## Laboratory Report of Analysis

To: Kenai Watershed Forum
44129 Sterling Hwy
Soldotna, AK 99669

Report Number: **1231846**

Client Project: **Kenai River Baseline Water Qua**

Dear Benjamin Meyer,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of ten years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of fourteen (14) days from the date of this report unless other archiving requirements were included in the quote.

If there are any questions about the report or services performed during this project, please call Curtis at (907) 562-2343. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America Inc.

Justin Nelson
2023.06.23
15:07:03 -08'00'

Curtis Whisman Date
Project Manager
curtis.whisman@sgs.com



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## Case Narrative

SGS Client: **Kenai Watershed Forum**
SGS Project: **1231846**
Project Name/Site: **Kenai River Baseline Water Qua**
Project Contact: **Benjamin Meyer**

Refer to sample receipt form for information on sample condition.

**1231784001MSD (1711652) MSD**

4500NO3-F - Nitrate/Nitrite - MSD recovery for total nitrate/nitrite is outside of QC criteria. Refer to LCS for accuracy requirements.

**MB for HBN 1854932 [MXX/35860] (1712761) MB**

200.8 - Metals analyte Zinc is detected in the MB above the LOQ. The associated sample concentrations are either less than the LOQ or greater than 5 times the concentration in the MB.

**MB for HBN 1856254 [MXX/35877] (1714017) MB**

200.8 - Metals analyte Zinc is detected in the MB above the LOQ. The associated sample concentrations are less than the LOQ or greater than 5 times the concentration in the MB.

200.7 metals were analyzed by SGS of Orlando, FL.

*QC comments may be associated with the field samples found in this report. When applicable, comments will be applied to associated field samples.



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## Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. The results apply to the samples as received. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indenmification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the context or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.
SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (]DW Chemistry & Microbiology (Provisionally Certified as of 6/05/2023 for Fluoride EPA300.0, Alkalinity SM2320B, Orthophosphate SM4500P-E and Beryllium, Copper and Mercury 200.8) & 17-021 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020B, 7470A, 7471B, 8015C, 8021B, 8082A, 8260D, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). SGS is only certified for the analytes listed on our Drinking Water Certification (DW methods: 200.8, 2130B, 2320B, 2510B, 300.0, 4500-CN-C,E, 4500-H-B, 4500-NO3-F, 4500-P-E and 524.2) and only those analytes will be reported to the State of Alaska for compliance. Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

The following descriptors or qualifiers may be found in your report:

| | |
|---|---|
| * | The analyte has exceeded allowable regulatory or control limits. |
| ! | Surrogate out of control limits. |
| B | Indicates the analyte is found in a blank associated with the sample. |
| CCV/CVA/CVB | Continuing Calibration Verification |
| CCCV/CVC/CVCA/CVCB | Closing Continuing Calibration Verification |
| CL | Control Limit |
| DF | Analytical Dilution Factor |
| DL | Detection Limit (i.e., maximum method detection limit) |
| E | The analyte result is above the calibrated range. |
| GT | Greater Than |
| IB | Instrument Blank |
| ICV | Initial Calibration Verification |
| J | The quantitation is an estimation. |
| LCS(D) | Laboratory Control Spike (Duplicate) |
| LLQC/LLIQC | Low Level Quantitation Check |
| LOD | Limit of Detection (i.e., 1/2 of the LOQ) |
| LOQ | Limit of Quantitation (i.e., reporting or practical quantitation limit) |
| LT | Less Than |
| MB | Method Blank |
| MS(D) | Matrix Spike (Duplicate) |
| ND | Indicates the analyte is not detected. |
| RPD | Relative Percent Difference |
| TNTC | Too Numerous To Count |
| U | Indicates the analyte was analyzed for but not detected. |

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content.
All DRO/RRO analyses are integrated per SOP.



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## Sample Summary

| Client Sample ID | Lab Sample ID | Collected | Received | Matrix |
|---|---|---|---|---|
| RM 0 - No Name Creek | 1231846001 | 05/03/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 1.5 - Kenai City Dock - DUP | 1231846002 | 05/03/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 1.5 - Kenai City Dock | 1231846003 | 05/03/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 6.5 - Cunningham Park | 1231846004 | 05/03/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 10 - Beaver Creek | 1231846005 | 05/03/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 12.5 Pillars | 1231846006 | 05/03/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 18 - Poacher's Cove | 1231846007 | 05/03/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 19 - Slikok Creek | 1231846008 | 05/03/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 21 - Soldotna Bridge | 1231846009 | 05/03/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 22 - Soldotna Creek | 1231846010 | 05/02/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 23 - Swiftwater Park | 1231846011 | 05/02/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 30 - Funny River | 1231846012 | 05/02/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 31 - Morgan's Landing | 1231846013 | 05/02/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 36 - Moose River | 1231846014 | 05/02/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 36 - Moose River-DUP | 1231846015 | 05/02/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 40 - Bing's Landing | 1231846016 | 05/02/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 43 - Upstream of Dow Island | 1231846017 | 05/02/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 44 - Mouth of Killey River | 1231846018 | 05/02/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 50 - Skilak Lake Ourflow | 1231846019 | 05/02/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 70 - Jim's Landing | 1231846020 | 05/02/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 74 - Russian River | 1231846021 | 05/02/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 82 - Kenai Lake Bridge | 1231846022 | 05/02/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 79.5 - Juneau Creek | 1231846023 | 05/02/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 0 - No Name Creek-FB | 1231846024 | 05/02/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |
| RM 12.5 - Pillars - FieldBlank | 1231846025 | 05/02/2023 | 05/04/2023 | Water (Surface, Eff., Ground) |

| Method | Method Description |
|---|---|
| EP200.8 | Metals in Drinking Water by ICP-MS DISSO |
| SM21 4500NO3-F | Nitrate/Nitrite Flow injection Pres. |
| SM21 4500P-B,E | Total Phosphorus (W) |



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## Detectable Results Summary

Client Sample ID: **RM 0 - No Name Creek**
Lab Sample ID: 1231846001

| | Parameter | Result | Units |
|---|---|---|---|
| **Diss. Metals by ICP/MS (Provisional Be,Cu 65** | Copper | 2.95J | ug/L |
| **Dissolved Metals by ICP/MS** | Cadmium | 0.595 | ug/L |
| | Chromium | 24.1 | ug/L |
| | Zinc | 19.6 | ug/L |
| **Waters Department** | Total Nitrate/Nitrite-N | 0.294 | mg/L |
| | Total Phosphorus | 0.0237J | mg/L |

Client Sample ID: **RM 1.5 - Kenai City Dock - DUP**
Lab Sample ID: 1231846002

| | Parameter | Result | Units |
|---|---|---|---|
| **Diss. Metals by ICP/MS (Provisional Be,Cu 65** | Copper | 276 | ug/L |
| **Dissolved Metals by ICP/MS** | Chromium | 3.26J | ug/L |
| | Lead | 0.576J | ug/L |
| | Zinc | 9.46J | ug/L |
| **Waters Department** | Total Nitrate/Nitrite-N | 0.466 | mg/L |
| | Total Phosphorus | 0.315 | mg/L |

Client Sample ID: **RM 1.5 - Kenai City Dock**
Lab Sample ID: 1231846003

| | Parameter | Result | Units |
|---|---|---|---|
| **Diss. Metals by ICP/MS (Provisional Be,Cu 65** | Copper | 150 | ug/L |
| **Dissolved Metals by ICP/MS** | Chromium | 3.47J | ug/L |
| | Zinc | 9.97J | ug/L |
| **Waters Department** | Total Nitrate/Nitrite-N | 0.345 | mg/L |
| | Total Phosphorus | 0.339 | mg/L |

Client Sample ID: **RM 6.5 - Cunningham Park**
Lab Sample ID: 1231846004

| | Parameter | Result | Units |
|---|---|---|---|
| **Diss. Metals by ICP/MS (Provisional Be,Cu 65** | Copper | 8.92 | ug/L |
| **Dissolved Metals by ICP/MS** | Arsenic | 2.24J | ug/L |
| | Cadmium | 0.494J | ug/L |
| | Lead | 0.533J | ug/L |
| | Zinc | 8.94J | ug/L |
| **Waters Department** | Total Nitrate/Nitrite-N | 0.198J | mg/L |
| | Total Phosphorus | 0.309 | mg/L |

Client Sample ID: **RM 10 - Beaver Creek**
Lab Sample ID: 1231846005

| | Parameter | Result | Units |
|---|---|---|---|
| **Diss. Metals by ICP/MS (Provisional Be,Cu 65** | Copper | 3.60 | ug/L |
| **Dissolved Metals by ICP/MS** | Arsenic | 3.04J | ug/L |
| | Lead | 0.732J | ug/L |
| | Zinc | 8.73J | ug/L |
| **Waters Department** | Total Nitrate/Nitrite-N | 0.0526J | mg/L |
| | Total Phosphorus | 0.220 | mg/L |



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## Detectable Results Summary

Client Sample ID: **RM 12.5 Pillars**
Lab Sample ID: 1231846006

| | Parameter | Result | Units |
|---|---|---|---|
| **Diss. Metals by ICP/MS (Provisional Be,Cu 65** | Copper | 1.45J | ug/L |
| **Dissolved Metals by ICP/MS** | Arsenic | 2.65J | ug/L |
| | Zinc | 7.00J | ug/L |
| **Waters Department** | Total Nitrate/Nitrite-N | 0.133J | mg/L |
| | Total Phosphorus | 0.0509 | mg/L |

Client Sample ID: **RM 18 - Poacher's Cove**
Lab Sample ID: 1231846007

| | Parameter | Result | Units |
|---|---|---|---|
| **Diss. Metals by ICP/MS (Provisional Be,Cu 65** | Copper | 1.42J | ug/L |
| **Dissolved Metals by ICP/MS** | Arsenic | 2.34J | ug/L |
| | Zinc | 7.47J | ug/L |
| **Waters Department** | Total Nitrate/Nitrite-N | 0.161J | mg/L |
| | Total Phosphorus | 0.0420 | mg/L |

Client Sample ID: **RM 19 - Slikok Creek**
Lab Sample ID: 1231846008

| | Parameter | Result | Units |
|---|---|---|---|
| **Diss. Metals by ICP/MS (Provisional Be,Cu 65** | Copper | 1.57J | ug/L |
| **Dissolved Metals by ICP/MS** | Arsenic | 1.72J | ug/L |
| | Zinc | 21.2 | ug/L |
| **Waters Department** | Total Nitrate/Nitrite-N | 0.113J | mg/L |
| | Total Phosphorus | 0.0227J | mg/L |

Client Sample ID: **RM 21 - Soldotna Bridge**
Lab Sample ID: 1231846009

| | Parameter | Result | Units |
|---|---|---|---|
| **Diss. Metals by ICP/MS (Provisional Be,Cu 65** | Copper | 1.13J | ug/L |
| **Dissolved Metals by ICP/MS** | Arsenic | 1.88J | ug/L |
| | Zinc | 12.5 | ug/L |
| **Waters Department** | Total Nitrate/Nitrite-N | 0.146J | mg/L |
| | Total Phosphorus | 0.0316J | mg/L |

Client Sample ID: **RM 22 - Soldotna Creek**
Lab Sample ID: 1231846010

| | Parameter | Result | Units |
|---|---|---|---|
| **Dissolved Metals by ICP/MS** | Arsenic | 5.29 | ug/L |
| | Zinc | 7.94J | ug/L |
| **Waters Department** | Total Nitrate/Nitrite-N | 0.130J | mg/L |
| | Total Phosphorus | 0.104 | mg/L |

Client Sample ID: **RM 23 - Swiftwater Park**
Lab Sample ID: 1231846011

| | Parameter | Result | Units |
|---|---|---|---|
| **Diss. Metals by ICP/MS (Provisional Be,Cu 65** | Copper | 1.31J | ug/L |
| **Dissolved Metals by ICP/MS** | Zinc | 13.7 | ug/L |
| **Waters Department** | Total Nitrate/Nitrite-N | 0.555 | mg/L |
| | Total Phosphorus | 0.0386J | mg/L |



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## Detectable Results Summary

Client Sample ID: **RM 30 - Funny River**
Lab Sample ID: 1231846012

**Diss. Metals by ICP/MS (Provisional Be,Cu 65**
**Dissolved Metals by ICP/MS**
**Waters Department**

| Parameter | Result | Units |
|---|---|---|
| Copper | 1.05J | ug/L |
| Arsenic | 1.89J | ug/L |
| Zinc | 15.8 | ug/L |
| Total Phosphorus | 0.100 | mg/L |

Client Sample ID: **RM 31 - Morgan's Landing**
Lab Sample ID: 1231846013

**Dissolved Metals by ICP/MS**
**Waters Department**

| Parameter | Result | Units |
|---|---|---|
| Arsenic | 3.26J | ug/L |
| Zinc | 7.93J | ug/L |
| Total Phosphorus | 0.0450 | mg/L |

Client Sample ID: **RM 36 - Moose River**
Lab Sample ID: 1231846014

**Waters Department**

| Parameter | Result | Units |
|---|---|---|
| Total Phosphorus | 0.0882 | mg/L |

Client Sample ID: **RM 36 - Moose River-DUP**
Lab Sample ID: 1231846015

**Waters Department**

| Parameter | Result | Units |
|---|---|---|
| Total Phosphorus | 0.0781 | mg/L |

Client Sample ID: **RM 40 - Bing's Landing**
Lab Sample ID: 1231846016

**Waters Department**

| Parameter | Result | Units |
|---|---|---|
| Total Nitrate/Nitrite-N | 0.177J | mg/L |
| Total Phosphorus | 0.0195J | mg/L |

Client Sample ID: **RM 43 - Upstream of Dow Island**
Lab Sample ID: 1231846017

**Waters Department**

| Parameter | Result | Units |
|---|---|---|
| Total Nitrate/Nitrite-N | 0.213 | mg/L |
| Total Phosphorus | 0.0262J | mg/L |

Client Sample ID: **RM 44 - Mouth of Killey River**
Lab Sample ID: 1231846018

**Waters Department**

| Parameter | Result | Units |
|---|---|---|
| Total Nitrate/Nitrite-N | 0.0898J | mg/L |
| Total Phosphorus | 0.0358J | mg/L |

