference	1,377	10,252
EPT Abundance	RG_LE1	2022	3	Reference	1,168	9,808
EPT Abundance	RG_MIUCO	2012	1	Mine-influenced	4,022	47,901
EPT Abundance	RG_MIUCO	2015	1	Mine-influenced	3,349	41,510
EPT Abundance	RG_MIUCO	2016	1	Mine-influenced	3,540	40,819
EPT Abundance	RG_MIUCO	2017	1	Mine-influenced	3,370	40,767
EPT Abundance	RG_MIUCO	2018	1	Mine-influenced	3,070	41,800
EPT Abundance	RG_MIUCO	2018	2	Mine-influenced	3,432	42,717
EPT Abundance	RG_MIUCO	2018	3	Mine-influenced	3,235	43,769
EPT Abundance	RG_MIUCO	2019	1	Mine-influenced	2,978	42,465
EPT Abundance	RG_MIUCO	2019	2	Mine-influenced	3,088	41,708
EPT Abundance	RG_MIUCO	2019	3	Mine-influenced	3,073	40,656
EPT Abundance	RG_MIUCO	2020	1	Mine-influenced	2,940	38,717
EPT Abundance	RG_MIUCO	2020	2	Mine-influenced	3,522	42,710
EPT Abundance	RG_MIUCO	2020	3	Mine-influenced	3,016	38,092
EPT Abundance	RG_MIUCO	2021	1	Mine-influenced	3,405	40,750
EPT Abundance	RG_MIUCO	2021	2	Mine-influenced	3,600	42,986
EPT Abundance	RG_MIUCO	2021	3	Mine-influenced	3,461	41,791
EPT Abundance	RG_MIUCO	2022	1	Mine-influenced	3,528	41,574
EPT Abundance	RG_MIUCO	2022	2	Mine-influenced	3,383	42,465
EPT Abundance	RG_MIUCO	2022	3	Mine-influenced	3,601	42,629
EPT Abundance	RG_CORCK	2012	1	Mine-influenced	2,776	17,340
EPT Abundance	RG_CORCK	2015	1	Mine-influenced	2,588	17,027
EPT Abundance	RG_CORCK	2016	1	Mine-influenced	2,761	17,379
EPT Abundance	RG_CORCK	2017	1	Mine-influenced	2,731	16,670
EPT Abundance	RG_CORCK	2018	1	Mine-influenced	2,478	17,452
EPT Abundance	RG_CORCK	2018	2	Mine-influenced	2,551	16,459
EPT Abundance	RG_CORCK	2018	3	Mine-influenced	2,447	17,309
EPT Abundance	RG_CORCK	2019	1	Mine-influenced	2,555	16,428
EPT Abundance	RG_CORCK	2019	2	Mine-influenced	2,622	17,727

**Table K-3: Site-specific Normal Ranges at CMM LAEMP Sampling Stations, 2012 to 2022**

Variable	Station	Year	Replicate	Reference or Mine-influenced	Lower Bound	Upper Bound
EPT Abundance	RG CORCK	2019	3	Mine-influenced	2,288	16,593
EPT Abundance	RG CORCK	2020	1	Mine-influenced	2,345	16,689
EPT Abundance	RG CORCK	2020	2	Mine-influenced	2,462	16,535
EPT Abundance	RG CORCK	2020	3	Mine-influenced	2,140	19,685
EPT Abundance	RG CORCK	2021	1	Mine-influenced	2,634	17,755
EPT Abundance	RG CORCK	2021	2	Mine-influenced	2,458	19,793
EPT Abundance	RG CORCK	2021	3	Mine-influenced	2,272	19,285
EPT Abundance	RG CORCK	2022	1	Mine-influenced	2,627	16,982
EPT Abundance	RG CORCK	2022	2	Mine-influenced	2,074	20,173
EPT Abundance	RG CORCK	2022	3	Mine-influenced	2,411	21,987
EPT Abundance	RG MIDCO	2012	1	Mine-influenced	2,302	19,319
EPT Abundance	RG MIDCO	2015	1	Mine-influenced	2,270	18,693
EPT Abundance	RG MIDCO	2016	1	Mine-influenced	2,301	18,970
EPT Abundance	RG MIDCO	2017	1	Mine-influenced	2,271	18,628
EPT Abundance	RG MIDCO	2018	1	Mine-influenced	2,065	17,988
EPT Abundance	RG MIDCO	2018	2	Mine-influenced	2,244	18,943
EPT Abundance	RG MIDCO	2018	3	Mine-influenced	2,032	18,629
EPT Abundance	RG MIDCO	2018	4	Mine-influenced	2,335	19,548
EPT Abundance	RG MIDCO	2018	5	Mine-influenced	2,317	19,379
EPT Abundance	RG MIDCO	2019	1	Mine-influenced	2,215	18,759
EPT Abundance	RG MIDCO	2019	2	Mine-influenced	2,130	18,350
EPT Abundance	RG MIDCO	2019	3	Mine-influenced	2,230	18,158
EPT Abundance	RG MIDCO	2019	4	Mine-influenced	2,343	19,580
EPT Abundance	RG MIDCO	2019	5	Mine-influenced	2,370	18,990
EPT Abundance	RG MIDCO	2020	1	Mine-influenced	2,214	18,001
EPT Abundance	RG MIDCO	2020	2	Mine-influenced	2,292	18,607
EPT Abundance	RG MIDCO	2020	3	Mine-influenced	1,915	17,321
EPT Abundance	RG MIDCO	2020	4	Mine-influenced	2,245	18,885
EPT Abundance	RG MIDCO	2020	5	Mine-influenced	2,092	18,473
EPT Abundance	RG MIDCO	2021	1	Mine-influenced	2,269	19,057
EPT Abundance	RG MIDCO	2021	2	Mine-influenced	2,339	19,347
EPT Abundance	RG MIDCO	2021	3	Mine-influenced	2,176	18,271
EPT Abundance	RG MIDCO	2021	4	Mine-influenced	2,212	18,922
EPT Abundance	RG MIDCO	2021	5	Mine-influenced	2,357	19,467
EPT Abundance	RG MIDCO	2022	1	Mine-influenced	2,592	20,258
EPT Abundance	RG MIDCO	2022	2	Mine-influenced	2,307	18,964
EPT Abundance	RG MIDCO	2022	3	Mine-influenced	2,395	18,834
EPT Abundance	RG MIDCO	2022	4	Mine-influenced	2,104	18,545
EPT Abundance	RG MIDCO	2022	5	Mine-influenced	2,085	17,994
EPT Abundance	RG MIDAG	2012	1	Mine-influenced	1,823	14,808
EPT Abundance	RG MIDAG	2015	1	Mine-influenced	1,657	13,603
EPT Abundance	RG MIDAG	2018	1	Mine-influenced	1,674	14,387
EPT Abundance	RG MIDAG	2018	2	Mine-influenced	1,540	13,155
EPT Abundance	RG MIDAG	2018	3	Mine-influenced	1,573	13,316
EPT Abundance	RG MIDAG	2019	1	Mine-influenced	1,577	13,777
EPT Abundance	RG MIDAG	2019	2	Mine-influenced	1,506	14,126
EPT Abundance	RG MIDAG	2019	3	Mine-influenced	1,805	14,240
EPT Abundance	RG MIDAG	2020	1	Mine-influenced	1,276	12,969
EPT Abundance	RG MIDAG	2020	2	Mine-influenced	1,651	14,185
EPT Abundance	RG MIDAG	2020	3	Mine-influenced	1,584	13,874
EPT Abundance	RG MIDAG	2021	1	Mine-influenced	1,603	13,812
EPT Abundance	RG MIDAG	2021	2	Mine-influenced	1,539	13,839
EPT Abundance	RG MIDAG	2021	3	Mine-influenced	1,700	14,536
EPT Abundance	RG MIDAG	2022	1	Mine-influenced	1,607	13,647
EPT Abundance	RG MIDAG	2022	2	Mine-influenced	1,655	13,917
EPT Abundance	RG MIDAG	2022	3	Mine-influenced	1,570	13,725
EPT Abundance	RG MIULE	2018	1	Mine-influenced	474	6,084
EPT Abundance	RG MIULE	2018	2	Mine-influenced	521	6,489
EPT Abundance	RG MIULE	2018	3	Mine-influenced	519	6,282
EPT Abundance	RG MIULE	2019	1	Mine-influenced	500	6,223
EPT Abundance	RG MIULE	2019	2	Mine-influenced	521	6,282
EPT Abundance	RG MIULE	2019	3	Mine-influenced	579	6,882
EPT Abundance	RG MIULE	2020	1	Mine-influenced	503	5,842
EPT Abundance	RG MIULE	2020	2	Mine-influenced	470	5,646
EPT Abundance	RG MIULE	2020	3	Mine-influenced	543	6,052
EPT Abundance	RG MIULE	2021	1	Mine-influenced	559	6,286
EPT Abundance	RG MIULE	2021	2	Mine-influenced	507	5,811
EPT Abundance	RG MIULE	2021	3	Mine-influenced	532	5,910
EPT Abundance	RG MIULE	2022	1	Mine-influenced	560	6,033
EPT Abundance	RG MIULE	2022	2	Mine-influenced	523	5,869
EPT Abundance	RG MIULE	2022	3	Mine-influenced	526	5,838
EPT Abundance	RG MI5	2012	1	Mine-influenced	1,244	10,038
EPT Abundance	RG MI5	2015	1	Mine-influenced	1,126	9,322
EPT Abundance	RG MI5	2018	1	Mine-influenced	1,065	9,051
EPT Abundance	RG MI5	2018	2	Mine-influenced	1,157	9,251
EPT Abundance	RG MI5	2018	3	Mine-influenced	1,190	9,447
EPT Abundance	RG MI5	2019	1	Mine-influenced	1,082	8,808
EPT Abundance	RG MI5	2019	2	Mine-influenced	1,365	10,567
EPT Abundance	RG MI5	2019	3	Mine-influenced	1,143	9,156
EPT Abundance	RG MI5	2020	1	Mine-influenced	1,025	9,141
EPT Abundance	RG MI5	2020	2	Mine-influenced	1,242	10,239
EPT Abundance	RG MI5	2020	3	Mine-influenced	984	8,882
EPT Abundance	RG MI5	2021	1	Mine-influenced	1,286	10,264
EPT Abundance	RG MI5	2021	2	Mine-influenced	1,193	9,274
EPT Abundance	RG MI5	2021	3	Mine-influenced	1,023	8,932

Table K-3: Site-specific Normal Ranges at CMM LAEMP Sampling Stations, 2012 to 2022

Variable	Station	Year	Replicate	Reference or Mine-influenced	Lower Bound	Upper Bound
EPT Abundance	RG MI5	2022	1	Mine-influenced	1,197	9,397
EPT Abundance	RG MI5	2022	2	Mine-influenced	1,266	9,590
EPT Abundance	RG MI5	2022	3	Mine-influenced	1,101	9,145
EPT Percentage	RG MI25	2012	1	Reference	63	89
EPT Percentage	RG MI25	2013	1	Reference	62	88
EPT Percentage	RG MI25	2013	2	Reference	62	89
EPT Percentage	RG MI25	2013	3	Reference	62	89
EPT Percentage	RG MI25	2015	1	Reference	60	88
EPT Percentage	RG MI25	2015	2	Reference	61	88
EPT Percentage	RG MI25	2015	3	Reference	60	87
EPT Percentage	RG MI25	2016	1	Reference	60	88
EPT Percentage	RG MI25	2017	1	Reference	64	90
EPT Percentage	RG MI25	2018	1	Reference	63	89
EPT Percentage	RG MI25	2018	2	Reference	49	86
EPT Percentage	RG MI25	2018	3	Reference	62	88
EPT Percentage	RG MI25	2019	1	Reference	66	91
EPT Percentage	RG MI25	2019	2	Reference	65	90
EPT Percentage	RG MI25	2019	3	Reference	62	89
EPT Percentage	RG MI25	2020	1	Reference	62	89
EPT Percentage	RG MI25	2020	2	Reference	57	86
EPT Percentage	RG MI25	2020	3	Reference	62	89
EPT Percentage	RG MI25	2021	1	Reference	64	90
EPT Percentage	RG MI25	2021	2	Reference	63	89
EPT Percentage	RG MI25	2021	3	Reference	62	88
EPT Percentage	RG MI25	2022	1	Reference	64	90
EPT Percentage	RG MI25	2022	2	Reference	64	90
EPT Percentage	RG MI25	2022	3	Reference	64	89
EPT Percentage	RG AGCK	2012	1	Reference	78	95
EPT Percentage	RG AGCK	2013	1	Reference	78	95
EPT Percentage	RG AGCK	2015	1	Reference	77	95
EPT Percentage	RG AGCK	2018	1	Reference	78	95
EPT Percentage	RG AGCK	2018	2	Reference	78	95
EPT Percentage	RG AGCK	2018	3	Reference	79	95
EPT Percentage	RG AGCK	2019	1	Reference	78	95
EPT Percentage	RG AGCK	2019	2	Reference	76	95
EPT Percentage	RG AGCK	2019	3	Reference	78	95
EPT Percentage	RG AGCK	2020	1	Reference	73	94
EPT Percentage	RG AGCK	2020	2	Reference	79	95
EPT Percentage	RG AGCK	2020	3	Reference	76	94
EPT Percentage	RG AGCK	2021	1	Reference	75	94
EPT Percentage	RG AGCK	2021	2	Reference	79	95
EPT Percentage	RG AGCK	2021	3	Reference	79	95
EPT Percentage	RG AGCK	2022	1	Reference	78	95
EPT Percentage	RG AGCK	2022	2	Reference	77	95
EPT Percentage	RG AGCK	2022	3	Reference	79	95
EPT Percentage	RG LE1	2018	1	Reference	62	88
EPT Percentage	RG LE1	2019	1	Reference	61	88
EPT Percentage	RG LE1	2019	2	Reference	58	85
EPT Percentage	RG LE1	2019	3	Reference	59	86
EPT Percentage	RG LE1	2020	1	Reference	55	84
EPT Percentage	RG LE1	2020	2	Reference	59	86
EPT Percentage	RG LE1	2020	3	Reference	60	87
EPT Percentage	RG LE1	2021	1	Reference	61	88
EPT Percentage	RG LE1	2021	2	Reference	59	86
EPT Percentage	RG LE1	2021	3	Reference	60	87
EPT Percentage	RG LE1	2022	1	Reference	62	89
EPT Percentage	RG LE1	2022	2	Reference	62	88
EPT Percentage	RG LE1	2022	3	Reference	56	85
EPT Percentage	RG MIUCO	2012	1	Mine-influenced	66	91
EPT Percentage	RG MIUCO	2015	1	Mine-influenced	63	89
EPT Percentage	RG MIUCO	2016	1	Mine-influenced	64	89
EPT Percentage	RG MIUCO	2017	1	Mine-influenced	61	88
EPT Percentage	RG MIUCO	2018	1	Mine-influenced	61	88
EPT Percentage	RG MIUCO	2018	2	Mine-influenced	65	90
EPT Percentage	RG MIUCO	2018	3	Mine-influenced	63	89
EPT Percentage	RG MIUCO	2019	1	Mine-influenced	59	87
EPT Percentage	RG MIUCO	2019	2	Mine-influenced	59	87
EPT Percentage	RG MIUCO	2019	3	Mine-influenced	59	87
EPT Percentage	RG MIUCO	2020	1	Mine-influenced	60	88
EPT Percentage	RG MIUCO	2020	2	Mine-influenced	64	89
EPT Percentage	RG MIUCO	2020	3	Mine-influenced	60	87
EPT Percentage	RG MIUCO	2021	1	Mine-influenced	62	89
EPT Percentage	RG MIUCO	2021	2	Mine-influenced	64	90
EPT Percentage	RG MIUCO	2021	3	Mine-influenced	63	89
EPT Percentage	RG MIUCO	2022	1	Mine-influenced	64	90
EPT Percentage	RG MIUCO	2022	2	Mine-influenced	64	89
EPT Percentage	RG MIUCO	2022	3	Mine-influenced	64	90
EPT Percentage	RG CORCK	2012	1	Mine-influenced	72	92
EPT Percentage	RG CORCK	2015	1	Mine-influenced	73	93
EPT Percentage	RG CORCK	2016	1	Mine-influenced	73	92
EPT Percentage	RG CORCK	2017	1	Mine-influenced	73	92
EPT Percentage	RG CORCK	2018	1	Mine-influenced	68	91
EPT Percentage	RG CORCK	2018	2	Mine-influenced	70	92
EPT Percentage	RG CORCK	2018	3	Mine-influenced	70	92
EPT Percentage	RG CORCK	2019	1	Mine-influenced	71	92
EPT Percentage	RG CORCK	2019	2	Mine-influenced	70	92



**Table K-3: Site-specific Normal Ranges at CMm LAEMP Sampling Stations, 2012 to 2022**

Variable	Station	Year	Replicate	Reference or Mine-influenced	Lower Bound	Upper Bound
EPT Percentage	RG CORCK	2019	3	Mine-influenced	67	90
EPT Percentage	RG CORCK	2020	1	Mine-influenced	63	90
EPT Percentage	RG CORCK	2020	2	Mine-influenced	67	90
EPT Percentage	RG CORCK	2020	3	Mine-influenced	61	89
EPT Percentage	RG CORCK	2021	1	Mine-influenced	67	91
EPT Percentage	RG CORCK	2021	2	Mine-influenced	66	90
EPT Percentage	RG CORCK	2021	3	Mine-influenced	62	89
EPT Percentage	RG CORCK	2022	1	Mine-influenced	71	92
EPT Percentage	RG CORCK	2022	2	Mine-influenced	66	90
EPT Percentage	RG CORCK	2022	3	Mine-influenced	67	91
EPT Percentage	RG MIDCO	2012	1	Mine-influenced	64	90
EPT Percentage	RG MIDCO	2015	1	Mine-influenced	64	90
EPT Percentage	RG MIDCO	2016	1	Mine-influenced	66	90
EPT Percentage	RG MIDCO	2017	1	Mine-influenced	64	89
EPT Percentage	RG MIDCO	2018	1	Mine-influenced	64	90
EPT Percentage	RG MIDCO	2018	2	Mine-influenced	64	89
EPT Percentage	RG MIDCO	2018	3	Mine-influenced	59	88
EPT Percentage	RG MIDCO	2018	4	Mine-influenced	64	90
EPT Percentage	RG MIDCO	2018	5	Mine-influenced	67	91
EPT Percentage	RG MIDCO	2019	1	Mine-influenced	66	90
EPT Percentage	RG MIDCO	2019	2	Mine-influenced	61	89
EPT Percentage	RG MIDCO	2019	3	Mine-influenced	63	89
EPT Percentage	RG MIDCO	2019	4	Mine-influenced	63	89
EPT Percentage	RG MIDCO	2019	5	Mine-influenced	65	90
EPT Percentage	RG MIDCO	2020	1	Mine-influenced	66	90
EPT Percentage	RG MIDCO	2020	2	Mine-influenced	66	90
EPT Percentage	RG MIDCO	2020	3	Mine-influenced	62	88
EPT Percentage	RG MIDCO	2020	4	Mine-influenced	63	89
EPT Percentage	RG MIDCO	2020	5	Mine-influenced	64	90
EPT Percentage	RG MIDCO	2021	1	Mine-influenced	64	90
EPT Percentage	RG MIDCO	2021	2	Mine-influenced	65	90
EPT Percentage	RG MIDCO	2021	3	Mine-influenced	66	90
EPT Percentage	RG MIDCO	2021	4	Mine-influenced	63	89
EPT Percentage	RG MIDCO	2021	5	Mine-influenced	65	90
EPT Percentage	RG MIDCO	2022	1	Mine-influenced	68	91
EPT Percentage	RG MIDCO	2022	2	Mine-influenced	67	91
EPT Percentage	RG MIDCO	2022	3	Mine-influenced	68	91
EPT Percentage	RG MIDCO	2022	4	Mine-influenced	63	89
EPT Percentage	RG MIDCO	2022	5	Mine-influenced	65	90
EPT Percentage	RG MIDAG	2012	1	Mine-influenced	67	91
EPT Percentage	RG MIDAG	2015	1	Mine-influenced	68	91
EPT Percentage	RG MIDAG	2018	1	Mine-influenced	69	92
EPT Percentage	RG MIDAG	2018	2	Mine-influenced	65	91
EPT Percentage	RG MIDAG	2018	3	Mine-influenced	66	91
EPT Percentage	RG MIDAG	2019	1	Mine-influenced	63	90
EPT Percentage	RG MIDAG	2019	2	Mine-influenced	63	90
EPT Percentage	RG MIDAG	2019	3	Mine-influenced	66	91
EPT Percentage	RG MIDAG	2020	1	Mine-influenced	61	89
EPT Percentage	RG MIDAG	2020	2	Mine-influenced	66	91
EPT Percentage	RG MIDAG	2020	3	Mine-influenced	65	90
EPT Percentage	RG MIDAG	2021	1	Mine-influenced	68	92
EPT Percentage	RG MIDAG	2021	2	Mine-influenced	68	92
EPT Percentage	RG MIDAG	2021	3	Mine-influenced	70	93
EPT Percentage	RG MIDAG	2022	1	Mine-influenced	70	92
EPT Percentage	RG MIDAG	2022	2	Mine-influenced	68	92
EPT Percentage	RG MIDAG	2022	3	Mine-influenced	68	92
EPT Percentage	RG MIULE	2018	1	Mine-influenced	60	88
EPT Percentage	RG MIULE	2018	2	Mine-influenced	63	90
EPT Percentage	RG MIULE	2018	3	Mine-influenced	63	90
EPT Percentage	RG MIULE	2019	1	Mine-influenced	60	88
EPT Percentage	RG MIULE	2019	2	Mine-influenced	63	89
EPT Percentage	RG MIULE	2019	3	Mine-influenced	63	90
EPT Percentage	RG MIULE	2020	1	Mine-influenced	59	88
EPT Percentage	RG MIULE	2020	2	Mine-influenced	55	87
EPT Percentage	RG MIULE	2020	3	Mine-influenced	62	89
EPT Percentage	RG MIULE	2021	1	Mine-influenced	61	89
EPT Percentage	RG MIULE	2021	2	Mine-influenced	59	88
EPT Percentage	RG MIULE	2021	3	Mine-influenced	63	90
EPT Percentage	RG MIULE	2022	1	Mine-influenced	65	91
EPT Percentage	RG MIULE	2022	2	Mine-influenced	63	90
EPT Percentage	RG MIULE	2022	3	Mine-influenced	64	90
EPT Percentage	RG MI5	2012	1	Mine-influenced	59	87
EPT Percentage	RG MI5	2015	1	Mine-influenced	57	86
EPT Percentage	RG MI5	2018	1	Mine-influenced	59	88
EPT Percentage	RG MI5	2018	2	Mine-influenced	61	88
EPT Percentage	RG MI5	2018	3	Mine-influenced	59	87
EPT Percentage	RG MI5	2019	1	Mine-influenced	57	87
EPT Percentage	RG MI5	2019	2	Mine-influenced	62	88
EPT Percentage	RG MI5	2019	3	Mine-influenced	57	86
EPT Percentage	RG MI5	2020	1	Mine-influenced	59	88
EPT Percentage	RG MI5	2020	2	Mine-influenced	61	88
EPT Percentage	RG MI5	2020	3	Mine-influenced	58	86
EPT Percentage	RG MI5	2021	1	Mine-influenced	60	87
EPT Percentage	RG MI5	2021	2	Mine-influenced	61	88
EPT Percentage	RG MI5	2021	3	Mine-influenced	55	86
EPT Percentage	RG MI5	2022	1	Mine-influenced	62	89

**Table K-3: Site-specific Normal Ranges at CMM LAEMP Sampling Stations, 2012 to 2022**

Variable	Station	Year	Replicate	Reference or Mine-influenced	Lower Bound	Upper Bound
EPT Percentage	RG MI5	2022	2	Mine-influenced	61	88
EPT Percentage	RG MI5	2022	3	Mine-influenced	59	87
Ephemeroptera Abundance	RG MI25	2012	1	Reference	2,688	45,962
Ephemeroptera Abundance	RG MI25	2013	1	Reference	2,344	40,398
Ephemeroptera Abundance	RG MI25	2013	2	Reference	2,344	40,086
Ephemeroptera Abundance	RG MI25	2013	3	Reference	2,341	39,172
Ephemeroptera Abundance	RG MI25	2015	1	Reference	2,438	40,431
Ephemeroptera Abundance	RG MI25	2015	2	Reference	2,363	40,844
Ephemeroptera Abundance	RG MI25	2015	3	Reference	2,383	41,805
Ephemeroptera Abundance	RG MI25	2016	1	Reference	2,232	42,097
Ephemeroptera Abundance	RG MI25	2017	1	Reference	2,355	39,887
Ephemeroptera Abundance	RG MI25	2018	1	Reference	2,219	39,425
Ephemeroptera Abundance	RG MI25	2018	2	Reference	1,335	39,008
Ephemeroptera Abundance	RG MI25	2018	3	Reference	2,170	38,695
Ephemeroptera Abundance	RG MI25	2019	1	Reference	2,524	42,938
Ephemeroptera Abundance	RG MI25	2019	2	Reference	2,215	39,476
Ephemeroptera Abundance	RG MI25	2019	3	Reference	2,265	39,500
Ephemeroptera Abundance	RG MI25	2020	1	Reference	2,323	40,255
Ephemeroptera Abundance	RG MI25	2020	2	Reference	2,212	39,943
Ephemeroptera Abundance	RG MI25	2020	3	Reference	2,333	40,449
Ephemeroptera Abundance	RG MI25	2021	1	Reference	2,424	41,134
Ephemeroptera Abundance	RG MI25	2021	2	Reference	2,281	41,067
Ephemeroptera Abundance	RG MI25	2021	3	Reference	2,518	42,014
Ephemeroptera Abundance	RG MI25	2022	1	Reference	2,388	41,271
Ephemeroptera Abundance	RG MI25	2022	2	Reference	2,254	39,991
Ephemeroptera Abundance	RG MI25	2022	3	Reference	2,102	38,730
Ephemeroptera Abundance	RG AGCK	2012	1	Reference	1,252	10,200
Ephemeroptera Abundance	RG AGCK	2013	1	Reference	1,127	8,909
Ephemeroptera Abundance	RG AGCK	2015	1	Reference	1,086	8,780
Ephemeroptera Abundance	RG AGCK	2018	1	Reference	1,132	9,794
Ephemeroptera Abundance	RG AGCK	2018	2	Reference	1,112	9,519
Ephemeroptera Abundance	RG AGCK	2018	3	Reference	1,072	9,205
Ephemeroptera Abundance	RG AGCK	2019	1	Reference	1,171	9,251
Ephemeroptera Abundance	RG AGCK	2019	2	Reference	1,084	8,793
Ephemeroptera Abundance	RG AGCK	2019	3	Reference	1,115	9,069
Ephemeroptera Abundance	RG AGCK	2020	1	Reference	1,019	8,186
Ephemeroptera Abundance	RG AGCK	2020	2	Reference	1,135	8,934
Ephemeroptera Abundance	RG AGCK	2020	3	Reference	1,099	8,792
Ephemeroptera Abundance	RG AGCK	2021	1	Reference	1,129	8,972
Ephemeroptera Abundance	RG AGCK	2021	2	Reference	1,115	9,023
Ephemeroptera Abundance	RG AGCK	2021	3	Reference	1,079	8,663
Ephemeroptera Abundance	RG AGCK	2022	1	Reference	1,004	8,033
Ephemeroptera Abundance	RG AGCK	2022	2	Reference	1,157	9,060
Ephemeroptera Abundance	RG AGCK	2022	3	Reference	1,096	8,537
Ephemeroptera Abundance	RG LE1	2018	1	Reference	756	7,187
Ephemeroptera Abundance	RG LE1	2019	1	Reference	749	7,341
Ephemeroptera Abundance	RG LE1	2019	2	Reference	775	7,617
Ephemeroptera Abundance	RG LE1	2019	3	Reference	734	7,343
Ephemeroptera Abundance	RG LE1	2020	1	Reference	763	7,836
Ephemeroptera Abundance	RG LE1	2020	2	Reference	787	7,370
Ephemeroptera Abundance	RG LE1	2020	3	Reference	793	7,233
Ephemeroptera Abundance	RG LE1	2021	1	Reference	739	7,115
Ephemeroptera Abundance	RG LE1	2021	2	Reference	814	7,640
Ephemeroptera Abundance	RG LE1	2021	3	Reference	767	7,113
Ephemeroptera Abundance	RG LE1	2022	1	Reference	727	7,447
Ephemeroptera Abundance	RG LE1	2022	2	Reference	729	7,109
Ephemeroptera Abundance	RG LE1	2022	3	Reference	733	7,218
Ephemeroptera Abundance	RG MIUCO	2012	1	Mine-influenced	1,705	30,885
Ephemeroptera Abundance	RG MIUCO	2015	1	Mine-influenced	1,498	27,048
Ephemeroptera Abundance	RG MIUCO	2016	1	Mine-influenced	1,462	25,957
Ephemeroptera Abundance	RG MIUCO	2017	1	Mine-influenced	1,546	27,015
Ephemeroptera Abundance	RG MIUCO	2018	1	Mine-influenced	1,360	26,781
Ephemeroptera Abundance	RG MIUCO	2018	2	Mine-influenced	1,412	26,791
Ephemeroptera Abundance	RG MIUCO	2018	3	Mine-influenced	1,384	28,003
Ephemeroptera Abundance	RG MIUCO	2019	1	Mine-influenced	1,380	27,781
Ephemeroptera Abundance	RG MIUCO	2019	2	Mine-influenced	1,454	27,693
Ephemeroptera Abundance	RG MIUCO	2019	3	Mine-influenced	1,459	26,987
Ephemeroptera Abundance	RG MIUCO	2020	1	Mine-influenced	1,374	25,646
Ephemeroptera Abundance	RG MIUCO	2020	2	Mine-influenced	1,597	28,226
Ephemeroptera Abundance	RG MIUCO	2020	3	Mine-influenced	1,423	25,529
Ephemeroptera Abundance	RG MIUCO	2021	1	Mine-influenced	1,482	26,482
Ephemeroptera Abundance	RG MIUCO	2021	2	Mine-influenced	1,539	27,632
Ephemeroptera Abundance	RG MIUCO	2021	3	Mine-influenced	1,539	27,313
Ephemeroptera Abundance	RG MIUCO	2022	1	Mine-influenced	1,480	26,582
Ephemeroptera Abundance	RG MIUCO	2022	2	Mine-influenced	1,409	26,771
Ephemeroptera Abundance	RG MIUCO	2022	3	Mine-influenced	1,496	26,998
Ephemeroptera Abundance	RG CORCK	2012	1	Mine-influenced	1,507	12,513
Ephemeroptera Abundance	RG CORCK	2015	1	Mine-influenced	1,349	12,031
Ephemeroptera Abundance	RG CORCK	2016	1	Mine-influenced	1,345	12,122
Ephemeroptera Abundance	RG CORCK	2017	1	Mine-influenced	1,415	11,750
Ephemeroptera Abundance	RG CORCK	2018	1	Mine-influenced	1,401	12,648
Ephemeroptera Abundance	RG CORCK	2018	2	Mine-influenced	1,387	11,783
Ephemeroptera Abundance	RG CORCK	2018	3	Mine-influenced	1,317	12,296
Ephemeroptera Abundance	RG CORCK	2019	1	Mine-influenced	1,384	11,774
Ephemeroptera Abundance	RG CORCK	2019	2	Mine-influenced	1,425	12,630
Ephemeroptera Abundance	RG CORCK	2019	3	Mine-influenced	1,320	12,056



**Table K-3: Site-specific Normal Ranges at CMm LAEMP Sampling Stations, 2012 to 2022**

Variable	Station	Year	Replicate	Reference or Mine-influenced	Lower Bound	Upper Bound
Ephemeroptera Abundance	RG CORCK	2020	1	Mine-influenced	1,492	12,617
Ephemeroptera Abundance	RG CORCK	2020	2	Mine-influenced	1,446	12,191
Ephemeroptera Abundance	RG CORCK	2020	3	Mine-influenced	1,381	14,881
Ephemeroptera Abundance	RG CORCK	2021	1	Mine-influenced	1,535	13,099
Ephemeroptera Abundance	RG CORCK	2021	2	Mine-influenced	1,470	14,780
Ephemeroptera Abundance	RG CORCK	2021	3	Mine-influenced	1,466	14,506
Ephemeroptera Abundance	RG CORCK	2022	1	Mine-influenced	1,409	12,074
Ephemeroptera Abundance	RG CORCK	2022	2	Mine-influenced	1,213	14,735
Ephemeroptera Abundance	RG CORCK	2022	3	Mine-influenced	1,387	15,967
Ephemeroptera Abundance	RG MIDCO	2012	1	Mine-influenced	1,132	13,274
Ephemeroptera Abundance	RG MIDCO	2015	1	Mine-influenced	1,095	12,601
Ephemeroptera Abundance	RG MIDCO	2016	1	Mine-influenced	1,101	12,759
Ephemeroptera Abundance	RG MIDCO	2017	1	Mine-influenced	1,124	12,689
Ephemeroptera Abundance	RG MIDCO	2018	1	Mine-influenced	1,000	12,108
Ephemeroptera Abundance	RG MIDCO	2018	2	Mine-influenced	1,123	12,932
Ephemeroptera Abundance	RG MIDCO	2018	3	Mine-influenced	1,102	13,174
Ephemeroptera Abundance	RG MIDCO	2018	4	Mine-influenced	1,146	13,334
Ephemeroptera Abundance	RG MIDCO	2018	5	Mine-influenced	1,086	12,878
Ephemeroptera Abundance	RG MIDCO	2019	1	Mine-influenced	1,057	12,563
Ephemeroptera Abundance	RG MIDCO	2019	2	Mine-influenced	1,096	12,650
Ephemeroptera Abundance	RG MIDCO	2019	3	Mine-influenced	1,111	12,532
Ephemeroptera Abundance	RG MIDCO	2019	4	Mine-influenced	1,158	13,415
Ephemeroptera Abundance	RG MIDCO	2019	5	Mine-influenced	1,155	12,924
Ephemeroptera Abundance	RG MIDCO	2020	1	Mine-influenced	1,074	12,241
Ephemeroptera Abundance	RG MIDCO	2020	2	Mine-influenced	1,077	12,422
Ephemeroptera Abundance	RG MIDCO	2020	3	Mine-influenced	985	11,968
Ephemeroptera Abundance	RG MIDCO	2020	4	Mine-influenced	1,125	12,828
Ephemeroptera Abundance	RG MIDCO	2020	5	Mine-influenced	1,050	12,646
Ephemeroptera Abundance	RG MIDCO	2021	1	Mine-influenced	1,110	12,991
Ephemeroptera Abundance	RG MIDCO	2021	2	Mine-influenced	1,126	13,043
Ephemeroptera Abundance	RG MIDCO	2021	3	Mine-influenced	1,020	12,165
Ephemeroptera Abundance	RG MIDCO	2021	4	Mine-influenced	1,148	13,476
Ephemeroptera Abundance	RG MIDCO	2021	5	Mine-influenced	1,131	13,159
Ephemeroptera Abundance	RG MIDCO	2022	1	Mine-influenced	1,167	13,277
Ephemeroptera Abundance	RG MIDCO	2022	2	Mine-influenced	1,054	12,535
Ephemeroptera Abundance	RG MIDCO	2022	3	Mine-influenced	988	12,156
Ephemeroptera Abundance	RG MIDCO	2022	4	Mine-influenced	1,077	12,989
Ephemeroptera Abundance	RG MIDCO	2022	5	Mine-influenced	968	11,936
Ephemeroptera Abundance	RG MIDAG	2012	1	Mine-influenced	959	10,654
Ephemeroptera Abundance	RG MIDAG	2015	1	Mine-influenced	801	9,319
Ephemeroptera Abundance	RG MIDAG	2018	1	Mine-influenced	845	10,029
Ephemeroptera Abundance	RG MIDAG	2018	2	Mine-influenced	761	9,025
Ephemeroptera Abundance	RG MIDAG	2018	3	Mine-influenced	805	9,261
Ephemeroptera Abundance	RG MIDAG	2019	1	Mine-influenced	858	9,851
Ephemeroptera Abundance	RG MIDAG	2019	2	Mine-influenced	816	10,005
Ephemeroptera Abundance	RG MIDAG	2019	3	Mine-influenced	888	9,731
Ephemeroptera Abundance	RG MIDAG	2020	1	Mine-influenced	742	9,671
Ephemeroptera Abundance	RG MIDAG	2020	2	Mine-influenced	819	9,748
Ephemeroptera Abundance	RG MIDAG	2020	3	Mine-influenced	848	9,934
Ephemeroptera Abundance	RG MIDAG	2021	1	Mine-influenced	759	9,414
Ephemeroptera Abundance	RG MIDAG	2021	2	Mine-influenced	728	9,449
Ephemeroptera Abundance	RG MIDAG	2021	3	Mine-influenced	798	9,856
Ephemeroptera Abundance	RG MIDAG	2022	1	Mine-influenced	749	9,225
Ephemeroptera Abundance	RG MIDAG	2022	2	Mine-influenced	761	9,372
Ephemeroptera Abundance	RG MIDAG	2022	3	Mine-influenced	717	9,172
Ephemeroptera Abundance	RG MIULE	2018	1	Mine-influenced	271	4,572
Ephemeroptera Abundance	RG MIULE	2018	2	Mine-influenced	265	4,673
Ephemeroptera Abundance	RG MIULE	2018	3	Mine-influenced	277	4,581
Ephemeroptera Abundance	RG MIULE	2019	1	Mine-influenced	293	4,680
Ephemeroptera Abundance	RG MIULE	2019	2	Mine-influenced	283	4,644
Ephemeroptera Abundance	RG MIULE	2019	3	Mine-influenced	315	5,071
Ephemeroptera Abundance	RG MIULE	2020	1	Mine-influenced	305	4,504
Ephemeroptera Abundance	RG MIULE	2020	2	Mine-influenced	303	4,441
Ephemeroptera Abundance	RG MIULE	2020	3	Mine-influenced	312	4,552
Ephemeroptera Abundance	RG MIULE	2021	1	Mine-influenced	322	4,746
Ephemeroptera Abundance	RG MIULE	2021	2	Mine-influenced	307	4,476
Ephemeroptera Abundance	RG MIULE	2021	3	Mine-influenced	297	4,410
Ephemeroptera Abundance	RG MIULE	2022	1	Mine-influenced	286	4,352
Ephemeroptera Abundance	RG MIULE	2022	2	Mine-influenced	277	4,265
Ephemeroptera Abundance	RG MIULE	2022	3	Mine-influenced	289	4,332
Ephemeroptera Abundance	RG MI5	2012	1	Mine-influenced	662	7,038
Ephemeroptera Abundance	RG MI5	2015	1	Mine-influenced	639	6,704
Ephemeroptera Abundance	RG MI5	2018	1	Mine-influenced	507	6,100
Ephemeroptera Abundance	RG MI5	2018	2	Mine-influenced	550	6,194
Ephemeroptera Abundance	RG MI5	2018	3	Mine-influenced	630	6,603
Ephemeroptera Abundance	RG MI5	2019	1	Mine-influenced	581	6,141
Ephemeroptera Abundance	RG MI5	2019	2	Mine-influenced	675	7,160
Ephemeroptera Abundance	RG MI5	2019	3	Mine-influenced	641	6,521
Ephemeroptera Abundance	RG MI5	2020	1	Mine-influenced	511	6,208
Ephemeroptera Abundance	RG MI5	2020	2	Mine-influenced	628	7,031
Ephemeroptera Abundance	RG MI5	2020	3	Mine-influenced	557	6,403
Ephemeroptera Abundance	RG MI5	2021	1	Mine-influenced	678	7,130
Ephemeroptera Abundance	RG MI5	2021	2	Mine-influenced	612	6,409
Ephemeroptera Abundance	RG MI5	2021	3	Mine-influenced	601	6,426
Ephemeroptera Abundance	RG MI5	2022	1	Mine-influenced	538	6,301
Ephemeroptera Abundance	RG MI5	2022	2	Mine-influenced	615	6,503

Table K-3: Site-specific Normal Ranges at CMM LAEMP Sampling Stations, 2012 to 2022

Variable	Station	Year	Replicate	Reference or Mine-influenced	Lower Bound	Upper Bound
Ephemeroptera Abundance	RG_MI5	2022	3	Mine-influenced	616	6,543
Ephemeroptera Percentage	RG_MI25	2022	2	Reference	29	61
Ephemeroptera Percentage	RG_MI25	2022	3	Reference	29	61
Ephemeroptera Percentage	RG_MI25	2022	1	Reference	29	61
Ephemeroptera Percentage	RG_MI25	2019	2	Reference	30	61
Ephemeroptera Percentage	RG_MI25	2021	1	Reference	30	61
Ephemeroptera Percentage	RG_MI25	2018	3	Reference	30	61
Ephemeroptera Percentage	RG_MI25	2020	1	Reference	31	61
Ephemeroptera Percentage	RG_MI25	2013	1	Reference	31	62
Ephemeroptera Percentage	RG_MI25	2019	1	Reference	30	62
Ephemeroptera Percentage	RG_MI25	2017	1	Reference	31	62
Ephemeroptera Percentage	RG_MI25	2016	1	Reference	30	62
Ephemeroptera Percentage	RG_MI25	2021	2	Reference	30	62
Ephemeroptera Percentage	RG_MI25	2012	1	Reference	31	62
Ephemeroptera Percentage	RG_MI25	2018	2	Reference	31	62
Ephemeroptera Percentage	RG_MI25	2013	2	Reference	31	62
Ephemeroptera Percentage	RG_MI25	2018	1	Reference	31	62
Ephemeroptera Percentage	RG_MI25	2021	3	Reference	31	62
Ephemeroptera Percentage	RG_MI25	2013	3	Reference	30	62
Ephemeroptera Percentage	RG_MI25	2020	3	Reference	31	62
Ephemeroptera Percentage	RG_MI25	2019	3	Reference	31	62
Ephemeroptera Percentage	RG_MI25	2015	2	Reference	32	62
Ephemeroptera Percentage	RG_MI25	2020	2	Reference	32	63
Ephemeroptera Percentage	RG_MI25	2015	1	Reference	32	63
Ephemeroptera Percentage	RG_MI25	2015	3	Reference	32	63
Ephemeroptera Percentage	RG_AGCK	2022	3	Reference	43	71
Ephemeroptera Percentage	RG_AGCK	2022	1	Reference	43	71
Ephemeroptera Percentage	RG_AGCK	2019	3	Reference	44	71
Ephemeroptera Percentage	RG_AGCK	2021	3	Reference	44	71
Ephemeroptera Percentage	RG_AGCK	2018	3	Reference	44	71
Ephemeroptera Percentage	RG_AGCK	2021	2	Reference	44	72
Ephemeroptera Percentage	RG_AGCK	2020	2	Reference	45	72
Ephemeroptera Percentage	RG_AGCK	2018	2	Reference	45	72
Ephemeroptera Percentage	RG_AGCK	2019	2	Reference	44	72
Ephemeroptera Percentage	RG_AGCK	2019	1	Reference	45	72
Ephemeroptera Percentage	RG_AGCK	2013	1	Reference	45	72
Ephemeroptera Percentage	RG_AGCK	2020	3	Reference	45	72
Ephemeroptera Percentage	RG_AGCK	2015	1	Reference	45	72
Ephemeroptera Percentage	RG_AGCK	2020	1	Reference	45	72
Ephemeroptera Percentage	RG_AGCK	2021	1	Reference	45	72
Ephemeroptera Percentage	RG_AGCK	2018	1	Reference	45	72
Ephemeroptera Percentage	RG_AGCK	2012	1	Reference	45	73
Ephemeroptera Percentage	RG_AGCK	2022	2	Reference	46	75
Ephemeroptera Percentage	RG_LE1	2022	1	Reference	32	61
Ephemeroptera Percentage	RG_LE1	2022	2	Reference	33	61
Ephemeroptera Percentage	RG_LE1	2021	1	Reference	34	61
Ephemeroptera Percentage	RG_LE1	2019	1	Reference	34	62
Ephemeroptera Percentage	RG_LE1	2018	1	Reference	34	62
Ephemeroptera Percentage	RG_LE1	2020	2	Reference	35	62
Ephemeroptera Percentage	RG_LE1	2019	3	Reference	34	62
Ephemeroptera Percentage	RG_LE1	2022	3	Reference	35	62
Ephemeroptera Percentage	RG_LE1	2021	3	Reference	35	62
Ephemeroptera Percentage	RG_LE1	2021	2	Reference	35	63
Ephemeroptera Percentage	RG_LE1	2020	1	Reference	36	63
Ephemeroptera Percentage	RG_LE1	2020	3	Reference	36	63
Ephemeroptera Percentage	RG_LE1	2019	2	Reference	36	63
Ephemeroptera Percentage	RG_MIUCO	2022	2	Mine-influenced	26	56
Ephemeroptera Percentage	RG_MIUCO	2018	2	Mine-influenced	27	56
Ephemeroptera Percentage	RG_MIUCO	2018	1	Mine-influenced	27	57
Ephemeroptera Percentage	RG_MIUCO	2022	3	Mine-influenced	27	57
Ephemeroptera Percentage	RG_MIUCO	2016	1	Mine-influenced	26	57
Ephemeroptera Percentage	RG_MIUCO	2018	3	Mine-influenced	27	57
Ephemeroptera Percentage	RG_MIUCO	2019	1	Mine-influenced	27	57
Ephemeroptera Percentage	RG_MIUCO	2022	1	Mine-influenced	27	57
Ephemeroptera Percentage	RG_MIUCO	2021	1	Mine-influenced	27	58
Ephemeroptera Percentage	RG_MIUCO	2019	2	Mine-influenced	28	58
Ephemeroptera Percentage	RG_MIUCO	2021	2	Mine-influenced	28	58
Ephemeroptera Percentage	RG_MIUCO	2015	1	Mine-influenced	28	58
Ephemeroptera Percentage	RG_MIUCO	2019	3	Mine-influenced	28	58
Ephemeroptera Percentage	RG_MIUCO	2020	1	Mine-influenced	28	58
Ephemeroptera Percentage	RG_MIUCO	2017	1	Mine-influenced	28	58
Ephemeroptera Percentage	RG_MIUCO	2021	3	Mine-influenced	28	58
Ephemeroptera Percentage	RG_MIUCO	2012	1	Mine-influenced	28	58
Ephemeroptera Percentage	RG_MIUCO	2020	3	Mine-influenced	28	59
Ephemeroptera Percentage	RG_MIUCO	2020	2	Mine-influenced	29	59
Ephemeroptera Percentage	RG_CORCK	2016	1	Mine-influenced	36	64
Ephemeroptera Percentage	RG_CORCK	2018	3	Mine-influenced	38	65
Ephemeroptera Percentage	RG_CORCK	2017	1	Mine-influenced	38	65
Ephemeroptera Percentage	RG_CORCK	2019	2	Mine-influenced	38	65
Ephemeroptera Percentage	RG_CORCK	2015	1	Mine-influenced	38	65
Ephemeroptera Percentage	RG_CORCK	2022	1	Mine-influenced	38	66
Ephemeroptera Percentage	RG_CORCK	2018	2	Mine-influenced	38	66
Ephemeroptera Percentage	RG_CORCK	2019	3	Mine-influenced	39	66



Table K-3: Site-specific Normal Ranges at CMm LAEMP Sampling Stations, 2012 to 2022

Variable	Station	Year	Replicate	Reference or Mine-influenced	Lower Bound	Upper Bound
Ephemeroptera Percentage	RG CORCK	2022	3	Mine-influenced	38	66
Ephemeroptera Percentage	RG CORCK	2018	1	Mine-influenced	39	66
Ephemeroptera Percentage	RG CORCK	2022	2	Mine-influenced	39	66
Ephemeroptera Percentage	RG CORCK	2019	1	Mine-influenced	39	66
Ephemeroptera Percentage	RG CORCK	2020	2	Mine-influenced	39	67
Ephemeroptera Percentage	RG CORCK	2012	1	Mine-influenced	39	67
Ephemeroptera Percentage	RG CORCK	2021	1	Mine-influenced	39	67
Ephemeroptera Percentage	RG CORCK	2021	3	Mine-influenced	40	67
Ephemeroptera Percentage	RG CORCK	2020	3	Mine-influenced	40	67
Ephemeroptera Percentage	RG CORCK	2021	2	Mine-influenced	40	68
Ephemeroptera Percentage	RG CORCK	2020	1	Mine-influenced	40	68
Ephemeroptera Percentage	RG MIDCO	2022	3	Mine-influenced	28	59
Ephemeroptera Percentage	RG MIDCO	2022	2	Mine-influenced	31	60
Ephemeroptera Percentage	RG MIDCO	2022	5	Mine-influenced	30	60
Ephemeroptera Percentage	RG MIDCO	2022	1	Mine-influenced	31	60
Ephemeroptera Percentage	RG MIDCO	2021	3	Mine-influenced	31	60
Ephemeroptera Percentage	RG MIDCO	2020	2	Mine-influenced	31	60
Ephemeroptera Percentage	RG MIDCO	2018	1	Mine-influenced	31	60
Ephemeroptera Percentage	RG MIDCO	2015	1	Mine-influenced	31	60
Ephemeroptera Percentage	RG MIDCO	2020	4	Mine-influenced	31	61
Ephemeroptera Percentage	RG MIDCO	2019	1	Mine-influenced	31	61
Ephemeroptera Percentage	RG MIDCO	2018	5	Mine-influenced	32	61
Ephemeroptera Percentage	RG MIDCO	2017	1	Mine-influenced	32	61
Ephemeroptera Percentage	RG MIDCO	2021	2	Mine-influenced	31	61
Ephemeroptera Percentage	RG MIDCO	2021	5	Mine-influenced	31	61
Ephemeroptera Percentage	RG MIDCO	2016	1	Mine-influenced	32	61
Ephemeroptera Percentage	RG MIDCO	2018	2	Mine-influenced	32	61
Ephemeroptera Percentage	RG MIDCO	2020	3	Mine-influenced	32	61
Ephemeroptera Percentage	RG MIDCO	2019	2	Mine-influenced	31	61
Ephemeroptera Percentage	RG MIDCO	2021	1	Mine-influenced	31	61
Ephemeroptera Percentage	RG MIDCO	2019	4	Mine-influenced	31	61
Ephemeroptera Percentage	RG MIDCO	2018	4	Mine-influenced	31	61
Ephemeroptera Percentage	RG MIDCO	2019	5	Mine-influenced	32	61
Ephemeroptera Percentage	RG MIDCO	2019	3	Mine-influenced	31	61
Ephemeroptera Percentage	RG MIDCO	2020	5	Mine-influenced	32	61
Ephemeroptera Percentage	RG MIDCO	2020	1	Mine-influenced	32	61
Ephemeroptera Percentage	RG MIDCO	2012	1	Mine-influenced	32	62
Ephemeroptera Percentage	RG MIDCO	2018	3	Mine-influenced	32	62
Ephemeroptera Percentage	RG MIDCO	2022	4	Mine-influenced	32	63
Ephemeroptera Percentage	RG MIDCO	2021	4	Mine-influenced	33	64
Ephemeroptera Percentage	RG MIDAG	2022	3	Mine-influenced	31	61
Ephemeroptera Percentage	RG MIDAG	2022	2	Mine-influenced	31	62
Ephemeroptera Percentage	RG MIDAG	2019	3	Mine-influenced	33	62
Ephemeroptera Percentage	RG MIDAG	2018	2	Mine-influenced	32	62
Ephemeroptera Percentage	RG MIDAG	2020	2	Mine-influenced	33	62
Ephemeroptera Percentage	RG MIDAG	2021	1	Mine-influenced	32	62
Ephemeroptera Percentage	RG MIDAG	2022	1	Mine-influenced	33	62
Ephemeroptera Percentage	RG MIDAG	2021	2	Mine-influenced	32	63
Ephemeroptera Percentage	RG MIDAG	2015	1	Mine-influenced	33	63
Ephemeroptera Percentage	RG MIDAG	2021	3	Mine-influenced	33	63
Ephemeroptera Percentage	RG MIDAG	2018	3	Mine-influenced	34	63
Ephemeroptera Percentage	RG MIDAG	2019	2	Mine-influenced	34	64
Ephemeroptera Percentage	RG MIDAG	2018	1	Mine-influenced	35	64
Ephemeroptera Percentage	RG MIDAG	2019	1	Mine-influenced	34	64
Ephemeroptera Percentage	RG MIDAG	2020	3	Mine-influenced	35	65
Ephemeroptera Percentage	RG MIDAG	2012	1	Mine-influenced	35	66
Ephemeroptera Percentage	RG MIDAG	2020	1	Mine-influenced	36	66
Ephemeroptera Percentage	RG MIULE	2018	2	Mine-influenced	32	65
Ephemeroptera Percentage	RG MIULE	2022	2	Mine-influenced	34	65
Ephemeroptera Percentage	RG MIULE	2018	3	Mine-influenced	34	66
Ephemeroptera Percentage	RG MIULE	2022	1	Mine-influenced	33	66
Ephemeroptera Percentage	RG MIULE	2019	2	Mine-influenced	34	66
Ephemeroptera Percentage	RG MIULE	2019	3	Mine-influenced	34	66
Ephemeroptera Percentage	RG MIULE	2019	1	Mine-influenced	35	66
Ephemeroptera Percentage	RG MIULE	2018	1	Mine-influenced	34	66
Ephemeroptera Percentage	RG MIULE	2022	3	Mine-influenced	35	67
Ephemeroptera Percentage	RG MIULE	2021	3	Mine-influenced	35	67
Ephemeroptera Percentage	RG MIULE	2021	1	Mine-influenced	35	67
Ephemeroptera Percentage	RG MIULE	2020	3	Mine-influenced	36	67
Ephemeroptera Percentage	RG MIULE	2021	2	Mine-influenced	36	68
Ephemeroptera Percentage	RG MIULE	2020	1	Mine-influenced	36	68
Ephemeroptera Percentage	RG MIULE	2020	2	Mine-influenced	36	68
Ephemeroptera Percentage	RG MI5	2018	1	Mine-influenced	28	59
Ephemeroptera Percentage	RG MI5	2018	2	Mine-influenced	29	59
Ephemeroptera Percentage	RG MI5	2020	1	Mine-influenced	29	59
Ephemeroptera Percentage	RG MI5	2022	1	Mine-influenced	28	60
Ephemeroptera Percentage	RG MI5	2022	2	Mine-influenced	30	60
Ephemeroptera Percentage	RG MI5	2019	2	Mine-influenced	31	60
Ephemeroptera Percentage	RG MI5	2020	2	Mine-influenced	31	60
Ephemeroptera Percentage	RG MI5	2019	1	Mine-influenced	31	60
Ephemeroptera Percentage	RG MI5	2021	2	Mine-influenced	31	61
Ephemeroptera Percentage	RG MI5	2021	1	Mine-influenced	32	61
Ephemeroptera Percentage	RG MI5	2018	3	Mine-influenced	31	61
Ephemeroptera Percentage	RG MI5	2012	1	Mine-influenced	32	61
Ephemeroptera Percentage	RG MI5	2019	3	Mine-influenced	32	62
Ephemeroptera Percentage	RG MI5	2021	3	Mine-influenced	32	62

**Table K-3: Site-specific Normal Ranges at CMm LAEMP Sampling Stations, 2012 to 2022**

Variable	Station	Year	Replicate	Reference or Mine-influenced	Lower Bound	Upper Bound
Ephemeroptera Percentage	RG_MI5	2015	1	Mine-influenced	32	62
Ephemeroptera Percentage	RG_MI5	2020	3	Mine-influenced	33	62
Ephemeroptera Percentage	RG_MI5	2022	3	Mine-influenced	33	62

Note: The average of the replicates was used as the site-specific normal range.

EPT = Ephemeroptera, Plecoptera, Trichoptera; CMm = Coal Mountain Mine; LAEMP = local aquatic effects monitoring program.

**Table K-4: Spatial Analysis of Benthic Invertebrate Community Variables at CMm LAEMP Sampling Stations, 2022**

Variable	Year	Transformation	Overall ANOVA <i>p</i> -value	Mine-Influenced Station Compared to Downstream Stations					
				MIUCO <sup>(a)</sup>	CORCK	MIDCO	MIDAG	MIULE	MI5
Benthic invertebrate taxonomic richness (taxa per 3 min kick)	2022	none	<0.001	0.010 (1.0)	<0.001 (-2.3)	0.015 (1.0)	0.347 (0.4)	0.018 (1.2)	0.554 (0.2)
Benthic invertebrate abundance (organisms per 3 min kick)	2022	none	<0.001	<0.001 (-1.8)	0.002 (-1.4)	0.572 (-0.2)	0.594 (-0.2)	0.318 (0.3)	0.012 (-0.8)
Ephemeroptera, Plecoptera, Trichoptera abundance (organisms per 3 min kick)	2022	ln(X+1)	<0.001	<0.001 (-1.3)	<0.001 (-4.0)	<0.001 (-1.9)	0.770 (-0.1)	0.733 (0.1)	0.066 (-0.8)
Percent Ephemeroptera, Plecoptera, Trichoptera (%)	2022	none	<0.001	0.127 (-0.1)	<0.001 (-2.7)	<0.001 (-7.2)	0.101 (-0.8)	0.001 (-3.0)	0.407 (-0.7)
Emphemeroptera abundance (organisms per 3 min kick)	2022	ln(X+1)	<0.001	0.080 (-0.1)	<0.001 (-11.9)	<0.001 (-2.8)	0.038 (-0.8)	0.537 (0.2)	0.104 (-0.5)
Percent Ephemeroptera (%)	2022	ln(X+1)	<0.001	0.356 (0.0)	<0.001 (-2.6)	<0.001 (-3.7)	<0.001 (-1.7)	0.134 (-0.6)	0.399 (0.3)

Notes: A posteriori comparisons following significant overall tests were considered significant at  $p < 0.009$  after Dunn-Sidak correction. The direction and magnitude of difference (expressed as standard deviation) is provided in brackets. Magnitude of difference was calculated as [(average at station)-(average of downstream and reference stations)]/standard deviation of downstream and reference stations.

a) MIUCO is located in Michel Creek upstream of the Corbin Creek confluence.

Grey cells represent magnitude of differences greater than two standard deviations below the mean.

% = percent; min = minute; ANOVA = analysis of variance; Ln = natural logarithm; < = less than; *p* = probability; CMm = Coal Mountain Mine; LAEMP = local aquatic effects monitoring program.



Table K-5: Temporal Analysis of Benthic Invertebrate Community Variables at CMm LAEMP Sampling Stations, 2012 to 2022

Benthic Invertebrate Community Endpoint	Area	Station	Transformation	Overall ANOVA (p-value)	Year Compared to Combined Previous Years										
					Dunn-Šidák corrected level of significance <sup>(a)</sup>	2022 vs. 2012-2021	2021 vs. 2012-2020	2020 vs. 2012-2019	2019 vs. 2012-2018	2018 vs. 2012-2017	2017 vs. 2012-2016	2016 vs. 2012-2015	2015 vs. 2012-2014	2014 vs. 2012-2013	2013 vs. 2012
Benthic Invertebrate Richness (taxa per 3 min kick)	Reference Stations	MI25	none	<b>0.003</b>	0.006	<b>0.002 (-1.5)</b>	0.934 (0.1)	0.081 (0.9)	0.983 (0.2)	0.022 (1.6)	0.653 (0.8)	0.025 (2.8)	0.959 (0.5)	n/a	0.027 (n/a)
		AGCK	none	0.369	0.007	0.501 (0.2)	0.382 (-0.9)	0.042 (1.6)	0.658 (0.1)	n/a	n/a	0.208 (2.6)	0.771 (-0.7)	n/a	0.616 (n/a)
		LE1	none	0.725	0.013	0.295 (-1.0)	0.680 (-0.2)	0.938 (0.3)	0.334 (n/a)	n/a	n/a	n/a	n/a	n/a	n/a
	Mine-Influenced Stations	MIUCO	none	0.210	0.006	0.604 (0.0)	0.046 (1.3)	0.053 (1.5)	0.058 (4.0)	0.669 (-2.6)	0.900 (1.2)	0.929 (-0.7)	0.877 (n/a)	n/a	n/a
		CORCK	none	0.076	0.006	0.024 (-0.9)	0.094 (-0.6)	0.016 (-1.4)	0.288 (-0.3)	0.051 (-1.4)	0.157 (-1.7)	0.384 (0.9)	0.264 (n/a)	n/a	n/a
		MIDCO	none	<b>0.009</b>	0.006	0.514 (-0.3)	0.128 (-0.8)	<b>0.004 (1.7)</b>	0.171 (1.1)	0.172 (-0.8)	0.228 (1.1)	0.094 (12.0)	0.860 (n/a)	n/a	n/a
		MIDAG	ln(X+1)	0.064	0.009	0.502 (-0.5)	0.647 (-0.5)	<b>0.005 (1.8)</b>	0.089 (1.3)	0.485 (1.4)	n/a	n/a	0.656 (n/a)	n/a	n/a
MIULE	none	0.152	0.013	0.605 (-0.3)	0.357 (-0.5)	0.045 (1.4)	0.182 (1.0)	n/a	n/a	n/a	n/a	n/a	n/a		
MI5	ln(X+1)	0.052	0.009	0.553 (-0.5)	0.48 (0.1)	<b>0.008 (1.4)</b>	0.103 (0.7)	0.282 (0.4)	n/a	n/a	n/a	0.04 (n/a)	n/a	n/a	
Benthic Invertebrate Abundance (organisms per 3 min kick)	Reference Stations	MI25	ln(X+1)	<b>0.009</b>	0.006	0.954 (0.0)	0.398 (0.4)	0.023 (-1)	0.067 (-0.8)	0.951 (0)	0.029 (1.3)	0.067 (0.8)	0.635 (-0.3)	n/a	<b>0.001 (n/a)</b>
		AGCK	none	<b>&lt;0.001</b>	0.007	0.015 (0.7)	<b>&lt;0.001 (-1.2)</b>	<b>0.003 (-0.6)</b>	0.805 (0.1)	n/a	n/a	0.012 (-0.4)	<b>&lt;0.001 (-1.1)</b>	n/a	<b>&lt;0.001 (n/a)</b>
		LE1	ln(X+1)	0.123	0.013	0.175 (-0.5)	0.897 (0.3)	0.024 (-1.5)	0.090 (n/a)	n/a	n/a	n/a	n/a	n/a	n/a
	Mine-Influenced Stations	MIUCO	ln(X+1)	<b>0.023</b>	0.006	0.043 (-1.0)	0.915 (-0.1)	0.029 (-1.2)	0.188 (0.4)	0.29 (0.4)	0.125 (0.8)	0.789 (0.1)	0.008 (n/a)	n/a	n/a
		CORCK	ln(X+1)	<b>0.015</b>	0.006	0.095 (-0.7)	0.548 (0.3)	0.878 (0.1)	0.073 (0.9)	0.029 (-0.8)	0.784 (0.1)	0.175 (0.4)	<b>0.002 (n/a)</b>	n/a	n/a
		MIDCO	ln(X+1)	<b>&lt;0.001</b>	0.006	0.021 (-0.7)	0.49 (-0.2)	0.02 (0.5)	<b>&lt;0.001 (2.6)</b>	<b>0.001 (-1.7)</b>	0.052 (2.0)	0.104 (-11.5)	0.858 (n/a)	n/a	n/a
		MIDAG	ln(X+1)	0.489	0.009	0.642 (-0.3)	0.349 (-0.6)	0.113 (1.3)	0.612 (-0.4)	0.604 (-1.2)	n/a	n/a	0.681 (n/a)	n/a	n/a
MIULE	none	0.674	0.013	0.434 (-0.5)	0.285 (-0.7)	0.551 (0.4)	0.812 (-0.1)	n/a	n/a	n/a	n/a	n/a	n/a		
MI5	none	0.519	0.009	0.233 (-1.0)	0.309 (0.8)	0.301 (0.7)	0.227 (1.3)	0.587 (7.2)	n/a	n/a	0.945 (n/a)	n/a	n/a		
Ephemeroptera, Plecoptera, Trichoptera Abundance (organisms per 3 min kick)	Reference Stations	MI25	ln(X+1)	<b>0.021</b>	0.006	0.677 (0.2)	0.299 (0.5)	0.068 (-0.8)	0.064 (-0.9)	0.924 (-0.1)	0.064 (1.1)	0.228 (0.4)	0.943 (-0.5)	n/a	<b>0.002 (n/a)</b>
		AGCK	none	<b>&lt;0.001</b>	0.007	0.016 (0.7)	<b>&lt;0.001 (-1.3)</b>	<b>0.001 (-0.7)</b>	0.524 (0.1)	n/a	n/a	<b>0.005 (-0.4)</b>	<b>&lt;0.001 (-1.0)</b>	n/a	<b>&lt;0.001 (n/a)</b>
		LE1	ln(X+1)	0.200	0.013	0.393 (-0.2)	0.951 (0.4)	0.041 (-1.3)	0.110 (n/a)	n/a	n/a	n/a	n/a	n/a	n/a
	Mine-Influenced Stations	MIUCO	ln(X+1)	<b>0.022</b>	0.006	0.029 (-1.0)	0.799 (0.0)	<b>0.006 (-1.6)</b>	0.975 (0.0)	0.635 (0.2)	0.102 (1.0)	0.756 (0.1)	0.013 (n/a)	n/a	n/a
		CORCK	ln(X+1)	<b>0.010</b>	0.006	0.067 (-0.6)	0.795 (0.3)	0.505 (0.0)	0.616 (0.4)	<b>0.002 (-1.3)</b>	0.466 (0.3)	0.079 (0.7)	<b>0.005 (n/a)</b>	n/a	n/a
		MIDCO	ln(X+1)	<b>&lt;0.001</b>	0.006	0.034 (-0.3)	0.954 (0.2)	0.021 (0.8)	0.153 (0.9)	<b>&lt;0.001 (-3.6)</b>	0.116 (1.3)	0.057 (-13.7)	0.859 (n/a)	n/a	n/a
		MIDAG	none	0.176	0.009	0.618 (-0.3)	0.292 (-0.6)	0.023 (2.0)	0.577 (-0.5)	0.566 (-2.1)	n/a	n/a	0.799 (n/a)	n/a	n/a
MIULE	none	0.952	0.013	0.910 (-0.1)	0.732 (-0.2)	0.618 (0.3)	0.628 (-0.3)	n/a	n/a	n/a	n/a	n/a	n/a		
MI5	none	0.576	0.009	0.352 (-0.8)	0.168 (1.4)	0.398 (0.6)	0.279 (1.2)	0.619 (3.7)	n/a	n/a	0.903 (n/a)	n/a	n/a		
Percent Ephemeroptera, Plecoptera, Trichoptera (%)	Reference Stations	MI25	none	<b>0.017</b>	0.006	0.020 (1.1)	0.131 (0.6)	0.254 (0.4)	0.179 (-0.7)	0.444 (-0.5)	0.464 (-0.7)	0.025 (-1.8)	0.015 (-5.9)	n/a	0.489 (n/a)
		AGCK	none	<b>0.036</b>	0.007	0.736 (0.4)	<b>0.003 (-1.8)</b>	0.022 (-1.3)	0.284 (-0.4)	n/a	n/a	0.221 (-0.9)	0.256 (1.2)	n/a	0.244 (n/a)
		LE1	none	0.154	0.013	0.026 (1.7)	0.351 (0.6)	0.287 (1.1)	0.833 (n/a)	n/a	n/a	n/a	n/a	n/a	n/a
	Mine-Influenced Stations	MIUCO	none	<b>&lt;0.001</b>	0.006	0.277 (0.1)	0.266 (0.2)	<b>&lt;0.001 (-0.7)</b>	<b>&lt;0.001 (-2.3)</b>	<b>0.002 (-1.9)</b>	0.697 (0.2)	0.883 (0.1)	0.014 (n/a)	n/a	n/a
		CORCK	ln(X+1)	0.116	0.006	0.863 (0.4)	0.299 (-0.2)	0.165 (-0.4)	0.015 (-1.2)	0.212 (-0.7)	0.612 (0.3)	0.891 (-0.1)	0.025 (n/a)	n/a	n/a
		MIDCO	ln(X+1)	<b>0.001</b>	0.006	0.982 (0.5)	0.652 (0.7)	0.669 (0.5)	<b>&lt;0.001 (-0.9)</b>	<b>&lt;0.001 (-5.8)</b>	0.546 (-1.5)	0.665 (-1.0)	0.601 (n/a)	n/a	n/a
		MIDAG	none	<b>0.002</b>	0.009	0.023 (1.0)	0.593 (0.4)	0.125 (0.8)	<b>&lt;0.001 (-3.7)</b>	0.206 (-0.9)	n/a	n/a	0.222 (n/a)	n/a	n/a
MIULE	none	<b>0.013</b>	0.013	0.013 (1.4)	<b>0.005 (2.6)</b>	0.859 (-0.1)	0.678 (-0.4)	n/a	n/a	n/a	n/a	n/a	n/a		
MI5	none	0.147	0.009	0.069 (1.2)	0.058 (1.7)	0.777 (-0.2)	0.877 (-0.1)	0.878 (-0.1)	n/a	n/a	0.137 (n/a)	n/a	n/a		
Ephemeroptera Abundance (organisms per 3 min kick)	Reference Stations	MI25	none	<b>0.034</b>	0.006	0.942 (0.2)	0.860 (0.2)	0.062 (-0.7)	0.042 (-0.8)	0.534 (-0.2)	0.011 (2)	0.174 (0.8)	0.634 (-0.6)	n/a	0.019 (n/a)
		AGCK	none	<b>&lt;0.001</b>	0.007	0.258 (0.4)	<b>&lt;0.001 (-1.4)</b>	<b>0.002 (-0.8)</b>	0.537 (0.2)	n/a	n/a	0.039 (-0.3)	<b>&lt;0.001 (-1.3)</b>	n/a	<b>&lt;0.001 (n/a)</b>
		LE1	ln(X+1)	<b>0.032</b>	0.013	0.442 (-0.1)	0.302 (0.9)	0.014 (-1.0)	0.02 (n/a)	n/a	n/a	n/a	n/a	n/a	n/a
	Mine-Influenced Stations	MIUCO	ln(X+1)	<b>0.002</b>	0.006	0.010 (-0.9)	0.807 (0.2)	<b>&lt;0.001 (-1.9)</b>	0.520 (-0.3)	0.348 (0.3)	0.127 (0.6)	0.935 (0)	<b>0.001 (n/a)</b>	n/a	n/a
		CORCK	ln(X+1)	0.222	0.006	0.062 (-1.0)	0.992 (0.2)	0.043 (-1.3)	0.564 (-0.3)	0.818 (-0.2)	0.864 (0.1)	0.241 (1.0)	0.142 (n/a)	n/a	n/a
		MIDCO	ln(X+1)	<b>&lt;0.001</b>	0.006	0.888 (0.2)	0.323 (0.0)	0.179 (0.4)	<b>&lt;0.001 (1.3)</b>	<b>&lt;0.001 (-2.5)</b>	0.288 (0.5)	<b>0.001 (-17.1)</b>	0.790 (n/a)	n/a	n/a
		MIDAG	none	0.264	0.009	0.354 (-0.5)	0.352 (-0.5)	0.062 (1.6)	0.569 (-0.3)	0.319 (-34.0)	n/a	n/a	0.978 (n/a)	n/a	n/a
MIULE	none	0.970	0.013	0.615 (0.4)	0.809 (-0.2)	0.772 (0.2)	0.784 (-0.1)	n/a	n/a	n/a	n/a	n/a	n/a		
MI5	ln(X+1)	0.484	0.009	0.723 (0.0)	0.169 (0.9)	0.122 (0.9)	0.323 (0.4)	0.205 (1.6)	n/a	n/a	0.446 (n/a)	n/a	n/a		