Client Sample ID: **RM 50 - Skilak Lake Ourflow**
Lab Sample ID: 1231846019

**Waters Department**

| Parameter | Result | Units |
|---|---|---|
| Total Phosphorus | 0.0168J | mg/L |

Client Sample ID: **RM 82 - Kenai Lake Bridge**
Lab Sample ID: 1231846022

**Waters Department**

| Parameter | Result | Units |
|---|---|---|
| Total Nitrate/Nitrite-N | 0.327 | mg/L |

Client Sample ID: **RM 79.5 - Juneau Creek**
Lab Sample ID: 1231846023

**Waters Department**

| Parameter | Result | Units |
|---|---|---|
| Total Nitrate/Nitrite-N | 0.560 | mg/L |

Client Sample ID: **RM 0 - No Name Creek-FB**
Lab Sample ID: 1231846024

**Dissolved Metals by ICP/MS**

| Parameter | Result | Units |
|---|---|---|
| Zinc | 5.80J | ug/L |



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## Detectable Results Summary

Client Sample ID: **RM 12.5 - Pillars - FieldBlank**
Lab Sample ID: 1231846025

**Dissolved Metals by ICP/MS**

| Parameter | Result | Units |
|---|---|---|
| Zinc | 8.97J | ug/L |



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## Results of **RM 0 - No Name Creek**

Client Sample ID: **RM 0 - No Name Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846001
Lab Project ID: 1231846

Collection Date: 05/03/23 10:30
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Diss. Metals by ICP/MS (Provisional Be,Cu 6520**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 2.95 | J | 3.00 | 1.00 | 1.50 | ug/L | 1 | | 05/19/23 20:08 |

## Batch Information

Analytical Batch: MMS11946
Analytical Method: EP200.8
Analyst: ACF
Analytical Date/Time: 06/06/23 13:54
Container ID: 1231846001-C

Prep Batch: MXX35898
Prep Method: E200.2
Prep Date/Time: 06/01/23 16:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:08
Container ID: 1231846001-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

## Results of **RM 0 - No Name Creek**

Client Sample ID: **RM 0 - No Name Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846001
Lab Project ID: 1231846

Collection Date: 05/03/23 10:30
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Dissolved Metals by ICP/MS**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 2.50 | U | 5.00 | 1.50 | 2.50 | ug/L | 1 | | 05/19/23 20:08 |
| Cadmium | 0.595 | | 0.500 | 0.150 | 0.250 | ug/L | 1 | | 05/19/23 20:08 |
| Chromium | 24.1 | | 5.00 | 2.50 | 2.50 | ug/L | 1 | | 05/19/23 20:08 |
| Lead | 1.00 | U | 2.00 | 0.500 | 1.00 | ug/L | 1 | | 05/19/23 20:08 |
| Zinc | 19.6 | | 10.0 | 3.10 | 5.00 | ug/L | 1 | | 06/06/23 13:54 |

## Batch Information

Analytical Batch: MMS11946
Analytical Method: EP200.8
Analyst: ACF
Analytical Date/Time: 06/06/23 13:54
Container ID: 1231846001-C

Prep Batch: MXX35898
Prep Method: E200.2
Prep Date/Time: 06/01/23 16:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:08
Container ID: 1231846001-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL



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## Results of **RM 0 - No Name Creek**

Client Sample ID: **RM 0 - No Name Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846001
Lab Project ID: 1231846

Collection Date: 05/03/23 10:30
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.294 | | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 14:28 |

### Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:28
Container ID: 1231846001-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.0237 | J | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/17/23 16:43 |

### Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 16:43
Container ID: 1231846001-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

## Results of **RM 1.5 - Kenai City Dock - DUP**

Client Sample ID: **RM 1.5 - Kenai City Dock - DUP**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846002
Lab Project ID: 1231846

Collection Date: 05/03/23 13:37
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Diss. Metals by ICP/MS (Provisional Be,Cu 6520**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 276 | | 3.00 | 1.00 | 1.50 | ug/L | 1 | | 05/19/23 20:17 |

## Batch Information

Analytical Batch: MMS11940
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/30/23 18:21
Container ID: 1231846002-C

Prep Batch: MXX35877
Prep Method: E200.2
Prep Date/Time: 05/23/23 13:45
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:17
Container ID: 1231846002-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

## Results of **RM 1.5 - Kenai City Dock - DUP**

Client Sample ID: **RM 1.5 - Kenai City Dock - DUP**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846002
Lab Project ID: 1231846

Collection Date: 05/03/23 13:37
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Dissolved Metals by ICP/MS**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 2.50 | U | 5.00 | 1.50 | 2.50 | ug/L | 1 | | 05/19/23 20:17 |
| Cadmium | 0.250 | U | 0.500 | 0.150 | 0.250 | ug/L | 1 | | 05/19/23 20:17 |
| Chromium | 3.26 | J | 5.00 | 2.50 | 2.50 | ug/L | 1 | | 05/19/23 20:17 |
| Lead | 0.576 | J | 2.00 | 0.500 | 1.00 | ug/L | 1 | | 05/19/23 20:17 |
| Zinc | 9.46 | J | 10.0 | 3.10 | 5.00 | ug/L | 1 | | 05/30/23 18:21 |

## Batch Information

Analytical Batch: MMS11940
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/30/23 18:21
Container ID: 1231846002-C

Prep Batch: MXX35877
Prep Method: E200.2
Prep Date/Time: 05/23/23 13:45
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:17
Container ID: 1231846002-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

## Results of **RM 1.5 - Kenai City Dock - DUP**

Client Sample ID: **RM 1.5 - Kenai City Dock - DUP**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846002
Lab Project ID: 1231846

Collection Date: 05/03/23 13:37
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.466 | | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 14:30 |

### Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:30
Container ID: 1231846002-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.315 | | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/17/23 16:44 |

### Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 16:44
Container ID: 1231846002-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

## Results of **RM 1.5 - Kenai City Dock**

Client Sample ID: **RM 1.5 - Kenai City Dock**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846003
Lab Project ID: 1231846

Collection Date: 05/03/23 13:53
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Diss. Metals by ICP/MS (Provisional Be,Cu 6520**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 150 | | 3.00 | 1.00 | 1.50 | ug/L | 1 | | 05/19/23 20:20 |

## Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:20
Container ID: 1231846003-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

## Results of **RM 1.5 - Kenai City Dock**

Client Sample ID: **RM 1.5 - Kenai City Dock**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846003
Lab Project ID: 1231846

Collection Date: 05/03/23 13:53
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Dissolved Metals by ICP/MS**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 2.50 | U | 5.00 | 1.50 | 2.50 | ug/L | 1 | | 05/19/23 20:20 |
| Cadmium | 0.250 | U | 0.500 | 0.150 | 0.250 | ug/L | 1 | | 05/19/23 20:20 |
| Chromium | 3.47 | J | 5.00 | 2.50 | 2.50 | ug/L | 1 | | 05/19/23 20:20 |
| Lead | 1.00 | U | 2.00 | 0.500 | 1.00 | ug/L | 1 | | 05/19/23 20:20 |
| Zinc | 9.97 | J | 10.0 | 3.10 | 5.00 | ug/L | 1 | | 05/19/23 20:20 |

## Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:20
Container ID: 1231846003-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

## Results of **RM 1.5 - Kenai City Dock**

Client Sample ID: **RM 1.5 - Kenai City Dock**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846003
Lab Project ID: 1231846

Collection Date: 05/03/23 13:53
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.345 | | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 14:32 |

### Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:32
Container ID: 1231846003-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.339 | | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/17/23 16:45 |

### Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 16:45
Container ID: 1231846003-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

## Results of **RM 6.5 - Cunningham Park**

Client Sample ID: **RM 6.5 - Cunningham Park**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846004
Lab Project ID: 1231846

Collection Date: 05/03/23 09:22
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Diss. Metals by ICP/MS (Provisional Be,Cu 6520**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 8.92 | | 3.00 | 1.00 | 1.50 | ug/L | 1 | | 05/19/23 20:22 |

## Batch Information

Analytical Batch: MMS11940
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/30/23 18:23
Container ID: 1231846004-C

Prep Batch: MXX35877
Prep Method: E200.2
Prep Date/Time: 05/23/23 13:45
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:22
Container ID: 1231846004-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

## Results of **RM 6.5 - Cunningham Park**

Client Sample ID: **RM 6.5 - Cunningham Park**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846004
Lab Project ID: 1231846

Collection Date: 05/03/23 09:22
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Dissolved Metals by ICP/MS**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 2.24 | J | 5.00 | 1.50 | 2.50 | ug/L | 1 | | 05/19/23 20:22 |
| Cadmium | 0.494 | J | 0.500 | 0.150 | 0.250 | ug/L | 1 | | 05/19/23 20:22 |
| Chromium | 2.50 | U | 5.00 | 2.50 | 2.50 | ug/L | 1 | | 05/19/23 20:22 |
| Lead | 0.533 | J | 2.00 | 0.500 | 1.00 | ug/L | 1 | | 05/19/23 20:22 |
| Zinc | 8.94 | J | 10.0 | 3.10 | 5.00 | ug/L | 1 | | 05/30/23 18:23 |

## Batch Information

Analytical Batch: MMS11940
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/30/23 18:23
Container ID: 1231846004-C

Prep Batch: MXX35877
Prep Method: E200.2
Prep Date/Time: 05/23/23 13:45
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:22
Container ID: 1231846004-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

## Results of **RM 6.5 - Cunningham Park**

Client Sample ID: **RM 6.5 - Cunningham Park**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846004
Lab Project ID: 1231846

Collection Date: 05/03/23 09:22
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.198 | J | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 14:39 |

### Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:39
Container ID: 1231846004-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.309 | | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/17/23 16:46 |

### Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 16:46
Container ID: 1231846004-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

Results of **RM 10 - Beaver Creek**

Client Sample ID: **RM 10 - Beaver Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846005
Lab Project ID: 1231846

Collection Date: 05/03/23 10:05
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Diss. Metals by ICP/MS (Provisional Be,Cu 6520**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 3.60 | | 3.00 | 1.00 | 1.50 | ug/L | 1 | | 05/19/23 20:25 |

**Batch Information**

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:25
Container ID: 1231846005-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

## Results of **RM 10 - Beaver Creek**

Client Sample ID: **RM 10 - Beaver Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846005
Lab Project ID: 1231846

Collection Date: 05/03/23 10:05
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Dissolved Metals by ICP/MS**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 3.04 | J | 5.00 | 1.50 | 2.50 | ug/L | 1 | | 05/19/23 20:25 |
| Cadmium | 0.250 | U | 0.500 | 0.150 | 0.250 | ug/L | 1 | | 05/19/23 20:25 |
| Chromium | 2.50 | U | 5.00 | 2.50 | 2.50 | ug/L | 1 | | 05/19/23 20:25 |
| Lead | 0.732 | J | 2.00 | 0.500 | 1.00 | ug/L | 1 | | 05/19/23 20:25 |
| Zinc | 8.73 | J | 10.0 | 3.10 | 5.00 | ug/L | 1 | | 05/19/23 20:25 |

## Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:25
Container ID: 1231846005-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

## Results of **RM 10 - Beaver Creek**

Client Sample ID: **RM 10 - Beaver Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846005
Lab Project ID: 1231846

Collection Date: 05/03/23 10:05
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.0526 | J | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 14:44 |

### Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:44
Container ID: 1231846005-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.220 | | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/17/23 16:47 |

### Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 16:47
Container ID: 1231846005-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

## Results of **RM 12.5 Pillars**

Client Sample ID: **RM 12.5 Pillars**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846006
Lab Project ID: 1231846

Collection Date: 05/03/23 08:32
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Diss. Metals by ICP/MS (Provisional Be,Cu 6520**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 1.45 | J | 3.00 | 1.00 | 1.50 | ug/L | 1 | | 05/19/23 20:27 |

## Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:27
Container ID: 1231846006-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

## Results of **RM 12.5 Pillars**

Client Sample ID: **RM 12.5 Pillars**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846006
Lab Project ID: 1231846

Collection Date: 05/03/23 08:32
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Dissolved Metals by ICP/MS**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 2.65 | J | 5.00 | 1.50 | 2.50 | ug/L | 1 | | 05/19/23 20:27 |
| Cadmium | 0.250 | U | 0.500 | 0.150 | 0.250 | ug/L | 1 | | 05/19/23 20:27 |
| Chromium | 2.50 | U | 5.00 | 2.50 | 2.50 | ug/L | 1 | | 05/19/23 20:27 |
| Lead | 1.00 | U | 2.00 | 0.500 | 1.00 | ug/L | 1 | | 05/19/23 20:27 |
| Zinc | 7.00 | J | 10.0 | 3.10 | 5.00 | ug/L | 1 | | 05/19/23 20:27 |

## Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:27
Container ID: 1231846006-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

## Results of **RM 12.5 Pillars**

Client Sample ID: **RM 12.5 Pillars**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846006
Lab Project ID: 1231846

Collection Date: 05/03/23 08:32
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.133 | J | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 14:46 |

### Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:46
Container ID: 1231846006-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.0509 | | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/17/23 16:48 |

### Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 16:48
Container ID: 1231846006-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

## Results of **RM 18 - Poacher's Cove**

Client Sample ID: **RM 18 - Poacher's Cove**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846007
Lab Project ID: 1231846

Collection Date: 05/03/23 09:24
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Diss. Metals by ICP/MS (Provisional Be,Cu 6520**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 1.42 | J | 3.00 | 1.00 | 1.50 | ug/L | 1 | | 05/19/23 20:30 |

## Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:30
Container ID: 1231846007-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

## Results of **RM 18 - Poacher's Cove**

Client Sample ID: **RM 18 - Poacher's Cove**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846007
Lab Project ID: 1231846

Collection Date: 05/03/23 09:24
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Dissolved Metals by ICP/MS**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 2.34 | J | 5.00 | 1.50 | 2.50 | ug/L | 1 | | 05/19/23 20:30 |
| Cadmium | 0.250 | U | 0.500 | 0.150 | 0.250 | ug/L | 1 | | 05/19/23 20:30 |
| Chromium | 2.50 | U | 5.00 | 2.50 | 2.50 | ug/L | 1 | | 05/19/23 20:30 |
| Lead | 1.00 | U | 2.00 | 0.500 | 1.00 | ug/L | 1 | | 05/19/23 20:30 |
| Zinc | 7.47 | J | 10.0 | 3.10 | 5.00 | ug/L | 1 | | 05/19/23 20:30 |

## Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:30
Container ID: 1231846007-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

## Results of **RM 18 - Poacher's Cove**

Client Sample ID: **RM 18 - Poacher's Cove**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846007
Lab Project ID: 1231846

Collection Date: 05/03/23 09:24
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.161 | J | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 14:48 |

### Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:48
Container ID: 1231846007-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.0420 | | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/17/23 16:49 |

### Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 16:49
Container ID: 1231846007-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

## Results of **RM 19 - Slikok Creek**

Client Sample ID: **RM 19 - Slikok Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846008
Lab Project ID: 1231846

Collection Date: 05/03/23 08:47
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Diss. Metals by ICP/MS (Provisional Be,Cu 6520**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 1.57 | J | 3.00 | 1.00 | 1.50 | ug/L | 1 | | 05/19/23 20:38 |

## Batch Information

Analytical Batch: MMS11946
Analytical Method: EP200.8
Analyst: ACF
Analytical Date/Time: 06/06/23 13:56
Container ID: 1231846008-C

Prep Batch: MXX35898
Prep Method: E200.2
Prep Date/Time: 06/01/23 16:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:38
Container ID: 1231846008-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

## Results of **RM 19 - Slikok Creek**

Client Sample ID: **RM 19 - Slikok Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846008
Lab Project ID: 1231846

Collection Date: 05/03/23 08:47
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Dissolved Metals by ICP/MS**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1.72 | J | 5.00 | 1.50 | 2.50 | ug/L | 1 | | 05/19/23 20:38 |
| Cadmium | 0.250 | U | 0.500 | 0.150 | 0.250 | ug/L | 1 | | 05/19/23 20:38 |
| Chromium | 2.50 | U | 5.00 | 2.50 | 2.50 | ug/L | 1 | | 05/19/23 20:38 |
| Lead | 1.00 | U | 2.00 | 0.500 | 1.00 | ug/L | 1 | | 05/19/23 20:38 |
| Zinc | 21.2 | | 10.0 | 3.10 | 5.00 | ug/L | 1 | | 06/06/23 13:56 |

## Batch Information

Analytical Batch: MMS11946
Analytical Method: EP200.8
Analyst: ACF
Analytical Date/Time: 06/06/23 13:56
Container ID: 1231846008-C

Prep Batch: MXX35898
Prep Method: E200.2
Prep Date/Time: 06/01/23 16:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:38
Container ID: 1231846008-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

## Results of **RM 19 - Slikok Creek**

Client Sample ID: **RM 19 - Slikok Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846008
Lab Project ID: 1231846

Collection Date: 05/03/23 08:47
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.113 | J | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 14:49 |

### Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:49
Container ID: 1231846008-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.0227 | J | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/17/23 16:50 |

### Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 16:50
Container ID: 1231846008-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

Results of **RM 21 - Soldotna Bridge**

Client Sample ID: **RM 21 - Soldotna Bridge**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846009
Lab Project ID: 1231846

Collection Date: 05/03/23 09:27
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Diss. Metals by ICP/MS (Provisional Be,Cu 6520**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 1.13 | J | 3.00 | 1.00 | 1.50 | ug/L | 1 | | 05/19/23 20:40 |

**Batch Information**

Analytical Batch: MMS11946
Analytical Method: EP200.8
Analyst: ACF
Analytical Date/Time: 06/06/23 13:59
Container ID: 1231846009-C

Prep Batch: MXX35898
Prep Method: E200.2
Prep Date/Time: 06/01/23 16:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:40
Container ID: 1231846009-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

## Results of **RM 21 - Soldotna Bridge**

Client Sample ID: **RM 21 - Soldotna Bridge**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846009
Lab Project ID: 1231846

Collection Date: 05/03/23 09:27
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Dissolved Metals by ICP/MS**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1.88 | J | 5.00 | 1.50 | 2.50 | ug/L | 1 | | 05/19/23 20:40 |
| Cadmium | 0.250 | U | 0.500 | 0.150 | 0.250 | ug/L | 1 | | 05/19/23 20:40 |
| Chromium | 2.50 | U | 5.00 | 2.50 | 2.50 | ug/L | 1 | | 05/19/23 20:40 |
| Lead | 1.00 | U | 2.00 | 0.500 | 1.00 | ug/L | 1 | | 05/19/23 20:40 |
| Zinc | 12.5 | | 10.0 | 3.10 | 5.00 | ug/L | 1 | | 06/06/23 13:59 |

## Batch Information

Analytical Batch: MMS11946
Analytical Method: EP200.8
Analyst: ACF
Analytical Date/Time: 06/06/23 13:59
Container ID: 1231846009-C

Prep Batch: MXX35898
Prep Method: E200.2
Prep Date/Time: 06/01/23 16:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:40
Container ID: 1231846009-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

## Results of **RM 21 - Soldotna Bridge**

Client Sample ID: **RM 21 - Soldotna Bridge**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846009
Lab Project ID: 1231846

Collection Date: 05/03/23 09:27
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.146 | J | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 14:51 |

### Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:51
Container ID: 1231846009-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.0316 | J | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/17/23 16:51 |

### Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 16:51
Container ID: 1231846009-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

## Results of **RM 22 - Soldotna Creek**

Client Sample ID: **RM 22 - Soldotna Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846010
Lab Project ID: 1231846

Collection Date: 05/02/23 09:49
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Diss. Metals by ICP/MS (Provisional Be,Cu 6520**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 1.50 | U | 3.00 | 1.00 | 1.50 | ug/L | 1 | | 05/19/23 20:43 |

## Batch Information

Analytical Batch: MMS11940
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/30/23 18:36
Container ID: 1231846010-C

Prep Batch: MXX35877
Prep Method: E200.2
Prep Date/Time: 05/23/23 13:45
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:43
Container ID: 1231846010-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

## Results of **RM 22 - Soldotna Creek**

Client Sample ID: **RM 22 - Soldotna Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846010
Lab Project ID: 1231846

Collection Date: 05/02/23 09:49
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Dissolved Metals by ICP/MS**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 5.29 | | 5.00 | 1.50 | 2.50 | ug/L | 1 | | 05/19/23 20:43 |
| Cadmium | 0.250 | U | 0.500 | 0.150 | 0.250 | ug/L | 1 | | 05/19/23 20:43 |
| Chromium | 2.50 | U | 5.00 | 2.50 | 2.50 | ug/L | 1 | | 05/19/23 20:43 |
| Lead | 1.00 | U | 2.00 | 0.500 | 1.00 | ug/L | 1 | | 05/19/23 20:43 |
| Zinc | 7.94 | J | 10.0 | 3.10 | 5.00 | ug/L | 1 | | 05/30/23 18:36 |

## Batch Information

Analytical Batch: MMS11940
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/30/23 18:36
Container ID: 1231846010-C

Prep Batch: MXX35877
Prep Method: E200.2
Prep Date/Time: 05/23/23 13:45
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:43
Container ID: 1231846010-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

## Results of **RM 22 - Soldotna Creek**

Client Sample ID: **RM 22 - Soldotna Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846010
Lab Project ID: 1231846

Collection Date: 05/02/23 09:49
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.130 | J | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 14:53 |

### Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:53
Container ID: 1231846010-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.104 | | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/09/23 14:17 |

### Batch Information

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:17
Container ID: 1231846010-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **RM 23 - Swiftwater Park**

Client Sample ID: **RM 23 - Swiftwater Park**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846011
Lab Project ID: 1231846

Collection Date: 05/02/23 10:22
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Diss. Metals by ICP/MS (Provisional Be,Cu 6520**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 1.31 | J | 3.00 | 1.00 | 1.50 | ug/L | 1 | | 05/19/23 20:46 |

**Batch Information**

Analytical Batch: MMS11946
Analytical Method: EP200.8
Analyst: ACF
Analytical Date/Time: 06/06/23 13:45
Container ID: 1231846011-C

Prep Batch: MXX35898
Prep Method: E200.2
Prep Date/Time: 06/01/23 16:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:46
Container ID: 1231846011-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

Results of **RM 23 - Swiftwater Park**

Client Sample ID: **RM 23 - Swiftwater Park**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846011
Lab Project ID: 1231846

Collection Date: 05/02/23 10:22
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Dissolved Metals by ICP/MS**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 2.50 | U | 5.00 | 1.50 | 2.50 | ug/L | 1 | | 05/19/23 20:46 |
| Cadmium | 0.250 | U | 0.500 | 0.150 | 0.250 | ug/L | 1 | | 05/19/23 20:46 |
| Chromium | 2.50 | U | 5.00 | 2.50 | 2.50 | ug/L | 1 | | 05/19/23 20:46 |
| Lead | 1.00 | U | 2.00 | 0.500 | 1.00 | ug/L | 1 | | 05/19/23 20:46 |
| Zinc | 13.7 | | 10.0 | 3.10 | 5.00 | ug/L | 1 | | 06/06/23 13:45 |

**Batch Information**

Analytical Batch: MMS11946
Analytical Method: EP200.8
Analyst: ACF
Analytical Date/Time: 06/06/23 13:45
Container ID: 1231846011-C

Prep Batch: MXX35898
Prep Method: E200.2
Prep Date/Time: 06/01/23 16:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:46
Container ID: 1231846011-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of **RM 23 - Swiftwater Park**

Client Sample ID: **RM 23 - Swiftwater Park**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846011
Lab Project ID: 1231846

Collection Date: 05/02/23 10:22
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.555 | | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 14:55 |

**Batch Information**

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:55
Container ID: 1231846011-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.0386 | J | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/09/23 14:18 |

**Batch Information**

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:18
Container ID: 1231846011-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

Results of **RM 30 - Funny River**

Client Sample ID: **RM 30 - Funny River**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846012
Lab Project ID: 1231846

Collection Date: 05/02/23 08:57
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Diss. Metals by ICP/MS (Provisional Be,Cu 6520**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 1.05 | J | 3.00 | 1.00 | 1.50 | ug/L | 1 | | 05/19/23 20:48 |

**Batch Information**

Analytical Batch: MMS11946
Analytical Method: EP200.8
Analyst: ACF
Analytical Date/Time: 06/06/23 14:07
Container ID: 1231846012-C

Prep Batch: MXX35898
Prep Method: E200.2
Prep Date/Time: 06/01/23 16:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:48
Container ID: 1231846012-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

## Results of **RM 30 - Funny River**

Client Sample ID: **RM 30 - Funny River**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846012
Lab Project ID: 1231846

Collection Date: 05/02/23 08:57
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Dissolved Metals by ICP/MS**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 1.89 | J | 5.00 | 1.50 | 2.50 | ug/L | 1 | | 05/19/23 20:48 |
| Cadmium | 0.250 | U | 0.500 | 0.150 | 0.250 | ug/L | 1 | | 05/19/23 20:48 |
| Chromium | 2.50 | U | 5.00 | 2.50 | 2.50 | ug/L | 1 | | 05/19/23 20:48 |
| Lead | 1.00 | U | 2.00 | 0.500 | 1.00 | ug/L | 1 | | 05/19/23 20:48 |
| Zinc | 15.8 | | 10.0 | 3.10 | 5.00 | ug/L | 1 | | 06/06/23 14:07 |

## Batch Information

Analytical Batch: MMS11946
Analytical Method: EP200.8
Analyst: ACF
Analytical Date/Time: 06/06/23 14:07
Container ID: 1231846012-C

Prep Batch: MXX35898
Prep Method: E200.2
Prep Date/Time: 06/01/23 16:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:48
Container ID: 1231846012-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

## Results of **RM 30 - Funny River**

Client Sample ID: **RM 30 - Funny River**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846012
Lab Project ID: 1231846

Collection Date: 05/02/23 08:57
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.100 | U | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 15:02 |

### Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:02
Container ID: 1231846012-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.100 | | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/09/23 14:19 |

### Batch Information

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:19
Container ID: 1231846012-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL



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## Results of **RM 31 - Morgan's Landing**

Client Sample ID: **RM 31 - Morgan's Landing**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846013
Lab Project ID: 1231846

Collection Date: 05/02/23 10:00
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Diss. Metals by ICP/MS (Provisional Be,Cu 6520**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 1.50 | U | 3.00 | 1.00 | 1.50 | ug/L | 1 | | 05/19/23 20:51 |

## Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:51
Container ID: 1231846013-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL



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## Results of **RM 31 - Morgan's Landing**

Client Sample ID: **RM 31 - Morgan's Landing**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846013
Lab Project ID: 1231846

Collection Date: 05/02/23 10:00
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Dissolved Metals by ICP/MS**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 3.26 | J | 5.00 | 1.50 | 2.50 | ug/L | 1 | | 05/19/23 20:51 |
| Cadmium | 0.250 | U | 0.500 | 0.150 | 0.250 | ug/L | 1 | | 05/19/23 20:51 |
| Chromium | 2.50 | U | 5.00 | 2.50 | 2.50 | ug/L | 1 | | 05/19/23 20:51 |
| Lead | 1.00 | U | 2.00 | 0.500 | 1.00 | ug/L | 1 | | 05/19/23 20:51 |
| Zinc | 7.93 | J | 10.0 | 3.10 | 5.00 | ug/L | 1 | | 05/19/23 20:51 |

## Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:51
Container ID: 1231846013-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

## Results of **RM 31 - Morgan's Landing**

Client Sample ID: **RM 31 - Morgan's Landing**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846013
Lab Project ID: 1231846

Collection Date: 05/02/23 10:00
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.100 | U | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 15:03 |

### Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:03
Container ID: 1231846013-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.0450 | | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/09/23 14:20 |

### Batch Information

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:20
Container ID: 1231846013-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

## Results of **RM 36 - Moose River**

Client Sample ID: **RM 36 - Moose River**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846014
Lab Project ID: 1231846

Collection Date: 05/02/23 10:38
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.100 | U | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 15:05 |

### Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:05
Container ID: 1231846014-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.0882 | | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/09/23 14:21 |

### Batch Information

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:21
Container ID: 1231846014-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

Results of **RM 36 - Moose River-DUP**

Client Sample ID: **RM 36 - Moose River-DUP**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846015
Lab Project ID: 1231846

Collection Date: 05/02/23 10:45
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.100 | U | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 15:07 |

**Batch Information**

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:07
Container ID: 1231846015-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.0781 | | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/09/23 14:22 |

**Batch Information**

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:22
Container ID: 1231846015-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