Table K-5: Temporal Analysis of Benthic Invertebrate Community Variables at CMm LAEMP Sampling Stations, 2012 to 2022

Benthic Invertebrate Community Endpoint	Area	Station	Transformation	Overall ANOVA (p-value)	Year Compared to Combined Previous Years										
					Dunn-Šidák corrected level of significance <sup>(a)</sup>	2022 vs. 2012-2021	2021 vs. 2012-2020	2020 vs. 2012-2019	2019 vs. 2012-2018	2018 vs. 2012-2017	2017 vs. 2012-2016	2016 vs. 2012-2015	2015 vs. 2012-2014	2014 vs. 2012-2013	2013 vs. 2012
Percent Ephemeroptera (%)	Reference Stations	MI25	none	0.131	0.006	0.013 (1.6)	0.223 (0.7)	0.652 (-0.4)	0.895 (0)	0.865 (0.0)	0.283 (0.9)	0.261 (0.7)	0.101 (0.5)	n/a	0.03 (n/a)
		AGCK	ln(X+1)	<b>0.012</b>	0.007	0.177 (-0.5)	<b>0.002 (-2.1)</b>	0.059 (-1.4)	0.185 (0.6)	n/a	n/a	0.367 (0.7)	0.162 (-3.5)	n/a	0.604 (n/a)
		LE1	none	0.175	0.013	0.159 (1.1)	0.095 (1.9)	0.866 (0.6)	0.414 (n/a)	n/a	n/a	n/a	n/a	n/a	n/a
	Mine-Influenced Stations	MIUCO	ln(X+1)	<b>0.005</b>	0.006	0.278 (-0.1)	0.506 (0.6)	<b>0.001 (-1.3)</b>	<b>&lt;0.001 (-3.4)</b>	0.399 (-0.8)	0.389 (-1.2)	0.519 (-0.8)	0.318 (n/a)	n/a	n/a
		CORCK	ln(X+1)	0.729	0.006	0.585 (-0.4)	0.626 (-0.3)	0.502 (-0.5)	0.480 (-0.5)	0.229 (1.7)	0.744 (-0.6)	0.739 (-0.5)	0.415 (n/a)	n/a	n/a
		MIDCO	ln(X+1)	<b>&lt;0.001</b>	0.006	0.357 (0.6)	0.107 (-0.2)	0.211 (0.0)	0.667 (0.7)	<b>&lt;0.001 (-1.6)</b>	0.552 (-0.3)	<b>0.002 (-5.5)</b>	0.437 (n/a)	n/a	n/a
		MIDAG	none	<b>0.006</b>	0.009	0.563 (0.1)	0.247 (0.8)	0.714 (0.3)	<b>0.001 (-1.4)</b>	0.010 (-1.1)	n/a	n/a	0.030 (n/a)	n/a	n/a
		MIULE	none	<b>0.005</b>	0.013	<b>0.001 (2.4)</b>	0.019 (1.9)	0.791 (-0.2)	0.757 (0.2)	n/a	n/a	n/a	n/a	n/a	n/a
		MI5	none	<b>0.001</b>	0.009	<b>&lt;0.001 (3.5)</b>	0.064 (1.2)	0.418 (0.3)	0.182 (-1.2)	0.095 (1)	n/a	n/a	0.11 0 (n/a)	n/a	n/a

Notes: **Bold** values indicate p-values representing statistically significant differences. Overall comparisons were considered significant at p < 0.05. The direction and magnitude of difference (expressed as standard deviation) is provided in brackets. Magnitude of difference was calculated as [(average at year)-(average of all previous years)]/standard deviation of all previous years.

a) A posteriori comparisons following significant overall tests were considered significant at varying levels of significance after Dunn-Šidák correction.

Grey cells represent magnitude of differences greater than two standard deviations below the mean.

n/a = not applicable; ANOVA = analysis of variance; Ln = natural logarithm; < = less than; p = probability; vs. = versus; CMm = Coal Mountain Mine; LAEMP = local aquatic effects monitoring program.

**APPENDIX L**

**Benthic Invertebrate Tissue Data**

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_CORCK	668556	5487388	2015	1	2015-09-11	Composite	Wet Mass	0.35	g	MURR	RG_CORCK_INV-1_2015-09-11
INV	RG_MI25	668186	5482838	2015	1	2015-09-10	Composite	Wet Mass	0.32	g	MURR	RG_MI25_INV-1_2015-09-10
INV	RG_MI25	668186	5482838	2015	1	2015-09-10	EPH	Wet Mass	0.36	g	MURR	RG_MI25_INVEPH-1_2015-09-10
INV	RG_MI25	668186	5482838	2015	1	2015-09-10	RHY	Wet Mass	0.13	g	MURR	RG_MI25_INVRHY-1_2015-09-10
INV	RG_MI5	659387	5496818	2015	1	2015-09-13	Composite	Wet Mass	0.33	g	MURR	RG_MI5_INV-1_2015-09-13
INV	RG_MIDAG	665258	5489417	2015	1	2015-09-12	Composite	Wet Mass	0.26	g	MURR	RG_MIDAG_INV-1_2015-09-12
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-11	Composite	Wet Mass	0.21	g	MURR	RG_MIDCO_INV-1_2015-09-11
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-11	EPH	Wet Mass	0.39	g	MURR	RG_MIDCO_INVEPH-1_2015-09-11
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-11	RHY	Wet Mass	0.27	g	MURR	RG_MIDCO_INVRHY-1_2015-09-11
INV	RG_MIUCO	668134	5486767	2015	1	2015-09-10	Composite	Wet Mass	0.29	g	MURR	RG_MIUCO_INV-1_2015-09-10
INV	RG_CORCK	668556	5487388	2015	1	2015-09-12	Composite	Dry Mass	0.093	g	MURR	RG_CORCK_INV-1_2015-09-12
INV	RG_MI25	668186	5482838	2015	1	2015-09-11	Composite	Dry Mass	0.051	g	MURR	RG_MI25_INV-1_2015-09-11
INV	RG_MI25	668186	5482838	2015	1	2015-09-11	EPH	Dry Mass	0.05	g	MURR	RG_MI25_INVEPH-1_2015-09-11
INV	RG_MI25	668186	5482838	2015	1	2015-09-11	RHY	Dry Mass	0.027	g	MURR	RG_MI25_INVRHY-1_2015-09-11
INV	RG_MI5	659387	5496818	2015	1	2015-09-14	Composite	Dry Mass	0.051	g	MURR	RG_MI5_INV-1_2015-09-14
INV	RG_MIDAG	665258	5489417	2015	1	2015-09-13	Composite	Dry Mass	0.05	g	MURR	RG_MIDAG_INV-1_2015-09-13
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-12	Composite	Dry Mass	0.044	g	MURR	RG_MIDCO_INV-1_2015-09-12
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-12	EPH	Dry Mass	0.047	g	MURR	RG_MIDCO_INVEPH-1_2015-09-12
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-12	RHY	Dry Mass	0.049	g	MURR	RG_MIDCO_INVRHY-1_2015-09-12
INV	RG_MIUCO	668134	5486767	2015	1	2015-09-11	Composite	Dry Mass	0.05	g	MURR	RG_MIUCO_INV-1_2015-09-11
INV	RG_CORCK	668556	5487388	2015	1	2015-09-13	Composite	Wet-to-Dry Ratio	3.8	-	MURR	RG_CORCK_INV-1_2015-09-13
INV	RG_MI25	668186	5482838	2015	1	2015-09-12	Composite	Wet-to-Dry Ratio	6.2	-	MURR	RG_MI25_INV-1_2015-09-12
INV	RG_MI25	668186	5482838	2015	1	2015-09-12	EPH	Wet-to-Dry Ratio	7.2	-	MURR	RG_MI25_INVEPH-1_2015-09-12
INV	RG_MI25	668186	5482838	2015	1	2015-09-12	RHY	Wet-to-Dry Ratio	4.8	-	MURR	RG_MI25_INVRHY-1_2015-09-12
INV	RG_MI5	659387	5496818	2015	1	2015-09-15	Composite	Wet-to-Dry Ratio	6.4	-	MURR	RG_MI5_INV-1_2015-09-15
INV	RG_MIDAG	665258	5489417	2015	1	2015-09-14	Composite	Wet-to-Dry Ratio	5.1	-	MURR	RG_MIDAG_INV-1_2015-09-14
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-13	Composite	Wet-to-Dry Ratio	4.9	-	MURR	RG_MIDCO_INV-1_2015-09-13
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-13	EPH	Wet-to-Dry Ratio	8.3	-	MURR	RG_MIDCO_INVEPH-1_2015-09-13
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-13	RHY	Wet-to-Dry Ratio	5.5	-	MURR	RG_MIDCO_INVRHY-1_2015-09-13
INV	RG_MIUCO	668134	5486767	2015	1	2015-09-12	Composite	Wet-to-Dry Ratio	5.8	-	MURR	RG_MIUCO_INV-1_2015-09-12
INV	RG_CORCK	668556	5487388	2015	1	2015-09-14	Composite	% Dry Matter	27	%	MURR	RG_CORCK_INV-1_2015-09-14
INV	RG_MI25	668186	5482838	2015	1	2015-09-13	Composite	% Dry Matter	18	%	MURR	RG_MI25_INV-1_2015-09-13
INV	RG_MI25	668186	5482838	2015	1	2015-09-13	EPH	% Dry Matter	16	%	MURR	RG_MI25_INVEPH-1_2015-09-13
INV	RG_MI25	668186	5482838	2015	1	2015-09-13	RHY	% Dry Matter	15	%	MURR	RG_MI25_INVRHY-1_2015-09-13
INV	RG_MI5	659387	5496818	2015	1	2015-09-16	Composite	% Dry Matter	14	%	MURR	RG_MI5_INV-1_2015-09-16
INV	RG_MIDAG	665258	5489417	2015	1	2015-09-15	Composite	% Dry Matter	24	%	MURR	RG_MIDAG_INV-1_2015-09-15
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-14	Composite	% Dry Matter	16	%	MURR	RG_MIDCO_INV-1_2015-09-14
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-14	EPH	% Dry Matter	15	%	MURR	RG_MIDCO_INVEPH-1_2015-09-14
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-14	RHY	% Dry Matter	14	%	MURR	RG_MIDCO_INVRHY-1_2015-09-14
INV	RG_MIUCO	668134	5486767	2015	1	2015-09-13	Composite	% Dry Matter	14	%	MURR	RG_MIUCO_INV-1_2015-09-13
INV	RG_CORCK	668556	5487388	2015	1	2015-09-15	Composite	Se PPM Dry Mass	3.5	mg/kg dw	MURR	RG_CORCK_INV-1_2015-09-15
INV	RG_MI25	668186	5482838	2015	1	2015-09-14	Composite	Se PPM Dry Mass	4.6	mg/kg dw	MURR	RG_MI25_INV-1_2015-09-14
INV	RG_MI25	668186	5482838	2015	1	2015-09-14	EPH	Se PPM Dry Mass	7.0	mg/kg dw	MURR	RG_MI25_INVEPH-1_2015-09-14
INV	RG_MI25	668186	5482838	2015	1	2015-09-14	RHY	Se PPM Dry Mass	5.6	mg/kg dw	MURR	RG_MI25_INVRHY-1_2015-09-14
INV	RG_MI5	659387	5496818	2015	1	2015-09-17	Composite	Se PPM Dry Mass	5.1	mg/kg dw	MURR	RG_MI5_INV-1_2015-09-17
INV	RG_MIDAG	665258	5489417	2015	1	2015-09-16	Composite	Se PPM Dry Mass	7.6	mg/kg dw	MURR	RG_MIDAG_INV-1_2015-09-16
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-15	Composite	Se PPM Dry Mass	4.4	mg/kg dw	MURR	RG_MIDCO_INV-1_2015-09-15
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-15	EPH	Se PPM Dry Mass	6.0	mg/kg dw	MURR	RG_MIDCO_INVEPH-1_2015-09-15
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-15	RHY	Se PPM Dry Mass	4.8	mg/kg dw	MURR	RG_MIDCO_INVRHY-1_2015-09-15
INV	RG_MIUCO	668134	5486767	2015	1	2015-09-14	Composite	Se PPM Dry Mass	4.8	mg/kg dw	MURR	RG_MIUCO_INV-1_2015-09-14
INV	RG_CORCK	668556	5487388	2015	1	2015-09-16	Composite	Se PPM Wet Mass	0.93	mg/kg ww	MURR	RG_CORCK_INV-1_2015-09-16
INV	RG_MI25	668186	5482838	2015	1	2015-09-15	Composite	Se PPM Wet Mass	0.74	mg/kg ww	MURR	RG_MI25_INV-1_2015-09-15
INV	RG_MI25	668186	5482838	2015	1	2015-09-15	EPH	Se PPM Wet Mass	0.98	mg/kg ww	MURR	RG_MI25_INVEPH-1_2015-09-15
INV	RG_MI25	668186	5482838	2015	1	2015-09-15	RHY	Se PPM Wet Mass	1.2	mg/kg ww	MURR	RG_MI25_INVRHY-1_2015-09-15
INV	RG_MI5	659387	5496818	2015	1	2015-09-18	Composite	Se PPM Wet Mass	0.8	mg/kg ww	MURR	RG_MI5_INV-1_2015-09-18
INV	RG_MIDAG	665258	5489417	2015	1	2015-09-17	Composite	Se PPM Wet Mass	1.5	mg/kg ww	MURR	RG_MIDAG_INV-1_2015-09-17
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-16	Composite	Se PPM Wet Mass	0.9	mg/kg ww	MURR	RG_MIDCO_INV-1_2015-09-16

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-16	EPH	Se PPM Wet Mass	0.72	mg/kg ww	MURR	RG_MIDCO_INVEPH-1_2015-09-16
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-16	RHY	Se PPM Wet Mass	0.86	mg/kg ww	MURR	RG_MIDCO_INVRHY-1_2015-09-16
INV	RG_MIUCO	668134	5486767	2015	1	2015-09-15	Composite	Se PPM Wet Mass	0.83	mg/kg ww	MURR	RG_MIUCO_INV-1_2015-09-15
INV	RG_MIDCO	667711	5487625	2016	1	2016-09-13	RHY	Wet Mass	0.33	g	MURR	RG_MIDCO_INVRHY-1_2016-09-13
INV	RG_MIDCO	667711	5487625	2016	1	2016-09-14	RHY	Dry Mass	0.079	g	MURR	RG_MIDCO_INVRHY-1_2016-09-14
INV	RG_MIDCO	667711	5487625	2016	1	2016-09-15	RHY	Wet-to-Dry Ratio	4.2	-	MURR	RG_MIDCO_INVRHY-1_2016-09-15
INV	RG_MIDCO	667711	5487625	2016	1	2016-09-16	RHY	% Dry Matter	24	%	MURR	RG_MIDCO_INVRHY-1_2016-09-16
INV	RG_MIDCO	667711	5487625	2016	1	2016-09-17	RHY	Se PPM Dry Mass	4.7	mg/kg dw	MURR	RG_MIDCO_INVRHY-1_2016-09-17
INV	RG_MIDCO	667711	5487625	2016	1	2016-09-18	RHY	Se PPM Wet Mass	1.1	mg/kg ww	MURR	RG_MIDCO_INVRHY-1_2016-09-18
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Lithium	1.2	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Lithium	2.0	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Lithium	13	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Lithium	7.8	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Lithium	0.63	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Lithium	9.1	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Lithium	1.7	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Lithium	1.4	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Lithium	2.8	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Beryllium	0.11	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Beryllium	0.088	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Beryllium	0.48	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Beryllium	0.33	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Beryllium	0.026	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Beryllium	0.35	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Beryllium	0.062	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Beryllium	0.068	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Beryllium	0.14	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Boron	5.3	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Boron	8.3	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Boron	29	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Boron	19	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Boron	1.4	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Boron	19	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Boron	3.7	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Boron	4.0	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Boron	8.2	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Sodium	2,444	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Sodium	4,070	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Sodium	3,462	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Sodium	2,509	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Sodium	3,686	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Sodium	3,248	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Sodium	2,957	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Sodium	3,726	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Sodium	3,106	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Magnesium	1,751	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Magnesium	1,256	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Magnesium	2,518	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Magnesium	2,056	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Magnesium	1,263	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Magnesium	2,075	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Magnesium	1,578	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Magnesium	1,393	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Magnesium	1,869	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Aluminum	1,266	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Aluminum	1,509	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Aluminum	8,343	mg/kg	-	RG_MIUCO_INV-1_2012-09-15



Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Aluminum	5,133	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Aluminum	190	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Aluminum	5,187	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Aluminum	1,106	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Aluminum	1,113	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Aluminum	4,095	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Phosphorus	7,415	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Phosphorus	9,482	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Phosphorus	8,329	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Phosphorus	6,985	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Phosphorus	9,806	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Phosphorus	7,044	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Phosphorus	8,698	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Phosphorus	8,287	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Phosphorus	7,639	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Potassium	6,522	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Potassium	9,919	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Potassium	11,530	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Potassium	8,212	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Potassium	10,093	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Potassium	9,516	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Potassium	7,706	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Potassium	7,734	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Potassium	9,201	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Calcium	39,179	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Calcium	2,058	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Calcium	5,078	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Calcium	15,074	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Calcium	4,932	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Calcium	21,361	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Calcium	6,115	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Calcium	10,953	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Calcium	12,079	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Titanium	6.8	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Titanium	13	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Titanium	31	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Titanium	31	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Titanium	2.8	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Titanium	23	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Titanium	9.6	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Titanium	12	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Titanium	22	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Vanadium	3.3	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Vanadium	3.6	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Vanadium	16	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Vanadium	11	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Vanadium	0.89	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Vanadium	11	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Vanadium	2.7	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Vanadium	4.7	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Vanadium	8.9	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Chromium	1.6	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Chromium	1.9	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Chromium	9.4	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Chromium	5.7	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Chromium	0.7	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Chromium	5.8	mg/kg	-	RG_MIDCO_INV-1_2012-09-15

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Chromium	1.4	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Chromium	1.8	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Chromium	4.9	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Manganese	362	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Manganese	80	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Manganese	350	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Manganese	172	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Manganese	13	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Manganese	329	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Manganese	90	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Manganese	57	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Manganese	225	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Iron	632	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Iron	947	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Iron	5,536	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Iron	3,165	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Iron	191	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Iron	3,433	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Iron	690	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Iron	679	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Iron	2,553	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Cobalt	46	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Cobalt	0.9	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Cobalt	3.6	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Cobalt	31	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Cobalt	0.19	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Cobalt	55	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Cobalt	23	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Cobalt	4.1	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Cobalt	48	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Nickel	44	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Nickel	3.2	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Nickel	6.9	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Nickel	17	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Nickel	3.5	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Nickel	33	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Nickel	11	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Nickel	7.3	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Nickel	25	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Copper	14	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Copper	15	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Copper	16	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Copper	14	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Copper	7.0	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Copper	11	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Copper	11	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Copper	11	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Copper	14	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Zinc	256	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Zinc	156	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Zinc	139	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Zinc	171	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Zinc	171	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Zinc	153	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Zinc	163	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Zinc	154	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Zinc	169	mg/kg	-	RG_MIDCO_INV-3_2012-09-15

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Gallium	0.33	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Gallium	0.43	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Gallium	2.4	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Gallium	1.5	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Gallium	0.071	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Gallium	1.5	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Gallium	0.32	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Gallium	0.32	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Gallium	1.3	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Arsenic	0.48	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Arsenic	0.91	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Arsenic	2.1	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Arsenic	1.3	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Arsenic	1.9	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Arsenic	1.4	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Arsenic	0.71	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Arsenic	0.74	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Arsenic	1.2	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Selenium	3.9	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Selenium	4.6	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Selenium	7.0	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Selenium	2.9	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Selenium	4.9	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Selenium	3.8	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Selenium	6.4	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Selenium	5.6	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Selenium	4.0	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Rubidium	3.1	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Rubidium	5.3	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Rubidium	19	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Rubidium	13	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Rubidium	4.1	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Rubidium	13	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Rubidium	4.8	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Rubidium	3.7	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Rubidium	11	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Strontium	38	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Strontium	6.2	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Strontium	19	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Strontium	33	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Strontium	7.7	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Strontium	35	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Strontium	10.0	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Strontium	15	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Strontium	24	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Yttrium	0.95	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Yttrium	0.99	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Yttrium	3.4	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Yttrium	1.4	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Yttrium	0.25	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Yttrium	1.7	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Yttrium	0.47	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Yttrium	0.87	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Yttrium	1.2	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Zirconium	0.9	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Zirconium	0.61	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Zirconium	1.7	mg/kg	-	RG_MIUCO_INV-1_2012-09-15



Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Zirconium	1.3	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Zirconium	0.16	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Zirconium	1.3	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Zirconium	0.54	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Zirconium	0.71	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Zirconium	1.2	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Molybdenum	0.35	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Molybdenum	0.58	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Molybdenum	0.68	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Molybdenum	0.4	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Molybdenum	0.28	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Molybdenum	0.44	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Molybdenum	0.27	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Molybdenum	0.34	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Molybdenum	0.44	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Silver	0.055	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Silver	0.083	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Silver	0.06	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Silver	0.075	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Silver	0.048	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Silver	0.052	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Silver	0.07	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Silver	0.099	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Silver	0.065	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Cadmium	1.5	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Cadmium	2.3	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Cadmium	2.9	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Cadmium	0.69	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Cadmium	0.72	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Cadmium	0.66	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Cadmium	0.93	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Cadmium	1.4	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Cadmium	0.66	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Tin	0.032	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Tin	0.047	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Tin	0.12	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Tin	0.12	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Tin	0.013	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Tin	0.11	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Tin	0.033	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Tin	0.031	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Tin	0.10	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Antimony	0.027	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Antimony	0.018	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Antimony	0.009	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Antimony	0.0099	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Antimony	0.012	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Antimony	0.019	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Antimony	0.013	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Antimony	0.021	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Antimony	0.022	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Cesium	0.16	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Cesium	0.21	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Cesium	0.91	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Cesium	0.59	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Cesium	0.035	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Cesium	0.57	mg/kg	-	RG_MIDCO_INV-1_2012-09-15

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Cesium	0.14	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Cesium	0.13	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Cesium	0.52	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Barium	43	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Barium	25	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Barium	61	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Barium	37	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Barium	4.3	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Barium	44	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Barium	16	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Barium	33	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Barium	44	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Rhenium	<LOD	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Rhenium	<LOD	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Rhenium	<LOD	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Rhenium	<LOD	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Rhenium	<LOD	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Rhenium	<LOD	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Rhenium	<LOD	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Rhenium	<LOD	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Rhenium	<LOD	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Thallium	0.082	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Thallium	0.087	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Thallium	0.14	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Thallium	0.11	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Thallium	0.24	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Thallium	0.11	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Thallium	0.076	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Thallium	0.059	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Thallium	0.11	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Lead	0.47	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Lead	0.53	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Lead	2.1	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Lead	1.5	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Lead	0.12	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Lead	1.6	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Lead	0.38	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Lead	0.4	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Lead	1.3	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Bismuth	0.0046	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Bismuth	0.0097	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Bismuth	0.042	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Bismuth	0.028	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Bismuth	0.0014	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Bismuth	0.025	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Bismuth	0.0058	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Bismuth	0.0039	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Bismuth	0.023	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Thorium	0.16	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Thorium	0.16	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Thorium	0.8	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Thorium	0.51	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Thorium	0.028	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Thorium	0.52	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Thorium	0.13	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Thorium	0.13	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Thorium	0.49	mg/kg	-	RG_MIDCO_INV-3_2012-09-15



Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Uranium	0.44	mg/kg	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Uranium	0.068	mg/kg	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Uranium	0.13	mg/kg	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Uranium	0.15	mg/kg	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Uranium	0.059	mg/kg	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Uranium	0.2	mg/kg	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Uranium	0.066	mg/kg	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Uranium	0.1	mg/kg	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Uranium	0.18	mg/kg	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	Dry Mass	0.51	g	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	Dry Mass	0.54	g	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	Dry Mass	0.62	g	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	Dry Mass	0.96	g	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	Dry Mass	0.58	g	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	Dry Mass	1.1	g	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	Dry Mass	1.1	g	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	Dry Mass	1.9	g	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	Dry Mass	0.76	g	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2012	1	2012-09-15	Composite	% Dry Matter	21	%	-	RG_CORCK_INV-1_2012-09-15
INV	RG_MI25	668186	5482838	2012	1	2012-09-15	Composite	% Dry Matter	12	%	-	RG_MI25_INV-1_2012-09-15
INV	RG_MIUCO	668134	5486767	2012	1	2012-09-15	Composite	% Dry Matter	14	%	-	RG_MIUCO_INV-1_2012-09-15
INV	RG_MIDCO	667711	5487625	2012	2	2012-09-15	Composite	% Dry Matter	22	%	-	RG_MIDCO_INV-2_2012-09-15
INV	RG_AGCK	667555	5488644	2012	1	2012-09-16	Composite	% Dry Matter	11	%	-	RG_AGCK_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	1	2012-09-15	Composite	% Dry Matter	18	%	-	RG_MIDCO_INV-1_2012-09-15
INV	RG_MIDAG	665258	5489417	2012	1	2012-09-16	Composite	% Dry Matter	18	%	-	RG_MIDAG_INV-1_2012-09-16
INV	RG_MI5	659387	5496818	2012	1	2012-09-16	Composite	% Dry Matter	20	%	-	RG_MI5_INV-1_2012-09-16
INV	RG_MIDCO	667711	5487625	2012	3	2012-09-15	Composite	% Dry Matter	15	%	-	RG_MIDCO_INV-3_2012-09-15
INV	RG_CORCK	668556	5487388	2015	1	2015-09-11	Composite	Wet Mass	0.35	g	MURR	RG_CORCK_INV-1_2015-09-11
INV	RG_MI25	668186	5482838	2015	1	2015-09-10	Composite	Wet Mass	0.32	g	MURR	RG_MI25_INV-1_2015-09-10
INV	RG_MI25	668186	5482838	2015	1	2015-09-10	EPH	Wet Mass	0.36	g	MURR	RG_MI25_INVEPH-1_2015-09-10
INV	RG_MI25	668186	5482838	2015	1	2015-09-10	RHY	Wet Mass	0.13	g	MURR	RG_MI25_INVRHY-1_2015-09-10
INV	RG_MI5	659387	5496818	2015	1	2015-09-13	Composite	Wet Mass	0.33	g	MURR	RG_MI5_INV-1_2015-09-13
INV	RG_MIDAG	665258	5489417	2015	1	2015-09-12	Composite	Wet Mass	0.26	g	MURR	RG_MIDAG_INV-1_2015-09-12
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-11	Composite	Wet Mass	0.21	g	MURR	RG_MIDCO_INV-1_2015-09-11
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-11	EPH	Wet Mass	0.39	g	MURR	RG_MIDCO_INVEPH-1_2015-09-11
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-11	RHY	Wet Mass	0.27	g	MURR	RG_MIDCO_INVRHY-1_2015-09-11
INV	RG_MIUCO	668134	5486767	2015	1	2015-09-10	Composite	Wet Mass	0.29	g	MURR	RG_MIUCO_INV-1_2015-09-10
INV	RG_CORCK	668556	5487388	2015	1	2015-09-11	Composite	Dry Mass	0.093	g	MURR	RG_CORCK_INV-1_2015-09-11
INV	RG_MI25	668186	5482838	2015	1	2015-09-10	Composite	Dry Mass	0.051	g	MURR	RG_MI25_INV-1_2015-09-10
INV	RG_MI25	668186	5482838	2015	1	2015-09-10	EPH	Dry Mass	0.05	g	MURR	RG_MI25_INVEPH-1_2015-09-10
INV	RG_MI25	668186	5482838	2015	1	2015-09-10	RHY	Dry Mass	0.027	g	MURR	RG_MI25_INVRHY-1_2015-09-10
INV	RG_MI5	659387	5496818	2015	1	2015-09-13	Composite	Dry Mass	0.051	g	MURR	RG_MI5_INV-1_2015-09-13
INV	RG_MIDAG	665258	5489417	2015	1	2015-09-12	Composite	Dry Mass	0.05	g	MURR	RG_MIDAG_INV-1_2015-09-12
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-11	Composite	Dry Mass	0.044	g	MURR	RG_MIDCO_INV-1_2015-09-11
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-11	EPH	Dry Mass	0.047	g	MURR	RG_MIDCO_INVEPH-1_2015-09-11
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-11	RHY	Dry Mass	0.049	g	MURR	RG_MIDCO_INVRHY-1_2015-09-11
INV	RG_MIUCO	668134	5486767	2015	1	2015-09-10	Composite	Dry Mass	0.05	g	MURR	RG_MIUCO_INV-1_2015-09-10
INV	RG_CORCK	668556	5487388	2015	1	2015-09-11	Composite	Wet-to-Dry Ratio	3.8	-	MURR	RG_CORCK_INV-1_2015-09-11
INV	RG_MI25	668186	5482838	2015	1	2015-09-10	Composite	Wet-to-Dry Ratio	6.2	-	MURR	RG_MI25_INV-1_2015-09-10
INV	RG_MI25	668186	5482838	2015	1	2015-09-10	EPH	Wet-to-Dry Ratio	7.2	-	MURR	RG_MI25_INVEPH-1_2015-09-10
INV	RG_MI25	668186	5482838	2015	1	2015-09-10	RHY	Wet-to-Dry Ratio	4.8	-	MURR	RG_MI25_INVRHY-1_2015-09-10
INV	RG_MI5	659387	5496818	2015	1	2015-09-13	Composite	Wet-to-Dry Ratio	6.4	-	MURR	RG_MI5_INV-1_2015-09-13
INV	RG_MIDAG	665258	5489417	2015	1	2015-09-12	Composite	Wet-to-Dry Ratio	5.1	-	MURR	RG_MIDAG_INV-1_2015-09-12
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-11	Composite	Wet-to-Dry Ratio	4.9	-	MURR	RG_MIDCO_INV-1_2015-09-11
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-11	EPH	Wet-to-Dry Ratio	8.3	-	MURR	RG_MIDCO_INVEPH-1_2015-09-11
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-11	RHY	Wet-to-Dry Ratio	5.5	-	MURR	RG_MIDCO_INVRHY-1_2015-09-11
INV	RG_MIUCO	668134	5486767	2015	1	2015-09-10	Composite	Wet-to-Dry Ratio	5.8	-	MURR	RG_MIUCO_INV-1_2015-09-10