Results of **RM 40 - Bing's Landing**

Client Sample ID: **RM 40 - Bing's Landing**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846016
Lab Project ID: 1231846

Collection Date: 05/02/23 07:13
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.177 | J | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 15:09 |

**Batch Information**

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:09
Container ID: 1231846016-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.0195 | J | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/09/23 14:24 |

**Batch Information**

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:24
Container ID: 1231846016-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

## Results of **RM 43 - Upstream of Dow Island**

Client Sample ID: **RM 43 - Upstream of Dow Island**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846017
Lab Project ID: 1231846

Collection Date: 05/02/23 09:25
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.213 | | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 15:10 |

### Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:10
Container ID: 1231846017-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.0262 | J | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/09/23 14:25 |

### Batch Information

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:25
Container ID: 1231846017-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

Results of **RM 44 - Mouth of Killey River**

Client Sample ID: **RM 44 - Mouth of Killey River**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846018
Lab Project ID: 1231846

Collection Date: 05/02/23 10:12
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.0898 | J | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 15:12 |

**Batch Information**

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:12
Container ID: 1231846018-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.0358 | J | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/09/23 14:26 |

**Batch Information**

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:26
Container ID: 1231846018-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

Results of **RM 50 - Skilak Lake Ourflow**

Client Sample ID: **RM 50 - Skilak Lake Ourflow**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846019
Lab Project ID: 1231846

Collection Date: 05/02/23 08:34
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.100 | U | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 15:14 |

**Batch Information**

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:14
Container ID: 1231846019-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.0168 | J | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/09/23 14:27 |

**Batch Information**

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:27
Container ID: 1231846019-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

## Results of **RM 70 - Jim's Landing**

Client Sample ID: **RM 70 - Jim's Landing**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846020
Lab Project ID: 1231846

Collection Date: 05/02/23 11:11
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.100 | U | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 15:16 |

### Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:16
Container ID: 1231846020-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.0200 | U | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/09/23 14:28 |

### Batch Information

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:28
Container ID: 1231846020-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

## Results of **RM 74 - Russian River**

Client Sample ID: **RM 74 - Russian River**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846021
Lab Project ID: 1231846

Collection Date: 05/02/23 10:30
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.100 | U | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 15:17 |

### Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:17
Container ID: 1231846021-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.0200 | U | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/17/23 16:52 |

### Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 16:52
Container ID: 1231846021-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

## Results of **RM 82 - Kenai Lake Bridge**

Client Sample ID: **RM 82 - Kenai Lake Bridge**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846022
Lab Project ID: 1231846

Collection Date: 05/02/23 08:35
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.327 | | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 15:24 |

### Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:24
Container ID: 1231846022-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.0200 | U | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/17/23 17:32 |

### Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 17:32
Container ID: 1231846022-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/23/2023 2:56:36PM

J flagging is activated

## Results of **RM 79.5 - Juneau Creek**

Client Sample ID: **RM 79.5 - Juneau Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846023
Lab Project ID: 1231846

Collection Date: 05/02/23 09:35
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Waters Department**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Nitrate/Nitrite-N | 0.560 | | 0.200 | 0.0500 | 0.100 | mg/L | 2 | | 05/05/23 15:26 |

### Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:26
Container ID: 1231846023-A

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus | 0.0200 | U | 0.0400 | 0.0120 | 0.0200 | mg/L | 1 | | 05/17/23 17:33 |

### Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 17:33
Container ID: 1231846023-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

## Results of **RM 0 - No Name Creek-FB**

Client Sample ID: **RM 0 - No Name Creek-FB**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846024
Lab Project ID: 1231846

Collection Date: 05/02/23 10:30
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Diss. Metals by ICP/MS (Provisional Be,Cu 6520**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 1.50 | U | 3.00 | 1.00 | 1.50 | ug/L | 1 | | 05/19/23 20:54 |

## Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:54
Container ID: 1231846024-B

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL



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## Results of **RM 0 - No Name Creek-FB**

Client Sample ID: **RM 0 - No Name Creek-FB**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846024
Lab Project ID: 1231846

Collection Date: 05/02/23 10:30
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Dissolved Metals by ICP/MS**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 2.50 | U | 5.00 | 1.50 | 2.50 | ug/L | 1 | | 05/19/23 20:54 |
| Cadmium | 0.250 | U | 0.500 | 0.150 | 0.250 | ug/L | 1 | | 05/19/23 20:54 |
| Chromium | 2.50 | U | 5.00 | 2.50 | 2.50 | ug/L | 1 | | 05/19/23 20:54 |
| Lead | 1.00 | U | 2.00 | 0.500 | 1.00 | ug/L | 1 | | 05/19/23 20:54 |
| Zinc | 5.80 | J | 10.0 | 3.10 | 5.00 | ug/L | 1 | | 05/19/23 20:54 |

## Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:54
Container ID: 1231846024-B

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

## Results of **RM 12.5 - Pillars - FieldBlank**

Client Sample ID: **RM 12.5 - Pillars - FieldBlank**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846025
Lab Project ID: 1231846

Collection Date: 05/02/23 08:32
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Diss. Metals by ICP/MS (Provisional Be,Cu 6520**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Copper | 1.50 | U | 3.00 | 1.00 | 1.50 | ug/L | 1 | | 05/19/23 20:56 |

## Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:56
Container ID: 1231846025-B

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL



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## Results of **RM 12.5 - Pillars - FieldBlank**

Client Sample ID: **RM 12.5 - Pillars - FieldBlank**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846025
Lab Project ID: 1231846

Collection Date: 05/02/23 08:32
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

## Results by **Dissolved Metals by ICP/MS**

| Parameter | Result | Qual | LOQ/CL | DL | LOD | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 2.50 | U | 5.00 | 1.50 | 2.50 | ug/L | 1 | | 05/19/23 20:56 |
| Cadmium | 0.250 | U | 0.500 | 0.150 | 0.250 | ug/L | 1 | | 05/19/23 20:56 |
| Chromium | 2.50 | U | 5.00 | 2.50 | 2.50 | ug/L | 1 | | 05/19/23 20:56 |
| Lead | 1.00 | U | 2.00 | 0.500 | 1.00 | ug/L | 1 | | 05/19/23 20:56 |
| Zinc | 8.97 | J | 10.0 | 3.10 | 5.00 | ug/L | 1 | | 05/19/23 20:56 |

## Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:56
Container ID: 1231846025-B

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

## Method Blank

Blank ID: MB for HBN 1854932 [MXX/35860]
Blank Lab ID: 1712761

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1231846001, 1231846002, 1231846003, 1231846004, 1231846005, 1231846006, 1231846007, 1231846008, 1231846009, 1231846010, 1231846011, 1231846012, 1231846013, 1231846024, 1231846025

## Results by **EP200.8**

| Parameter | Results | LOQ/CL | DL | LOD | Units |
|---|---|---|---|---|---|
| Arsenic | 2.50U | 5.00 | 1.50 | 2.50 | ug/L |
| Cadmium | 0.250U | 0.500 | 0.150 | 0.250 | ug/L |
| Chromium | 2.50U | 5.00 | 2.50 | 2.50 | ug/L |
| Copper | 1.50U | 3.00 | 1.00 | 1.50 | ug/L |
| Lead | 1.00U | 2.00 | 0.500 | 1.00 | ug/L |
| Zinc | 11.3* | 10.0 | 3.10 | 5.00 | ug/L |

## Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: HGS
Analytical Date/Time: 5/19/2023 7:56:00PM

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 5/16/2023 3:20:00PM
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11931
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: HGS
Analytical Date/Time: 5/22/2023 11:49:34AM

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 5/16/2023 3:20:00PM
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL



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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1231846 [MXX35860]
Blank Spike Lab ID: 1712762
Date Analyzed: 05/19/2023 19:58

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846002, 1231846003, 1231846004, 1231846005, 1231846006, 1231846007, 1231846008, 1231846009, 1231846010, 1231846011, 1231846012, 1231846013, 1231846024, 1231846025

## Results by **EP200.8**

Blank Spike (ug/L)

| Parameter | Spike | Result | Rec (%) | CL |
|---|---|---|---|---|
| Arsenic | 1000 | 996 | 100 | ( 85-115 ) |
| Cadmium | 100 | 93.5 | 94 | ( 85-115 ) |
| Chromium | 400 | 426 | 107 | ( 85-115 ) |
| Copper | 1000 | 1070 | 107 | ( 85-115 ) |
| Lead | 1000 | 1010 | 101 | ( 85-115 ) |
| Zinc | 1000 | 1070 | 107 | ( 85-115 ) |

## Batch Information

Analytical Batch: **MMS11929**
Analytical Method: **EP200.8**
Instrument: **P7 Agilent 7800**
Analyst: **HGS**

Prep Batch: **MXX35860**
Prep Method: **E200.2**
Prep Date/Time: **05/16/2023 15:20**
Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 50 mL
Dupe Init Wt./Vol.: Extract Vol:



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## Matrix Spike Summary

Original Sample ID: 1712984
MS Sample ID: 1712990 MS
MSD Sample ID:

Analysis Date: 05/19/2023 20:08
Analysis Date: 05/19/2023 20:11
Analysis Date:
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846002, 1231846003, 1231846004, 1231846005, 1231846006, 1231846007, 1231846008, 1231846009, 1231846010, 1231846011, 1231846012, 1231846013, 1231846024, 1231846025

## Results by **EP200.8**

| | | Matrix Spike (ug/L) | | | Spike Duplicate (ug/L) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Arsenic | 2.50U | 1000 | 1020 | 102 | | | | 70-130 | | |
| Cadmium | 0.595 | 100 | 94.3 | 94 | | | | 70-130 | | |
| Chromium | 24.1 | 400 | 405 | 95 | | | | 70-130 | | |
| Copper | 2.95J | 1000 | 1030 | 103 | | | | 70-130 | | |
| Lead | 1.00U | 1000 | 1010 | 101 | | | | 70-130 | | |
| Zinc | 11.6 | 1000 | 1040 | 102 | | | | 70-130 | | |

## Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: HGS
Analytical Date/Time: 5/19/2023 8:11:18PM

Prep Batch: MXX35860
Prep Method: DW Digest for Metals on ICP-MS
Prep Date/Time: 5/16/2023 3:20:09PM
Prep Initial Wt./Vol.: 20.00mL
Prep Extract Vol: 50.00mL

Print Date: 06/23/2023 2:56:44PM

## Matrix Spike Summary

Original Sample ID: 1712985
MS Sample ID: 1712991 MS
MSD Sample ID:

Analysis Date: 05/19/2023 20:13
Analysis Date: 05/19/2023 20:15
Analysis Date:
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846002, 1231846003, 1231846004, 1231846005, 1231846006, 1231846007, 1231846008, 1231846009, 1231846010, 1231846011, 1231846012, 1231846013, 1231846024, 1231846025

## Results by **EP200.8**

| | | Matrix Spike (ug/L) | | | Spike Duplicate (ug/L) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Arsenic | 3.08J | 1000 | 961 | 96 | | | | 70-130 | | |
| Cadmium | 4.41 | 100 | 99.5 | 95 | | | | 70-130 | | |
| Chromium | 2.50U | 400 | 396 | 99 | | | | 70-130 | | |
| Copper | 538 | 1000 | 1510 | 98 | | | | 70-130 | | |
| Lead | 81.0 | 1000 | 1110 | 103 | | | | 70-130 | | |
| Zinc | 943 | 1000 | 2020 | 107 | | | | 70-130 | | |

## Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: HGS
Analytical Date/Time: 5/19/2023 8:15:00PM

Prep Batch: MXX35860
Prep Method: DW Digest for Metals on ICP-MS
Prep Date/Time: 5/16/2023 3:20:09PM
Prep Initial Wt./Vol.: 20.00mL
Prep Extract Vol: 50.00mL

Analytical Batch: MMS11931
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: HGS
Analytical Date/Time: 5/22/2023 11:54:53AM

Prep Batch: MXX35860
Prep Method: DW Digest for Metals on ICP-MS
Prep Date/Time: 5/16/2023 3:20:09PM
Prep Initial Wt./Vol.: 20.00mL
Prep Extract Vol: 50.00mL

Print Date: 06/23/2023 2:56:44PM

## Method Blank

Blank ID: MB for HBN 1856254 [MXX/35877]
Blank Lab ID: 1714017

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1231846001, 1231846002, 1231846004, 1231846008, 1231846009, 1231846010, 1231846011, 1231846012

## Results by **EP200.8**

| Parameter | Results | LOQ/CL | DL | LOD | Units |
|---|---|---|---|---|---|
| Zinc | 15.9* | 10.0 | 3.10 | 5.00 | ug/L |

## Batch Information

Analytical Batch: MMS11940
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: HGS
Analytical Date/Time: 5/30/2023 6:02:29PM

Prep Batch: MXX35877
Prep Method: E200.2
Prep Date/Time: 5/23/2023 1:45:26PM
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL



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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1231846 [MXX35877]
Blank Spike Lab ID: 1714018
Date Analyzed: 05/30/2023 18:05

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846002, 1231846004, 1231846008, 1231846009, 1231846010, 1231846011, 1231846012

## Results by **EP200.8**

Blank Spike (ug/L)

| Parameter | Spike | Result | Rec (%) | CL |
|---|---|---|---|---|
| Zinc | 1000 | 1000 | 100 | ( 85-115 ) |

## Batch Information

Analytical Batch: **MMS11940**
Analytical Method: **EP200.8**
Instrument: **P7 Agilent 7800**
Analyst: **HGS**

Prep Batch: **MXX35877**
Prep Method: **E200.2**
Prep Date/Time: **05/23/2023 13:45**
Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 50 mL
Dupe Init Wt./Vol.: Extract Vol:



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## Matrix Spike Summary

Original Sample ID: 1714027
MS Sample ID: 1714032 MS
MSD Sample ID:

Analysis Date: 05/30/2023 18:14
Analysis Date: 05/30/2023 18:16
Analysis Date:
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846002, 1231846004, 1231846008, 1231846009, 1231846010, 1231846011, 1231846012

## Results by **EP200.8**

| | | Matrix Spike (ug/L) | | | Spike Duplicate (ug/L) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Zinc | 23.8 | 1000 | 1020 | 100 | | | | 70-130 | | |

## Batch Information

Analytical Batch: MMS11940
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: HGS
Analytical Date/Time: 5/30/2023 6:16:54PM