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_CORCK	668556	5487388	2015	1	2015-09-11	Composite	Dry Matter	27	%	MURR	RG_CORCK_INV-1_2015-09-11
INV	RG_MI25	668186	5482838	2015	1	2015-09-10	Composite	Dry Matter	18	%	MURR	RG_MI25_INV-1_2015-09-10
INV	RG_MI25	668186	5482838	2015	1	2015-09-10	EPH	Dry Matter	16	%	MURR	RG_MI25_INVEPH-1_2015-09-10
INV	RG_MI25	668186	5482838	2015	1	2015-09-10	RHY	Dry Matter	15	%	MURR	RG_MI25_INVRHY-1_2015-09-10
INV	RG_MI5	659387	5496818	2015	1	2015-09-13	Composite	Dry Matter	14	%	MURR	RG_MI5_INV-1_2015-09-13
INV	RG_MIDAG	665258	5489417	2015	1	2015-09-12	Composite	Dry Matter	24	%	MURR	RG_MIDAG_INV-1_2015-09-12
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-11	Composite	Dry Matter	16	%	MURR	RG_MIDCO_INV-1_2015-09-11
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-11	EPH	Dry Matter	15	%	MURR	RG_MIDCO_INVEPH-1_2015-09-11
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-11	RHY	Dry Matter	14	%	MURR	RG_MIDCO_INVRHY-1_2015-09-11
INV	RG_MIUCO	668134	5486767	2015	1	2015-09-10	Composite	Dry Matter	14	%	MURR	RG_MIUCO_INV-1_2015-09-10
INV	RG_CORCK	668556	5487388	2015	1	2015-09-11	Composite	Se PPM Dry Mass	3.5	mg/kg	MURR	RG_CORCK_INV-1_2015-09-11
INV	RG_MI25	668186	5482838	2015	1	2015-09-10	Composite	Se PPM Dry Mass	4.6	mg/kg	MURR	RG_MI25_INV-1_2015-09-10
INV	RG_MI25	668186	5482838	2015	1	2015-09-10	EPH	Se PPM Dry Mass	7.0	mg/kg	MURR	RG_MI25_INVEPH-1_2015-09-10
INV	RG_MI25	668186	5482838	2015	1	2015-09-10	RHY	Se PPM Dry Mass	5.6	mg/kg	MURR	RG_MI25_INVRHY-1_2015-09-10
INV	RG_MI5	659387	5496818	2015	1	2015-09-13	Composite	Se PPM Dry Mass	5.1	mg/kg	MURR	RG_MI5_INV-1_2015-09-13
INV	RG_MIDAG	665258	5489417	2015	1	2015-09-12	Composite	Se PPM Dry Mass	7.6	mg/kg	MURR	RG_MIDAG_INV-1_2015-09-12
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-11	Composite	Se PPM Dry Mass	4.4	mg/kg	MURR	RG_MIDCO_INV-1_2015-09-11
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-11	EPH	Se PPM Dry Mass	6.0	mg/kg	MURR	RG_MIDCO_INVEPH-1_2015-09-11
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-11	RHY	Se PPM Dry Mass	4.8	mg/kg	MURR	RG_MIDCO_INVRHY-1_2015-09-11
INV	RG_MIUCO	668134	5486767	2015	1	2015-09-10	Composite	Se PPM Dry Mass	4.8	mg/kg	MURR	RG_MIUCO_INV-1_2015-09-10
INV	RG_CORCK	668556	5487388	2015	1	2015-09-11	Composite	Se PPM Wet Mass	0.93	mg/kg	MURR	RG_CORCK_INV-1_2015-09-11
INV	RG_MI25	668186	5482838	2015	1	2015-09-10	Composite	Se PPM Wet Mass	0.74	mg/kg	MURR	RG_MI25_INV-1_2015-09-10
INV	RG_MI25	668186	5482838	2015	1	2015-09-10	EPH	Se PPM Wet Mass	0.98	mg/kg	MURR	RG_MI25_INVEPH-1_2015-09-10
INV	RG_MI25	668186	5482838	2015	1	2015-09-10	RHY	Se PPM Wet Mass	1.2	mg/kg	MURR	RG_MI25_INVRHY-1_2015-09-10
INV	RG_MI5	659387	5496818	2015	1	2015-09-13	Composite	Se PPM Wet Mass	0.8	mg/kg	MURR	RG_MI5_INV-1_2015-09-13
INV	RG_MIDAG	665258	5489417	2015	1	2015-09-12	Composite	Se PPM Wet Mass	1.5	mg/kg	MURR	RG_MIDAG_INV-1_2015-09-12
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-11	Composite	Se PPM Wet Mass	0.9	mg/kg	MURR	RG_MIDCO_INV-1_2015-09-11
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-11	EPH	Se PPM Wet Mass	0.72	mg/kg	MURR	RG_MIDCO_INVEPH-1_2015-09-11
INV	RG_MIDCO	667711	5487625	2015	1	2015-09-11	RHY	Se PPM Wet Mass	0.86	mg/kg	MURR	RG_MIDCO_INVRHY-1_2015-09-11
INV	RG_MIUCO	668134	5486767	2015	1	2015-09-10	Composite	Se PPM Wet Mass	0.83	mg/kg	MURR	RG_MIUCO_INV-1_2015-09-10
INV	RG_CORCK	668556	5487388	2017	1	2017-09-14	Composite	Selenium	4.3	mg/kg dw	SRC	RG_CORCK_INV-1_2017-09-14
INV	RG_CORCK	668556	5487388	2017	1	2017-09-14	RHY	Selenium	2.6	mg/kg dw	SRC	RG_CORCK_INVRHY-1_2017-09-14
INV	RG_MI25	668186	5482838	2017	1	2017-09-14	Composite	Selenium	2.5	mg/kg dw	SRC	RG_MI25_INV-1_2017-09-14
INV	RG_MI25	668186	5482838	2017	1	2017-09-14	EPH	Selenium	5.4	mg/kg dw	SRC	RG_MI25_INVEPH-1_2017-09-14
INV	RG_MI25	668186	5482838	2017	1	2017-09-14	HYD	Selenium	3.2	mg/kg dw	SRC	RG_MI25_INVHYD-1_2017-09-14
INV	RG_MI25	668186	5482838	2017	1	2017-09-14	RHY	Selenium	5.3	mg/kg dw	SRC	RG_MI25_INVRHY-1_2017-09-14
INV	RG_MIDCO	667711	5487625	2017	1	2017-09-14	Composite	Selenium	2.9	mg/kg dw	SRC	RG_MIDCO_INV-1_2017-09-14
INV	RG_MIDCO	667711	5487625	2017	1	2017-09-14	EPH	Selenium	6.5	mg/kg dw	SRC	RG_MIDCO_INVEPH-1_2017-09-14
INV	RG_MIDCO	667711	5487625	2017	1	2017-09-14	RHY	Selenium	4.7	mg/kg dw	SRC	RG_MIDCO_INVRHY-1_2017-09-14
INV	RG_MIUCO	668134	5486767	2017	1	2017-09-14	Composite	Selenium	2.8	mg/kg dw	SRC	RG_MIUCO_INV-1_2017-09-14
INV	RG_MIUCO	668134	5486767	2017	1	2017-09-14	EPH	Selenium	6.3	mg/kg dw	SRC	RG_MIUCO_INVEPH-1_2017-09-14
INV	RG_MIUCO	668134	5486767	2017	1	2017-09-14	RHY	Selenium	6.0	mg/kg dw	SRC	RG_MIUCO_INVRHY-1_2017-09-14
INV	RG_CORCK	668556	5487388	2017	1	2017-09-14	Composite	% Moisture	85	%	SRC	RG_CORCK_INV-1_2017-09-14
INV	RG_CORCK	668556	5487388	2017	1	2017-09-14	RHY	% Moisture	80	%	SRC	RG_CORCK_INVRHY-1_2017-09-14
INV	RG_MI25	668186	5482838	2017	1	2017-09-14	Composite	% Moisture	83	%	SRC	RG_MI25_INV-1_2017-09-14
INV	RG_MI25	668186	5482838	2017	1	2017-09-14	EPH	% Moisture	87	%	SRC	RG_MI25_INVEPH-1_2017-09-14
INV	RG_MI25	668186	5482838	2017	1	2017-09-14	HYD	% Moisture	78	%	SRC	RG_MI25_INVHYD-1_2017-09-14
INV	RG_MI25	668186	5482838	2017	1	2017-09-14	RHY	% Moisture	79	%	SRC	RG_MI25_INVRHY-1_2017-09-14
INV	RG_MIDCO	667711	5487625	2017	1	2017-09-14	Composite	% Moisture	72	%	SRC	RG_MIDCO_INV-1_2017-09-14
INV	RG_MIDCO	667711	5487625	2017	1	2017-09-14	EPH	% Moisture	82	%	SRC	RG_MIDCO_INVEPH-1_2017-09-14
INV	RG_MIDCO	667711	5487625	2017	1	2017-09-14	RHY	% Moisture	77	%	SRC	RG_MIDCO_INVRHY-1_2017-09-14
INV	RG_MIUCO	668134	5486767	2017	1	2017-09-14	Composite	% Moisture	79	%	SRC	RG_MIUCO_INV-1_2017-09-14
INV	RG_MIUCO	668134	5486767	2017	1	2017-09-14	EPH	% Moisture	87	%	SRC	RG_MIUCO_INVEPH-1_2017-09-14
INV	RG_MIUCO	668134	5486767	2017	1	2017-09-14	RHY	% Moisture	84	%	SRC	RG_MIUCO_INVRHY-1_2017-09-14
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Aluminum	3,000	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Antimony	<0.2	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Arsenic	1.4	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Barium	31	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Beryllium	0.11	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Boron	9.0	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Cadmium	2.0	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Chromium	4.0	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Cobalt	1.0	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Copper	16	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Iron	1,800	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Lead	1.6	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Manganese	94	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Mercury	0.03	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Molybdenum	0.7	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Nickel	3.8	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Selenium	3.8	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Silver	0.05	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Strontium	8.7	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Thallium	0.1	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Tin	<0.1	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Titanium	19	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Uranium	0.1	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Vanadium	7.2	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	Zinc	140	mg/kg dw	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	1	2018-09-10	Composite	% Moisture	84	%	SRC	RG_MI25_INV-1_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Aluminum	2,100	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Antimony	<0.2	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Arsenic	1.3	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Barium	25	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Beryllium	0.08	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Boron	6.0	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Cadmium	3.0	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Chromium	3.0	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Cobalt	0.98	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Copper	18	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Iron	1,800	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Lead	1.6	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Manganese	94	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Mercury	0.03	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Molybdenum	0.6	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Nickel	3.3	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Selenium	4.5	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Silver	0.05	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Strontium	5.9	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Thallium	0.1	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Tin	<0.1	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Titanium	16	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Uranium	0.08	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Vanadium	4.9	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	Zinc	150	mg/kg dw	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	2	2018-09-10	Composite	% Moisture	85	%	SRC	RG_MI25_INV-2_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Aluminum	1,500	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Antimony	<2	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Arsenic	1.0	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Barium	28	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Beryllium	<0.2	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Boron	<20	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Cadmium	2.8	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Chromium	<10	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10



Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Cobalt	1.3	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Copper	16	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Iron	1,000	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Lead	1.2	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Manganese	130	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Mercury	<0.1	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Molybdenum	<2	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Nickel	3.0	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Selenium	5.0	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Silver	<0.2	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Strontium	5.0	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Thallium	<1	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Tin	<1	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Titanium	10	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Uranium	<0.1	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Vanadium	4.0	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	Zinc	150	mg/kg dw	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MI25	668184	5482818	2018	3	2018-09-10	Composite	% Moisture	86	%	SRC	RG_MI25_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Aluminum	940	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Antimony	<0.2	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Arsenic	0.6	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Barium	16	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Beryllium	0.03	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Boron	2.0	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Cadmium	1.4	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Chromium	1.0	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Cobalt	0.66	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Copper	28	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Iron	670	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Lead	0.32	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Manganese	100	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Mercury	0.03	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Molybdenum	0.4	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Nickel	1.4	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Selenium	3.2	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Silver	0.1	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Strontium	5.7	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Thallium	<0.1	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Tin	<0.1	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Titanium	8.7	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Uranium	0.03	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Vanadium	2.0	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	Zinc	130	mg/kg dw	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	1	2018-09-10	Composite	% Moisture	82	%	SRC	RG_MIUCO_INV-1_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Aluminum	5,200	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Antimony	<0.2	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Arsenic	1.8	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Barium	34	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Beryllium	0.19	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Boron	12	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Cadmium	2.7	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Chromium	6.0	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Cobalt	2.8	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Copper	17	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Iron	3,600	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Lead	1.5	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Manganese	190	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Mercury	0.03	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Molybdenum	0.6	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Nickel	4.5	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Selenium	6.7	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Silver	0.05	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Strontium	10	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Thallium	0.1	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Tin	<0.1	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Titanium	28	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Uranium	0.1	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Vanadium	10	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	Zinc	130	mg/kg dw	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	2	2018-09-10	Composite	% Moisture	86	%	SRC	RG_MIUCO_INV-2_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Aluminum	1,300	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Antimony	<1	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Arsenic	0.9	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Barium	18	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Beryllium	<0.1	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Boron	<10	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Cadmium	1.7	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Chromium	<5	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Cobalt	1.2	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Copper	18	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Iron	930	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Lead	0.4	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Manganese	140	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Mercury	<0.05	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Molybdenum	<1	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Nickel	2.2	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Selenium	5.5	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Silver	<0.1	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Strontium	5.0	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Thallium	<0.5	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Tin	<0.5	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Titanium	9.7	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Uranium	<0.05	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Vanadium	3.0	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	Zinc	120	mg/kg dw	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MIUCO	668135	5486767	2018	3	2018-09-10	Composite	% Moisture	87	%	SRC	RG_MIUCO_INV-3_2018-09-10
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Aluminum	880	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Antimony	<2	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Arsenic	<1	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Barium	25	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Beryllium	<0.2	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Boron	<20	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Cadmium	1.8	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Chromium	<10	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Cobalt	5.0	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Copper	14	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Iron	760	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Lead	0.4	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Manganese	77	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Mercury	<0.1	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Molybdenum	<2	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Nickel	9.0	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Selenium	5.0	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Silver	<0.2	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11



Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Strontium	10	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Thallium	<1	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Tin	<1	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Titanium	5.0	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Uranium	0.1	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Vanadium	4.0	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	Zinc	160	mg/kg dw	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	1	2018-09-11	Composite	% Moisture	82	%	SRC	RG_MI5_INV-1_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Aluminum	1,500	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Antimony	<1	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Arsenic	1.4	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Barium	45	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Beryllium	<0.1	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Boron	<10	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Cadmium	4.3	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Chromium	<5	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Cobalt	11	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Copper	11	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Iron	1,400	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Lead	0.9	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Manganese	83	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Mercury	<0.05	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Molybdenum	<1	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Nickel	12	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Selenium	8.1	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Silver	<0.1	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Strontium	16	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Thallium	<0.5	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Tin	<0.5	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Titanium	10	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Uranium	0.2	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Vanadium	8.0	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	Zinc	160	mg/kg dw	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	2	2018-09-11	Composite	% Moisture	87	%	SRC	RG_MI5_INV-2_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Aluminum	6,200	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Antimony	<0.2	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Arsenic	2.0	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Barium	72	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Beryllium	0.2	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Boron	10	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Cadmium	2.5	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Chromium	8.0	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Cobalt	5.2	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Copper	12	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Iron	4,400	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Lead	2.1	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Manganese	140	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Mercury	0.04	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Molybdenum	0.6	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Nickel	14	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Selenium	6.6	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Silver	0.11	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Strontium	30	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Thallium	0.2	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Tin	<0.1	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Titanium	32	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Uranium	0.32	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Vanadium	22	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	Zinc	160	mg/kg dw	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MI5	659496	5496774	2018	3	2018-09-11	Composite	% Moisture	87	%	SRC	RG_MI5_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Aluminum	960	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Antimony	<1	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Arsenic	0.7	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Barium	26	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Beryllium	<0.1	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Boron	<10	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Cadmium	1.3	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Chromium	<5	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Cobalt	14	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Copper	11	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Iron	620	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Lead	0.4	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Manganese	80	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Mercury	<0.05	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Molybdenum	<1	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Nickel	9.2	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Selenium	9.0	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Silver	<0.1	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Strontium	19	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Thallium	<0.5	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Tin	<0.5	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Titanium	9.2	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Uranium	0.08	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Vanadium	3.0	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	Zinc	170	mg/kg dw	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	1	2018-09-11	Composite	% Moisture	84	%	SRC	RG_MIULE_INV-1_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Aluminum	890	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Antimony	<0.2	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Arsenic	0.6	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Barium	20	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Beryllium	0.03	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Boron	2.0	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Cadmium	1.4	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Chromium	1.0	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Cobalt	12	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Copper	12	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Iron	560	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Lead	0.35	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Manganese	56	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Mercury	0.02	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Molybdenum	0.3	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Nickel	5.6	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Selenium	6.8	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Silver	0.08	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Strontium	14	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Thallium	<0.1	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Tin	<0.1	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Titanium	8.4	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Uranium	0.06	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Vanadium	2.7	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	Zinc	190	mg/kg dw	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	2	2018-09-11	Composite	% Moisture	75	%	SRC	RG_MIULE_INV-2_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Aluminum	2,300	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Antimony	<0.2	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Arsenic	1.2	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Barium	30	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Beryllium	0.1	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Boron	4.0	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Cadmium	2.1	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Chromium	3.0	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Cobalt	24	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Copper	13	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Iron	2,000	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Lead	0.83	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Manganese	69	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Mercury	0.02	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Molybdenum	0.4	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Nickel	13	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Selenium	11	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Silver	0.07	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Strontium	18	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Thallium	<0.1	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Tin	<0.1	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Titanium	17	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Uranium	0.12	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Vanadium	7.2	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	Zinc	200	mg/kg dw	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_MIULE	660503	5493048	2018	3	2018-09-11	Composite	% Moisture	82	%	SRC	RG_MIULE_INV-3_2018-09-11
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Aluminum	450	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Antimony	<1	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Arsenic	<0.5	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Barium	18	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Beryllium	<0.1	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Boron	<10	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Cadmium	3.1	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Chromium	<5	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Cobalt	0.3	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Copper	19	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Iron	540	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Lead	0.2	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Manganese	34	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Mercury	<0.05	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Molybdenum	<1	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Nickel	1.5	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Selenium	3.2	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Silver	0.2	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Strontium	4.0	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Thallium	<0.5	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Tin	<0.5	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Titanium	4.2	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Uranium	<0.05	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Vanadium	2.0	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	Zinc	120	mg/kg dw	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_LE1	659635	5494108	2018	1	2018-09-13	Composite	% Moisture	80	%	SRC	RG_LE1_INV-1_2018-09-13
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Aluminum	270	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Antimony	<1	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Arsenic	1.9	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Barium	14	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Beryllium	<0.1	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Boron	<10	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Cadmium	1.1	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08



**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Chromium	<5	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Cobalt	0.3	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Copper	9.2	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Iron	460	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Lead	0.2	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Manganese	22	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Mercury	<0.05	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Molybdenum	<1	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Nickel	4.2	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Selenium	8.0	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Silver	<0.1	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Strontium	18	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Thallium	<0.5	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Tin	<0.5	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Titanium	2.4	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Uranium	0.14	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Vanadium	1.0	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	Zinc	230	mg/kg dw	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	1	2018-09-08	Composite	% Moisture	87	%	SRC	RG_AGCK_INV-1_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Aluminum	180	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Antimony	<1	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Arsenic	1.4	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Barium	3.7	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Beryllium	<0.1	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Boron	<10	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Cadmium	1.1	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Chromium	<5	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Cobalt	0.2	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Copper	9.0	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Iron	220	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Lead	0.1	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Manganese	20	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Mercury	<0.05	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Molybdenum	<1	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Nickel	3.6	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Selenium	8.6	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Silver	<0.1	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Strontium	5.0	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Thallium	<0.5	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Tin	<0.5	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Titanium	1.8	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Uranium	0.22	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Vanadium	<1	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	Zinc	230	mg/kg dw	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	2	2018-09-08	Composite	% Moisture	89	%	SRC	RG_AGCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Aluminum	960	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Antimony	<1	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Arsenic	0.6	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Barium	46	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Beryllium	<0.1	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Boron	<10	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Cadmium	2.0	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Chromium	<5	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Cobalt	94	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Copper	9.4	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Iron	420	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Lead	0.3	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Manganese	720	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Mercury	<0.05	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Molybdenum	<1	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Nickel	86	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Selenium	3.4	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Silver	<0.1	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Strontium	150	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Thallium	<0.5	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Tin	<0.5	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Titanium	10	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Uranium	1.0	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Vanadium	2.0	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	Zinc	350	mg/kg dw	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	1	2018-09-08	Composite	% Moisture	80	%	SRC	RG_CORCK_INV-1_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Aluminum	880	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Antimony	<2	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Arsenic	<1	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Barium	53	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Beryllium	<0.2	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Boron	<20	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Cadmium	2.4	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Chromium	<10	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Cobalt	100	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Copper	9.0	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Iron	380	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Lead	0.3	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Manganese	780	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Mercury	<0.1	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Molybdenum	<2	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Nickel	88	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Selenium	3.0	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Silver	<0.2	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Strontium	230	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Thallium	<1	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Tin	<1	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Titanium	8.0	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Uranium	1.7	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Vanadium	<2	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	Zinc	400	mg/kg dw	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	2	2018-09-08	Composite	% Moisture	77	%	SRC	RG_CORCK_INV-2_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Aluminum	400	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Antimony	<1	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Arsenic	0.8	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Barium	17	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Beryllium	<0.1	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Boron	<10	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Cadmium	0.7	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Chromium	<5	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Cobalt	130	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Copper	10	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Iron	280	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Lead	0.2	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Manganese	470	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Mercury	<0.05	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Molybdenum	1.0	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Nickel	72	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Selenium	4.4	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08



Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Silver	<0.1	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Strontium	43	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Thallium	<0.5	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Tin	<0.5	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Titanium	3.3	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Uranium	0.39	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Vanadium	1.0	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	Zinc	210	mg/kg dw	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_CORCK	668539	5487366	2018	3	2018-09-08	Composite	% Moisture	71	%	SRC	RG_CORCK_INV-3_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Aluminum	550	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Antimony	<1	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Arsenic	0.8	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Barium	24	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Beryllium	<0.1	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Boron	<10	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Cadmium	0.7	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Chromium	<5	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Cobalt	44	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Copper	13	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Iron	430	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Lead	0.4	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Manganese	110	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Mercury	<0.05	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Molybdenum	<1	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Nickel	21	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Selenium	6.2	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Silver	<0.1	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Strontium	18	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Thallium	<0.5	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Tin	<0.5	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Titanium	4.2	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Uranium	0.09	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Vanadium	1.0	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	Zinc	160	mg/kg dw	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	1	2018-09-08	Composite	% Moisture	80	%	SRC	RG_MIDAG_INV-1_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Aluminum	970	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Antimony	<1	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Arsenic	0.6	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Barium	12	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Beryllium	<0.1	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Boron	<10	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Cadmium	0.5	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Chromium	<5	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Cobalt	24	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Copper	17	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Iron	890	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Lead	0.4	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Manganese	100	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Mercury	<0.05	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Molybdenum	<1	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Nickel	13	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Selenium	3.5	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Silver	0.1	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Strontium	18	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Thallium	<0.5	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Tin	<0.5	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Titanium	5.6	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Uranium	0.08	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Vanadium	2.0	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	Zinc	190	mg/kg dw	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_MIDAG	665220	5489324	2018	2	2018-09-08	Composite	% Moisture	79	%	SRC	RG_MIDAG_INV-2_2018-09-08
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Aluminum	220	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Antimony	<1	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Arsenic	1.0	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Barium	6.4	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Beryllium	<0.1	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Boron	<10	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Cadmium	0.8	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Chromium	<5	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Cobalt	0.2	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Copper	9.2	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Iron	210	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Lead	0.1	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Manganese	28	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Mercury	<0.05	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Molybdenum	<1	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Nickel	3.3	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Selenium	6.2	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Silver	<0.1	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Strontium	6.0	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Thallium	<0.5	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Tin	<0.5	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Titanium	2.0	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Uranium	0.08	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Vanadium	<1	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	Zinc	200	mg/kg dw	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_AGCK	667557	5488648	2018	3	2018-09-09	Composite	% Moisture	79	%	SRC	RG_AGCK_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Aluminum	1,800	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Antimony	<1	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Arsenic	0.8	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Barium	22	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Beryllium	<0.1	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Boron	<10	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Cadmium	0.5	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Chromium	<5	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Cobalt	31	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Copper	14	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Iron	1,300	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Lead	0.6	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Manganese	100	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Mercury	<0.05	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Molybdenum	<1	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Nickel	10	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Selenium	3.8	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Silver	<0.1	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Strontium	16	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Thallium	<0.5	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Tin	<0.5	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Titanium	8.6	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Uranium	0.06	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Vanadium	3.0	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	Zinc	170	mg/kg dw	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDAG	665220	5489324	2018	3	2018-09-09	Composite	% Moisture	70	%	SRC	RG_MIDAG_INV-3_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Aluminum	3,700	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09



Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Antimony	<1	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Arsenic	1.1	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Barium	39	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Beryllium	0.2	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Boron	<10	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Cadmium	0.5	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Chromium	<5	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Cobalt	70	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Copper	12	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Iron	2,500	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Lead	1.2	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Manganese	350	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Mercury	<0.05	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Molybdenum	<1	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Nickel	43	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Selenium	3.8	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Silver	<0.1	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Strontium	61	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Thallium	<0.5	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Tin	<0.5	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Titanium	16	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Uranium	0.32	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Vanadium	8.0	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	Zinc	140	mg/kg dw	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	1	2018-09-09	Composite	% Moisture	75	%	SRC	RG_MIDCO_INV-1_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Aluminum	1,700	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Antimony	<1	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Arsenic	<0.5	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Barium	13	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Beryllium	<0.1	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Boron	<10	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Cadmium	0.3	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Chromium	<5	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Cobalt	39	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Copper	13	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Iron	1,000	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Lead	0.5	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Manganese	150	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Mercury	<0.05	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Molybdenum	<1	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Nickel	19	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Selenium	3.1	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Silver	<0.1	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Strontium	19	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Thallium	<0.5	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Tin	<0.5	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Titanium	9.7	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Uranium	0.09	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Vanadium	4.0	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	Zinc	130	mg/kg dw	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	2	2018-09-09	Composite	% Moisture	79	%	SRC	RG_MIDCO_INV-2_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Aluminum	1,500	mg/kg dw	SRC	RG_MIDCO_INV-3_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Antimony	<1	mg/kg dw	SRC	RG_MIDCO_INV-3_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Arsenic	0.6	mg/kg dw	SRC	RG_MIDCO_INV-3_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Barium	22	mg/kg dw	SRC	RG_MIDCO_INV-3_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Beryllium	<0.1	mg/kg dw	SRC	RG_MIDCO_INV-3_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Boron	<10	mg/kg dw	SRC	RG_MIDCO_INV-3_2018-09-09

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Cadmium	0.3	mg/kg dw	SRC	RG MIDCO_INV-3_2018-09-09
INV	RG MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Chromium	<5	mg/kg dw	SRC	RG MIDCO_INV-3_2018-09-09
INV	RG MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Cobalt	49	mg/kg dw	SRC	RG MIDCO_INV-3_2018-09-09
INV	RG MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Copper	14	mg/kg dw	SRC	RG MIDCO_INV-3_2018-09-09
INV	RG MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Iron	940	mg/kg dw	SRC	RG MIDCO_INV-3_2018-09-09
INV	RG MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Lead	0.4	mg/kg dw	SRC	RG MIDCO_INV-3_2018-09-09
INV	RG MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Manganese	160	mg/kg dw	SRC	RG MIDCO_INV-3_2018-09-09
INV	RG MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Mercury	<0.05	mg/kg dw	SRC	RG MIDCO_INV-3_2018-09-09
INV	RG MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Molybdenum	<1	mg/kg dw	SRC	RG MIDCO_INV-3_2018-09-09
INV	RG MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Nickel	22	mg/kg dw	SRC	RG MIDCO_INV-3_2018-09-09
INV	RG MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Selenium	3.0	mg/kg dw	SRC	RG MIDCO_INV-3_2018-09-09
INV	RG MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Silver	<0.1	mg/kg dw	SRC	RG MIDCO_INV-3_2018-09-09
INV	RG MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Strontium	48	mg/kg dw	SRC	RG MIDCO_INV-3_2018-09-09
INV	RG MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Thallium	<0.5	mg/kg dw	SRC	RG MIDCO_INV-3_2018-09-09
INV	RG MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Tin	<0.5	mg/kg dw	SRC	RG MIDCO_INV-3_2018-09-09
INV	RG MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Titanium	11	mg/kg dw	SRC	RG MIDCO_INV-3_2018-09-09
INV	RG MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Uranium	0.17	mg/kg dw	SRC	RG MIDCO_INV-3_2018-09-09
INV	RG MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Vanadium	3.0	mg/kg dw	SRC	RG MIDCO_INV-3_2018-09-09
INV	RG MIDCO	667616	5487621	2018	3	2018-09-09	Composite	Zinc	130	mg/kg dw	SRC	RG MIDCO_INV-3_2018-09-09
INV	RG MIDCO	667616	5487621	2018	3	2018-09-09	Composite	% Moisture	78	%	SRC	RG MIDCO_INV-3_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Aluminum	770	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Antimony	<1	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Arsenic	0.6	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Barium	11	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Beryllium	<0.1	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Boron	<10	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Cadmium	0.2	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Chromium	<5	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Cobalt	66	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Copper	8.9	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Iron	480	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Lead	0.2	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Manganese	200	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Mercury	<0.05	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Molybdenum	<1	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Nickel	22	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Selenium	3.7	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Silver	<0.1	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Strontium	10	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Thallium	<0.5	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Tin	<0.5	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Titanium	5.4	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Uranium	0.07	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Vanadium	2.0	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	Zinc	130	mg/kg dw	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	4	2018-09-09	Composite	% Moisture	73	%	SRC	RG MIDCO_INV-4_2018-09-09
INV	RG MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Aluminum	320	mg/kg dw	SRC	RG MIDCO_INV-5_2018-09-09
INV	RG MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Antimony	<1	mg/kg dw	SRC	RG MIDCO_INV-5_2018-09-09
INV	RG MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Arsenic	<0.5	mg/kg dw	SRC	RG MIDCO_INV-5_2018-09-09
INV	RG MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Barium	8.4	mg/kg dw	SRC	RG MIDCO_INV-5_2018-09-09
INV	RG MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Beryllium	<0.1	mg/kg dw	SRC	RG MIDCO_INV-5_2018-09-09
INV	RG MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Boron	<10	mg/kg dw	SRC	RG MIDCO_INV-5_2018-09-09
INV	RG MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Cadmium	0.2	mg/kg dw	SRC	RG MIDCO_INV-5_2018-09-09
INV	RG MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Chromium	<5	mg/kg dw	SRC	RG MIDCO_INV-5_2018-09-09
INV	RG MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Cobalt	60	mg/kg dw	SRC	RG MIDCO_INV-5_2018-09-09
INV	RG MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Copper	9.9	mg/kg dw	SRC	RG MIDCO_INV-5_2018-09-09
INV	RG MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Iron	210	mg/kg dw	SRC	RG MIDCO_INV-5_2018-09-09

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Lead	0.1	mg/kg dw	SRC	RG_MIDCO_INV-5_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Manganese	120	mg/kg dw	SRC	RG_MIDCO_INV-5_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Mercury	<0.05	mg/kg dw	SRC	RG_MIDCO_INV-5_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Molybdenum	<1	mg/kg dw	SRC	RG_MIDCO_INV-5_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Nickel	16	mg/kg dw	SRC	RG_MIDCO_INV-5_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Selenium	3.3	mg/kg dw	SRC	RG_MIDCO_INV-5_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Silver	<0.1	mg/kg dw	SRC	RG_MIDCO_INV-5_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Strontium	8.0	mg/kg dw	SRC	RG_MIDCO_INV-5_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Thallium	<0.5	mg/kg dw	SRC	RG_MIDCO_INV-5_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Tin	<0.5	mg/kg dw	SRC	RG_MIDCO_INV-5_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Titanium	3.3	mg/kg dw	SRC	RG_MIDCO_INV-5_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Uranium	0.06	mg/kg dw	SRC	RG_MIDCO_INV-5_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Vanadium	<1	mg/kg dw	SRC	RG_MIDCO_INV-5_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	5	2018-09-09	Composite	Zinc	130	mg/kg dw	SRC	RG_MIDCO_INV-5_2018-09-09
INV	RG_MIDCO	667616	5487621	2018	5	2018-09-09	Composite	% Moisture	66	%	SRC	RG_MIDCO_INV-5_2018-09-09
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Aluminum	2,800	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Aluminum	2,100	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Aluminum	4,100	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Aluminum	2,400	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Aluminum	1,300	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Aluminum	1,300	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Aluminum	630	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Aluminum	1,600	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Aluminum	2,800	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Aluminum	2,700	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Aluminum	1,800	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Aluminum	3,400	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Aluminum	1,900	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Aluminum	3,200	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Aluminum	2,500	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Aluminum	2,000	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Aluminum	2,500	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Aluminum	250	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Aluminum	110	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Aluminum	270	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Aluminum	590	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Aluminum	190	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Aluminum	160	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Aluminum	2,900	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Aluminum	4,900	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Aluminum	3,200	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Aluminum	1,400	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Aluminum	1,400	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Aluminum	3,200	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Antimony	0.02	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Antimony	0.03	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Antimony	0.03	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Antimony	0.02	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Antimony	0.02	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Antimony	0.02	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Antimony	0.02	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Antimony	0.03	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Antimony	0.1	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Antimony	0.11	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Antimony	0.08	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Antimony	0.06	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Antimony	0.12	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04



Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Antimony	0.04	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Antimony	0.15	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Antimony	0.06	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Antimony	0.07	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Antimony	0.02	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Antimony	0.01	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Antimony	0.02	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Antimony	0.04	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Antimony	0.02	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Antimony	0.02	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Antimony	0.05	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Antimony	0.06	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Antimony	0.06	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Antimony	0.04	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Antimony	0.03	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Antimony	0.06	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Arsenic	1.0	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Arsenic	0.98	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Arsenic	1.3	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Arsenic	0.87	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Arsenic	0.55	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Arsenic	0.57	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Arsenic	0.39	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Arsenic	0.83	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Arsenic	1.5	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Arsenic	1.1	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Arsenic	0.68	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Arsenic	1.9	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Arsenic	1.2	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Arsenic	1.4	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Arsenic	1.1	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Arsenic	0.94	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Arsenic	1.0	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Arsenic	1.6	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Arsenic	1.3	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Arsenic	1.2	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Arsenic	0.24	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Arsenic	0.24	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Arsenic	0.22	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Arsenic	1.5	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Arsenic	2.0	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Arsenic	2.1	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Arsenic	0.61	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Arsenic	0.68	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Arsenic	1.4	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Barium	38	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Barium	20	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Barium	28	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Barium	10	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Barium	8.8	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Barium	8.6	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Barium	5.9	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Barium	15	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Barium	45	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Barium	38	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Barium	39	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Barium	23	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Barium	16	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Barium	15	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Barium	44	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Barium	34	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Barium	32	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Barium	3.6	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Barium	3.2	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Barium	6.6	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Barium	23	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Barium	6.5	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Barium	9.4	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Barium	20	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Barium	47	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Barium	34	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Barium	17	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Barium	22	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Barium	31	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Beryllium	0.1	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Beryllium	0.07	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Beryllium	0.14	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Beryllium	0.09	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Beryllium	0.05	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Beryllium	0.05	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Beryllium	0.02	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Beryllium	0.06	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Beryllium	0.11	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Beryllium	0.1	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Beryllium	0.06	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Beryllium	0.11	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Beryllium	0.07	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Beryllium	0.1	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Beryllium	0.11	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Beryllium	0.06	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Beryllium	0.09	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Beryllium	0.02	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Beryllium	0.02	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Beryllium	0.02	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Beryllium	0.03	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Beryllium	<0.01	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Beryllium	<0.02	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Beryllium	0.1	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Beryllium	0.17	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Beryllium	0.12	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Beryllium	0.05	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Beryllium	0.05	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Beryllium	0.11	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Boron	6.0	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Boron	5.0	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Boron	8.0	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Boron	5.0	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Boron	3.0	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Boron	3.0	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Boron	2.0	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Boron	4.0	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Boron	4.0	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Boron	4.0	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Boron	3.0	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Boron	10	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Boron	5.0	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Boron	7.0	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Boron	6.0	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Boron	6.0	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Boron	4.0	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Boron	<1	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Boron	<1	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Boron	<1	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Boron	2.0	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Boron	<1	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Boron	<2	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Boron	6.0	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Boron	8.0	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Boron	6.0	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Boron	3.0	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Boron	4.0	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Boron	6.0	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Cadmium	0.98	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Cadmium	1.3	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Cadmium	3.7	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Cadmium	0.38	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Cadmium	0.49	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Cadmium	0.37	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Cadmium	0.3	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Cadmium	0.27	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Cadmium	6.4	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Cadmium	8.4	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Cadmium	11	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Cadmium	4.8	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Cadmium	3.4	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Cadmium	3.2	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Cadmium	2.6	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Cadmium	2.7	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Cadmium	2.5	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Cadmium	1.3	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Cadmium	1.1	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Cadmium	1.0	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Cadmium	1.1	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Cadmium	0.5	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Cadmium	0.54	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Cadmium	1.5	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Cadmium	1.4	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Cadmium	0.75	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Cadmium	0.72	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Cadmium	1.4	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Cadmium	0.97	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Chromium	3.0	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Chromium	2.5	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Chromium	3.8	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Chromium	2.6	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Chromium	1.6	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Chromium	1.5	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Chromium	0.77	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Chromium	2.0	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Chromium	5.0	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Chromium	4.1	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05