Prep Batch: MXX35877
Prep Method: DW Digest for Metals on ICP-MS
Prep Date/Time: 5/23/2023 1:45:26PM
Prep Initial Wt./Vol.: 20.00mL
Prep Extract Vol: 50.00mL

Print Date: 06/23/2023 2:56:49PM

## Matrix Spike Summary

Original Sample ID: 1714066
MS Sample ID: 1714067 MS
MSD Sample ID:

Analysis Date: 05/30/2023 18:09
Analysis Date: 05/30/2023 18:12
Analysis Date:
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846002, 1231846004, 1231846008, 1231846009, 1231846010, 1231846011, 1231846012

## Results by **EP200.8**

| | | Matrix Spike (ug/L) | | | Spike Duplicate (ug/L) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Zinc | 18.4 | 1000 | 1020 | 100 | | | | 70-130 | | |

## Batch Information

Analytical Batch: MMS11940
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: HGS
Analytical Date/Time: 5/30/2023 6:12:25PM

Prep Batch: MXX35877
Prep Method: DW Digest for Metals on ICP-MS
Prep Date/Time: 5/23/2023 1:45:26PM
Prep Initial Wt./Vol.: 20.00mL
Prep Extract Vol: 50.00mL

Print Date: 06/23/2023 2:56:49PM

## Method Blank

Blank ID: MB for HBN 1856536 [MXX/35898]
Blank Lab ID: 1715248

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1231846001, 1231846008, 1231846009, 1231846011, 1231846012

## Results by **EP200.8**

| Parameter | Results | LOQ/CL | DL | LOD | Units |
|---|---|---|---|---|---|
| Zinc | 4.08J | 10.0 | 3.10 | 5.00 | ug/L |

## Batch Information

Analytical Batch: MMS11946
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: ACF
Analytical Date/Time: 6/6/2023 1:37:55PM

Prep Batch: MXX35898
Prep Method: E200.2
Prep Date/Time: 6/1/2023 4:04:22PM
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL



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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1231846 [MXX35898]
Blank Spike Lab ID: 1715249
Date Analyzed: 06/06/2023 13:40

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846008, 1231846009, 1231846011, 1231846012

## Results by **EP200.8**

Blank Spike (ug/L)

| Parameter | Spike | Result | Rec (%) | CL |
|---|---|---|---|---|
| Zinc | 1000 | 986 | 99 | ( 85-115 ) |

## Batch Information

Analytical Batch: **MMS11946**
Analytical Method: **EP200.8**
Instrument: **P7 Agilent 7800**
Analyst: **ACF**

Prep Batch: **MXX35898**
Prep Method: **E200.2**
Prep Date/Time: **06/01/2023 16:04**
Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 50 mL
Dupe Init Wt./Vol.: Extract Vol:



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## Matrix Spike Summary

Original Sample ID: 1715251
MS Sample ID: 1715253 MS
MSD Sample ID:

Analysis Date: 06/06/2023 13:45
Analysis Date: 06/06/2023 13:47
Analysis Date:
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846011

## Results by **EP200.8**

| | | Matrix Spike (ug/L) | | | Spike Duplicate (ug/L) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Zinc | 13.7 | 1000 | 1030 | 101 | | | | 70-130 | | |

## Batch Information

Analytical Batch: MMS11946
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: ACF
Analytical Date/Time: 6/6/2023 1:47:00PM

Prep Batch: MXX35898
Prep Method: DW Digest for Metals on ICP-MS
Prep Date/Time: 6/1/2023 4:04:22PM
Prep Initial Wt./Vol.: 20.00mL
Prep Extract Vol: 50.00mL

Print Date: 06/23/2023 2:56:54PM

## Matrix Spike Summary

Original Sample ID: 1715252
MS Sample ID: 1715254 MS
MSD Sample ID:

Analysis Date: 06/06/2023 13:49
Analysis Date: 06/06/2023 13:52
Analysis Date:
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846008, 1231846009, 1231846012

## Results by **EP200.8**

| | | Matrix Spike (ug/L) | | | Spike Duplicate (ug/L) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Zinc | 67.2 | 1000 | 1110 | 104 | | | | 70-130 | | |

## Batch Information

Analytical Batch: MMS11946
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: ACF
Analytical Date/Time: 6/6/2023 1:52:00PM

Prep Batch: MXX35898
Prep Method: DW Digest for Metals on ICP-MS
Prep Date/Time: 6/1/2023 4:04:22PM
Prep Initial Wt./Vol.: 20.00mL
Prep Extract Vol: 50.00mL

Print Date: 06/23/2023 2:56:54PM

## Method Blank

Blank ID: MB for HBN 1854368 (WFI/3037)
Blank Lab ID: 1711742

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1231846001, 1231846002, 1231846003, 1231846004, 1231846005, 1231846006, 1231846007, 1231846008, 1231846009, 1231846010, 1231846011, 1231846012, 1231846013, 1231846014, 1231846015, 1231846016, 1231846017, 1231846018, 1231846019, 1231846020, 1231846021, 1231846022, 1231846023

## Results by **SM21 4500NO3-F**

| Parameter | Results | LOQ/CL | DL | LOD | Units |
|---|---|---|---|---|---|
| Nitrate-N | 0.100U | 0.200 | 0.0500 | 0.100 | mg/L |
| Nitrite-N | 0.100U | 0.200 | 0.0500 | 0.100 | mg/L |
| Total Nitrate/Nitrite-N | 0.100U | 0.200 | 0.0500 | 0.100 | mg/L |

## Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 5/5/2023 2:35:50PM



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## Method Blank

Blank ID: MB for HBN 1854368 (WFI/3037)
Blank Lab ID: 1711750

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1231846001, 1231846002, 1231846003

## Results by **SM21 4500NO3-F**

| Parameter | Results | LOQ/CL | DL | LOD | Units |
|---|---|---|---|---|---|
| Nitrate-N | 0.100U | 0.200 | 0.0500 | 0.100 | mg/L |
| Nitrite-N | 0.100U | 0.200 | 0.0500 | 0.100 | mg/L |
| Total Nitrate/Nitrite-N | 0.100U | 0.200 | 0.0500 | 0.100 | mg/L |

## Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 5/5/2023 1:06:18PM



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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1231846 [WFI3037]
Blank Spike Lab ID: 1711744
Date Analyzed: 05/05/2023 14:34

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846002, 1231846003, 1231846004, 1231846005, 1231846006, 1231846007, 1231846008, 1231846009, 1231846010, 1231846011, 1231846012, 1231846013, 1231846014, 1231846015, 1231846016, 1231846017, 1231846018, 1231846019, 1231846020, 1231846021,

## Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

| Parameter | Spike | Result | Rec (%) | CL |
|---|---|---|---|---|
| Nitrate-N | 2.5 | 2.53 | 101 | ( 70-130 ) |
| Nitrite-N | 2.5 | 2.43 | 97 | ( 90-110 ) |
| Total Nitrate/Nitrite-N | 5 | 4.96 | 99 | ( 90-110 ) |

## Batch Information

Analytical Batch: **WFI3037**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **EBH**

Print Date: 06/23/2023 2:56:58PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1231846 [WFI3037]
Blank Spike Lab ID: 1711752
Date Analyzed: 05/05/2023 13:04

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846002, 1231846003

## Results by **SM21 4500NO3-F**

Blank Spike (mg/L)

| Parameter | Spike | Result | Rec (%) | CL |
|---|---|---|---|---|
| Nitrate-N | 2.5 | 2.80 | 112 | ( 70-130 ) |
| Nitrite-N | 2.5 | 2.59 | 104 | ( 90-110 ) |
| Total Nitrate/Nitrite-N | 5 | 5.39 | 108 | ( 90-110 ) |

## Batch Information

Analytical Batch: **WFI3037**
Analytical Method: **SM21 4500NO3-F**
Instrument: **Astoria segmented flow**
Analyst: **EBH**



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## Matrix Spike Summary

Original Sample ID: 1231692001
MS Sample ID: 1711649 MS
MSD Sample ID: 1711650 MSD

Analysis Date: 05/05/2023 12:24
Analysis Date: 05/05/2023 12:26
Analysis Date: 05/05/2023 12:27
Matrix: Drinking Water

QC for Samples:

## Results by **SM21 4500NO3-F**

| | | Matrix Spike (mg/L) | | | Spike Duplicate (mg/L) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Total Nitrate/Nitrite-N | 0.966 | 5.00 | 5.74 | 96 | 5.00 | 5.74 | 95 | 90-110 | 0.09 | (< 25 ) |

## Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 5/5/2023 12:26:00PM

Print Date: 06/23/2023 2:56:59PM

## Matrix Spike Summary

Original Sample ID: 1231784001
MS Sample ID: 1711651 MS
MSD Sample ID: 1711652 MSD

Analysis Date: 05/05/2023 13:09
Analysis Date: 05/05/2023 13:11
Analysis Date: 05/05/2023 13:13
Matrix: Drinking Water

QC for Samples: 1231846001, 1231846002, 1231846003, 1231846004

## Results by **SM21 4500NO3-F**

| | | Matrix Spike (mg/L) | | | Spike Duplicate (mg/L) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Total Nitrate/Nitrite-N | 3.90 | 5.00 | 8.58 | 94 | 5.00 | 8.36 | 89 * | 90-110 | 2.60 | (< 25 ) |

## Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 5/5/2023 1:11:00PM

Print Date: 06/23/2023 2:56:59PM

## Matrix Spike Summary

Original Sample ID: 1231846004
MS Sample ID: 1711653 MS
MSD Sample ID: 1711654 MSD

Analysis Date: 05/05/2023 14:39
Analysis Date: 05/05/2023 14:41
Analysis Date: 05/05/2023 14:42
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846002, 1231846003, 1231846004, 1231846005, 1231846006, 1231846007, 1231846008, 1231846009, 1231846010, 1231846011, 1231846012, 1231846013, 1231846014, 1231846015, 1231846016, 1231846017, 1231846018, 1231846019, 1231846020, 1231846021,

## Results by **SM21 4500NO3-F**

| | | Matrix Spike (mg/L) | | | Spike Duplicate (mg/L) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Total Nitrate/Nitrite-N | 0.198J | 5.00 | 5.26 | 101 | 5.00 | 5.46 | 105 | 90-110 | 3.70 | (< 25 ) |

## Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 5/5/2023 2:41:00PM

Print Date: 06/23/2023 2:56:59PM

## Method Blank

Blank ID: MB for HBN 1854501 [WXX/14730]
Blank Lab ID: 1711998

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1231846010, 1231846011, 1231846012, 1231846013, 1231846014, 1231846015, 1231846016, 1231846017, 1231846018, 1231846019, 1231846020

## Results by **SM21 4500P-B,E**

| Parameter | Results | LOQ/CL | DL | LOD | Units |
|---|---|---|---|---|---|
| Total Phosphorus | 0.0200U | 0.0400 | 0.0120 | 0.0200 | mg/L |

## Batch Information

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: MEB
Analytical Date/Time: 5/9/2023 2:01:50PM

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 5/9/2023 12:00:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL



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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1231846 [WXX14730]
Blank Spike Lab ID: 1711999
Date Analyzed: 05/09/2023 14:02

Spike Duplicate ID: LCSD for HBN 1231846 [WXX14730]
Spike Duplicate Lab ID: 1712000
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846010, 1231846011, 1231846012, 1231846013, 1231846014, 1231846015, 1231846016, 1231846017, 1231846018, 1231846019, 1231846020

## Results by **SM21 4500P-B,E**

| | Blank Spike (mg/L) | | | Spike Duplicate (mg/L) | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Parameter | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Total Phosphorus | 0.2 | 0.195 | 98 | 0.2 | 0.194 | 97 | ( 75-125 ) | 0.41 | (< 25 ) |

## Batch Information

Analytical Batch: **WDA5496**
Analytical Method: **SM21 4500P-B,E**
Instrument: **Discrete Analyzer 2**
Analyst: **MEB**

Prep Batch: **WXX14730**
Prep Method: **SM21 4500P-B,E**
Prep Date/Time: **05/09/2023 12:00**
Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL



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t 907.562.2343 f 907.561.5301 www.us.sgs.com

## Matrix Spike Summary

Original Sample ID: 1231580003
MS Sample ID: 1712001 MS
MSD Sample ID: 1712002 MSD

Analysis Date: 05/09/2023 14:07
Analysis Date: 05/09/2023 14:08
Analysis Date: 05/09/2023 14:09
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846010, 1231846011, 1231846012, 1231846013, 1231846014, 1231846015, 1231846016, 1231846017, 1231846018, 1231846019, 1231846020

## Results by **SM21 4500P-B,E**

| | | Matrix Spike (mg/L) | | | Spike Duplicate (mg/L) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Total Phosphorus | 0.0639 | 0.200 | .269 | 102 | 0.200 | 0.280 | 108 | 75-125 | 4.20 | (< 7 ) |

## Batch Information

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: MEB
Analytical Date/Time: 5/9/2023 2:08:40PM

Prep Batch: WXX14730
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 5/9/2023 12:00:00PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 06/23/2023 2:57:04PM

## Method Blank

Blank ID: MB for HBN 1855356 [WXX/14745]
Blank Lab ID: 1713324

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1231846001, 1231846002, 1231846003, 1231846004, 1231846005, 1231846006, 1231846007, 1231846008, 1231846009, 1231846021, 1231846022, 1231846023

## Results by **SM21 4500P-B,E**

| Parameter | Results | LOQ/CL | DL | LOD | Units |
|---|---|---|---|---|---|
| Total Phosphorus | 0.0200U | 0.0400 | 0.0120 | 0.0200 | mg/L |

## Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: MEB
Analytical Date/Time: 5/17/2023 4:32:08PM

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 5/17/2023 12:30:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL



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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1231846 [WXX14745]
Blank Spike Lab ID: 1713325
Date Analyzed: 05/17/2023 16:33

Spike Duplicate ID: LCSD for HBN 1231846 [WXX14745]
Spike Duplicate Lab ID: 1713326
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846002, 1231846003, 1231846004, 1231846005, 1231846006, 1231846007, 1231846008, 1231846009, 1231846021, 1231846022, 1231846023

## Results by **SM21 4500P-B,E**

| | Blank Spike (mg/L) | | | Spike Duplicate (mg/L) | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Parameter | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Total Phosphorus | 0.2 | 0.188 | 94 | 0.2 | 0.185 | 92 | ( 75-125 ) | 1.50 | (< 25 ) |