**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Chromium	2.8	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Chromium	4.0	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Chromium	2.3	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Chromium	3.9	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Chromium	4.0	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Chromium	3.0	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Chromium	3.9	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Chromium	0.69	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Chromium	0.33	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Chromium	0.59	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Chromium	0.56	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Chromium	0.3	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Chromium	0.2	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Chromium	3.3	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Chromium	5.2	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Chromium	3.7	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Chromium	1.8	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Chromium	1.6	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Chromium	3.9	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Cobalt	1.6	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Cobalt	2.3	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Cobalt	3.6	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Cobalt	26	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Cobalt	27	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Cobalt	27	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Cobalt	18	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Cobalt	22	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Cobalt	1.4	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Cobalt	1.6	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Cobalt	1.6	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Cobalt	3.1	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Cobalt	1.3	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Cobalt	1.2	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Cobalt	3.4	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Cobalt	5.3	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Cobalt	3.6	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Cobalt	0.24	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Cobalt	0.18	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Cobalt	0.18	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Cobalt	31	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Cobalt	16	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Cobalt	14	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Cobalt	24	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Cobalt	11	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Cobalt	18	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Cobalt	4.3	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Cobalt	13	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Cobalt	6.2	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Copper	13	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Copper	17	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Copper	24	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Copper	13	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Copper	10	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Copper	12	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Copper	13	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Copper	12	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Copper	16	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Copper	20	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Copper	15	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Copper	20	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Copper	21	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Copper	27	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Copper	10	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Copper	11	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Copper	10	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Copper	7.2	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Copper	6.6	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Copper	6.5	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Copper	8.2	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Copper	10	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Copper	9.6	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Copper	11	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Copper	11	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Copper	11	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Copper	14	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Copper	7.2	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Copper	12	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Iron	1,800	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Iron	1,400	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Iron	2,900	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Iron	1,700	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Iron	990	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Iron	840	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Iron	380	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Iron	1,200	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Iron	2,100	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Iron	1,800	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Iron	1,100	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Iron	2,200	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Iron	1,300	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Iron	1,500	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Iron	2,800	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Iron	1,400	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Iron	2,000	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Iron	260	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Iron	200	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Iron	240	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Iron	160	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Iron	100	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Iron	89	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Iron	1,700	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Iron	2,700	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Iron	1,900	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Iron	990	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Iron	960	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Iron	2,300	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Lead	0.88	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Lead	0.59	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Lead	1.2	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Lead	0.81	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Lead	0.42	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Lead	0.43	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Lead	0.22	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Lead	0.6	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09



Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Lead	1.3	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Lead	0.96	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Lead	0.63	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Lead	1.6	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Lead	1.0	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Lead	1.2	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Lead	1.0	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Lead	0.59	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Lead	0.97	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Lead	0.12	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Lead	0.05	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Lead	0.1	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Lead	0.26	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Lead	0.07	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Lead	0.06	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Lead	0.89	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Lead	1.4	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Lead	1.1	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Lead	0.41	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Lead	0.48	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Lead	1.1	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Manganese	227	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Manganese	140	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Manganese	240	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Manganese	130	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Manganese	107	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Manganese	150	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Manganese	91	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Manganese	207	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Manganese	64	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Manganese	64	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Manganese	73	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Manganese	64	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Manganese	51	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Manganese	50	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Manganese	65	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Manganese	48	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Manganese	60	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Manganese	8.4	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Manganese	7.3	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Manganese	15	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Manganese	204	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Manganese	99	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Manganese	88	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Manganese	120	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Manganese	138	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Manganese	190	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Manganese	59	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Manganese	109	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Manganese	72	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Mercury	0.024	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Mercury	0.02	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Mercury	0.03	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Mercury	0.014	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Mercury	0.014	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Mercury	0.014	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Mercury	0.015	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Mercury	0.016	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Mercury	0.041	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Mercury	0.04	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Mercury	0.044	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Mercury	0.03	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Mercury	0.04	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Mercury	0.035	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Mercury	0.024	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Mercury	0.02	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Mercury	0.023	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Mercury	0.014	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Mercury	0.012	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Mercury	0.017	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Mercury	0.01	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Mercury	0.008	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Mercury	<0.01	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Mercury	0.02	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Mercury	0.026	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Mercury	0.02	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Mercury	0.015	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Mercury	0.018	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Mercury	0.019	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Molybdenum	0.66	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Molybdenum	0.5	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Molybdenum	0.58	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Molybdenum	0.26	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Molybdenum	0.26	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Molybdenum	0.31	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Molybdenum	0.22	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Molybdenum	0.45	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Molybdenum	0.72	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Molybdenum	0.55	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Molybdenum	0.6	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Molybdenum	0.8	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Molybdenum	0.65	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Molybdenum	0.54	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Molybdenum	0.56	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Molybdenum	0.45	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Molybdenum	0.44	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Molybdenum	0.28	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Molybdenum	0.27	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Molybdenum	0.23	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Molybdenum	0.16	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Molybdenum	0.14	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Molybdenum	0.14	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Molybdenum	0.48	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Molybdenum	0.5	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Molybdenum	0.71	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Molybdenum	0.28	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Molybdenum	0.24	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Molybdenum	0.44	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Nickel	3.7	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Nickel	2.6	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Nickel	3.6	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Nickel	13	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Nickel	10	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Nickel	14	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09



Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Nickel	12	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Nickel	17	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Nickel	5.2	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Nickel	3.7	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Nickel	2.8	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Nickel	3.9	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Nickel	2.7	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Nickel	3.8	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Nickel	8.0	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Nickel	7.4	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Nickel	6.9	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Nickel	3.7	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Nickel	2.3	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Nickel	3.0	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Nickel	26	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Nickel	10	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Nickel	12	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Nickel	11	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Nickel	15	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Nickel	33	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Nickel	4.9	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Nickel	6.9	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Nickel	12	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Selenium	5.0	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Selenium	5.9	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Selenium	6.1	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Selenium	2.6	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Selenium	3.4	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Selenium	3.3	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Selenium	2.9	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Selenium	3.2	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Selenium	5.3	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Selenium	6.0	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Selenium	6.1	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Selenium	5.6	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Selenium	4.4	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Selenium	3.9	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Selenium	5.7	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Selenium	6.8	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Selenium	5.8	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Selenium	8.3	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Selenium	8.5	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Selenium	5.4	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Selenium	2.4	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Selenium	2.7	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Selenium	2.7	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Selenium	8.3	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Selenium	11	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Selenium	8.5	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Selenium	5.2	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Selenium	5.2	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Selenium	5.6	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Silver	0.04	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Silver	0.06	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Silver	0.07	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Silver	0.06	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Silver	0.05	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Silver	0.06	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Silver	0.07	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Silver	0.04	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Silver	0.17	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Silver	0.22	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Silver	0.14	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Silver	0.06	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Silver	0.07	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Silver	0.11	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Silver	0.11	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Silver	0.09	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Silver	0.1	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Silver	0.05	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Silver	0.04	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Silver	0.04	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Silver	0.05	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Silver	0.04	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Silver	0.05	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Silver	0.06	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Silver	0.07	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Silver	0.06	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Silver	0.11	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Silver	0.06	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Silver	0.1	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Strontium	4.6	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Strontium	5.5	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Strontium	6.5	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Strontium	17	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Strontium	6.6	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Strontium	6.5	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Strontium	5.5	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Strontium	9.4	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Strontium	10	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Strontium	7.7	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Strontium	5.4	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Strontium	11	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Strontium	8.8	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Strontium	6.8	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Strontium	19	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Strontium	18	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Strontium	15	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Strontium	7.2	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Strontium	4.6	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Strontium	7.2	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Strontium	52	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Strontium	17	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Strontium	24	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Strontium	15	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Strontium	22	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Strontium	14	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Strontium	10	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Strontium	98	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Strontium	19	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Thallium	0.068	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Thallium	0.06	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Thallium	0.09	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Thallium	0.058	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Thallium	0.05	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Thallium	0.043	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Thallium	0.028	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Thallium	0.053	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Thallium	0.087	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Thallium	0.077	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Thallium	0.064	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Thallium	0.16	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Thallium	0.11	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Thallium	0.12	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Thallium	0.1	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Thallium	0.08	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Thallium	0.098	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Thallium	0.54	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Thallium	0.63	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Thallium	0.46	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Thallium	0.037	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Thallium	0.026	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Thallium	0.03	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Thallium	0.21	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Thallium	0.26	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Thallium	0.18	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Thallium	0.068	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Thallium	0.082	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Thallium	0.12	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Tin	0.08	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Tin	0.2	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Tin	<0.1	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Tin	<0.05	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Tin	<0.05	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Tin	<0.05	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Tin	<0.05	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Tin	<0.05	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Tin	<0.05	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Tin	<0.05	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Tin	<0.05	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Tin	<0.1	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Tin	<0.1	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Tin	<0.05	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Tin	<0.05	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Tin	<0.1	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Tin	0.06	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Tin	<0.05	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Tin	0.12	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Tin	0.19	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Tin	<0.05	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Tin	0.41	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Tin	0.4	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Tin	0.3	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Tin	0.19	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Tin	<0.1	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Tin	0.28	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Tin	<0.05	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Tin	<0.05	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Titanium	13	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Titanium	12	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Titanium	14	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09



Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Titanium	8.2	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Titanium	6.7	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Titanium	8.3	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Titanium	5.1	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Titanium	9.3	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Titanium	13	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Titanium	22	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Titanium	16	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Titanium	24	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Titanium	15	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Titanium	20	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Titanium	23	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Titanium	16	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Titanium	16	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Titanium	3.1	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Titanium	1.6	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Titanium	2.4	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Titanium	12	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Titanium	2.7	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Titanium	2.5	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Titanium	23	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Titanium	31	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Titanium	22	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Titanium	9.1	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Titanium	9.6	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Titanium	18	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Uranium	0.059	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Uranium	0.05	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Uranium	0.07	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Uranium	0.057	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Uranium	0.047	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Uranium	0.047	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Uranium	0.034	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Uranium	0.076	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Uranium	0.33	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Uranium	0.16	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Uranium	0.14	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Uranium	0.15	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Uranium	0.16	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Uranium	0.07	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Uranium	0.19	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Uranium	0.12	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Uranium	0.18	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Uranium	0.085	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Uranium	0.06	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Uranium	0.049	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Uranium	0.36	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Uranium	0.1	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Uranium	0.15	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Uranium	0.12	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Uranium	0.18	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Uranium	0.2	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Uranium	0.062	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Uranium	0.096	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Uranium	0.14	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Vanadium	4.8	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Vanadium	4.1	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Vanadium	6.5	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Vanadium	4.2	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Vanadium	2.9	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Vanadium	2.7	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Vanadium	1.3	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Vanadium	3.4	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Vanadium	16	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Vanadium	11	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Vanadium	7.2	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Vanadium	7.0	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Vanadium	4.6	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Vanadium	10	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Vanadium	11	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Vanadium	7.6	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Vanadium	10	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Vanadium	0.9	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Vanadium	0.4	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Vanadium	0.8	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Vanadium	1.3	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Vanadium	0.5	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Vanadium	0.4	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Vanadium	6.1	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Vanadium	9.9	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Vanadium	7.0	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Vanadium	3.7	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Vanadium	3.4	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Vanadium	8.6	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Zinc	130	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Zinc	120	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Zinc	200	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Zinc	120	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Zinc	110	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Zinc	130	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Zinc	120	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Zinc	100	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Zinc	120	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Zinc	160	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Zinc	150	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Zinc	150	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Zinc	160	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Zinc	180	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Zinc	120	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Zinc	140	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Zinc	120	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Zinc	270	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Zinc	290	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Zinc	190	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Zinc	190	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Zinc	170	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Zinc	180	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Zinc	190	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Zinc	150	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Zinc	150	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Zinc	210	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Zinc	100	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Zinc	140	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	% Moisture	81	%	SRC	RG_MIUCO_INV-1_2019-09-09

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	% Moisture	85	%	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	% Moisture	84	%	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	% Moisture	78	%	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	% Moisture	81	%	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	% Moisture	83	%	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	% Moisture	77	%	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	% Moisture	79	%	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	% Moisture	84	%	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	% Moisture	84	%	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	% Moisture	84	%	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	% Moisture	88	%	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	% Moisture	85	%	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	% Moisture	82	%	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	% Moisture	88	%	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	% Moisture	88	%	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	% Moisture	83	%	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	% Moisture	91	%	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	% Moisture	86	%	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	% Moisture	84	%	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	% Moisture	81	%	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	% Moisture	82	%	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	% Moisture	81	%	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	% Moisture	90	%	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	% Moisture	83	%	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	% Moisture	84	%	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	% Moisture	82	%	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	% Moisture	81	%	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	% Moisture	85	%	SRC	RG_MIULE_INV-3_2019-09-06
INV	RG_MIUCO	668134	5486767	2019	1	2019-09-09	Composite	Weights	0.28	mg/kg dw	SRC	RG_MIUCO_INV-1_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	2	2019-09-09	Composite	Weights	0.21	mg/kg dw	SRC	RG_MIUCO_INV-2_2019-09-09
INV	RG_MIUCO	668134	5486767	2019	3	2019-09-09	Composite	Weights	0.22	mg/kg dw	SRC	RG_MIUCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	1	2019-09-07	Composite	Weights	0.49	mg/kg dw	SRC	RG_MIDCO_INV-1_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	2	2019-09-07	Composite	Weights	0.5	mg/kg dw	SRC	RG_MIDCO_INV-2_2019-09-07
INV	RG_MIDCO	667711	5487625	2019	3	2019-09-09	Composite	Weights	0.4	mg/kg dw	SRC	RG_MIDCO_INV-3_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	4	2019-09-09	Composite	Weights	0.43	mg/kg dw	SRC	RG_MIDCO_INV-4_2019-09-09
INV	RG_MIDCO	667711	5487625	2019	5	2019-09-09	Composite	Weights	0.31	mg/kg dw	SRC	RG_MIDCO_INV-5_2019-09-09
INV	RG_LE1	659632	5494112	2019	1	2019-09-05	Composite	Weights	0.49	mg/kg dw	SRC	RG_LE1_INV-1_2019-09-05
INV	RG_LE1	659632	5494112	2019	2	2019-09-05	Composite	Weights	0.43	mg/kg dw	SRC	RG_LE1_INV-2_2019-09-05
INV	RG_LE1	659632	5494112	2019	3	2019-09-05	Composite	Weights	0.31	mg/kg dw	SRC	RG_LE1_INV-3_2019-09-05
INV	RG_MI25	668186	5482838	2019	1	2019-09-04	Composite	Weights	0.22	mg/kg dw	SRC	RG_MI25_INV-1_2019-09-04
INV	RG_MI25	668186	5482838	2019	2	2019-09-04	Composite	Weights	0.17	mg/kg dw	SRC	RG_MI25_INV-2_2019-09-04
INV	RG_MI25	668186	5482838	2019	3	2019-09-04	Composite	Weights	0.34	mg/kg dw	SRC	RG_MI25_INV-3_2019-09-04
INV	RG_MI5	659387	5496818	2019	1	2019-09-05	Composite	Weights	0.26	mg/kg dw	SRC	RG_MI5_INV-1_2019-09-05
INV	RG_MI5	659387	5496818	2019	2	2019-09-05	Composite	Weights	0.25	mg/kg dw	SRC	RG_MI5_INV-2_2019-09-05
INV	RG_MI5	659387	5496818	2019	3	2019-09-05	Composite	Weights	0.39	mg/kg dw	SRC	RG_MI5_INV-3_2019-09-05
INV	RG_AGCK	667555	5488644	2019	1	2019-09-06	Composite	Weights	0.3	mg/kg dw	SRC	RG_AGCK_INV-1_2019-09-06
INV	RG_AGCK	667555	5488644	2019	2	2019-09-06	Composite	Weights	0.37	mg/kg dw	SRC	RG_AGCK_INV-2_2019-09-06
INV	RG_AGCK	667555	5488644	2019	3	2019-09-06	Composite	Weights	0.43	mg/kg dw	SRC	RG_AGCK_INV-3_2019-09-06
INV	RG_CORCK	668556	5487388	2019	1	2019-09-07	Composite	Weights	0.29	mg/kg dw	SRC	RG_CORCK_INV-1_2019-09-07
INV	RG_CORCK	668556	5487388	2019	2	2019-09-07	Composite	Weights	0.26	mg/kg dw	SRC	RG_CORCK_INV-2_2019-09-07
INV	RG_CORCK	668556	5487388	2019	3	2019-09-07	Composite	Weights	0.15	mg/kg dw	SRC	RG_CORCK_INV-3_2019-09-07
INV	RG_MIDAG	665258	5489417	2019	1	2019-09-10	Composite	Weights	0.15	mg/kg dw	SRC	RG_MIDAG_INV-1_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	2	2019-09-10	Composite	Weights	0.27	mg/kg dw	SRC	RG_MIDAG_INV-2_2019-09-10
INV	RG_MIDAG	665258	5489417	2019	3	2019-09-10	Composite	Weights	0.23	mg/kg dw	SRC	RG_MIDAG_INV-3_2019-09-10
INV	RG_MIULE	660502	5493059	2019	1	2019-09-06	Composite	Weights	0.39	mg/kg dw	SRC	RG_MIULE_INV-1_2019-09-06
INV	RG_MIULE	660502	5493059	2019	2	2019-09-06	Composite	Weights	0.45	mg/kg dw	SRC	RG_MIULE_INV-2_2019-09-06
INV	RG_MIULE	660502	5493059	2019	3	2019-09-06	Composite	Weights	0.36	mg/kg dw	SRC	RG_MIULE_INV-3_2019-09-06



Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Lithium	0.2	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Boron	0.51	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Sodium	4,259	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Magnesium	1,269	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Aluminum	127	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Phosphorus	12,105	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Potassium	10,646	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Calcium	1,828	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Titanium	6.8	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Vanadium	0.26	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Chromium	1.9	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Manganese	13	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Iron	108	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Cobalt	0.098	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Nickel	4.5	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Copper	9.2	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Zinc	224	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Arsenic	1.7	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Selenium	6.4	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Strontium	4.7	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Molybdenum	0.26	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Silver	0.042	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Cadmium	0.52	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Tin	0.14	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Antimony	0.014	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Barium	13	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Mercury	0.052	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Thallium	0.22	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Lead	0.084	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Uranium	0.027	mg/kg	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Lithium	0.19	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Boron	0.55	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Sodium	2,920	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Magnesium	1,247	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Aluminum	243	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Phosphorus	10,154	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Potassium	9,919	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Calcium	1,758	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Titanium	17	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Vanadium	0.46	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Chromium	2.9	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Manganese	16	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Iron	182	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Cobalt	0.18	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Nickel	6.0	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Copper	9.3	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Zinc	219	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Arsenic	1.2	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Selenium	4.9	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Strontium	4.4	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Molybdenum	0.26	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Silver	0.036	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Cadmium	0.48	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Tin	0.18	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Antimony	0.014	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Barium	21	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Mercury	0.043	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Thallium	0.13	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Lead	0.071	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Uranium	0.032	mg/kg	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Lithium	0.24	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Boron	0.62	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Sodium	4,562	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Magnesium	1,404	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Aluminum	263	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Phosphorus	12,821	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Potassium	12,125	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Calcium	1,478	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Titanium	15	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Vanadium	0.41	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Chromium	2.4	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Manganese	19	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Iron	175	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Cobalt	0.14	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Nickel	5.7	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Copper	8.8	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Zinc	216	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Arsenic	1.5	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Selenium	7.2	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Strontium	3.5	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Molybdenum	0.3	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Silver	0.051	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Cadmium	0.53	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Tin	0.088	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Antimony	0.014	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Barium	26	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Mercury	0.069	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Thallium	0.25	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Lead	0.08	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Uranium	0.037	mg/kg	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Lithium	0.29	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Boron	0.88	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Sodium	3,598	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Magnesium	1,210	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Aluminum	532	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Phosphorus	10,963	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Potassium	9,577	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Calcium	1,159	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Titanium	32	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Vanadium	1.5	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Chromium	3.3	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Manganese	57	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Iron	410	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Cobalt	0.45	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Nickel	4.8	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Copper	18	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Zinc	164	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Arsenic	0.46	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Selenium	4.5	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Strontium	2.2	mg/kg	Trich	RG_LE1_INV-1_2020-09-17



**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Molybdenum	0.55	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Silver	0.2	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Cadmium	2.2	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Tin	0.07	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Antimony	0.04	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Barium	65	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Mercury	0.15	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Thallium	0.03	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Lead	0.23	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Uranium	0.048	mg/kg	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Lithium	0.41	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Boron	0.73	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Sodium	3,365	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Magnesium	1,104	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Aluminum	627	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Phosphorus	10,267	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Potassium	8,665	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Calcium	1,221	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Titanium	40	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Vanadium	1.7	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Chromium	4.7	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Manganese	87	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Iron	487	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Cobalt	0.77	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Nickel	9.0	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Copper	17	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Zinc	161	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Arsenic	0.51	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Selenium	5.2	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Strontium	2.6	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Molybdenum	0.66	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Silver	0.15	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Cadmium	2.7	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Tin	0.14	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Antimony	0.033	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Barium	105	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Mercury	0.11	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Thallium	0.035	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Lead	0.29	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Uranium	0.056	mg/kg	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Lithium	0.28	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Boron	0.59	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Sodium	3,857	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Magnesium	1,239	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Aluminum	325	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Phosphorus	12,294	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Potassium	10,219	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Calcium	895	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Titanium	16	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Vanadium	0.94	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Chromium	2.5	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Manganese	63	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Iron	254	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Cobalt	0.38	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Nickel	3.3	mg/kg	Trich	RG_LE1_INV-3_2020-09-17

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Copper	17	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Zinc	148	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Arsenic	0.55	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Selenium	6.0	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Strontium	1.8	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Molybdenum	0.57	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Silver	0.17	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Cadmium	2.9	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Tin	0.094	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Antimony	0.022	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Barium	67	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Mercury	0.14	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Thallium	0.028	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Lead	0.13	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Uranium	0.026	mg/kg	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Lithium	0.55	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Boron	2.9	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Sodium	3,075	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Magnesium	1,126	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Aluminum	1,154	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Phosphorus	9,517	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Potassium	8,536	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Calcium	1,353	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Titanium	65	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Vanadium	1.3	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Chromium	3.7	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Manganese	53	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Iron	532	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Cobalt	0.75	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Nickel	7.6	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Copper	13	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Zinc	139	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Arsenic	0.94	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Selenium	2.9	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Strontium	4.1	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Molybdenum	0.34	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Silver	0.039	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Cadmium	1.1	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Tin	0.14	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Antimony	0.033	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Barium	88	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Mercury	0.052	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Thallium	0.038	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Lead	0.63	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Uranium	0.043	mg/kg	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Lithium	0.94	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Boron	5.2	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Sodium	4,649	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Magnesium	1,797	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Aluminum	2,636	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Phosphorus	12,438	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Potassium	15,405	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Calcium	2,105	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Titanium	190	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Vanadium	3.0	mg/kg	Trich	RG_MI25_INV-2_2020-09-11

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Chromium	5.9	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Manganese	95	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Iron	991	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Cobalt	2.1	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Nickel	14	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Copper	20	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Zinc	243	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Arsenic	2.9	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Selenium	4.4	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Strontium	7.5	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Molybdenum	0.75	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Silver	0.064	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Cadmium	3.4	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Tin	0.37	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Antimony	0.061	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Barium	212	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Mercury	0.086	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Thallium	0.064	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Lead	1.1	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Uranium	0.11	mg/kg	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Lithium	0.54	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Boron	3.0	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Sodium	4,682	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Magnesium	1,378	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Aluminum	1,273	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Phosphorus	11,933	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Potassium	11,840	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Calcium	1,804	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Titanium	83	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Vanadium	1.6	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Chromium	4.8	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Manganese	50	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Iron	563	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Cobalt	1.5	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Nickel	11	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Copper	19	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Zinc	190	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Arsenic	1.1	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Selenium	4.1	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Strontium	5.9	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Molybdenum	0.47	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Silver	0.057	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Cadmium	4.1	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Tin	0.23	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Antimony	0.038	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Barium	70	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Mercury	0.095	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Thallium	0.042	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Lead	0.79	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Uranium	0.068	mg/kg	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Lithium	0.18	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Boron	0.82	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Sodium	3,465	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Magnesium	1,670	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Aluminum	59	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12



**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Phosphorus	8,695	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Potassium	7,504	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Calcium	3,433	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Titanium	2.9	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Vanadium	0.11	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Chromium	2.4	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Manganese	51	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Iron	109	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Cobalt	8.2	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Nickel	11	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Copper	9.9	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Zinc	132	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Arsenic	<0.418	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Selenium	2.7	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Strontium	15	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Molybdenum	0.17	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Silver	0.03	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Cadmium	0.45	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Tin	0.07	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Antimony	0.019	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Barium	6.0	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Mercury	0.034	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Thallium	0.017	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Lead	0.019	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Uranium	0.031	mg/kg	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Lithium	0.2	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Boron	0.8	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Sodium	2,794	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Magnesium	1,339	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Aluminum	76	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Phosphorus	7,532	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Potassium	5,615	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Calcium	2,694	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Titanium	3.9	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Vanadium	0.11	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Chromium	2.1	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Manganese	52	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Iron	106	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Cobalt	8.9	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Nickel	8.3	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Copper	9.4	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Zinc	142	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Arsenic	<0.418	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Selenium	2.6	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Strontium	12	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Molybdenum	0.12	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Silver	0.024	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Cadmium	0.27	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Tin	0.07	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Antimony	0.024	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Barium	4.4	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Mercury	<0.030	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Thallium	0.013	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Lead	0.026	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Uranium	0.028	mg/kg	Trich	RG_CORCK_INV-2_2020-09-12

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Lithium	0.2	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Boron	0.71	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Sodium	2,656	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Magnesium	1,432	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Aluminum	54	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Phosphorus	8,123	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Potassium	7,206	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Calcium	1,989	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Titanium	2.8	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Vanadium	0.085	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Chromium	2.1	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Manganese	49	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Iron	94	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Cobalt	7.5	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Nickel	8.0	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Copper	10	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Zinc	176	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Arsenic	<0.418	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Selenium	2.6	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Strontium	13	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Molybdenum	0.14	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Silver	0.033	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Cadmium	0.23	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Tin	0.059	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Antimony	0.024	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Barium	6.2	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Mercury	<0.030	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Thallium	0.016	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Lead	0.019	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Uranium	0.027	mg/kg	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Lithium	0.46	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Boron	1.9	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Sodium	4,406	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Magnesium	1,539	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Aluminum	1,006	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Phosphorus	11,554	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Potassium	9,698	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Calcium	2,208	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Titanium	62	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Vanadium	1.4	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Chromium	4.2	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Manganese	213	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Iron	635	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Cobalt	1.2	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Nickel	10	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Copper	18	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Zinc	171	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Arsenic	0.66	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Selenium	5.3	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Strontium	5.3	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Molybdenum	0.74	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Silver	0.054	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Cadmium	1.8	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Tin	0.29	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Antimony	0.021	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12



**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Barium	116	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Mercury	0.051	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Thallium	0.036	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Lead	0.33	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Uranium	0.052	mg/kg	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Lithium	0.66	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Boron	2.9	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Sodium	2,541	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Magnesium	1,538	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Aluminum	1,986	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Phosphorus	10,588	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Potassium	8,376	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Calcium	2,700	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Titanium	129	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Vanadium	2.3	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Chromium	4.9	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Manganese	108	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Iron	1,000	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Cobalt	1.6	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Nickel	10	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Copper	23	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Zinc	207	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Arsenic	1.2	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Selenium	8.1	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Strontium	6.0	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Molybdenum	0.72	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Silver	0.093	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Cadmium	4.0	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Tin	0.65	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Antimony	0.024	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Barium	59	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Mercury	0.077	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Thallium	0.046	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Lead	0.46	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Uranium	0.061	mg/kg	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Lithium	0.36	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Boron	1.4	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Sodium	4,401	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Magnesium	1,254	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Aluminum	912	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Phosphorus	10,487	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Potassium	11,037	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Calcium	1,484	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Titanium	56	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Vanadium	1.0	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Chromium	2.7	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Manganese	137	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Iron	526	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Cobalt	0.94	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Nickel	5.7	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Copper	19	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Zinc	191	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Arsenic	0.89	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Selenium	4.9	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Strontium	3.4	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Molybdenum	0.42	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Silver	0.059	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Cadmium	2.1	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Tin	0.23	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Antimony	0.017	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Barium	41	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Mercury	0.07	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Thallium	0.029	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Lead	0.24	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Uranium	0.032	mg/kg	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Lithium	0.24	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Boron	0.98	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Sodium	4,630	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Magnesium	1,530	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Aluminum	252	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Phosphorus	10,232	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Potassium	9,084	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Calcium	2,379	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Titanium	16	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Vanadium	0.37	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Chromium	2.2	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Manganese	41	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Iron	157	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Cobalt	25	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Nickel	11	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Copper	15	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Zinc	195	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Arsenic	<0.418	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Selenium	2.0	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Strontium	6.2	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Molybdenum	0.18	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Silver	0.069	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Cadmium	0.37	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Tin	0.11	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Antimony	0.014	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Barium	12	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Mercury	0.045	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Thallium	0.033	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Lead	0.083	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Uranium	0.025	mg/kg	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Lithium	0.51	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Boron	2.0	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Sodium	3,285	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Magnesium	1,190	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Aluminum	943	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Phosphorus	8,639	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Potassium	8,290	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Calcium	3,434	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Titanium	66	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Vanadium	1.3	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Chromium	2.8	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Manganese	166	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Iron	483	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Cobalt	51	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Nickel	34	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Copper	14	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Zinc	185	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Arsenic	0.73	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Selenium	4.1	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Strontium	11	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Molybdenum	0.42	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Silver	0.054	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Cadmium	0.45	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Tin	0.15	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Antimony	0.042	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Barium	32	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Mercury	0.038	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Thallium	0.053	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Lead	0.29	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Uranium	0.074	mg/kg	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Lithium	0.14	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Boron	0.86	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Sodium	2,539	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Magnesium	1,483	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Aluminum	168	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Phosphorus	8,816	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Potassium	6,208	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Calcium	1,535	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Titanium	8.6	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Vanadium	0.24	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Chromium	2.0	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Manganese	53	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Iron	126	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Cobalt	30	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Nickel	15	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Copper	18	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Zinc	159	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Arsenic	<0.418	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Selenium	2.3	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Strontium	4.0	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Molybdenum	0.27	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Silver	0.059	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Cadmium	0.14	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Tin	<0.025	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Antimony	0.014	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Barium	5.3	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Mercury	<0.030	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Thallium	0.014	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Lead	0.061	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Uranium	0.015	mg/kg	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Lithium	0.3	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Boron	1.0	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Sodium	2,686	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Magnesium	1,255	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Aluminum	648	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Phosphorus	8,110	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Potassium	6,419	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Calcium	1,725	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Titanium	38	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Vanadium	0.91	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15



**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Chromium	1.8	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Manganese	116	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Iron	346	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Cobalt	21	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Nickel	17	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Copper	12	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Zinc	127	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Arsenic	<0.418	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Selenium	2.5	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Strontium	4.0	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Molybdenum	0.21	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Silver	0.05	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Cadmium	0.14	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Tin	0.059	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Antimony	0.017	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Barium	18	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Mercury	0.038	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Thallium	0.018	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Lead	0.21	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Uranium	0.031	mg/kg	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Lithium	0.49	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Boron	2.2	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Sodium	7,670	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Magnesium	1,753	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Aluminum	967	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Phosphorus	8,330	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Potassium	6,766	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Calcium	3,606	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Titanium	61	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Vanadium	1.3	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Chromium	2.9	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Manganese	77	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Iron	501	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Cobalt	28	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Nickel	43	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Copper	13	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Zinc	173	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Arsenic	0.57	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Selenium	3.2	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Strontium	8.4	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Molybdenum	0.31	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Silver	0.066	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Cadmium	0.41	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Tin	0.16	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Antimony	0.028	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Barium	16	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Mercury	0.051	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Thallium	0.047	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Lead	0.31	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Uranium	0.068	mg/kg	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Lithium	1.5	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Boron	4.3	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Sodium	8,633	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Magnesium	1,905	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Aluminum	2,717	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Phosphorus	11,016	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Potassium	12,328	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Calcium	3,514	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Titanium	198	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Vanadium	4.2	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Chromium	13	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Manganese	131	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Iron	1,202	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Cobalt	37	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Nickel	66	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Copper	17	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Zinc	171	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Arsenic	1.4	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Selenium	7.5	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Strontium	9.6	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Molybdenum	0.57	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Silver	0.097	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Cadmium	1.1	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Tin	0.38	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Antimony	0.051	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Barium	46	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Mercury	0.067	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Thallium	0.17	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Lead	0.59	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Uranium	0.12	mg/kg	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Lithium	0.23	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Boron	0.78	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Sodium	3,956	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Magnesium	1,218	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Aluminum	414	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Phosphorus	9,822	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Potassium	9,968	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Calcium	1,926	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Titanium	24	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Vanadium	0.6	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Chromium	2.7	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Manganese	56	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Iron	279	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Cobalt	21	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Nickel	12	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Copper	15	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Zinc	185	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Arsenic	0.55	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Selenium	5.6	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Strontium	4.6	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Molybdenum	0.28	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Silver	0.078	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Cadmium	0.92	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Tin	0.16	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Antimony	0.015	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Barium	16	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Mercury	0.034	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Thallium	0.081	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Lead	0.15	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Uranium	0.028	mg/kg	Trich	RG_MIDAG_INV-2_2020-09-16



Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Lithium	0.15	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Boron	0.6	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Sodium	2,685	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Magnesium	1,396	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Aluminum	192	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Phosphorus	8,755	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Potassium	8,247	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Calcium	1,521	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Titanium	8.6	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Vanadium	0.29	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Chromium	2.3	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Manganese	53	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Iron	173	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Cobalt	14	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Nickel	9.3	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Copper	13	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Zinc	154	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Arsenic	0.43	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Selenium	3.5	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Strontium	3.7	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Molybdenum	0.3	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Silver	0.078	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Cadmium	0.54	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Tin	0.063	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Antimony	0.011	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Barium	16	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Mercury	<0.030	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Thallium	0.038	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Lead	0.089	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Uranium	0.015	mg/kg	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Lithium	0.14	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Boron	0.81	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Sodium	3,018	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Magnesium	1,316	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Aluminum	107	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Phosphorus	10,890	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Potassium	11,203	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Calcium	2,501	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Titanium	5.7	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Vanadium	0.2	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Chromium	2.6	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Manganese	29	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Iron	130	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Cobalt	6.6	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Nickel	7.4	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Copper	14	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Zinc	192	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Arsenic	0.61	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Selenium	6.0	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Strontium	6.6	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Molybdenum	0.28	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Silver	0.081	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Cadmium	1.2	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Tin	0.25	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Antimony	0.015	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Barium	21	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Mercury	0.037	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Thallium	0.054	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Lead	0.048	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Uranium	0.024	mg/kg	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Lithium	0.15	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Boron	0.61	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Sodium	5,482	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Magnesium	1,394	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Aluminum	61	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Phosphorus	10,965	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Potassium	10,875	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Calcium	2,590	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Titanium	3.3	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Vanadium	0.12	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Chromium	2.0	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Manganese	34	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Iron	112	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Cobalt	10	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Nickel	8.0	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Copper	12	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Zinc	249	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Arsenic	0.74	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Selenium	6.7	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Strontium	8.0	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Molybdenum	0.26	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Silver	0.1	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Cadmium	2.0	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Tin	0.18	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Antimony	0.011	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Barium	24	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Mercury	0.061	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Thallium	0.086	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Lead	0.033	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Uranium	0.024	mg/kg	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Lithium	0.2	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Boron	1.4	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Sodium	4,537	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Magnesium	1,437	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Aluminum	166	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Phosphorus	10,985	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Potassium	10,570	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Calcium	2,643	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Titanium	8.1	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Vanadium	0.29	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Chromium	2.9	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Manganese	34	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Iron	196	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Cobalt	12	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Nickel	12	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Copper	14	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Zinc	231	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Arsenic	0.81	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Selenium	7.1	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Strontium	7.9	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Molybdenum	0.26	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Silver	0.081	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Cadmium	1.8	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Tin	0.25	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Antimony	0.015	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Barium	25	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Mercury	0.04	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Thallium	0.07	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Lead	0.068	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Uranium	0.032	mg/kg	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Lithium	0.087	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Boron	0.47	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Sodium	3,277	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Magnesium	1,148	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Aluminum	97	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Phosphorus	9,836	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Potassium	10,551	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Calcium	1,493	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Titanium	4.7	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Vanadium	0.25	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Chromium	2.6	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Manganese	34	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Iron	134	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Cobalt	1.6	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Nickel	9.9	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Copper	12	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Zinc	216	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Arsenic	<0.418	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Selenium	4.8	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Strontium	4.7	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Molybdenum	0.21	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Silver	0.14	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Cadmium	0.72	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Tin	0.058	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Antimony	0.018	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Barium	37	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Mercury	0.061	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Thallium	0.035	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Lead	0.063	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Uranium	0.023	mg/kg	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Lithium	0.21	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Boron	0.83	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Sodium	5,415	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Magnesium	1,897	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Aluminum	258	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Phosphorus	10,735	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Potassium	10,611	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Calcium	2,814	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Titanium	12	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Vanadium	0.54	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Chromium	3.1	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Manganese	37	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Iron	245	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Cobalt	4.4	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Nickel	11	mg/kg	Trich	RG_MI5_INV-2_2020-09-19



**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Copper	15	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Zinc	201	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Arsenic	0.62	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Selenium	6.9	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Strontium	8.2	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Molybdenum	0.25	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Silver	0.12	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Cadmium	1.7	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Tin	0.33	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Antimony	0.018	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Barium	37	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Mercury	0.061	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Thallium	0.06	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Lead	0.1	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Uranium	0.04	mg/kg	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Lithium	0.26	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Boron	0.93	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Sodium	5,702	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Magnesium	1,800	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Aluminum	485	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Phosphorus	11,192	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Potassium	11,505	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Calcium	2,426	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Titanium	29	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Vanadium	1.2	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Chromium	6.4	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Manganese	37	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Iron	385	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Cobalt	4.9	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Nickel	20	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Copper	17	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Zinc	193	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Arsenic	0.56	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Selenium	5.3	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Strontium	6.4	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Molybdenum	0.26	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Silver	0.15	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Cadmium	2.5	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Tin	0.37	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Antimony	0.026	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Barium	52	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Mercury	0.054	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Thallium	0.072	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Lead	0.15	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Uranium	0.055	mg/kg	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Wet Mass	1.9	g	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	Dry Mass	0.32	g	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	1	2020-09-10	Composite	% Moisture	83	%	Trich	RG_AGCK_INV-1_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Wet Mass	1.1	g	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	Dry Mass	0.27	g	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	2	2020-09-10	Composite	% Moisture	76	%	Trich	RG_AGCK_INV-2_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Wet Mass	1.4	g	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	Dry Mass	0.3	g	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_AGCK	667555	5488644	2020	3	2020-09-10	Composite	% Moisture	78	%	Trich	RG_AGCK_INV-3_2020-09-10
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Wet Mass	1.8	g	Trich	RG_LE1_INV-1_2020-09-17

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	Dry Mass	0.44	g	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	1	2020-09-17	Composite	% Moisture	75	%	Trich	RG_LE1_INV-1_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Wet Mass	1.5	g	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	Dry Mass	0.36	g	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	2	2020-09-17	Composite	% Moisture	77	%	Trich	RG_LE1_INV-2_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Wet Mass	0.94	g	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	Dry Mass	0.19	g	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_LE1	659635	5494108	2020	3	2020-09-17	Composite	% Moisture	80	%	Trich	RG_LE1_INV-3_2020-09-17
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Wet Mass	1.6	g	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	Dry Mass	0.32	g	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	1	2020-09-11	Composite	% Moisture	80	%	Trich	RG_MI25_INV-1_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Wet Mass	0.77	g	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	Dry Mass	0.16	g	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	2	2020-09-11	Composite	% Moisture	80	%	Trich	RG_MI25_INV-2_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Wet Mass	0.88	g	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	Dry Mass	0.18	g	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_MI25	668186	5482838	2020	3	2020-09-11	Composite	% Moisture	80	%	Trich	RG_MI25_INV-3_2020-09-11
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Wet Mass	0.27	g	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	Dry Mass	0.082	g	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	1	2020-09-12	Composite	% Moisture	70	%	Trich	RG_CORCK_INV-1_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Wet Mass	0.46	g	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	Dry Mass	0.13	g	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	2	2020-09-12	Composite	% Moisture	73	%	Trich	RG_CORCK_INV-2_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Wet Mass	0.33	g	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	Dry Mass	0.099	g	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_CORCK	668556	5487388	2020	3	2020-09-12	Composite	% Moisture	70	%	Trich	RG_CORCK_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Wet Mass	0.75	g	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	Dry Mass	0.12	g	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	1	2020-09-12	Composite	% Moisture	84	%	Trich	RG_MIUCO_INV-1_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Wet Mass	0.31	g	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	Dry Mass	0.058	g	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	2	2020-09-12	Composite	% Moisture	81	%	Trich	RG_MIUCO_INV-2_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Wet Mass	0.63	g	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	Dry Mass	0.13	g	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIUCO	668134	5486767	2020	3	2020-09-12	Composite	% Moisture	79	%	Trich	RG_MIUCO_INV-3_2020-09-12
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Wet Mass	0.86	g	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	Dry Mass	0.22	g	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	1	2020-09-15	Composite	% Moisture	75	%	Trich	RG_MIDCO_INV-1_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Wet Mass	0.92	g	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	Dry Mass	0.26	g	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	2	2020-09-15	Composite	% Moisture	72	%	Trich	RG_MIDCO_INV-2_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Wet Mass	0.92	g	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	Dry Mass	0.29	g	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	3	2020-09-15	Composite	% Moisture	69	%	Trich	RG_MIDCO_INV-3_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Wet Mass	2.3	g	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	Dry Mass	0.69	g	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	4	2020-09-15	Composite	% Moisture	70	%	Trich	RG_MIDCO_INV-4_2020-09-15
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Wet Mass	1.5	g	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	Dry Mass	0.27	g	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDCO	667711	5487625	2020	5	2020-09-13	Composite	% Moisture	82	%	Trich	RG_MIDCO_INV-5_2020-09-13
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Wet Mass	1.2	g	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	Dry Mass	0.19	g	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	1	2020-09-16	Composite	% Moisture	84	%	Trich	RG_MIDAG_INV-1_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Wet Mass	1.1	g	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	Dry Mass	0.27	g	Trich	RG_MIDAG_INV-2_2020-09-16



**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDAG	665258	5489417	2020	2	2020-09-16	Composite	% Moisture	75	%	Trich	RG_MIDAG_INV-2_2020-09-16
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Wet Mass	0.95	g	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	Dry Mass	0.28	g	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIDAG	665258	5489417	2020	3	2020-09-15	Composite	% Moisture	70	%	Trich	RG_MIDAG_INV-3_2020-09-15
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Wet Mass	0.51	g	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	Dry Mass	0.1	g	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	1	2020-09-16	Composite	% Moisture	80	%	Trich	RG_MIULE_INV-1_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Wet Mass	0.53	g	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	Dry Mass	0.11	g	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	2	2020-09-16	Composite	% Moisture	79	%	Trich	RG_MIULE_INV-2_2020-09-16
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Wet Mass	1.3	g	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	Dry Mass	0.26	g	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MIULE	660503	5493048	2020	3	2020-09-17	Composite	% Moisture	80	%	Trich	RG_MIULE_INV-3_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Wet Mass	0.37	g	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	Dry Mass	0.096	g	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	1	2020-09-17	Composite	% Moisture	74	%	Trich	RG_MI5_INV-1_2020-09-17
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Wet Mass	2.1	g	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	Dry Mass	0.44	g	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	2	2020-09-19	Composite	% Moisture	79	%	Trich	RG_MI5_INV-2_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Wet Mass	2.0	g	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	Dry Mass	0.4	g	Trich	RG_MI5_INV-3_2020-09-19
INV	RG_MI5	659387	5496818	2020	3	2020-09-19	Composite	% Moisture	80	%	Trich	RG_MI5_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Lithium	0.71	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Boron	3.0	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Sodium	3,869	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Magnesium	1,512	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Aluminum	1,292	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Phosphorus	8,756	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Potassium	9,035	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Calcium	8,420	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Titanium	89	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Vanadium	1.7	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Chromium	5.7	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Manganese	134	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Iron	703	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Cobalt	52	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Nickel	53	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Copper	12	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Zinc	168	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Arsenic	0.81	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Selenium	4.0	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Strontium	16	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Molybdenum	0.3	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Silver	0.049	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Cadmium	0.43	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Tin	0.14	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Antimony	0.039	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Barium	42	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Mercury	<0.023	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Thallium	0.071	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Lead	0.31	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Uranium	0.13	mg/kg	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Lithium	0.88	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Boron	4.6	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Sodium	5,233	mg/kg	Trich	CM_MC2_INV-2_2020-09-19

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Magnesium	1,590	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Aluminum	1,621	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Phosphorus	8,788	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Potassium	9,895	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Calcium	4,696	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Titanium	119	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Vanadium	2.2	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Chromium	4.9	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Manganese	103	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Iron	813	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Cobalt	44	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Nickel	53	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Copper	13	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Zinc	174	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Arsenic	0.88	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Selenium	4.0	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Strontium	14	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Molybdenum	0.34	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Silver	0.049	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Cadmium	0.45	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Tin	0.27	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Antimony	0.033	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Barium	34	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Mercury	0.036	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Thallium	0.071	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Lead	0.4	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Uranium	0.11	mg/kg	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Lithium	0.23	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Boron	1.0	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Sodium	2,583	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Magnesium	1,536	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Aluminum	211	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Phosphorus	9,326	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Potassium	7,106	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Calcium	2,496	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Titanium	12	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Vanadium	0.32	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Chromium	2.1	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Manganese	78	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Iron	181	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Cobalt	37	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Nickel	18	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Copper	10	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Zinc	156	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Arsenic	0.41	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Selenium	2.7	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Strontium	7.9	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Molybdenum	0.2	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Silver	0.05	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Cadmium	0.31	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Tin	0.15	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Antimony	0.019	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Barium	12	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Mercury	0.032	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Thallium	0.031	mg/kg	Trich	CM_MC2_INV-3_2020-09-19

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Lead	0.074	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Uranium	0.035	mg/kg	Trich	CM_MC2_INV-3_2020-09-19
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Lithium	0.28	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Boron	0.97	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Sodium	3,247	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Magnesium	1,186	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Aluminum	427	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Phosphorus	7,725	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Potassium	7,242	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Calcium	1,237	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Titanium	34	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Vanadium	0.72	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Chromium	3.3	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Manganese	54	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Iron	270	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Cobalt	17	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Nickel	16	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Copper	9.3	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Zinc	177	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Arsenic	0.56	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Selenium	4.0	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Strontium	3.7	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Molybdenum	0.21	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Silver	0.049	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Cadmium	0.68	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Tin	0.12	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Antimony	0.019	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Barium	17	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Mercury	0.058	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Thallium	0.083	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Lead	0.14	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Uranium	0.025	mg/kg	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Lithium	0.38	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Boron	1.5	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Sodium	2,919	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Magnesium	971	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Aluminum	808	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Phosphorus	9,324	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Potassium	10,076	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Calcium	1,107	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Titanium	54	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Vanadium	1.2	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Chromium	3.4	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Manganese	73	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Iron	392	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Cobalt	16	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Nickel	21	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Copper	11	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Zinc	142	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Arsenic	0.71	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Selenium	3.7	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Strontium	3.9	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Molybdenum	0.25	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Silver	0.068	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Cadmium	0.42	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18



**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Tin	0.13	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Antimony	0.031	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Barium	19	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Mercury	0.039	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Thallium	0.085	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Lead	0.28	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Uranium	0.053	mg/kg	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Lithium	0.28	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Boron	1.0	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Sodium	3,268	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Magnesium	1,116	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Aluminum	452	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Phosphorus	8,541	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Potassium	7,381	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Calcium	1,046	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Titanium	29	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Vanadium	0.71	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Chromium	2.6	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Manganese	93	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Iron	319	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Cobalt	26	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Nickel	23	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Copper	9.9	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Zinc	161	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Arsenic	0.66	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Selenium	4.2	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Strontium	3.5	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Molybdenum	0.28	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Silver	0.054	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Cadmium	0.41	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Tin	0.041	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Antimony	0.027	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Barium	24	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Mercury	0.052	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Thallium	0.072	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Lead	0.2	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Uranium	0.052	mg/kg	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Lithium	0.28	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Boron	1.2	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Sodium	3,141	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Magnesium	1,186	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Aluminum	597	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Phosphorus	10,502	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Potassium	10,601	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Calcium	1,289	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Titanium	44	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Vanadium	0.89	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Chromium	3.5	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Manganese	76	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Iron	355	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Cobalt	18	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Nickel	20	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Copper	13	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Zinc	169	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Arsenic	1.0	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Selenium	4.5	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Strontium	4.8	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Molybdenum	0.29	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Silver	0.065	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Cadmium	0.52	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Tin	0.17	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Antimony	0.027	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Barium	30	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Mercury	0.032	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Thallium	0.059	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Lead	0.21	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Uranium	0.047	mg/kg	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Lithium	0.31	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Boron	1.4	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Sodium	3,645	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Magnesium	1,285	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Aluminum	687	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Phosphorus	10,127	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Potassium	9,670	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Calcium	1,359	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Titanium	43	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Vanadium	0.9	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Chromium	3.1	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Manganese	49	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Iron	322	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Cobalt	12	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Nickel	15	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Copper	9.4	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Zinc	145	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Arsenic	0.77	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Selenium	3.2	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Strontium	4.1	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Molybdenum	0.23	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Silver	0.047	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Cadmium	0.38	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Tin	0.097	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Antimony	0.019	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Barium	15	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Mercury	0.036	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Thallium	0.057	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Lead	0.2	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Uranium	0.035	mg/kg	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Lithium	0.79	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Boron	3.0	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Sodium	4,080	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Magnesium	1,643	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Aluminum	2,069	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Phosphorus	10,372	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Potassium	11,142	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Calcium	2,076	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Titanium	152	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Vanadium	3.1	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Chromium	7.3	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Manganese	86	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Iron	884	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17



**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Cobalt	30	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Nickel	41	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Copper	13	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Zinc	181	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Arsenic	1.5	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Selenium	5.6	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Strontium	7.4	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Molybdenum	0.37	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Silver	0.07	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Cadmium	0.93	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Tin	0.21	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Antimony	0.05	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Barium	35	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Mercury	0.045	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Thallium	0.14	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Lead	0.52	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Uranium	0.098	mg/kg	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Wet Mass	0.95	g	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	Dry Mass	0.24	g	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	1	2020-09-18	Composite	% Moisture	75	%	Trich	CM_MC2_INV-1_2020-09-18
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Wet Mass	1.1	g	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	Dry Mass	0.21	g	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	2	2020-09-19	Composite	% Moisture	81	%	Trich	CM_MC2_INV-2_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Wet Mass	1.6	g	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	Dry Mass	0.44	g	Trich	CM_MC2_INV-3_2020-09-19
INV	CM_MC2	667249	5488144	2020	3	2020-09-19	Composite	% Moisture	72	%	Trich	CM_MC2_INV-3_2020-09-19
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Wet Mass	2.0	g	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	Dry Mass	0.43	g	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	1	2020-09-18	Composite	% Moisture	78	%	Trich	RG_MIDAG-S1_INV-1_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Wet Mass	2.0	g	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	Dry Mass	0.47	g	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	2	2020-09-18	Composite	% Moisture	76	%	Trich	RG_MIDAG-S1_INV-2_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Wet Mass	2.0	g	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	Dry Mass	0.49	g	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S1	666290	5488507	2020	3	2020-09-18	Composite	% Moisture	76	%	Trich	RG_MIDAG-S1_INV-3_2020-09-18
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Wet Mass	1.9	g	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	Dry Mass	0.46	g	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	1	2020-09-17	Composite	% Moisture	76	%	Trich	RG_MIDAG-S2_INV-1_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Wet Mass	1.7	g	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	Dry Mass	0.41	g	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	2	2020-09-17	Composite	% Moisture	76	%	Trich	RG_MIDAG-S2_INV-2_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Wet Mass	1.5	g	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	Dry Mass	0.32	g	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_MIDAG-S2	665770	5488854	2020	3	2020-09-17	Composite	% Moisture	79	%	Trich	RG_MIDAG-S2_INV-3_2020-09-17
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Aluminum	607	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Antimony	0.048	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Arsenic	2.5	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Barium	36	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Boron	1.2	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Cadmium	1.3	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Chromium	7.5	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Cobalt	0.62	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Copper	11	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Iron	410	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Lead	0.2	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Manganese	23	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Mercury	0.095	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Molybdenum	0.43	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Nickel	17	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Silver	0.091	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Selenium	5.6	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Strontium	6.2	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Thallium	0.67	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Tin	0.84	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Titanium	40	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Uranium	0.068	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Vanadium	1.0	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Zinc	295	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Lithium	0.37	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Sodium	4,584	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Magnesium	1,697	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Phosphorus	14,925	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Potassium	14,434	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Calcium	2,868	mg/kg	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Wet Weight	0.38	g	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	Dry Weight	0.083	g	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	1	2021-09-11	Composite	% Moisture	78	%	Trich	RG_AGCK_INV-1_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Aluminum	146	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Antimony	0.027	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Arsenic	1.4	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Barium	8.5	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Boron	0.44	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Cadmium	0.77	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Chromium	13	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Cobalt	0.31	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Copper	10	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Iron	322	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Lead	0.073	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Manganese	17	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Mercury	0.052	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Molybdenum	0.45	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Nickel	22	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Silver	0.056	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Selenium	5.2	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Strontium	6.2	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Thallium	0.35	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Tin	1.7	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Titanium	7.3	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Uranium	0.035	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Vanadium	0.37	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Zinc	193	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Lithium	0.2	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Sodium	3,699	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Magnesium	1,386	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Phosphorus	12,740	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Potassium	11,848	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Calcium	2,429	mg/kg	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Wet Weight	0.061	g	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	Dry Weight	0.013	g	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	2	2021-09-11	Composite	% Moisture	78	%	Trich	RG_AGCK_INV-2_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Aluminum	318	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Antimony	0.034	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Arsenic	1.8	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Barium	6.1	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Boron	0.59	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Cadmium	0.74	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Chromium	9.7	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Cobalt	0.59	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Copper	9.9	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Iron	460	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Lead	0.1	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Manganese	12	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Mercury	0.034	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Molybdenum	0.38	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Nickel	19	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Silver	0.056	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Selenium	7.4	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Strontium	4.4	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Thallium	0.92	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Tin	0.6	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Titanium	18	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Uranium	0.041	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Vanadium	0.64	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Zinc	165	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Lithium	0.29	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Sodium	4,577	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Magnesium	2,122	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Phosphorus	14,152	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Potassium	12,235	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Calcium	2,851	mg/kg	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Wet Weight	0.14	g	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	Dry Weight	0.029	g	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_AGCK	667566	5488693	2021	3	2021-09-11	Composite	% Moisture	79	%	Trich	RG_AGCK_INV-3_2021-09-11
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Aluminum	411	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Antimony	0.054	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Arsenic	<0.441	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Barium	25	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Boron	1.5	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Cadmium	0.44	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Chromium	5.1	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Cobalt	25	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Copper	13	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Iron	325	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Lead	0.11	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Manganese	160	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Mercury	<0.025	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Molybdenum	0.27	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Nickel	30	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Silver	0.035	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Selenium	4.1	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Strontium	22	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Thallium	0.032	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Tin	0.13	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Titanium	31	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Uranium	0.16	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Vanadium	0.61	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Zinc	160	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Lithium	0.72	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Sodium	3,619	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14



Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Magnesium	1,297	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Phosphorus	9,718	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Potassium	9,911	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Calcium	13,410	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Wet Weight	0.31	g	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Dry Weight	0.098	g	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	% Moisture	68	%	Trich	RG_CORCK_INV-1_2021-09-14
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Aluminum	410	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Antimony	0.045	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Arsenic	<0.441	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Barium	22	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Boron	1.5	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Cadmium	0.31	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Chromium	5.1	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Cobalt	22	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Copper	10	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Iron	313	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Lead	0.12	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Manganese	177	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Mercury	0.033	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Molybdenum	0.25	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Nickel	27	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Silver	0.035	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Selenium	3.6	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Strontium	19	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Thallium	0.026	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Tin	0.11	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Titanium	29	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Uranium	0.13	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Vanadium	0.55	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Zinc	124	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Lithium	0.56	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Sodium	2,819	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Magnesium	1,225	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Phosphorus	7,623	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Potassium	7,758	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	1	2021-09-14	Composite	Calcium	10,252	mg/kg	Trich	RG_CORCK_INV-1_2021-09-14Dup
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Aluminum	116	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Antimony	0.033	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Arsenic	<0.441	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Barium	6.6	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Boron	1.2	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Cadmium	0.18	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Chromium	8.7	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Cobalt	13	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Copper	12	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Iron	228	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Lead	0.04	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Manganese	66	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Mercury	<0.025	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Molybdenum	0.22	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Nickel	25	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Silver	0.035	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Selenium	3.0	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Strontium	13	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Thallium	0.017	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Tin	0.12	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Titanium	9.4	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Uranium	0.033	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Vanadium	0.25	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Zinc	131	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Lithium	0.27	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Sodium	2,318	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Magnesium	1,272	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Phosphorus	7,296	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Potassium	6,267	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Calcium	3,761	mg/kg	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Wet Weight	0.09	g	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	Dry Weight	0.028	g	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	2	2021-09-14	Composite	% Moisture	69	%	Trich	RG_CORCK_INV-2_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Aluminum	188	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Antimony	0.036	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Arsenic	<0.441	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Barium	12	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Boron	1.1	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Cadmium	0.48	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Chromium	6.7	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Cobalt	8.7	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Copper	13	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Iron	297	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Lead	0.074	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Manganese	52	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Mercury	0.041	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Molybdenum	0.37	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Nickel	17	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Silver	0.084	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Selenium	4.7	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Strontium	20	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Thallium	0.027	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Tin	0.68	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Titanium	13	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Uranium	0.063	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Vanadium	0.43	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Zinc	143	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Lithium	0.27	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Sodium	4,482	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Magnesium	1,734	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Phosphorus	10,856	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Potassium	10,277	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Calcium	5,424	mg/kg	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Wet Weight	0.16	g	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	Dry Weight	0.045	g	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_CORCK	668527	5487371	2021	3	2021-09-14	Composite	% Moisture	72	%	Trich	RG_CORCK_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Aluminum	1,097	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Antimony	0.083	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Arsenic	0.92	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Barium	124	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Boron	3.1	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Cadmium	8.7	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Chromium	39	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Cobalt	1.6	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Copper	29	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Iron	982	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Lead	0.26	mg/kg	Trich	RG_LE1_INV-1_2021-09-14



Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Manganese	63	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Mercury	0.11	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Molybdenum	0.89	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Nickel	66	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Silver	0.41	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Selenium	6.8	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Strontium	5.8	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Thallium	0.037	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Tin	1.3	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Titanium	61	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Uranium	0.072	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Vanadium	2.3	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Zinc	258	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Lithium	0.51	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Sodium	5,549	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Magnesium	1,838	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Phosphorus	14,101	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Potassium	15,285	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Calcium	2,797	mg/kg	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Wet Weight	0.085	g	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	Dry Weight	0.016	g	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	1	2021-09-14	Composite	% Moisture	82	%	Trich	RG_LE1_INV-1_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Aluminum	1,100	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Antimony	0.073	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Arsenic	0.86	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Barium	270	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Boron	1.6	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Cadmium	7.3	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Chromium	15	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Cobalt	1.7	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Copper	20	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Iron	573	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Lead	0.23	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Manganese	66	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Mercury	0.11	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Molybdenum	0.74	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Nickel	22	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Silver	0.22	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Selenium	6.0	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Strontium	4.2	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Thallium	0.039	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Tin	0.96	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Titanium	56	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Uranium	0.066	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Vanadium	2.4	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Zinc	238	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Lithium	0.44	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Sodium	3,115	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Magnesium	1,667	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Phosphorus	12,296	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Potassium	11,843	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Calcium	1,724	mg/kg	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Wet Weight	0.061	g	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	Dry Weight	0.017	g	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	2	2021-09-14	Composite	% Moisture	72	%	Trich	RG_LE1_INV-2_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Aluminum	3,055	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Antimony	0.13	mg/kg	Trich	RG_LE1_INV-3_2021-09-14

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Arsenic	1.1	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Barium	367	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Boron	15	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Cadmium	6.3	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Chromium	50	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Cobalt	3.2	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Copper	24	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Iron	1,728	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Lead	0.67	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Manganese	94	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Mercury	0.082	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Molybdenum	0.73	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Nickel	76	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Silver	0.4	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Selenium	6.0	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Strontium	10	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Thallium	0.057	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Tin	1.1	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Titanium	212	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Uranium	0.17	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Vanadium	6.7	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Zinc	240	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Lithium	1.2	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Sodium	3,545	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Magnesium	1,820	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Phosphorus	12,615	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Potassium	13,218	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Calcium	4,714	mg/kg	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Wet Weight	0.13	g	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	Dry Weight	0.022	g	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_LE1	659583	5494063	2021	3	2021-09-14	Composite	% Moisture	83	%	Trich	RG_LE1_INV-3_2021-09-14
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Aluminum	2,570	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Antimony	0.091	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Arsenic	1.4	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Barium	75	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Boron	5.9	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Cadmium	2.0	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Chromium	33	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Cobalt	2.4	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Copper	29	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Iron	1,663	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Lead	0.81	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Manganese	59	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Mercury	0.082	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Molybdenum	0.55	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Nickel	56	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Silver	0.12	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Selenium	3.3	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Strontium	7.3	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Thallium	0.11	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Tin	0.49	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Titanium	321	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Uranium	0.12	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Vanadium	4.6	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Zinc	193	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Lithium	1.4	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Sodium	4,265	mg/kg	Trich	RG_MI25_INV-1_2021-09-13

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Magnesium	1,714	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Phosphorus	11,608	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Potassium	13,111	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Calcium	2,061	mg/kg	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Wet Weight	0.36	g	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	Dry Weight	0.085	g	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	1	2021-09-13	Composite	% Moisture	76	%	Trich	RG_MI25_INV-1_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Aluminum	1,834	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Antimony	0.11	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Arsenic	1.6	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Barium	65	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Boron	5.6	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Cadmium	1.5	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Chromium	22	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Cobalt	1.8	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Copper	11	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Iron	1,428	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Lead	0.79	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Manganese	57	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Mercury	0.06	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Molybdenum	0.53	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Nickel	41	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Silver	0.035	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Selenium	2.5	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Strontium	9.4	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Thallium	0.11	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Tin	0.56	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Titanium	136	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Uranium	0.17	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Vanadium	3.1	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Zinc	111	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Lithium	0.92	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Sodium	3,099	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Magnesium	1,324	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Phosphorus	8,758	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Potassium	9,513	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Calcium	3,208	mg/kg	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Wet Weight	0.21	g	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	Dry Weight	0.03	g	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	2	2021-09-13	Composite	% Moisture	86	%	Trich	RG_MI25_INV-2_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Aluminum	1,911	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Antimony	0.095	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Arsenic	1.5	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Barium	143	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Boron	4.7	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Cadmium	1.3	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Chromium	17	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Cobalt	1.2	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Copper	20	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Iron	942	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Lead	0.61	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Manganese	57	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Mercury	0.09	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Molybdenum	0.36	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Nickel	26	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Silver	0.1	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Selenium	2.3	mg/kg	Trich	RG_MI25_INV-3_2021-09-13



**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Strontium	6.1	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Thallium	0.086	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Tin	0.38	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Titanium	141	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Uranium	0.093	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Vanadium	2.4	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Zinc	170	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Lithium	0.98	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Sodium	4,781	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Magnesium	1,293	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Phosphorus	11,741	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Potassium	13,476	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Calcium	2,163	mg/kg	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Wet Weight	0.28	g	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	Dry Weight	0.056	g	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI25	668195	5482814	2021	3	2021-09-13	Composite	% Moisture	80	%	Trich	RG_MI25_INV-3_2021-09-13
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Aluminum	737	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Antimony	0.047	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Arsenic	0.48	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Barium	50	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Boron	1.5	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Cadmium	2.3	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Chromium	11	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Cobalt	2.3	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Copper	12	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Iron	489	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Lead	0.19	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Manganese	50	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Mercury	0.063	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Molybdenum	0.27	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Nickel	22	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Silver	0.11	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Selenium	4.8	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Strontium	6.4	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Thallium	0.08	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Tin	0.73	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Titanium	36	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Uranium	0.059	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Vanadium	1.3	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Zinc	160	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Lithium	0.4	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Sodium	8,645	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Magnesium	1,332	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Phosphorus	10,726	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Potassium	11,774	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Calcium	2,212	mg/kg	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Wet Weight	0.35	g	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	Dry Weight	0.056	g	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	1	2021-09-16	Composite	% Moisture	84	%	Trich	RG_MI5_INV-1_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Aluminum	7,279	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Antimony	0.25	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Arsenic	1.5	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Barium	221	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Boron	7.2	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Cadmium	3.2	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Chromium	92	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Cobalt	7.7	mg/kg	Trich	RG_MI5_INV-2_2021-09-16

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Copper	19	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Iron	4,468	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Lead	1.4	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Manganese	109	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Mercury	0.081	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Molybdenum	0.65	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Nickel	151	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Silver	0.17	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Selenium	8.1	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Strontium	17	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Thallium	0.2	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Tin	0.96	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Titanium	601	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Uranium	0.29	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Vanadium	16	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Zinc	208	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Lithium	2.5	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Sodium	3,993	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Magnesium	1,906	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Phosphorus	11,245	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Potassium	13,573	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Calcium	4,034	mg/kg	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Wet Weight	0.54	g	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	Dry Weight	0.097	g	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	2	2021-09-16	Composite	% Moisture	82	%	Trich	RG_MI5_INV-2_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Aluminum	3,430	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Antimony	0.19	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Arsenic	1.1	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Barium	130	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Boron	4.2	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Cadmium	0.88	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Chromium	106	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Cobalt	5.6	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Copper	17	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Iron	2,576	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Lead	0.69	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Manganese	96	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Mercury	0.078	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Molybdenum	0.52	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Nickel	169	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Silver	0.14	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Selenium	5.4	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Strontium	11	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Thallium	0.087	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Tin	0.46	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Titanium	298	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Uranium	0.18	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Vanadium	9.6	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Zinc	198	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Lithium	1.3	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Sodium	2,901	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Magnesium	1,401	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Phosphorus	11,501	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Potassium	11,195	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Calcium	2,977	mg/kg	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Wet Weight	0.19	g	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	Dry Weight	0.053	g	Trich	RG_MI5_INV-3_2021-09-16



**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MI5	659504	5496614	2021	3	2021-09-16	Composite	% Moisture	72	%	Trich	RG_MI5_INV-3_2021-09-16
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Aluminum	1,761	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Antimony	0.069	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Arsenic	1.3	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Barium	42	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Boron	2.7	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Cadmium	0.82	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Chromium	15	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Cobalt	18	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Copper	11	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Iron	947	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Lead	0.49	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Manganese	106	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Mercury	0.06	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Molybdenum	0.55	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Nickel	50	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Silver	0.07	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Selenium	6.1	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Strontium	7.4	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Thallium	0.16	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Tin	0.44	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Titanium	129	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Uranium	0.094	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Vanadium	2.2	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Zinc	161	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Lithium	0.65	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Sodium	3,087	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Magnesium	1,189	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Phosphorus	11,255	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Potassium	9,833	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Calcium	2,499	mg/kg	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Wet Weight	0.41	g	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	Dry Weight	0.11	g	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	1	2021-09-11	Composite	% Moisture	74	%	Trich	RG_MIDAG_INV-1_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Aluminum	1,241	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Antimony	0.05	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Arsenic	0.61	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Barium	37	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Boron	2.2	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Cadmium	0.74	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Chromium	13	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Cobalt	7.0	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Copper	18	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Iron	646	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Lead	0.34	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Manganese	46	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Mercury	0.052	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Molybdenum	0.23	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Nickel	30	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Silver	0.17	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Selenium	2.5	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Strontium	16	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Thallium	0.15	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Tin	0.58	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Titanium	87	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Uranium	0.1	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Vanadium	1.6	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Zinc	180	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Lithium	0.67	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Sodium	7,834	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Magnesium	1,544	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Phosphorus	12,067	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Potassium	12,038	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Calcium	6,141	mg/kg	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Wet Weight	0.29	g	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	Dry Weight	0.051	g	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	2	2021-09-11	Composite	% Moisture	83	%	Trich	RG_MIDAG_INV-2_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Aluminum	1,155	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Antimony	0.047	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Arsenic	1.0	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Barium	28	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Boron	2.6	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Cadmium	2.4	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Chromium	13	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Cobalt	36	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Copper	15	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Iron	713	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Lead	0.3	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Manganese	60	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Mercury	0.069	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Molybdenum	0.53	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Nickel	32	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Silver	0.14	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Selenium	5.9	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Strontium	10	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Thallium	0.22	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Tin	0.59	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Titanium	81	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Uranium	0.068	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Vanadium	1.5	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Zinc	281	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Lithium	0.45	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Sodium	7,559	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Magnesium	2,117	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Phosphorus	13,357	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Potassium	12,009	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Calcium	4,488	mg/kg	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Wet Weight	0.29	g	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	Dry Weight	0.057	g	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDAG	665271	5489373	2021	3	2021-09-11	Composite	% Moisture	80	%	Trich	RG_MIDAG_INV-3_2021-09-11
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Aluminum	11,586	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Antimony	0.19	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Arsenic	2.0	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Barium	147	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Boron	18	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Cadmium	0.9	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Chromium	43	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Cobalt	58	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Copper	21	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Iron	3,637	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Lead	2.2	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Manganese	247	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Mercury	0.046	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Molybdenum	0.57	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Nickel	110	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Silver	0.16	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Selenium	4.4	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Strontium	52	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Thallium	0.29	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Tin	0.83	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Titanium	1,082	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Uranium	0.41	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Vanadium	14	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Zinc	161	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Lithium	3.7	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Sodium	4,571	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Magnesium	2,658	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Phosphorus	11,413	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Potassium	16,236	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Calcium	17,887	mg/kg	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Wet Weight	0.29	g	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	Dry Weight	0.07	g	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	1	2021-09-12	Composite	% Moisture	76	%	Trich	RG_MIDCO_INV-1_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Aluminum	1,448	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Antimony	0.028	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Arsenic	0.55	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Barium	25	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Boron	2.1	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Cadmium	1.0	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Chromium	13	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Cobalt	72	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Copper	15	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Iron	713	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Lead	0.3	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Manganese	80	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Mercury	0.038	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Molybdenum	0.52	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Nickel	34	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Silver	0.086	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Selenium	3.1	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Strontium	9.6	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Thallium	0.11	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Tin	0.92	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Titanium	110	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Uranium	0.055	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Vanadium	1.5	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Zinc	162	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Lithium	0.56	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Sodium	10,211	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Magnesium	1,898	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Phosphorus	11,142	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Potassium	12,279	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Calcium	2,994	mg/kg	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Wet Weight	0.18	g	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	Dry Weight	0.037	g	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	2	2021-09-12	Composite	% Moisture	79	%	Trich	RG_MIDCO_INV-2_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Aluminum	1,537	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Antimony	0.042	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Arsenic	0.63	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Barium	35	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Boron	2.8	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12



**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Cadmium	0.36	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Chromium	8.3	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Cobalt	25	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Copper	14	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Iron	655	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Lead	0.49	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Manganese	138	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Mercury	0.053	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Molybdenum	0.31	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Nickel	27	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Silver	0.046	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Selenium	4.0	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Strontium	10	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Thallium	0.099	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Tin	0.18	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Titanium	95	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Uranium	0.1	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Vanadium	2.1	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Zinc	176	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Lithium	0.68	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Sodium	3,760	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Magnesium	1,477	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Phosphorus	10,011	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Potassium	10,931	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Calcium	3,301	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Wet Weight	0.36	g	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Dry Weight	0.097	g	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	% Moisture	73	%	Trich	RG_MIDCO_INV-3_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Aluminum	1,504	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Antimony	0.047	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Arsenic	0.61	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Barium	26	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Boron	3.3	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Cadmium	0.39	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Chromium	5.6	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Cobalt	25	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Copper	11	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Iron	599	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Lead	0.47	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Manganese	109	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Mercury	<0.025	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Molybdenum	0.26	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Nickel	27	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Silver	0.034	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Selenium	3.6	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Strontium	8.6	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Thallium	0.093	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Tin	0.31	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Titanium	139	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Uranium	0.087	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Vanadium	1.9	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Zinc	125	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Lithium	0.67	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Sodium	2,814	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Magnesium	1,635	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Phosphorus	8,146	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Potassium	9,092	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDCO	667764	5487585	2021	3	2021-09-12	Composite	Calcium	2,649	mg/kg	Trich	RG_MIDCO_INV-3_2021-09-12Dup
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Aluminum	1,568	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Antimony	0.039	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Arsenic	0.57	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Barium	41	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Boron	3.2	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Cadmium	1.1	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Chromium	12	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Cobalt	24	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Copper	13	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Iron	725	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Lead	0.43	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Manganese	97	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Mercury	0.053	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Molybdenum	0.31	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Nickel	52	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Silver	0.092	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Selenium	3.6	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Strontium	11	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Thallium	0.1	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Tin	0.64	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Titanium	128	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Uranium	0.11	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Vanadium	2.2	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Zinc	118	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Lithium	0.7	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Sodium	4,272	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Magnesium	1,414	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Phosphorus	10,925	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Potassium	12,455	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Calcium	3,732	mg/kg	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Wet Weight	0.17	g	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	Dry Weight	0.036	g	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	4	2021-09-12	Composite	% Moisture	79	%	Trich	RG_MIDCO_INV-4_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Aluminum	2,109	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Antimony	0.074	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Arsenic	0.85	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Barium	40	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Boron	3.3	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Cadmium	0.52	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Chromium	22	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Cobalt	22	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Copper	12	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Iron	1,066	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Lead	0.43	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Manganese	81	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Mercury	0.045	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Molybdenum	0.46	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Nickel	44	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Silver	0.05	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Selenium	3.2	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Strontium	13	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Thallium	0.073	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Tin	0.37	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Titanium	144	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Uranium	0.092	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Vanadium	2.5	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12



**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Zinc	124	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Lithium	0.8	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Sodium	1,730	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Magnesium	1,112	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Phosphorus	6,628	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Potassium	6,622	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Calcium	3,106	mg/kg	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Wet Weight	0.12	g	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	Dry Weight	0.028	g	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIDCO	667764	5487585	2021	5	2021-09-12	Composite	% Moisture	77	%	Trich	RG_MIDCO_INV-5_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Aluminum	2,167	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Antimony	0.041	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Arsenic	1.6	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Barium	87	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Boron	2.9	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Cadmium	3.1	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Chromium	30	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Cobalt	2.0	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Copper	20	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Iron	1,618	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Lead	0.55	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Manganese	129	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Mercury	0.053	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Molybdenum	1.4	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Nickel	47	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Silver	0.074	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Selenium	7.8	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Strontium	6.7	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Thallium	0.07	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Tin	0.93	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Titanium	144	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Uranium	0.062	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Vanadium	2.6	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Zinc	115	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Lithium	0.66	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Sodium	3,775	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Magnesium	1,766	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Phosphorus	13,258	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Potassium	14,278	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Calcium	2,306	mg/kg	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Wet Weight	0.063	g	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	Dry Weight	0.022	g	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	1	2021-09-12	Composite	% Moisture	65	%	Trich	RG_MIUCO_INV-1_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Aluminum	9,513	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Antimony	0.11	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Arsenic	1.9	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Barium	147	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Boron	13	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Cadmium	3.9	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Chromium	96	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Cobalt	6.9	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Copper	29	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Iron	4,522	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Lead	1.8	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Manganese	256	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Mercury	0.069	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Molybdenum	1.6	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Nickel	176	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Silver	0.16	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Selenium	7.2	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Strontium	14	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Thallium	0.21	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Tin	2.8	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Titanium	867	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Uranium	0.23	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Vanadium	12	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Zinc	180	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Lithium	2.8	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Sodium	16,101	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Magnesium	2,820	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Phosphorus	17,124	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Potassium	20,961	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Calcium	4,360	mg/kg	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Wet Weight	0.094	g	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	Dry Weight	0.017	g	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	2	2021-09-12	Composite	% Moisture	83	%	Trich	RG_MIUCO_INV-2_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Aluminum	11,166	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Antimony	0.16	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Arsenic	2.3	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Barium	187	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Boron	16	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Cadmium	2.6	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Chromium	62	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Cobalt	6.0	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Copper	21	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Iron	4,717	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Lead	2.0	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Manganese	376	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Mercury	0.069	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Molybdenum	1.1	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Nickel	99	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Silver	0.086	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Selenium	6.5	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Strontium	19	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Thallium	0.24	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Tin	1.4	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Titanium	925	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Uranium	0.31	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Vanadium	13	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Zinc	125	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Lithium	3.4	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Sodium	3,904	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Magnesium	2,742	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Phosphorus	13,174	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Potassium	14,635	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Calcium	6,510	mg/kg	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Wet Weight	0.15	g	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	Dry Weight	0.028	g	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIUCO	668232	5486600	2021	3	2021-09-12	Composite	% Moisture	81	%	Trich	RG_MIUCO_INV-3_2021-09-12
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Aluminum	3,567	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Antimony	0.072	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Arsenic	1.1	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Barium	107	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Boron	5.4	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Cadmium	1.7	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Chromium	157	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Cobalt	15	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Copper	17	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Iron	3,738	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Lead	0.75	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Manganese	97	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Mercury	0.053	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Molybdenum	0.59	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Nickel	250	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Silver	0.097	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Selenium	9.3	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Strontium	30	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Thallium	0.18	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Tin	0.78	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Titanium	248	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Uranium	0.19	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Vanadium	8.0	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Zinc	199	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Lithium	1.1	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Sodium	3,099	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Magnesium	2,258	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Phosphorus	11,449	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Potassium	11,638	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Calcium	9,129	mg/kg	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Wet Weight	0.094	g	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	Dry Weight	0.025	g	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	1	2021-09-14	Composite	% Moisture	74	%	Trich	RG_MIULE_INV-1_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Aluminum	4,977	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Antimony	0.12	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Arsenic	1.4	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Barium	107	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Boron	6.1	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Cadmium	3.1	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Chromium	126	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Cobalt	20	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Copper	20	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Iron	3,269	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Lead	0.92	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Manganese	82	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Mercury	0.053	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Molybdenum	1.8	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Nickel	219	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Silver	0.092	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Selenium	9.8	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Strontium	21	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Thallium	0.19	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Tin	1.6	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Titanium	633	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Uranium	0.17	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Vanadium	6.7	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Zinc	269	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Lithium	2.2	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Sodium	3,520	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Magnesium	1,540	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Phosphorus	9,880	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Potassium	9,908	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14



Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Calcium	9,810	mg/kg	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Wet Weight	0.16	g	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	Dry Weight	0.038	g	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	2	2021-09-14	Composite	% Moisture	76	%	Trich	RG_MIULE_INV-2_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Aluminum	905	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Antimony	0.03	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Arsenic	0.59	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Barium	29	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Boron	1.7	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Cadmium	1.8	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Chromium	20	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Cobalt	6.1	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Copper	15	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Iron	683	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Lead	0.27	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Manganese	40	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Mercury	0.09	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Molybdenum	0.31	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Nickel	37	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Silver	0.17	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Selenium	6.0	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Strontium	7.0	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Thallium	0.097	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Tin	0.51	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Titanium	71	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Uranium	0.066	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Vanadium	1.7	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Zinc	205	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Lithium	0.65	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Sodium	13,407	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Magnesium	1,445	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Phosphorus	12,695	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Potassium	12,663	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Calcium	2,977	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Wet Weight	0.28	g	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Dry Weight	0.045	g	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	% Moisture	84	%	Trich	RG_MIULE_INV-3_2021-09-14
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Aluminum	856	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Antimony	0.038	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Arsenic	0.57	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Barium	28	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Boron	1.8	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Cadmium	1.7	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Chromium	17	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Cobalt	6.2	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Copper	16	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Iron	613	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Lead	0.25	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Manganese	37	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Mercury	0.074	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Molybdenum	0.36	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Nickel	31	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Silver	0.15	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Selenium	5.7	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Strontium	6.7	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Thallium	0.098	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Tin	0.49	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Titanium	62	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Uranium	0.066	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Vanadium	1.6	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Zinc	217	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Lithium	0.6	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Sodium	13,374	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Magnesium	1,500	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Phosphorus	12,766	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Potassium	12,526	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_MIULE	660541	5493015	2021	3	2021-09-14	Composite	Calcium	2,854	mg/kg	Trich	RG_MIULE_INV-3_2021-09-14Dup
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Lithium	0.3	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Boron	0.65	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Sodium	3,534	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Magnesium	1,056	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Aluminum	224	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Phosphorus	13,320	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Potassium	10,379	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Calcium	1,833	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Titanium	11	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Vanadium	0.57	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Chromium	3.0	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Manganese	12	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Iron	217	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Cobalt	0.12	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Nickel	5.2	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Copper	9.3	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Zinc	135	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Arsenic	1.2	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Selenium	4.4	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Strontium	3.7	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Molybdenum	0.2	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Silver	0.093	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Cadmium	0.33	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Tin	0.43	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Antimony	0.024	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Barium	21	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Mercury	0.05	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Thallium	0.23	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Lead	0.096	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Uranium	0.031	mg/kg dw	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Wet Mass	0.22	g	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	Dry Mass	0.039	g	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	COMPNOLI	% Moisture	83	%	Trich	RG_AGCK_COMPNOLI-1_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Lithium	0.27	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Boron	0.47	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Sodium	5,278	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Magnesium	1,460	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Aluminum	147	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Phosphorus	14,049	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Potassium	15,678	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Calcium	2,007	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Titanium	7.4	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Vanadium	0.46	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Chromium	9.3	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Manganese	12	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Iron	235	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Cobalt	0.43	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N



**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Nickel	13	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Copper	12	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Zinc	217	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Arsenic	1.8	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Selenium	7.4	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Strontium	4.7	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Molybdenum	0.28	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Silver	0.16	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Cadmium	1.3	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Tin	0.73	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Antimony	0.026	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Barium	11	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Mercury	0.071	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Thallium	0.22	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Lead	0.079	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Uranium	0.031	mg/kg dw	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Wet Mass	0.11	g	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	Dry Mass	0.023	g	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	COMPNOLI	% Moisture	80	%	Trich	RG_AGCK_COMPNOLI-2_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Lithium	0.14	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Boron	0.31	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Sodium	3,121	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Magnesium	937	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Aluminum	113	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Phosphorus	9,099	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Potassium	8,567	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Calcium	2,425	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Titanium	6.5	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Vanadium	0.43	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Chromium	7.8	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Manganese	7.0	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Iron	219	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Cobalt	0.45	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Nickel	11	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Copper	12	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Zinc	179	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Arsenic	1.2	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Selenium	7.0	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Strontium	4.5	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Molybdenum	0.37	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Silver	0.14	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Cadmium	1.2	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Tin	0.78	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Antimony	0.022	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Barium	5.7	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Mercury	0.042	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Thallium	0.13	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Lead	0.063	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Uranium	0.026	mg/kg dw	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Wet Mass	0.074	g	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	Dry Mass	0.018	g	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	COMPNOLI	% Moisture	76	%	Trich	RG_AGCK_COMPNOLI-3_2022-09-15_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Lithium	0.26	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Boron	1.0	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Sodium	2,649	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Magnesium	1,132	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Aluminum	113	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Phosphorus	8,222	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Potassium	8,371	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Calcium	2,541	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Titanium	6.0	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Vanadium	0.22	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Chromium	4.4	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Manganese	68	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Iron	147	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Cobalt	12	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Nickel	14	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Copper	11	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Zinc	119	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Arsenic	<0.401	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Selenium	4.6	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Strontium	9.5	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Molybdenum	0.14	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Silver	0.03	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Cadmium	0.3	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Tin	0.07	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Antimony	0.033	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Barium	3.9	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Mercury	0.024	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Thallium	0.021	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Lead	0.04	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Uranium	0.029	mg/kg dw	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Wet Mass	0.2	g	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	Dry Mass	0.059	g	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668529	5487366	2022	1	2022-09-14	Composite	% Moisture	70	%	Trich	RG_CORCK_INV-1_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Lithium	0.26	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Boron	1.0	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Sodium	4,101	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Magnesium	1,796	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Aluminum	116	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Phosphorus	12,064	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Potassium	9,000	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Calcium	4,134	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Titanium	6.3	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Vanadium	0.29	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Chromium	6.8	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Manganese	51	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Iron	217	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Cobalt	7.5	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Nickel	13	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Copper	16	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Zinc	167	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Arsenic	<0.401	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Selenium	5.2	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Strontium	16	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Molybdenum	0.17	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Silver	0.059	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Cadmium	0.45	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Tin	0.22	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Antimony	0.021	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Barium	5.0	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Mercury	0.03	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Thallium	0.027	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Lead	0.054	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N



**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Uranium	0.031	mg/kg dw	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Wet Mass	0.17	g	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	Dry Mass	0.041	g	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668477	5487342	2022	2	2022-09-14	Composite	% Moisture	75	%	Trich	RG_CORCK_INV-2_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Lithium	0.26	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Boron	1.0	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Sodium	2,839	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Magnesium	1,571	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Aluminum	131	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Phosphorus	9,860	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Potassium	9,403	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Calcium	3,421	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Titanium	7.2	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Vanadium	0.25	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Chromium	3.5	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Manganese	61	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Iron	155	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Cobalt	7.5	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Nickel	11	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Copper	12	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Zinc	150	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Arsenic	<0.401	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Selenium	4.5	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Strontium	15	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Molybdenum	0.2	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Silver	0.037	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Cadmium	0.77	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Tin	0.26	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Antimony	0.027	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Barium	6.8	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Mercury	0.042	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Thallium	0.016	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Lead	0.042	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Uranium	0.026	mg/kg dw	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Wet Mass	0.14	g	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	Dry Mass	0.034	g	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_CORCK	668482	5487337	2022	3	2022-09-14	Composite	% Moisture	75	%	Trich	RG_CORCK_INV-3_2022-09-14_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Lithium	0.17	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Boron	0.39	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Sodium	4,026	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Magnesium	1,292	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Aluminum	164	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Phosphorus	11,918	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Potassium	10,484	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Calcium	1,649	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Titanium	7.9	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Vanadium	0.52	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Chromium	9.0	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Manganese	42	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Iron	329	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Cobalt	0.78	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Nickel	12	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Copper	17	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Zinc	165	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Arsenic	0.79	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Selenium	6.7	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Strontium	2.9	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Molybdenum	0.51	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Silver	0.32	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Cadmium	6.0	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Tin	0.42	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Antimony	0.026	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Barium	74	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Mercury	0.12	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Thallium	0.019	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Lead	0.14	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Uranium	0.021	mg/kg dw	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Wet Mass	0.13	g	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	Dry Mass	0.025	g	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659588	5494017	2022	1	2022-09-16	Composite	% Moisture	81	%	Trich	RG_LE1_INV-1_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Lithium	0.25	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Boron	0.76	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Sodium	3,448	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Magnesium	1,043	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Aluminum	392	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Phosphorus	9,933	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Potassium	8,942	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Calcium	1,525	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Titanium	9.0	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Vanadium	0.68	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Chromium	7.7	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Manganese	58	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Iron	553	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Cobalt	0.39	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Nickel	10	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Copper	19	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Zinc	144	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Arsenic	0.47	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Selenium	7.2	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Strontium	2.6	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Molybdenum	0.4	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Silver	0.23	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Cadmium	3.9	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Tin	0.45	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Antimony	0.044	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Barium	108	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Mercury	0.13	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Thallium	0.023	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Lead	0.16	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Uranium	0.031	mg/kg dw	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Wet Mass	0.11	g	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	Dry Mass	0.021	g	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659554	5494119	2022	2	2022-09-16	Composite	% Moisture	81	%	Trich	RG_LE1_INV-2_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Lithium	0.69	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Boron	1.5	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Sodium	3,495	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Magnesium	1,531	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Aluminum	1,374	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Phosphorus	12,983	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Potassium	13,443	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Calcium	2,726	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Titanium	80	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Vanadium	3.4	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Chromium	19	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Manganese	49	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Iron	1,075	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Cobalt	1.9	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Nickel	30	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Copper	20	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Zinc	143	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Arsenic	1.9	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Selenium	8.9	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Strontium	4.5	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Molybdenum	0.57	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Silver	0.25	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Cadmium	13	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Tin	1.0	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Antimony	0.11	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Barium	72	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Mercury	0.13	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Thallium	0.04	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Lead	0.36	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Uranium	0.074	mg/kg dw	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Wet Mass	0.086	g	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	Dry Mass	0.017	g	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_LE1	659639	5494121	2022	3	2022-09-16	Composite	% Moisture	81	%	Trich	RG_LE1_INV-3_2022-09-16_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Lithium	0.66	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Boron	2.7	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Sodium	4,051	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Magnesium	1,246	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Aluminum	1,241	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Phosphorus	12,573	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Potassium	14,139	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Calcium	1,828	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Titanium	81	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Vanadium	1.7	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Chromium	6.8	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Manganese	56	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Iron	590	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Cobalt	1.2	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Nickel	10	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Copper	18	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Zinc	134	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Arsenic	1.3	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Selenium	4.2	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Strontium	5.8	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Molybdenum	0.6	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Silver	0.067	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Cadmium	3.5	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Tin	0.69	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Antimony	0.038	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Barium	45	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Mercury	0.068	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Thallium	0.054	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Lead	0.48	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Uranium	0.053	mg/kg dw	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Wet Mass	0.35	g	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	Dry Mass	0.07	g	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668209	5482811	2022	1	2022-09-15	Composite	% Moisture	80	%	Trich	RG_MI25_INV-1_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Lithium	1.0	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Boron	3.7	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N



**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Sodium	4,090	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Magnesium	1,396	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Aluminum	1,499	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Phosphorus	13,333	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Potassium	13,868	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Calcium	2,397	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Titanium	83	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Vanadium	2.0	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Chromium	14	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Manganese	73	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Iron	880	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Cobalt	2.0	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Nickel	20	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Copper	19	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Zinc	115	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Arsenic	1.7	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Selenium	4.8	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Strontium	6.7	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Molybdenum	0.64	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Silver	0.059	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Cadmium	3.7	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Tin	0.4	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Antimony	0.048	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Barium	53	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Mercury	0.065	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Thallium	0.058	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Lead	0.47	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Uranium	0.085	mg/kg dw	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Wet Mass	0.28	g	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	Dry Mass	0.057	g	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668190	5482833	2022	2	2022-09-15	Composite	% Moisture	80	%	Trich	RG_MI25_INV-2_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Lithium	0.24	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Boron	0.9	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Sodium	3,490	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Magnesium	1,494	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Aluminum	316	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Phosphorus	11,670	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Potassium	10,835	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Calcium	1,526	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Titanium	16	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Vanadium	0.51	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Chromium	5.2	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Manganese	33	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Iron	217	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Cobalt	0.63	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Nickel	5.5	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Copper	20	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Zinc	140	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Arsenic	0.67	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Selenium	3.6	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Strontium	3.3	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Molybdenum	0.28	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Silver	0.12	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Cadmium	1.4	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Tin	0.17	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Antimony	0.017	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Barium	28	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Mercury	0.059	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Thallium	0.017	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Lead	0.15	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Uranium	0.021	mg/kg dw	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Wet Mass	0.23	g	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	Dry Mass	0.059	g	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI25	668170	5482853	2022	3	2022-09-15	Composite	% Moisture	74	%	Trich	RG_MI25_INV-3_2022-09-15_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Lithium	0.18	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Boron	0.76	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Sodium	2,671	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Magnesium	1,131	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Aluminum	176	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Phosphorus	10,038	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Potassium	10,757	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Calcium	1,197	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Titanium	9.3	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Vanadium	0.36	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Chromium	3.5	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Manganese	66	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Iron	162	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Cobalt	1.9	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Nickel	8.3	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Copper	11	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Zinc	144	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Arsenic	0.62	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Selenium	6.3	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Strontium	3.1	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Molybdenum	0.17	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Silver	0.089	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Cadmium	1.1	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Tin	0.26	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Antimony	0.02	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Barium	35	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Mercury	0.083	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Thallium	0.031	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Lead	0.14	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Uranium	0.019	mg/kg dw	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Wet Mass	0.29	g	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	Dry Mass	0.07	g	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659559	5496348	2022	1	2022-09-12	Composite	% Moisture	76	%	Trich	RG_MI5_INV-1_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Lithium	0.27	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Boron	1.6	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Sodium	2,869	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Magnesium	1,112	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Aluminum	364	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Phosphorus	11,057	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Potassium	11,288	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Calcium	2,293	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Titanium	22	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Vanadium	1.1	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Chromium	13	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Manganese	70	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Iron	444	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Cobalt	2.4	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Nickel	28	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Copper	13	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Zinc	128	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Arsenic	0.62	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Selenium	7.2	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Strontium	10	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Molybdenum	0.28	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Silver	0.082	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Cadmium	1.5	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Tin	0.36	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Antimony	0.036	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Barium	93	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Mercury	0.089	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Thallium	0.037	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Lead	0.2	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Uranium	0.061	mg/kg dw	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Wet Mass	0.34	g	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	Dry Mass	0.058	g	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659503	5496524	2022	2	2022-09-12	Composite	% Moisture	83	%	Trich	RG_MI5_INV-2_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Lithium	0.25	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Boron	1.4	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Sodium	3,313	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Magnesium	1,105	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Aluminum	317	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Phosphorus	11,822	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Potassium	12,532	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Calcium	2,883	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Titanium	18	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Vanadium	0.69	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Chromium	4.8	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Manganese	72	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Iron	338	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Cobalt	3.2	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Nickel	15	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Copper	13	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Zinc	163	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Arsenic	0.78	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Selenium	9.3	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Strontium	7.3	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Molybdenum	0.34	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Silver	0.15	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Cadmium	2.9	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Tin	0.39	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Antimony	0.04	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Barium	90	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Mercury	0.071	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Thallium	0.04	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Lead	0.21	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Uranium	0.073	mg/kg dw	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Wet Mass	0.21	g	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	Dry Mass	0.037	g	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MI5	659499	5496580	2022	3	2022-09-12	Composite	% Moisture	82	%	Trich	RG_MI5_INV-3_2022-09-12_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Lithium	0.44	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Boron	1.2	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Sodium	3,437	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Magnesium	1,140	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Aluminum	571	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Phosphorus	10,500	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Potassium	10,872	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Calcium	1,571	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N



**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Titanium	44	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Vanadium	1.2	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Chromium	5.2	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Manganese	105	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Iron	441	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Cobalt	9.8	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Nickel	16	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Copper	15	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Zinc	160	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Arsenic	0.71	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Selenium	7.9	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Strontium	4.7	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Molybdenum	0.46	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Silver	0.1	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Cadmium	1.0	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Tin	0.19	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Antimony	0.04	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Barium	28	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Mercury	0.065	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Thallium	0.054	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Lead	0.29	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Uranium	0.059	mg/kg dw	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Wet Mass	0.46	g	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	Dry Mass	0.1	g	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665217	5489528	2022	1	2022-09-13	Composite	% Moisture	78	%	Trich	RG_MIDAG_INV-1_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Lithium	0.84	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Boron	2.5	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Sodium	4,027	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Magnesium	1,940	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Aluminum	1,314	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Phosphorus	13,247	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Potassium	12,015	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Calcium	3,651	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Titanium	114	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Vanadium	2.3	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Chromium	7.2	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Manganese	69	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Iron	822	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Cobalt	20	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Nickel	25	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Copper	15	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Zinc	189	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Arsenic	1.8	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Selenium	12	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Strontium	9.1	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Molybdenum	0.41	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Silver	0.096	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Cadmium	2.2	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Tin	0.7	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Antimony	0.067	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Barium	32	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Mercury	0.059	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Thallium	0.092	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Lead	0.45	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Uranium	0.083	mg/kg dw	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Wet Mass	0.27	g	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	Dry Mass	0.056	g	Trich	RG_MIDAG_INV-2_2022-09-13_N

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDAG	665266	5489463	2022	2	2022-09-13	Composite	% Moisture	80	%	Trich	RG_MIDAG_INV-2_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Lithium	0.25	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Boron	0.8	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Sodium	5,445	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Magnesium	1,656	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Aluminum	343	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Phosphorus	15,453	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Potassium	13,085	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Calcium	2,012	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Titanium	23	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Vanadium	0.62	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Chromium	4.3	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Manganese	57	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Iron	250	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Cobalt	10	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Nickel	12	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Copper	19	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Zinc	244	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Arsenic	0.75	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Selenium	8.8	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Strontium	7.0	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Molybdenum	0.24	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Silver	0.13	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Cadmium	1.3	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Tin	0.85	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Antimony	0.025	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Barium	21	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Mercury	0.077	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Thallium	0.085	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Lead	0.19	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Uranium	0.039	mg/kg dw	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Wet Mass	0.23	g	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	Dry Mass	0.043	g	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDAG	665267	5489368	2022	3	2022-09-13	Composite	% Moisture	82	%	Trich	RG_MIDAG_INV-3_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Lithium	1.4	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Boron	4.9	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Sodium	5,070	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Magnesium	1,628	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Aluminum	3,084	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Phosphorus	12,290	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Potassium	12,697	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Calcium	3,845	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Titanium	223	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Vanadium	4.0	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Chromium	7.4	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Manganese	115	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Iron	1,386	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Cobalt	55	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Nickel	37	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Copper	14	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Zinc	139	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Arsenic	0.81	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Selenium	4.3	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Strontium	12	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Molybdenum	0.31	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Silver	0.048	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Cadmium	1.1	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N



Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Tin	0.58	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Antimony	0.058	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Barium	36	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Mercury	0.043	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Thallium	0.15	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Lead	0.88	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Uranium	0.11	mg/kg dw	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Wet Mass	0.21	g	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	Dry Mass	0.049	g	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667769	5487592	2022	1	2022-09-13	Composite	% Moisture	76	%	Trich	RG_MIDCO_INV-1_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Lithium	0.37	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Boron	1.4	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Sodium	3,745	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Magnesium	1,320	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Aluminum	641	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Phosphorus	11,070	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Potassium	10,407	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Calcium	2,703	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Titanium	34	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Vanadium	0.83	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Chromium	4.8	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Manganese	84	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Iron	371	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Cobalt	17	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Nickel	17	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Copper	15	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Zinc	152	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Arsenic	<0.401	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Selenium	3.5	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Strontium	9.0	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Molybdenum	0.23	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Silver	0.069	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Cadmium	0.5	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Tin	0.62	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Antimony	0.028	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Barium	17	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Mercury	0.049	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Thallium	0.045	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Lead	0.3	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Uranium	0.041	mg/kg dw	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Wet Mass	0.3	g	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	Dry Mass	0.074	g	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667734	5487613	2022	2	2022-09-13	Composite	% Moisture	75	%	Trich	RG_MIDCO_INV-2_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Lithium	0.43	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Boron	1.5	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Sodium	3,151	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Magnesium	1,211	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Aluminum	887	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Phosphorus	8,882	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Potassium	8,739	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Calcium	1,824	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Titanium	57	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Vanadium	1.1	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Chromium	7.2	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Manganese	74	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Iron	500	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Cobalt	21	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Nickel	21	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Copper	11	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Zinc	122	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Arsenic	0.42	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Selenium	3.0	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Strontium	6.9	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Molybdenum	0.15	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Silver	0.041	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Cadmium	0.46	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Tin	0.28	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Antimony	0.021	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Barium	20	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Mercury	0.043	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Thallium	0.048	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Lead	0.31	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Uranium	0.046	mg/kg dw	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Wet Mass	0.42	g	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	Dry Mass	0.089	g	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667706	5487633	2022	3	2022-09-13	Composite	% Moisture	79	%	Trich	RG_MIDCO_INV-3_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Lithium	0.4	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Boron	1.6	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Sodium	4,013	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Magnesium	1,065	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Aluminum	522	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Phosphorus	11,360	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Potassium	10,617	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Calcium	2,075	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Titanium	30	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Vanadium	0.76	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Chromium	4.2	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Manganese	108	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Iron	276	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Cobalt	19	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Nickel	25	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Copper	12	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Zinc	142	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Arsenic	0.45	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Selenium	2.9	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Strontium	7.2	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Molybdenum	0.21	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Silver	0.048	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Cadmium	0.46	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Tin	0.53	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Antimony	0.03	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Barium	17	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Mercury	0.031	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Thallium	0.064	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Lead	0.25	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Uranium	0.036	mg/kg dw	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Wet Mass	0.3	g	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	Dry Mass	0.064	g	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667682	5487632	2022	4	2022-09-13	Composite	% Moisture	79	%	Trich	RG_MIDCO_INV-4_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Lithium	0.4	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Boron	1.5	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Sodium	3,089	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Magnesium	1,149	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Aluminum	629	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N

Appendix L:  
Benthic Invertebrate Tissue Chemistry

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Phosphorus	9,377	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Potassium	8,848	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Calcium	1,710	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Titanium	39	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Vanadium	0.82	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Chromium	4.8	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Manganese	80	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Iron	380	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Cobalt	16	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Nickel	18	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Copper	12	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Zinc	149	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Arsenic	0.49	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Selenium	3.7	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Strontium	6.4	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Molybdenum	0.15	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Silver	0.041	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Cadmium	0.5	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Tin	0.23	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Antimony	0.024	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Barium	16	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Mercury	0.031	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Thallium	0.053	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Lead	0.26	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Uranium	0.037	mg/kg dw	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Wet Mass	0.47	g	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	Dry Mass	0.1	g	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIDCO	667666	5487664	2022	5	2022-09-13	Composite	% Moisture	78	%	Trich	RG_MIDCO_INV-5_2022-09-13_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Lithium	0.38	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Boron	0.87	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Sodium	6,004	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Magnesium	1,273	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Aluminum	572	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Phosphorus	13,014	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Potassium	11,338	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Calcium	647	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Titanium	34	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Vanadium	0.79	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Chromium	2.4	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Manganese	66	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Iron	332	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Cobalt	0.4	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Nickel	4.1	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Copper	16	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Zinc	128	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Arsenic	0.49	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Selenium	3.2	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Strontium	1.9	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Molybdenum	0.29	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Silver	0.038	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Cadmium	0.42	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Tin	0.13	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Antimony	0.016	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Barium	36	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Mercury	0.056	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Thallium	0.039	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Lead	0.18	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N



**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Uranium	0.015	mg/kg dw	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Wet Mass	0.42	g	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	Dry Mass	0.08	g	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668232	5486599	2022	1	2022-09-14	Composite	% Moisture	81	%	Trich	RG_MIUCO_INV-1_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Lithium	0.81	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Boron	2.9	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Sodium	5,079	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Magnesium	1,290	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Aluminum	1,144	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Phosphorus	12,860	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Potassium	12,558	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Calcium	1,649	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Titanium	44	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Vanadium	1.2	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Chromium	7.9	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Manganese	146	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Iron	920	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Cobalt	1.5	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Nickel	13	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Copper	21	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Zinc	171	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Arsenic	1.6	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Selenium	4.7	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Strontium	5.1	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Molybdenum	0.44	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Silver	0.089	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Cadmium	2.5	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Tin	0.76	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Antimony	0.034	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Barium	61	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Mercury	0.068	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Thallium	0.07	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Lead	0.68	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Uranium	0.056	mg/kg dw	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Wet Mass	0.27	g	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	Dry Mass	0.052	g	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668204	5486636	2022	2	2022-09-14	Composite	% Moisture	81	%	Trich	RG_MIUCO_INV-2_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Lithium	0.3	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Boron	1.3	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Sodium	3,045	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Magnesium	1,099	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Aluminum	791	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Phosphorus	9,944	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Potassium	7,861	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Calcium	1,356	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Titanium	66	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Vanadium	0.99	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Chromium	4.7	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Manganese	63	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Iron	485	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Cobalt	0.67	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Nickel	7.4	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Copper	13	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Zinc	92	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Arsenic	0.65	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Selenium	3.4	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Strontium	2.6	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N

**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Molybdenum	0.27	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Silver	0.048	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Cadmium	0.88	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Tin	0.32	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Antimony	0.018	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Barium	17	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Mercury	0.056	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Thallium	0.039	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Lead	0.21	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Uranium	0.02	mg/kg dw	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Wet Mass	0.19	g	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	Dry Mass	0.044	g	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIUCO	668201	5486675	2022	3	2022-09-14	Composite	% Moisture	77	%	Trich	RG_MIUCO_INV-3_2022-09-14_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Lithium	0.19	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Boron	0.76	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Sodium	3,494	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Magnesium	1,220	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Aluminum	401	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Phosphorus	10,553	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Potassium	8,922	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Calcium	1,881	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Titanium	29	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Vanadium	0.63	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Chromium	4.6	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Manganese	39	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Iron	363	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Cobalt	6.1	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Nickel	13	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Copper	13	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Zinc	196	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Arsenic	0.68	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Selenium	7.3	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Strontium	6.6	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Molybdenum	0.23	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Silver	0.14	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Cadmium	1.1	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Tin	0.46	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Antimony	0.04	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Barium	22	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Mercury	0.059	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Thallium	0.061	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Lead	0.25	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Uranium	0.029	mg/kg dw	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Wet Mass	0.3	g	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	Dry Mass	0.058	g	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660633	5492985	2022	1	2022-09-12	Composite	% Moisture	81	%	Trich	RG_MIULE_INV-1_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Lithium	0.78	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Boron	2.7	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Sodium	3,530	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Magnesium	1,342	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Aluminum	1,589	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Phosphorus	10,740	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Potassium	9,968	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Calcium	4,785	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Titanium	95	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Vanadium	2.9	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Chromium	17	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N



**Appendix L:  
Benthic Invertebrate Tissue Chemistry**

**Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022**

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Manganese	65	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Iron	969	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Cobalt	13	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Nickel	34	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Copper	13	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Zinc	164	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Arsenic	1.1	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Selenium	8.9	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Strontium	14	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Molybdenum	0.33	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Silver	0.082	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Cadmium	2.1	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Tin	0.68	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Antimony	0.067	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Barium	55	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Mercury	0.056	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Thallium	0.14	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Lead	0.55	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Uranium	0.081	mg/kg dw	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Wet Mass	0.16	g	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	Dry Mass	0.031	g	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660563	5493002	2022	2	2022-09-12	Composite	% Moisture	80	%	Trich	RG_MIULE_INV-2_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Lithium	0.48	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Boron	1.9	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Sodium	2,620	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Magnesium	976	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Aluminum	1,162	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Phosphorus	8,111	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Potassium	7,045	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Calcium	2,537	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Titanium	63	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Vanadium	1.7	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Chromium	9.1	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Manganese	54	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Iron	651	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Cobalt	11	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Nickel	20	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Copper	10	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Zinc	147	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Arsenic	0.84	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Selenium	6.4	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Strontium	7.6	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Molybdenum	0.29	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Silver	0.069	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Cadmium	1.8	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Tin	0.77	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Antimony	0.04	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Barium	35	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Mercury	0.056	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Thallium	0.086	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Lead	0.39	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Uranium	0.051	mg/kg dw	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Wet Mass	0.12	g	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	Dry Mass	0.022	g	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_MIULE	660482	5493070	2022	3	2022-09-12	Composite	% Moisture	81	%	Trich	RG_MIULE_INV-3_2022-09-12_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Lithium	0.73	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Boron	1.7	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>(a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Sodium	2,226	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Magnesium	1,113	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Aluminum	697	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Phosphorus	12,315	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Potassium	7,609	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Calcium	5,320	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Titanium	66	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Vanadium	2.7	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Chromium	1.6	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Manganese	16	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Iron	519	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Cobalt	0.55	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Nickel	6.0	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Copper	5.1	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Zinc	571	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Arsenic	6.5	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Selenium	4.6	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Strontium	38	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Molybdenum	0.21	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Silver	0.045	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Cadmium	2.7	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Tin	0.3	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Antimony	0.18	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Barium	466	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Mercury	0.28	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Thallium	2.1	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Lead	0.42	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Uranium	0.066	mg/kg dw	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Wet Mass	0.0078	g	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	Dry Mass	0.0037	g	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667627	5488726	2022	1	2022-09-15	INVOLI	% Moisture	53	%	Trich	RG_AGCK_INVOLI-1_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Lithium	0.55	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Boron	1.1	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Sodium	1,759	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Magnesium	406	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Aluminum	560	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Phosphorus	4,936	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Potassium	4,256	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Calcium	2,273	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Titanium	44	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Vanadium	2.1	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Chromium	1.8	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Manganese	7.0	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Iron	380	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Cobalt	0.23	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Nickel	3.5	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Copper	2.7	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Zinc	290	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Arsenic	2.1	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Selenium	1.6	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Strontium	16	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Molybdenum	0.13	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Silver	0.027	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Cadmium	1.2	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Tin	7.2	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Antimony	0.097	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Barium	157	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N

Table L-1: Benthic Invertebrate Tissue Data Collected from the CMm LAEMP Sampling Stations, 2015 to 2022

Type	Station	Location (UTMs) <sup>a)</sup>		Year	Replicate	Date	Species/Composite	Analyte	Result	Unit	Laboratory Information	
		Easting	Northing								Lab	Sample ID
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Mercury	0.14	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Thallium	0.88	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Lead	0.35	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Uranium	0.046	mg/kg dw	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Wet Mass	1.3	g	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	Dry Mass	0.0045	g	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667565	5488691	2022	2	2022-09-15	INVOLI	% Moisture	100	%	Trich	RG_AGCK_INVOLI-2_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Lithium	1.5	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Boron	3.6	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Sodium	5,929	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Magnesium	1,212	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Aluminum	1,720	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Phosphorus	16,989	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Potassium	22,575	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Calcium	4,837	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Titanium	85	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Vanadium	3.4	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Chromium	2.1	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Manganese	14	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Iron	869	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Cobalt	0.71	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Nickel	8.6	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Copper	8.2	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Zinc	438	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Arsenic	7.0	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Selenium	4.6	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Strontium	32	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Molybdenum	0.32	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Silver	0.076	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Cadmium	2.4	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Tin	15	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Antimony	0.41	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Barium	224	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Mercury	0.22	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Thallium	3.0	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Lead	0.94	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Uranium	0.12	mg/kg dw	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Wet Mass	1.0	g	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	Dry Mass	0.0053	g	Trich	RG_AGCK_INVOLI-3_2022-09-15_N
INV	RG_AGCK	667541	5488612	2022	3	2022-09-15	INVOLI	% Moisture	100	%	Trich	RG_AGCK_INVOLI-3_2022-09-15_N

a) UTM coordinates (NAD = 83, Zone = 11) for 2012 to 2021 data are available in the RAEMP and previous LAEMP reports; 2022 UTM coordinates are included here for reference, except for the three stations CM-MC2, MIDAG-S1, and MIDAG-S2, which were only sampled in 2020 as part of the Nickel Benchmark Study.

- = data not available; % = percent; dw = dry weight; g = grams; mg/kg = micrograms per gram; ww = wet weight; < = less than; INV = composite benthic invertebrate sample; LOD = level of detection; EPH = Ephemeroptera; HYD = Hydropsychidae; RHY = Rhyacophilidae.

Trich = TrichAnalytics Inc.; SRC = sample receipt confirmation; MURR = University of Missouri, Columbia Research Reactor Center; COMPNOLI = composite-taxon sample that does not include any annelid species; INVOLI = taxon-specific sample that is only annelid tissue.



Table L-2: Benthic Invertebrate Tissue Chemistry Screening at CMm LAEMP Sampling Stations, 2022

Location Watercourse Station Replicate Date	Unit	BC Invertebrate Tissue Guidelines for the Protection of Aquatic Life	E VWQP Invertebrate Benchmarks		Reference Stations															
					Michel Creek				Andy Goode Creek				Andy Goode Creek				Leach Creek			
					MI25				AGCK_COMPNOLI				AGCK_INVOLI				LE1			
					1	2	3	CV%	1	2	3	CV%	1	2	3	CV%	1	2	3	CV%
15-Sep-22	15-Sep-22	15-Sep-22	15-Sep-22	15-Sep-22	15-Sep-22	15-Sep-22	15-Sep-22	15-Sep-22	15-Sep-22	15-Sep-22	15-Sep-22	15-Sep-22	15-Sep-22	15-Sep-22	15-Sep-22	16-Sep-22	16-Sep-22	16-Sep-22	16-Sep-22	
Wet Mass	g	-	-	-	0.35	0.28	0.23	22	0.22	0.11	0.07	57	0.01	1.28	1.05	87	0.13	0.11	0.09	20
Dry Mass	g	-	-	-	0.07	0.06	0.06	11	0.04	0.02	0.02	42	0.00	0.00	0.01	18	0.03	0.02	0.02	21
Moisture	%	-	-	-	80.3	79.7	74.1	4	82.5	80.1	75.5	4	52.6	99.6	99.5	32	80.5	80.6	80.9	0
Aluminum	mg/kg dw	-	-	-	1241	1499	316	61	224	147	113	35	697	560	1720	64	164	392	1374	100
Antimony	mg/kg dw	-	-	-	0.04	0.05	0.02	46	0.02	0.03	0.02	8	0.18	0.10	0.41	71	0.03	0.04	0.11	75
Arsenic	mg/kg dw	-	-	-	1.30	1.70	0.67	43	1.20	1.80	1.20	25	6.50	2.10	7.00	52	0.79	0.47	1.90	72
Barium	mg/kg dw	-	-	-	45.0	53.0	28.0	30	21.0	11.0	5.7	62	466.0	157.0	224.0	58	74.0	108.0	72.0	24
Boron	mg/kg dw	-	-	-	2.70	3.70	0.90	58	0.65	0.47	0.31	35	1.70	1.10	3.60	61	0.39	0.76	1.50	64
Cadmium	mg/kg dw	-	-	-	3.50	3.70	1.40	44	0.33	1.30	1.20	56	2.70	1.20	2.40	38	6.00	3.90	13.00	62
Calcium	mg/kg dw	-	-	-	1828	2397	1526	23	1833	2007	2425	15	5320	2273	4837	40	1649	1525	2726	34
Chromium	mg/kg dw	-	-	-	6.80	14.00	5.20	54	3.00	9.30	7.80	49	1.60	1.80	2.10	14	9.00	7.70	19.00	52
Cobalt	mg/kg dw	-	-	-	1.20	2.00	0.63	54	0.12	0.43	0.45	55	0.55	0.23	0.71	49	0.78	0.39	1.90	77
Copper	mg/kg dw	-	-	-	18.0	19.0	20.0	5	9.30	12.00	12.0	14	5.10	2.70	8.20	52	17.0	19.0	20.0	8
Iron	mg/kg dw	-	-	-	590	880	217	59	217	235	219	4	519	380	869	43	329	553	1075	59
Lead	mg/kg dw	-	-	-	0.48	0.47	0.15	52	0.10	0.08	0.06	21	0.42	0.35	0.94	56	0.14	0.16	0.36	54
Lithium	mg/kg dw	-	-	-	0.66	1.00	0.24	60	0.30	0.27	0.14	36	0.73	0.55	1.50	55	0.17	0.25	0.69	76
Magnesium	mg/kg dw	-	-	-	1246	1396	1494	9	1056	1460	937	24	1113	406	1212	48	1292	1043	1531	19
Manganese	mg/kg dw	-	-	-	56.0	73.0	33.0	37	12.0	12.0	7.0	28	16.0	7.0	14.0	38	42.0	58.0	49.0	16
Mercury	mg/kg dw	-	-	-	0.07	0.07	0.06	7	0.05	0.07	0.04	28	0.28	0.14	0.22	33	0.12	0.13	0.13	3
Molybdenum	mg/kg dw	-	-	-	0.60	0.64	0.28	38	0.20	0.28	0.37	30	0.21	0.13	0.32	44	0.51	0.40	0.57	18
Nickel	mg/kg dw	-	-	-	10.0	20.0	5.5	63	5.2	13.0	11.0	42	6.0	3.5	8.6	42	12.0	10.0	30.0	64
Phosphorus	mg/kg dw	-	-	-	12573	13333	11670	7	13320	14049	9099	22	12315	4936	16989	53	11918	9933	12983	13
Potassium	mg/kg dw	-	-	-	14139	13868	10835	14	10379	15678	8567	32	7609	4256	22575	85	10484	8942	13443	21
Selenium	mg/kg dw	4	13	20	4.20	4.80	3.60	14	4.40	7.40	7.00	26	4.60	1.60	4.60	48	6.70	7.20	8.90	15
Silver	mg/kg dw	-	-	-	0.07	0.06	0.12	40	0.09	0.16	0.14	25	0.05	0.03	0.08	50	0.32	0.23	0.25	18
Sodium	mg/kg dw	-	-	-	4051	4090	3490	9	3534	5278	3121	29	2226	1759	5929	69	4026	3448	3495	9
Strontium	mg/kg dw	-	-	-	5.80	6.70	3.30	33	3.70	4.70	4.50	12	38.00	16.00	32.00	40	2.90	2.60	4.50	31
Thallium	mg/kg dw	-	-	-	0.05	0.06	0.02	53	0.23	0.22	0.13	29	2.10	0.88	3.00	54	0.02	0.02	0.04	41
Tin	mg/kg dw	-	-	-	0.69	0.40	0.17	62	0.43	0.73	0.78	29	0.30	7.20	15.00	98	0.42	0.45	1.00	52
Titanium	mg/kg dw	-	-	-	81.0	83.0	16.0	64	11.0	7.4	6.5	29	66.0	44.0	85.0	32	7.9	9.0	80.0	128
Uranium	mg/kg dw	-	-	-	0.05	0.09	0.02	60	0.03	0.03	0.03	10	0.07	0.05	0.12	48	0.02	0.03	0.07	67
Vanadium	mg/kg dw	-	-	-	1.70	2.00	0.51	56	0.57	0.46	0.43	15	2.70	2.10	3.40	24	0.52	0.68	3.40	105
Zinc	mg/kg dw	-	-	-	134	115	140	10	135	217	179	23	571	290	438	32	165	144	143	8

Note: Data were screened against the approved invertebrate tissue guideline for the protection of aquatic life (BC ENV 2019a) and EVWQP benchmarks for selenium. Invertebrate tissue guidelines and benchmarks were not available for additional parameters.

Grey cells represent concentrations that exceeded the British Columbia invertebrate tissue guideline.

CMm = Coal Mountain Mine; LAEMP = local aquatic effects monitoring program; BC ENV = BC Ministry of Environment and Climate Change Strategy; CV% = coefficient of variation expressed as percentage; EVWQP = Elk Valley Water Quality Plan.

- = no guideline or data; < = below method detection limit; % = percent; g = grams; mg/kg dw = milligrams per kilogram dry weight.

Value Value is greater than EVWQP Invertebrate Level 1 Benchmark.

Value Value is greater than EVWQP Invertebrate Level 2 Benchmark.

Value Value is greater than the BC Invertebrate Tissue Guidelines for the Protection of Aquatic Life.

Table L-2: Benthic Invertebrate Tissue Chemistry Screening at CMm LAEMP Sampling Stations, 2022

Location Watercourse Station Replicate Date	Unit	BC Invertebrate Tissue Guidelines for the Protection of Aquatic Life	E VWQP Invertebrate Benchmarks	Mine-Influenced Stations										Mine-Influenced Stations									
				Michel Creek					Corbin Creek					Michel Creek					Michel Creek				
				MIUCO					CORCK					MIDCO					MIDAG				
				1	2	3	CV%	1	2	3	CV%	1	2	3	CV%	1	2	3	4	5	CV%	1	2
14-Sep-22	14-Sep-22	14-Sep-22		14-Sep-22	14-Sep-22	14-Sep-22		13-Sep-22	13-Sep-22	13-Sep-22		13-Sep-22	13-Sep-22	13-Sep-22	13-Sep-22	13-Sep-22		13-Sep-22	13-Sep-22	13-Sep-22			
Wet Mass	g	-	-	-	0.42	0.27	0.19	40	0.20	0.17	0.14	19	0.21	0.30	0.42	0.30	0.47	31	0.46	0.27	0.23	38	
Dry Mass	g	-	-	-	0.08	0.05	0.04	32	0.06	0.04	0.03	29	0.05	0.07	0.09	0.06	0.10	28	0.10	0.06	0.04	47	
Moisture	%	-	-	-	81.2	80.9	76.9	3	70.2	75.4	75.1	4	76.3	75.1	79.0	78.7	78.2	2	77.6	79.5	81.6	3	
Aluminum	mg/kg dw	-	-	-	572	1144	791	35	113	116	131	8	3084	641	887	522	629	94	571	1314	343	68	
Antimony	mg/kg dw	-	-	-	0.02	0.03	0.02	43	0.03	0.02	0.03	22	0.06	0.03	0.02	0.03	0.02	46	0.04	0.07	0.03	48	
Arsenic	mg/kg dw	-	-	-	0.49	1.60	0.65	66	<0.401	<0.401	<0.401	-	0.81	<0.401	0.42	0.45	0.49	33	0.71	1.80	0.75	57	
Barium	mg/kg dw	-	-	-	36.3	61.0	17.0	58	3.9	5.0	6.8	28	36.0	17.0	20.0	17.0	16.0	40	28.0	32.0	21.0	21	
Boron	mg/kg dw	-	-	-	0.87	2.90	1.30	63	1.00	1.00	1.00	0	4.90	1.40	1.50	1.60	1.50	70	1.20	2.50	0.80	59	
Cadmium	mg/kg dw	-	-	-	0.42	2.50	0.88	86	0.30	0.45	0.77	47	1.10	0.50	0.46	0.46	0.50	47	1.00	2.20	1.30	42	
Calcium	mg/kg dw	-	-	-	647	1649	1356	42	2541	4134	3421	24	3845	2703	1824	2075	1710	36	1571	3651	2012	45	
Chromium	mg/kg dw	-	-	-	2.40	7.90	4.70	55	4.40	6.80	3.50	35	7.40	4.80	7.20	4.20	4.80	26	5.20	7.20	4.30	27	
Cobalt	mg/kg dw	-	-	-	0.40	1.50	0.67	67	12.00	7.50	7.50	29	55.00	17.00	21.00	19.00	16.00	65	9.80	20.00	10.00	44	
Copper	mg/kg dw	-	-	-	15.7	21.0	13.0	25	11.0	16.0	12.0	20	14.0	15.0	11.0	12.0	12.0	13	15.0	15.0	19.0	14	
Iron	mg/kg dw	-	-	-	332	920	485	53	147	217	155	22	1386	371	500	276	380	78	441	822	250	58	
Lead	mg/kg dw	-	-	-	0.18	0.68	0.21	78	0.04	0.05	0.04	17	0.88	0.30	0.31	0.25	0.26	68	0.29	0.45	0.19	43	
Lithium	mg/kg dw	-	-	-	0.38	0.81	0.30	55	0.26	0.26	0.26	1	1.40	0.37	0.43	0.40	0.40	75	0.44	0.84	0.25	60	
Magnesium	mg/kg dw	-	-	-	1273	1290	1099	9	1132	1796	1571	23	1628	1320	1211	1065	1149	17	1140	1940	1656	26	
Manganese	mg/kg dw	-	-	-	66.5	146.0	63.0	51	68.0	51.0	61.0	14	115.0	84.0	74.0	108.0	80.0	20	105.0	69.0	57.0	32	
Mercury	mg/kg dw	-	-	-	0.06	0.07	0.06	12	0.02	0.03	0.04	29	0.04	0.05	0.04	0.03	0.03	20	0.07	0.06	0.08	14	
Molybdenum	mg/kg dw	-	-	-	0.29	0.44	0.27	27	0.14	0.17	0.20	17	0.31	0.23	0.15	0.21	0.15	30	0.46	0.41	0.24	30	
Nickel	mg/kg dw	-	-	-	4.1	13.0	7.4	55	14.0	13.0	11.0	12	37.0	17.0	21.0	25.0	18.0	34	16.0	25.0	12.0	38	
Phosphorus	mg/kg dw	-	-	-	13014	12860	9944	14	8222	12064	9860	19	12290	11070	8882	11360	9377	13	10500	13247	15453	19	
Potassium	mg/kg dw	-	-	-	11338	12558	7861	23	8371	9000	9403	6	12697	10407	8739	10617	8848	16	10872	12015	13085	9	
Selenium	mg/kg dw	4	13	20	3.23	4.70	3.40	21	4.60	5.20	4.50	8	4.30	3.50	3.00	2.90	3.70	16	7.90	12.00	8.80	23	
Silver	mg/kg dw	-	-	-	0.04	0.09	0.05	47	0.03	0.06	0.04	36	0.05	0.07	0.04	0.05	0.04	23	0.10	0.10	0.13	17	
Sodium	mg/kg dw	-	-	-	6004	5079	3045	32	2649	4101	2839	25	5070	3745	3151	4013	3089	21	3437	4027	5445	24	
Strontium	mg/kg dw	-	-	-	1.89	5.10	2.60	53	9.50	16.00	15.00	26	12.00	9.00	6.90	7.20	6.40	28	4.70	9.10	7.00	32	
Thallium	mg/kg dw	-	-	-	0.04	0.07	0.04	36	0.02	0.03	0.02	26	0.15	0.05	0.05	0.06	0.05	60	0.05	0.09	0.09	26	
Tin	mg/kg dw	-	-	-	0.13	0.76	0.32	80	0.07	0.22	0.26	55	0.58	0.62	0.28	0.53	0.23	40	0.19	0.70	0.85	60	
Titanium	mg/kg dw	-	-	-	34.2	44.0	66.0	34	6.0	6.3	7.2	10	223.0	34.0	57.0	30.0	39.0	108	44.0	114.0	23.0	79	
Uranium	mg/kg dw	-	-	-	0.01	0.06	0.02	74	0.03	0.03	0.03	9	0.11	0.04	0.05	0.04	0.04	59	0.06	0.08	0.04	37	
Vanadium	mg/kg dw	-	-	-	0.79	1.20	0.99	21	0.22	0.29	0.25	13	4.00	0.83	1.10	0.76	0.82	94	1.20	2.30	0.62	62	
Zinc	mg/kg dw	-	-	-	128	171	92	30	119	167	150	17	139	152	122	142	149	8	160	189	244	22	

Note: Data were screened against the approved invertebrate tissue guideline for the protection of aquatic life (BC ENV 2019a) and EVWQP benchmarks for selenium. Invertebrate tissue guidelines and benchmarks were not available for additional parameters.

Grey cells represent concentrations that exceeded the British Columbia invertebrate tissue guideline.

CMm = Coal Mountain Mine; LAEMP = local aquatic effects monitoring program; BC ENV = BC Ministry of Environment and Climate Change Strategy; CV% = coefficient of variation expressed as percentage; EVWQP = Elk Valley Water Quality Plan.

- = no guideline or data; < = below method detection limit; % = percent; g = grams; mg/kg dw = milligrams per kilogram dry weight.

Value Value is greater than EVWQP Invertebrate Level 1 Benchmark.

Value Value is greater than EVWQP Invertebrate Level 2 Benchmark.

Value Value is greater than the BC Invertebrate Tissue Guidelines for the Protection of Aquatic Life.



Table L-2: Benthic Invertebrate Tissue Chemistry Screening at CMm LAEMP Sampling Stations, 2022

Location Watercourse Station Replicate Date	BC Invertebrate Tissue Guidelines for the Protection of Aquatic Life	EWWQP Invertebrate Benchmarks		Mine-Influenced Stations								
				Michel Creek				Michel Creek				
				MIULE				MI5				
				1	2	3	CV%	1	2	3	CV%	
Level 1	Level 2	12-Sep-22	12-Sep-22	12-Sep-22	12-Sep-22	12-Sep-22	12-Sep-22	12-Sep-22	12-Sep-22	12-Sep-22	12-Sep-22	12-Sep-22
Parameter	Unit											
Wet Mass	g	-	-	-	0.30	0.16	0.12	51	0.29	0.34	0.21	24
Dry Mass	g	-	-	-	0.06	0.03	0.02	49	0.07	0.06	0.04	30
Moisture	%	-	-	-	81.0	80.0	80.8	1	76.0	83.0	82.2	5
Aluminum	mg/kg dw	-	-	-	401	1589	1162	57	176	364	317	34
Antimony	mg/kg dw	-	-	-	0.04	0.07	0.04	32	0.02	0.04	0.04	33
Arsenic	mg/kg dw	-	-	-	0.68	1.10	0.84	24	0.62	0.62	0.78	13
Barium	mg/kg dw	-	-	-	22.0	55.0	35.0	45	35.0	93.0	90.0	45
Boron	mg/kg dw	-	-	-	0.76	2.70	1.90	55	0.76	1.60	1.40	35
Cadmium	mg/kg dw	-	-	-	1.10	2.10	1.80	31	1.10	1.50	2.90	52
Calcium	mg/kg dw	-	-	-	1881	4785	2537	50	1197	2293	2883	40
Chromium	mg/kg dw	-	-	-	4.60	17.00	9.10	61	3.50	13.00	4.80	73
Cobalt	mg/kg dw	-	-	-	6.10	13.00	11.00	35	1.90	2.40	3.20	26
Copper	mg/kg dw	-	-	-	13.0	13.0	10.0	14	11.0	13.0	13.0	9
Iron	mg/kg dw	-	-	-	363	969	651	46	162	444	338	45
Lead	mg/kg dw	-	-	-	0.25	0.55	0.39	38	0.14	0.20	0.21	21
Lithium	mg/kg dw	-	-	-	0.19	0.78	0.48	61	0.18	0.27	0.25	20
Magnesium	mg/kg dw	-	-	-	1220	1342	976	16	1131	1112	1105	1
Manganese	mg/kg dw	-	-	-	39.0	65.0	54.0	25	66.0	70.0	72.0	4
Mercury	mg/kg dw	-	-	-	0.06	0.06	0.06	3	0.08	0.09	0.07	11
Molybdenum	mg/kg dw	-	-	-	0.23	0.33	0.29	18	0.17	0.28	0.34	33
Nickel	mg/kg dw	-	-	-	13.0	34.0	20.0	48	8.3	28.0	15.0	59
Phosphorus	mg/kg dw	-	-	-	10553	10740	8111	15	10038	11057	11822	8
Potassium	mg/kg dw	-	-	-	8922	9968	7045	17	10757	11288	12532	8
Selenium	mg/kg dw	4	13	20	7.30	8.90	6.40	17	6.30	7.20	9.30	20
Silver	mg/kg dw	-	-	-	0.14	0.08	0.07	39	0.09	0.08	0.15	33
Sodium	mg/kg dw	-	-	-	3494	3530	2620	16	2671	2869	3313	11
Strontium	mg/kg dw	-	-	-	6.60	14.00	7.60	43	3.10	10.00	7.30	51
Thallium	mg/kg dw	-	-	-	0.06	0.14	0.09	43	0.03	0.04	0.04	13
Tin	mg/kg dw	-	-	-	0.46	0.68	0.77	25	0.26	0.36	0.39	20
Titanium	mg/kg dw	-	-	-	29.0	95.0	63.0	53	9.3	22.0	18.0	40
Uranium	mg/kg dw	-	-	-	0.03	0.08	0.05	49	0.02	0.06	0.07	56
Vanadium	mg/kg dw	-	-	-	0.63	2.90	1.70	65	0.36	1.10	0.69	52
Zinc	mg/kg dw	-	-	-	196	164	147	15	144	128	163	12

Note: Data were screened against the approved invertebrate tissue guideline for the protection of aquatic life (BC ENV 2019a) and EWWQP benchmarks for selenium. Invertebrate tissue guidelines and benchmarks were not available for additional parameters.

Grey cells represent concentrations that exceeded the British Columbia invertebrate tissue guideline.

CMm = Coal Mountain Mine; LAEMP = local aquatic effects monitoring program; BC ENV = BC Ministry of Environment and Climate Change Strategy; CV% = coefficient of variation expressed as percentage; EWWQP = Elk Valley Water Quality Plan.

- = no guideline or data; < = below method detection limit; % = percent; g = grams; mg/kg dw = milligrams per kilogram dry weight.

Value Value is greater than EWWQP Invertebrate Level 1 Benchmark.

Value Value is greater than EWWQP Invertebrate Level 2 Benchmark.

Value Value is greater than the BC Invertebrate Tissue Guidelines for the Protection of Aquatic Life.

**APPENDIX M**

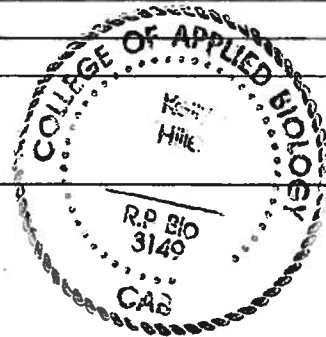
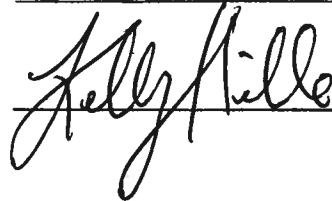
**Declaration of Competency and Conflict of Interest**

This statement is to acknowledge that the undersigned was/were responsible for the preparation and/or review of the **2022 Coal Mountain Mine Local Aquatic Effects Monitoring Report** (the "Report") submitted to Teck Coal Limited on 29 June 2023.

The Report was prepared using the data and other information available to the undersigned at the time of writing, along with the past experience and professional judgement of the undersigned. To the best of the knowledge, information and belief of the undersigned the Report is considered to be true and accurate as the time of writing and is subject to the assumptions stated therein.

Date: 29 June 2023  
Author Name: Kelly Hille, MSc, RPBio  
Author Title and Company: Lead, Aquatic Scientist, WSP Canada Inc.

Signature/Stamp:



### Declaration of Competency

The Ministry of Environment and Climate Change Strategy relies on the work, advice, recommendations and in some cases decision making of qualified professionals<sup>1</sup>, under government's professional reliance regime. With this comes an assumption that professionals who undertake work in relation to ministry legislation, regulations and codes of practice have the knowledge, experience and objectivity necessary to fulfill this role.

1. Name of Qualified Professional Kelly Hille  
Title Lead, Aquatic Scientist

2. Are you a registered member of a professional association in B.C.?  Yes  No

Name of Association: College of Applied Biologists Registration # 3149

3. Brief description of professional services:

Preparation and review of 2022 Coal Mountain Mine  
local aquatic effects monitoring program report

This declaration of competency is collected under section 26(c) of the *Freedom of Information and Protection of Privacy Act* for the purposes of increasing government transparency and ensuring professional ethics and accountability. By signing and submitting this statement you consent to its publication and its disclosure outside of Canada. This consent is valid from the date submitted and cannot be revoked. If you have any questions about the collection, use or disclosure of your personal information please contact the Ministry of Environment and Climate Change Strategy Headquarters Office at 1-800-663-7867.

### Declaration

I am a qualified professional with the knowledge, skills and experience to provide expert information, advice and/or recommendations in relation to the specific work described above.

Signature:

X Kelly Hille

Print Name: Kelly Hille

Witnessed by:

X Blair Makwana

Print Name: Blair Makwana

Date signed: 29-June-2023

<sup>1</sup>Qualified Professional, in relation to a duty or function under ministry legislation, means an individual who

- a) is registered in British Columbia with a professional association, is acting under that organization's code of ethics, and is subject to disciplinary action by that association, and
- b) through suitable education, experience, accreditation and knowledge, may reasonably be relied on to provide advice within his or her area of expertise, which area of expertise is applicable to the duty or function.

## Conflict of Interest Disclosure Statement

A qualified professional <sup>1</sup> providing services to either the Ministry of Environment and Climate Change Strategy ("ministry"), or to a regulated person for the purpose of obtaining an authorization from the ministry, or pursuant to a requirement imposed under the *Environmental Management Act*, the *Integrated Pest Management Act* or the *Park Act* has a real or perceived conflict of interest when the qualified professional, or their relatives, close associates or personal friends have a financial or other interest in the outcome of the work being performed.

A real or perceived conflict of interest occurs when a qualified professional has

- a) an ownership interest in the regulated person's business;
- b) an opportunity to influence a decision that leads to financial benefits from the regulated person or their business other than a standard fee for service (e.g. bonuses, stock options, other profit sharing arrangements);
- c) a personal or professional interest in a specific outcome;
- d) the promise of a long term or ongoing business relationship with the regulated person, that is contingent upon a specific outcome of work;
- e) a spouse or other family member who will benefit from a specific outcome; or
- f) any other interest that could be perceived as a threat to the independence or objectivity of the qualified professional in performing a duty or function.

Qualified professionals who work under ministry legislation must take care in the conduct of their work that potential conflicts of interest within their control are avoided or mitigated. Precise rules in conflict of interest are not possible and professionals must rely on guidance of their professional associations, their common sense, conscience and sense of personal integrity.

### Declaration

I Kelly Hille, as a member of The College of Applied Biologists  
declare

**Select one of the following:**

- Absence from conflict of interest

Other than the standard fee I will receive for my professional services, I have no financial or other interest in the outcome of this Coal Mountain Mine aquatic effects monitoring report

I further declare that should a conflict of interest arise in the future during the course of this work, I will fully disclose the circumstances in writing and without delay to

BC ENV, erring on the side of caution.



Real or perceived conflict of interest

Description and nature of conflict(s):

n/a  
\_\_\_\_\_  
\_\_\_\_\_

I will maintain my objectivity, conducting my work in accordance with my Code of Ethics and standards of practice.

In addition, I will take the following steps to mitigate the real or perceived conflict(s) I have disclosed, to ensure the public interest remains paramount:

n/a  
\_\_\_\_\_  
\_\_\_\_\_

Further, I acknowledge that this disclosure may be interpreted as a threat to my independence and will be considered by the statutory decision maker accordingly.

This conflict of interest disclosure statement is collected under section 26(c) of the *Freedom of Information and Protection of Privacy Act* for the purposes of increasing government transparency and ensuring professional ethics and accountability. By signing and submitting this statement you consent to its publication and its disclosure outside of Canada. This consent is valid from the date submitted and cannot be revoked. If you have any questions about the collection, use or disclosure of your personal information please contact the Ministry of Environment and Climate Change Strategy Headquarters Office at 1-800-663-7867.

Signature:

X Kelly Hill  
\_\_\_\_\_

Print name: Kelly Hill

Date: 29 June - 2023

Witnessed by:

X Blair Makwana  
\_\_\_\_\_

Print name: Blair Makwana

<sup>1</sup>Qualified Professional, in relation to a duty or function under ministry legislation, means an individual who

- is registered in British Columbia with a professional association, is acting under that organization's code of ethics, and is subject to disciplinary action by that association, and
- through suitable education, experience, accreditation and knowledge, may reasonably be relied on to provide advice within his or her area of expertise, which area of expertise is applicable to the duty or function.

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