## Batch Information

Analytical Batch: **WDA5503**
Analytical Method: **SM21 4500P-B,E**
Instrument: **Discrete Analyzer 2**
Analyst: **MEB**

Prep Batch: **WXX14745**
Prep Method: **SM21 4500P-B,E**
Prep Date/Time: **05/17/2023 12:30**
Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL



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## Matrix Spike Summary

Original Sample ID: 1231796001
MS Sample ID: 1713327 MS
MSD Sample ID: 1713328 MSD

Analysis Date: 05/17/2023 16:37
Analysis Date: 05/17/2023 16:37
Analysis Date: 05/17/2023 16:38
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846002, 1231846003, 1231846004, 1231846005, 1231846006, 1231846007, 1231846008, 1231846009, 1231846021, 1231846022, 1231846023

## Results by **SM21 4500P-B,E**

| | | Matrix Spike (mg/L) | | | Spike Duplicate (mg/L) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Total Phosphorus | 0.0255J | 0.200 | .216 | 95 | 0.200 | 0.220 | 97 | 75-125 | 2.10 | (< 7 ) |

## Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: MEB
Analytical Date/Time: 5/17/2023 4:37:58PM

Prep Batch: WXX14745
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 5/17/2023 12:30:00PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 06/23/2023 2:57:08PM

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# SGS North America Inc.
# CHAIN OF CUSTODY RECORD

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**Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.**

1231846



**Section 1**

CLIENT: Kenai Watershed Forum

CONTACT: Benjamin Meyer — PHONE #: 907-232-0280

PROJECT NAME: Kenai River Baseline Water Quality Monitoring — PROJECT/ PWSID/ PERMIT#:

REPORTS TO: Benjamin Meyer — E-MAIL: ben@kenaiwatershed.org — Profile #: 3534606 10802

INVOICE TO: Kenai Watershed Forum — QUOTE #: — P.O. #:

**Section 2**

| RESERVED for lab use | SAMPLE IDENTIFICATION | DATE mm/dd/yy | TIME HH:MM | MATRIX/ MATRIX CODE | # CONTAINERS | Comp Grab MI (Multi-incremental) | Preserv: H2SO4 | HNO3 | NONE | Analysis*: Total NO3/NO2(SM21 4500NO3-F), Total P(SM4500) | Total Metals (200.7) | Dissolved Metals (200.8) | REMARKS/LOC ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 AB | RM 0 - No Name Creek | 5/3/2022 | 10:30 | water | 3 | | | | | x | x | x | |
| 2 AB | RM 1.5 - Kenai City Dock - DUP | 5/3/2022 | 13:57 | water | 3 | | | | | x | x | x | |
| 3 AB | RM 1.5 - Kenai City Dock | 5/3/2022 | 13:53 | water | 3 | | | | | x | x | x | |
| 4 AB | RM 6.5 - Cunningham Park | 5/3/2022 | 9:22 | water | 3 | | | | | x | x | x | |
| 5 AB | RM 10 - Beaver Creek | 5/3/2022 | 10:05 | water | 3 | | | | | x | x | x | |
| | RM 10.1 - Kenai River | 5/3/2022 | | water | 3 | | | | | x | x | x | |
| 6 AB | RM 12.5 - Pillars | 5/3/2022 | 8:32 | water | 3 | | | | | x | x | x | |
| 7 AB | RM 18 - Poacher's Cove | 5/3/2022 | 9:24 | water | 3 | | | | | x | x | x | |
| 8 AB | RM 19 - Slikok Creek | 5/3/2022 | 8:47 | water | 3 | | | | | x | x | x | |
| 9 AB | RM 21 - Soldotna Bridge | 5/3/2022 | 9:27 | water | 3 | | | | | x | x | x | |

NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS

**Section 5**

| | Date | Time | Received By: |
|---|---|---|---|
| Relinquished By: (1) | 5/3/2022 | 14:00 | |
| Relinquished By: (2) | | | |
| Relinquished By: (3) | | | |
| Relinquished By: (4) | 5/3/23 | 0851 | Received For Laboratory By: |

**Section 4**

DOD Project? Yes (No)

Cooler ID:

Data Deliverable Requirements: Please include Electronic Data Delivery files.

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: cooler 6.0 .055 or Ambient [ ]

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Delivery Method: Hand Delivery[ ] Commerical Delivery [X]

# SGS North America Inc.
# CHAIN OF CUSTODY RECORD

1231846

Revised Report - Revision 1

**Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.**



**Section 1**

CLIENT: Kenai Watershed Forum

CONTACT: Benjamin Meyer — PHONE #: 907-232-0280

PROJECT NAME: Kenai River Baseline Water Quality Monitoring — PROJECT/ PWSID/ PERMIT#:

REPORTS TO: Benjamin Meyer — E-MAIL: ben@kenaiwatershed.org — Profile #:

INVOICE TO: Kenai Watershed Forum — QUOTE #: — P.O. #:

**Section 3**

Preservative: H2SO4 | HNO3 | NONE

**Section 2**

| RESERVED for lab use | SAMPLE IDENTIFICATION | DATE mm/dd/yy | TIME HH:MM | MATRIX/ MATRIX CODE | # CONTAINERS | Comp Grab MI (Multi-incre-mental) | Analysis*: Total NO3/NO2(SM21 4500NO3-F), Total P(SM4500) | Total Metals (200.7) | Dissolved Metals (200.8) | REMARKS/LOC ID |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 AC AD | RM 22 - Soldotna Creek | 5/2/2023 | 9:49 | water | 3 | | x | x | x | |
| 11 AC AD | RM 23 - Swiftwater Park | 5/2/2023 | 10:22 | water | 3 | | x | x | x | |
| 12 AC AD | RM 30 - Funny River | 5/2/2023 | 8:57 | water | 3 | | x | x | x | |
| 13 AC AD | RM 31 - Morgan's Landing | 5/2/2023 | 10:00 | water | 3 | | x | x | x | |
| 14 AB | RM 36 - Moose River | 5/2/2023 | 10:38 | water | 2 | | x | x | | |
| 15 AB | RM 36 - Moose River-DUP | 5/2/2023 | 10:45 | water | 2 | | x | x | | |
| 16 AB | RM 40 - Bing's Landing | 5/2/2023 | 7:13 | water | 2 | | x | x | | |
| 17 A | RM 43 - Upstream of Dow Island | 5/2/2023 | 9:25 | water | 1 | | x | 0 | | |
| 18 AB | RM 44 - Mouth of Killey River | 5/2/2023 | 10:12 | water | 2 | | x | x | | |
| 19 AB | RM 50 - Skilak Lake Outflow | 5/2/2023 | 8:34 | water | 2 | | x | x | | |

NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS

**Section 5**

| | Date | Time | |
|---|---|---|---|
| Relinquished By: (1) Ben M | 5/2/2023 | 14:00 | Received By: |
| Relinquished By: (2) | Date | Time | Received By: |
| Relinquished By: (3) | Date | Time | Received By: |
| Relinquished By: (4) | Date 5/3/23 | Time 0851 | Received For Laboratory By: MM |

**Section 4**

DOD Project? Yes (No)

Cooler ID:

**Data Deliverable Requirements:** *Please include Electronic Data Delivery files.*

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: cooler 3.2 D52 or Ambient [ ]

Chain of Custody Seal: (Circle) IF INTACT BROKEN ABSENT

Delivery Method: Hand Delivery[ ] Commerical Delivery[ ]

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# SGS North America Inc.
# CHAIN OF CUSTODY RECORD

**1231846**

Revised Report - Revision 1

**Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.**



**Section 1**

| | | | |
|---|---|---|---|
| **CLIENT:** | Kenai Watershed Forum | | |
| **CONTACT:** | Benjamin Meyer | **PHONE #:** | 907-232-0280 |
| **PROJECT NAME:** | Kenai River Baseline Water Quality Monitoring | **PROJECT/ PWSID/ PERMIT#:** | |
| **REPORTS TO:** | Benjamin Meyer | **E-MAIL:** | ben@kenaiwatershed.org |
| | | **Profile #:** | |
| **INVOICE TO:** | Kenai Watershed Forum | **QUOTE #:** | |
| | | **P.O. #:** | |

**Section 2**

| RESERVED for lab use | SAMPLE IDENTIFICATION | DATE mm/dd/yy | TIME HH:MM | MATRIX/ MATRIX CODE | # CONTAINERS | Comp Grab MI (Multi-incremental) | Preservative: H2SO4 | Preservative: HNO3 | Preservative: NONE | Analysis*: Total NO3/NO2(SM21 4500NO3-F), Total P(SM4500) | Analysis*: Total Metals (200.7) | Analysis*: Dissolved Metals (200.8) | REMARKS/LOC ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (20) AB | RM 70 - Jim's Landing | 5/2/2023 | 11:11 | water | 2 | | | | x | x | | | |
| (21) AB | RM 74 - Russian River | 5/2/2023 | 10:30 | water | 2 | | | | x | x | | | |
| (22) AB | RM 82 - Kenai Lake Bridge | 5/2/2023 | 8:35 | water | 2 | | | | x | x | | | |
| (23) AB | RM 79.5 - Juneau Creek | 5/2/2023 | 9:35 | water | 2 | | | | x | x | | | |
| | | | | | | | | | | | | | |
| (24) A | RM 0 - No Name Creek - Field Blank | 5/2/2023 | 10:30 | water | 2 | | | x | x | | | | |
| (25) A | RM 12.5 - Pillars - Field Blank | 5/2/2023 | 8:32 | water | 2 | | | x | x | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

NOTE:
*The following analyses require specific method and/or compound list: BTEX, Metals, PFAS

**Section 5**

| | Date | Time | |
|---|---|---|---|
| **Relinquished By: (1)** Ben M | 5/3/2022 | 14:00 | **Received By:** |
| **Relinquished By: (2)** | **Date** | **Time** | **Received By:** |
| **Relinquished By: (3)** | **Date** | **Time** | **Received By:** |
| **Relinquished By: (4)** | **Date** | **Time** | **Received For Laboratory By:** |

**Section 4**

**DOD Project?** Yes No

**Cooler ID:** _____

**Data Deliverable Requirements:**

*Please include Electronic Data Delivery files.*

**Requested Turnaround Time and/or Special Instructions:**

**Temp Blank °C:** _____

**or Ambient [ ]**

**Chain of Custody Seal: (Circle)**

**INTACT BROKEN ABSENT**

**Delivery Method: Hand Delivery[ ] Commerical Delivery [ ]**

# SGS North America Inc.
# CHAIN OF CUSTODY RECORD

1231846

Revised Report - Revision 1

**Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.**



**Section 1**

| | | | |
|---|---|---|---|
| **CLIENT:** | Kenai Watershed Forum | | |
| **CONTACT:** | Benjamin Meyer | **PHONE #:** | 907-232-0280 |
| **PROJECT NAME:** | Kenai River Baseline Water Quality Monitoring | **PROJECT/ PWSID/ PERMIT#:** | |
| **REPORTS TO:** | Benjamin Meyer | **E-MAIL:** / **Profile #:** | ben@kenaiwatershed.org |
| **INVOICE TO:** | Kenai Watershed Forum | **QUOTE #:** / **P.O. #:** | |

**Section 2**

| RESERVED for lab use | SAMPLE IDENTIFICATION | DATE mm/dd/yy | TIME HH:MM | MATRIX/ MATRIX CODE | # CONTAINERS | Comp Grab MI (Multi-incre-mental) | Preservative: H2SO4 | Preservative: HNO3 | Preservative: NONE | Analysis*: Total NO3/NO2(SM21 4500NO3-F), Total P(SM4500) | Analysis*: Total Metals (200.7) | Analysis*: Dissolved Metals (200.8) | REMARKS/LOC ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | RM 0 - No Name Creek | 5/3/2022 | 10:30 | water | 3 | | | | x | x | x | x | |
| | RM 1.5 - Kenai City Dock - DUP | 5/3/2022 | 13:37 | water | 3 | | | | x | x | x | x | |
| | RM 1.5 - Kenai City Dock | 5/3/2022 | 13:53 | water | 3 | | | | x | x | x | x | |
| | RM 6.5 - Cunningham Park | 5/3/2022 | 9:22 | water | 3 | | | | x | x | x | x | |
| | RM 10 - Beaver Creek | 5/3/2022 | 10:05 | water | 3 | | | | x | x | x | x | |
| ~~✓~~ | ~~RM 10.1 - Kenai River~~ | ~~5/3/2022~~ | | ~~water~~ | ~~3~~ | | | | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | |
| | RM 12.5 - Pillars | 5/3/2022 | 8:32 | water | 3 | | | | x | x | x | x | |
| | RM 18 - Poacher's Cove | 5/3/2022 | 9:24 | water | 3 | | | | x | x | x | x | |
| | RM 19 - Slikok Creek | 5/3/2022 | 8:47 | water | 3 | | | | x | x | x | x | |
| | RM 21 - Soldotna Bridge | 5/3/2022 | 9:27 | water | 3 | | | | x | x | x | x | |

NOTE:
*The following analyses require specific method and/or compound list: BTEX, Metals, PFAS

**Section 3**

**Preservative**

**Analysis***

**Section 5**

| | Date | Time | Received By: |
|---|---|---|---|
| **Relinquished By: (1)** | 5/3/2022 | 14:00 | |
| **Relinquished By: (2)** | | | |
| **Relinquished By: (3)** | | | |
| **Relinquished By: (4)** | | | **Received For Laboratory By:** |

**Section 4**

**DOD Project?** Yes (No)

**Cooler ID:**

**Data Deliverable Requirements:**

**Please include Electronic Data Delivery files.**

**Requested Turnaround Time and/or Special Instructions:**

**Temp Blank °C:**

**or Ambient [ ]**

**Chain of Custody Seal: (Circle)**

**INTACT BROKEN ABSENT**

**Delivery Method: Hand Delivery[ ] Commerical Delivery [ ]**

# SGS North America Inc.
# CHAIN OF CUSTODY RECORD

1231846

Revised Report - Revision 1

**Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.**



**Section 1**

CLIENT: Kenai Watershed Forum

CONTACT: Benjamin Meyer — PHONE #: 907-232-0280

PROJECT NAME: Kenai River Baseline Water Quality Monitoring — PROJECT/ PWSID/ PERMIT#:

REPORTS TO: Benjamin Meyer — E-MAIL: ben@kenaiwatershed.org — Profile #:

INVOICE TO: Kenai Watershed Forum — QUOTE #: — P.O. #:

**Section 2**

Section 3 — Preservative: H2SO4 | HNO3 | NONE

| RESERVED for lab use | SAMPLE IDENTIFICATION | DATE mm/dd/yy | TIME HH:MM | MATRIX/ MATRIX CODE | # CONTAINERS | Comp Grab MI (Multi-incre-mental) | Analysis*: Total NO3/NO2(SM21 4500NO3-F), Total P(SM4500) | Total Metals (200.7) | Dissolved Metals (200.8) | | | | | | | REMARKS/LOC ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | RM 22 - Soldotna Creek | 5/2/2023 | 9:49 | water | 3 | | x | x | x | | | | | | | |
| | RM 23 - Swiftwater Park | 5/2/2023 | 10:22 | water | 3 | | x | x | x | | | | | | | |
| | RM 30 - Funny River | 5/2/2023 | 8:57 | water | 3 | | x | x | x | | | | | | | |
| | RM 31 - Morgan's Landing | 5/2/2023 | 10:00 | water | 3 | | x | x | x | | | | | | | |
| | RM 36 - Moose River | 5/2/2023 | 10:38 | water | 2 | | x | x | | | | | | | | |
| | RM 36 - Moose River-DUP | 5/2/2023 | 10:45 | water | 2 | | x | x | | | | | | | | |
| 7:13 | RM 40 - Bing's Landing | 5/2/2023 | 7:13 | water | 2 | | x | x | | | | | | | | |
| | RM 43 - Upstream of Dow Island | 5/2/2023 | 9:25 | water | 2 | | x | x | | | | | | | | |
| | RM 44 - Mouth of Killey River | 5/2/2023 | 10:12 | water | 2 | | x | x | | | | | | | | |
| 8:34 | RM 50 - Skilak Lake Outflow | 5/2/2023 | 8:34 | water | 2 | | x | x | | | | | | | | |

NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS

**Section 5**

| | Date | Time | |
|---|---|---|---|
| Relinquished By: (1) Ben Meyer | 5/2/2023 | 14:00 | Received By: |
| Relinquished By: (2) | Date | Time | Received By: |
| Relinquished By: (3) | Date | Time | Received By: |
| Relinquished By: (4) | Date | Time | Received For Laboratory By: |

**Section 4**

DOD Project? Yes No

Cooler ID: _____

Data Deliverable Requirements: *Please include Electronic Data Delivery files.*

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: _____ or Ambient [ ]

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Delivery Method: Hand Delivery[ ] Commerical Delivery [ ]

# SGS North America Inc.
# CHAIN OF CUSTODY RECORD

**1231846**

Revised Report - Revision 1

**Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.**



**Section 1**

| | | | |
|---|---|---|---|
| **CLIENT:** | Kenai Watershed Forum | | |
| **CONTACT:** | Benjamin Meyer | **PHONE #:** | 907-232-0280 |
| **PROJECT NAME:** | Kenai River Baseline Water Quality Monitoring | **PROJECT/ PWSID/ PERMIT#:** | |
| **REPORTS TO:** | Benjamin Meyer | **E-MAIL:** / **Profile #:** | ben@kenaiwatershed.org |
| **INVOICE TO:** | Kenai Watershed Forum | **QUOTE #:** / **P.O. #:** | |

**Section 2**

| RESERVED for lab use | SAMPLE IDENTIFICATION | DATE mm/dd/yy | TIME HH:MM | MATRIX/ MATRIX CODE | # CONTAINERS | Comp / Grab / MI (Multi-incremental) | Preservative: H2SO4 | Preservative: HNO3 | Preservative: NONE | Analysis*: Total NO3/NO2(SM21 4500NO3-F), Total P(SM4500) | Analysis*: Total Metals (200.7) | Analysis*: Dissolved Metals (200.8) | REMARKS/LOC ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | RM 70 - Jim's Landing | 5/2/2023 | 11:11 | water | 2 | | | | x | x | x | | |
| | RM 74 - Russian River | 5/2/2023 | 10:30 | water | 2 | | | | x | x | x | | |
| | RM 82 - Kenai Lake Bridge | 5/2/2023 | 8:35 | water | 2 | | | | x | x | x | | |
| | RM 79.5 - Juneau Creek | 5/2/2023 | 9:35 | water | 2 | | | | x | x | x | | |
| | | | | | | | | | | | | | |
| | RM 0 - No Name Creek - Field Blank | 5/2/2023 | 10:30 | water | 2 | | | x | x | | x | x | |
| | RM 12.5 - Pillars - Field Blank | 5/2/2023 | 8:32 | water | 2 | | | x | x | | x | x | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

NOTE:
*The following analyses require specific method and/or compound list: BTEX, Metals, PFAS

**Section 5**

| | Date | Time | |
|---|---|---|---|
| **Relinquished By: (1)** Ben M | 5/3/2022 | 14:00 | **Received By:** |
| **Relinquished By: (2)** | **Date** | **Time** | **Received By:** |
| **Relinquished By: (3)** | **Date** | **Time** | **Received By:** |
| **Relinquished By: (4)** | **Date** | **Time** | **Received For Laboratory By:** |

**Section 4**

**DOD Project?** Yes (No)

**Cooler ID:** _____

**Data Deliverable Requirements:**
*Please include Electronic Data Delivery files.*

**Requested Turnaround Time and/or Special Instructions:**

**Temp Blank °C:** _____ **or Ambient [ ]**

**Chain of Custody Seal: (Circle)** INTACT BROKEN ABSENT

**Delivery Method: Hand Delivery[ ] Commerical Delivery [ ]**

Revised Report - Revision 1

# SGS North America Inc.
# CHAIN OF CUSTODY RECORD

**1231846**

**Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.**



## Section 1

| | |
|---|---|
| CLIENT: | Kenai Watershed Forum |
| CONTACT: | Benjamin Meyer |
| PHONE #: | 907-232-0280 |
| PROJECT NAME: | Kenai River Baseline Water Quality Monitoring |
| PROJECT/ PWSID/ PERMIT#: | |
| REPORTS TO: | Benjamin Meyer |
| E-MAIL: | ben@kenaiwatershed.org |
| Profile #: | |
| INVOICE TO: | Kenai Watershed Forum |
| QUOTE #: | |
| P.O. #: | |

## Section 2

| RESERVED for lab use | SAMPLE IDENTIFICATION | DATE mm/dd/yy | TIME HH:MM | MATRIX/ MATRIX CODE | # CONTAINERS | Comp Grab MI (Multi-incre-mental) | Preservative: H2SO4 | Preservative: HNO3 | Preservative: NONE | Analysis*: Total NO3/NO2(SM21 4500NO3-F), Total P(SM4500) | Analysis*: Total Metals (200.7) | Analysis*: Dissolved Metals (200.8) | | | | | | | | REMARKS/LOC ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | RM 0 - No Name Creek | 5/3/2022 | | water | 3 | | | | | x | x | x | | | | | | | | |
| | RM 1.5 - Kenai City Dock - DUP | 5/3/2022 | 13:53 | water | 3 | | | | | x | x | x | | | | | | | | |
| | RM 1.5 - Kenai City Dock | 5/3/2022 | 13:37 | water | 3 | | | | | x | x | x | | | | | | | | |
| | RM 6.5 - Cunningham Park | 5/3/2022 | | water | 3 | | | | | x | x | x | | | | | | | | |
| | RM 10 - Beaver Creek | 5/3/2022 | | water | 3 | | | | | x | x | x | | | | | | | | |
| | RM 10.1 - Kenai River | 5/3/2022 | | water | 3 | | | | | x | x | x | | | | | | | | |
| | RM 12.5 - Pillars | 5/3/2022 | | water | 3 | | | | | x | x | x | | | | | | | | |
| | RM 18 - Poacher's Cove | 5/3/2022 | | water | 3 | | | | | x | x | x | | | | | | | | |
| | RM 19 - Slikok Creek | 5/3/2022 | | water | 3 | | | | | x | x | x | | | | | | | | |
| | RM 21 - Soldotna Bridge | 5/3/2022 | | water | 3 | | | | | x | x | x | | | | | | | | |

NOTE:
*The following analyses require specific method and/or compound list: BTEX, Metals, PFAS

## Section 5

| | | | |
|---|---|---|---|
| Relinquished By: (1) Ben Meyer | Date 5/3/2022 | Time 15:50 | Received By: |
| Relinquished By: (2) | Date | Time | Received By: |
| Relinquished By: (3) | Date | Time | Received By: |
| Relinquished By: (4) | Date 5/3/23 | Time 0851 | Received For Laboratory By: |

## Section 3

Preservative

## Section 4

DOD Project? Yes (No)

Cooler ID: _____

Data Deliverable Requirements:
Please include Electronic Data Delivery files.

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 5.2 1063
or Ambient [ ]

Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT

Delivery Method: Hand Delivery[ ] Commerical Delivery [X]

1231846

# SAMPLE RECEIPT FORM

| Project Manager Completion | | | | |
|---|---|---|---|---|
| Was all necessary information recorded on the COC upon receipt? (temperature, COC seals, etc.?) | Yes | No | N/A | |
| Was temperature between 0-6° C? | Yes | No | N/A | If "No", are the samples either exempt* or sampled <8 hours prior to receipt? |
| Were all analyses received within holding time*? | Yes | No | N/A | |
| Was a method specified for each analysis, where applicable? If no, please note correct methods. | Yes | No | N/A | mMDSCNDW.1; 200.7 Ca, Mg, Fe. |
| Are compound lists specified, where applicable? For project specific or special compound lists please note correct analysis code. | Yes | No | N/A | |
| If rush was requested by the client, was the requested TAT approved? | Yes | No | N/A | If "NO", what is the approved TAT? |
| If SEDD Deliverables are required, were Location ID's and an NPDL Number provided? | Yes | No | N/A | *If "NO", contact client for information.* |
| **Sample Login Completion** | | | | |
| Do ID's on sample containers match COC? | Yes | No | N/A | |
| If provided on containers, do dates/times collected match COC? | Yes | No | N/A | Note: If times differ <1 hr., record details below and login per COC. * |
| Were all sample containers received in good condition? | Yes | No | N/A | |
| Were proper containers (type/mass/volume/preservative) received for all samples? **See form F-083 "Sample Guide"* | Yes | No | N/A | *Note: If 200.8/6020 Total Metals are received unpreserved, preserve and note HNO3 lot here:* LW89-0463-19-12 *If 200.8/6020 Dissolved Metals are received unpreserved, log in for LABFILTER and do not preserve. For all non-metals methods, inform Project Manager.* 6B, 7B, 25A pres. 1mL $HNO_3$ |
| Were Trip Blanks (VOC, GRO, Low-Level Hg, etc.) received with samples, where applicable*? | Yes | No | N/A | |
| Were all VOA vials free of headspace >6mm? | Yes | No | N/A | |
| Were all soil VOA samples received field extracted with Methanol? | Yes | No | N/A | |
| Did all soil VOA samples have an accompanying unpreserved container for % solids? | Yes | No | N/A | |
| If special handling is required, were containers labelled appropriately? e.g. MI/ISM, foreign soils, lab filter, Ref Lab, limited volume | Yes | No | N/A | Lab filter, pH adjustment REF LAB |
| For Rush/Short Holding time, was the lab notified? | Yes | No | N/A | |
| For any question answered "NO", was the Project Manager notified? | Yes | No | N/A | PM Initials: |
| Was Peer Review of sample numbering/labelling completed? | Yes | No | N/A | Reviewer Initials: EBH |

**Additional Notes/Clarification where Applicable, including resolution of "No" answers when a change order is not attached:**

*002 & 003 container labels swapped times.

# Alert Expeditors Inc.

**#425854**

Citywide Delivery • 440-3351
8421 Flamingo Drive • Anchorage, Alaska 99502

Date 5-3-23

From Kenai Watershed

To SGS Labs Anc

| Collect ❐ | Prepay ❐ | Advance Charges ❐ |
|---|---|---|
| Job # ENA | PO# Grant 115 89397 | |

Samples x2

1231846

Shipped Signature

Total Charge

Received By:


# Alert Expeditors Inc.


Revised Report - Revision 1

**#425853**


Citywide Delivery • 440-3351
8421 Flamingo Drive • Anchorage, Alaska 99502


Date 5-3-23

From Kenai Watershed

To SGS Labs Anc

| Collect ❐ | Prepay ❐ | Advance Charges ❐ |
|---|---|---|
| Job # ENA | PO# Grant 115 89910 | |

Samples x1

1231846

Shipped Signature

Total Charge

Received By:

## Sample Containers and Preservatives

| Container Id | Preservative | Container Condition | Container Id | Preservative | Container Condition |
|---|---|---|---|---|---|
| 1231846001-A | H2SO4 to pH < 2 | OK | 1231846013-B | HNO3 to pH < 2 | OK |
| 1231846001-B | HNO3 to pH < 2 | OK | 1231846013-C | No Preservative Required | OK |
| 1231846001-C | No Preservative Required | OK | 1231846013-D | No Preservative Required | OK |
| 1231846001-D | No Preservative Required | OK | 1231846014-A | H2SO4 to pH < 2 | OK |
| 1231846002-A | H2SO4 to pH < 2 | OK | 1231846014-B | HNO3 to pH < 2 | OK |
| 1231846002-B | HNO3 to pH < 2 | OK | 1231846015-A | H2SO4 to pH < 2 | OK |
| 1231846002-C | No Preservative Required | OK | 1231846015-B | HNO3 to pH < 2 | OK |
| 1231846002-D | No Preservative Required | OK | 1231846016-A | H2SO4 to pH < 2 | OK |
| 1231846003-A | H2SO4 to pH < 2 | OK | 1231846016-B | HNO3 to pH < 2 | OK |
| 1231846003-B | HNO3 to pH < 2 | OK | 1231846017-A | H2SO4 to pH < 2 | OK |
| 1231846003-C | No Preservative Required | OK | 1231846018-A | H2SO4 to pH < 2 | OK |
| 1231846003-D | No Preservative Required | OK | 1231846018-B | HNO3 to pH < 2 | OK |
| 1231846004-A | H2SO4 to pH < 2 | OK | 1231846019-A | H2SO4 to pH < 2 | OK |
| 1231846004-B | HNO3 to pH < 2 | OK | 1231846019-B | HNO3 to pH < 2 | OK |
| 1231846004-C | No Preservative Required | OK | 1231846020-A | H2SO4 to pH < 2 | OK |
| 1231846004-D | No Preservative Required | OK | 1231846020-B | HNO3 to pH < 2 | OK |
| 1231846005-A | H2SO4 to pH < 2 | OK | 1231846021-A | H2SO4 to pH < 2 | OK |
| 1231846005-B | HNO3 to pH < 2 | OK | 1231846021-B | HNO3 to pH < 2 | OK |
| 1231846005-C | No Preservative Required | OK | 1231846022-A | H2SO4 to pH < 2 | OK |
| 1231846005-D | No Preservative Required | OK | 1231846022-B | HNO3 to pH < 2 | OK |
| 1231846006-A | H2SO4 to pH < 2 | OK | 1231846023-A | H2SO4 to pH < 2 | OK |
| 1231846006-B | HNO3 to pH < 2 | OK | 1231846023-B | HNO3 to pH < 2 | OK |
| 1231846006-C | No Preservative Required | OK | 1231846024-A | HNO3 to pH < 2 | OK |
| 1231846006-D | No Preservative Required | OK | 1231846024-B | No Preservative Required | OK |
| 1231846007-A | H2SO4 to pH < 2 | OK | 1231846024-C | No Preservative Required | OK |
| 1231846007-B | HNO3 to pH < 2 | OK | 1231846025-A | HNO3 to pH < 2 | OK |
| 1231846007-C | No Preservative Required | OK | 1231846025-B | No Preservative Required | OK |
| 1231846007-D | No Preservative Required | OK | 1231846025-C | No Preservative Required | OK |
| 1231846008-A | H2SO4 to pH < 2 | OK | | | |
| 1231846008-B | HNO3 to pH < 2 | OK | | | |
| 1231846008-C | No Preservative Required | OK | | | |
| 1231846008-D | No Preservative Required | OK | | | |
| 1231846009-A | H2SO4 to pH < 2 | OK | | | |
| 1231846009-B | HNO3 to pH < 2 | OK | | | |
| 1231846009-C | No Preservative Required | OK | | | |
| 1231846009-D | No Preservative Required | OK | | | |
| 1231846010-A | H2SO4 to pH < 2 | OK | | | |
| 1231846010-B | HNO3 to pH < 2 | OK | | | |
| 1231846010-C | No Preservative Required | OK | | | |
| 1231846010-D | No Preservative Required | OK | | | |
| 1231846011-A | H2SO4 to pH < 2 | OK | | | |
| 1231846011-B | HNO3 to pH < 2 | OK | | | |
| 1231846011-C | No Preservative Required | OK | | | |
| 1231846011-D | No Preservative Required | OK | | | |
| 1231846012-A | H2SO4 to pH < 2 | OK | | | |
| 1231846012-B | HNO3 to pH < 2 | OK | | | |
| 1231846012-C | No Preservative Required | OK | | | |
| 1231846012-D | No Preservative Required | OK | | | |
| 1231846013-A | H2SO4 to pH < 2 | OK | | | |

| Container Id | Preservative | Container Condition | Container Id | Preservative | Container Condition |
|---|---|---|---|---|---|

Container Condition Glossary

Containers for bacteriological, low level mercury and VOA vials are not opened prior to analysis and will be assigned condition code OK unless evidence indicates than an inappropriate container was submitted.

OK - The container was received at an acceptable pH for the analysis requested.
BU - The container was received with headspace greater than 6mm.
DM - The container was received damaged.
FR - The container was received frozen and not usable for Bacteria or BOD analyses.
IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.
NC- The container provided was not preserved or was under-preserved. The method does not allow for additional preservative added after collection.
PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
QN - Insufficient sample quantity provided.

SGS

Orlando, FL

Reissue #1
06/15/23

The results set forth herein are provided by SGS North America Inc.

*e-Hardcopy 2.0*
*Automated Report*

## Technical Report for

SGS North America, Inc

1231846

SGS Job Number: FC5912

Sampling Dates: 05/02/23 - 05/03/23

Report to:

andrea.colby@sgs.com

Total number of pages in report: 52

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

June 15, 2023

Mr. Justin Nelson
SGS

RE: SGS North America Inc. - Orlando job FC5912 Reissue

Dear Mr. Nelson,

The final report for job number FC5912 has been edited to reflect requested corrections. These edits have been incorporated into the revised report.

Cu and Zn have been reported on -23 & -24 per your request.

Please feel free to contact us if we can be of further assistance.

Sincerely,

SGS North America, Inc. - Orlando

Florida ♦ 4405 Vineland Road ♦ Suite C-15 ♦ Orlando, FL 32811 ♦ tel: 407 425-6700 ♦ fax: 407 425-0707

Sections: 1 2 3 4 5 6

# Table of Contents

SGS North America Inc.

# Sample Summary

SGS North America, Inc

1231846

**Job No:** FC5912

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| FC5912-1 | 05/03/23 | 10:30 | | 05/09/23 | AQ | Water | RM 0-NO NAME CREEK |
| FC5912-2 | 05/03/23 | 13:37 | | 05/09/23 | AQ | Water | RM 1.5-KENAI CITY DOCK-DUP |
| FC5912-3 | 05/03/23 | 13:53 | | 05/09/23 | AQ | Water | RM 1.5-KENAI CITY DOCK |
| FC5912-4 | 05/03/23 | 09:22 | | 05/09/23 | AQ | Water | RM 6.5-CUNNINGHAM PARK |
| FC5912-5 | 05/03/23 | 10:05 | | 05/09/23 | AQ | Water | RM 10-BEAVER CREEK |
| FC5912-6 | 05/03/23 | 08:32 | | 05/09/23 | AQ | Water | RM 12.5-PILLARS |
| FC5912-7 | 05/03/23 | 09:24 | | 05/09/23 | AQ | Water | RM 18-POACHER'S COVE |
| FC5912-8 | 05/03/23 | 08:47 | | 05/09/23 | AQ | Water | RM 19-SLIKOK CREEK |
| FC5912-9 | 05/03/23 | 09:27 | | 05/09/23 | AQ | Water | RM 21-SOLDOTNA BRIDGE |
| FC5912-10 | 05/02/23 | 09:49 | | 05/09/23 | AQ | Water | RM 22-SOLDOTNA CREEK |
| FC5912-11 | 05/02/23 | 10:20 | | 05/09/23 | AQ | Water | RM 23-SWIFTWATER PARK |
| FC5912-12 | 05/02/23 | 08:57 | | 05/09/23 | AQ | Water | RM 30-FUNNY RIVER |
| FC5912-13 | 05/02/23 | 10:00 | | 05/09/23 | AQ | Water | RM 31-MORGAN'S LANDING |

SGS North America Inc.

# Sample Summary
(continued)

SGS North America, Inc

1231846

**Job No:** FC5912

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| FC5912-14 | 05/02/23 | 10:38 | | 05/09/23 | AQ | Water | RM 36-MOOSE RIVER |
| FC5912-15 | 05/02/23 | 10:45 | | 05/09/23 | AQ | Water | RM 36-MOOSE RIVER-DUP |
| FC5912-16 | 05/02/23 | 07:13 | | 05/09/23 | AQ | Water | RM 40-BING'S LANDING |
| FC5912-17 | 05/02/23 | 10:12 | | 05/09/23 | AQ | Water | RM 44-MOUTH OF KILLEY RIVER |
| FC5912-18 | 05/02/23 | 08:34 | | 05/09/23 | AQ | Water | RM 50-SKILAK LAKE OUTFLOW |
| FC5912-19 | 05/02/23 | 11:11 | | 05/09/23 | AQ | Water | RM 70-JIM'S LANDING |
| FC5912-20 | 05/02/23 | 10:30 | | 05/09/23 | AQ | Water | RM 74-RUSSIAN RIVER |
| FC5912-21 | 05/02/23 | 08:35 | | 05/09/23 | AQ | Water | RM 82-KENAI LAKE BRIDGE |
| FC5912-22 | 05/02/23 | 09:35 | | 05/09/23 | AQ | Water | RM 79.5-JUNEAU CREEK |
| FC5912-23 | 05/02/23 | 10:30 | | 05/09/23 | AQ | Field Blank Water | RM 0-NO NAME CREEK-FB |
| FC5912-24 | 05/02/23 | 08:32 | | 05/09/23 | AQ | Field Blank Water | RM 12.5-PILLARS-FIELD BLANK |

# SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** SGS North America, Inc **Job No:** FC5912

**Site:** 1231846 **Report Date:** 5/24/2023 1:19:35 PM

On 05/09/2023, 22 Sample(s), 0 Trip Blank(s) and 2 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 20.7 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC5912 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

## Metals Analysis By Method EPA 200.7

**Matrix:** AQ **Batch ID:** MP42262

Sample(s) FC5853-1DUP, FC5853-1MS, FC5853-1MSD, FC5853-1PS, FC5853-1SDL were used as the QC samples for metals.

Matrix Spike/Matrix Spike Duplicate Recovery(s) for Copper are outside control limits. Spike recovery indicates possible matrix interference.

RPD(s) for MSD for Copper are outside control limits for sample MP42262-S2. High RPD indicates possible matrix interference.

MP42262-PS1 for Iron: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

FC5912-3 for Zinc: Sample dilution required due to difficult matrix.

MP42262-PS1 for Magnesium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP42262-PS1 for Zinc: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP42262-PS1 for Calcium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

FC5912-2 for Calcium: Sample dilution required due to difficult matrix.

FC5912-2 for Copper: Sample dilution required due to difficult matrix.

FC5912-2 for Iron: Sample dilution required due to difficult matrix.

FC5912-2 for Magnesium: Sample dilution required due to difficult matrix.

FC5912-2 for Zinc: Sample dilution required due to difficult matrix.

FC5912-3 for Calcium: Sample dilution required due to difficult matrix.

FC5912-3 for Copper: Sample dilution required due to difficult matrix.

FC5912-3 for Iron: Sample dilution required due to difficult matrix.

FC5912-3 for Magnesium: Sample dilution required due to difficult matrix.

## Metals Analysis By Method SW846 6010D

**Matrix:** AQ **Batch ID:** MP42269

Sample(s) FC5887-23DUP, FC5887-23MS, FC5887-23MSD, FC5887-23PS, FC5887-23SDL were used as the QC samples.

RPD(s) for Serial Dilution for Calcium, Iron, Magnesium are outside control limits for sample MP42269-SD1. Probable cause is due to sample non-homogeneity.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

_____

Kim Benham, Client Services *(Signature on File)*

# Summary of Hits



**Job Number:** FC5912
**Account:** SGS North America, Inc
**Project:** 1231846
**Collected:** 05/02/23 thru 05/03/23



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| **FC5912-1** | **RM 0-NO NAME CREEK** | | | | | |
| Calcium | | 9790 | 1000 | | ug/l | EPA 200.7 |
| Iron | | 5410 | 300 | | ug/l | EPA 200.7 |
| **FC5912-2** | **RM 1.5-KENAI CITY DOCK-DUP** | | | | | |
| Calcium [a] | | 316000 | 5000 | | ug/l | EPA 200.7 |
| Iron [a] | | 12000 | 1500 | | ug/l | EPA 200.7 |
| Magnesium [a] | | 991000 | 25000 | | ug/l | EPA 200.7 |
| **FC5912-3** | **RM 1.5-KENAI CITY DOCK** | | | | | |
| Calcium [a] | | 291000 | 5000 | | ug/l | EPA 200.7 |
| Iron [a] | | 12200 | 1500 | | ug/l | EPA 200.7 |
| Magnesium [a] | | 906000 | 25000 | | ug/l | EPA 200.7 |
| **FC5912-4** | **RM 6.5-CUNNINGHAM PARK** | | | | | |
| Calcium | | 13700 | 1000 | | ug/l | EPA 200.7 |
| Iron | | 13800 | 300 | | ug/l | EPA 200.7 |
| Magnesium | | 6780 | 5000 | | ug/l | EPA 200.7 |
| Zinc | | 41.3 | 20 | | ug/l | EPA 200.7 |
| **FC5912-5** | **RM 10-BEAVER CREEK** | | | | | |
| Calcium | | 8440 | 1000 | | ug/l | EPA 200.7 |
| Iron | | 8630 | 300 | | ug/l | EPA 200.7 |
| **FC5912-6** | **RM 12.5-PILLARS** | | | | | |
| Calcium | | 11000 | 1000 | | ug/l | EPA 200.7 |
| Iron | | 2020 | 300 | | ug/l | EPA 200.7 |
| **FC5912-7** | **RM 18-POACHER'S COVE** | | | | | |
| Calcium | | 11400 | 1000 | | ug/l | EPA 200.7 |
| Iron | | 1890 | 300 | | ug/l | EPA 200.7 |
| **FC5912-8** | **RM 19-SLIKOK CREEK** | | | | | |
| Calcium | | 5510 | 1000 | | ug/l | EPA 200.7 |
| Iron | | 1210 | 300 | | ug/l | EPA 200.7 |

# Summary of Hits



**Job Number:** FC5912
**Account:** SGS North America, Inc
**Project:** 1231846
**Collected:** 05/02/23 thru 05/03/23



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| **FC5912-9** | **RM 21-SOLDOTNA BRIDGE** | | | | | |
| Calcium | | 10600 | 1000 | | ug/l | EPA 200.7 |
| Iron | | 1560 | 300 | | ug/l | EPA 200.7 |
| **FC5912-10** | **RM 22-SOLDOTNA CREEK** | | | | | |
| Calcium | | 10400 | 1000 | | ug/l | EPA 200.7 |
| Iron | | 1330 | 300 | | ug/l | EPA 200.7 |
| **FC5912-11** | **RM 23-SWIFTWATER PARK** | | | | | |
| Calcium | | 15400 | 1000 | | ug/l | EPA 200.7 |
| Iron | | 327 | 300 | | ug/l | EPA 200.7 |
| Magnesium | | 5470 | 5000 | | ug/l | EPA 200.7 |
| **FC5912-12** | **RM 30-FUNNY RIVER** | | | | | |
| Calcium | | 7600 | 1000 | | ug/l | EPA 200.7 |
| Iron | | 2690 | 300 | | ug/l | EPA 200.7 |
| **FC5912-13** | **RM 31-MORGAN'S LANDING** | | | | | |
| Calcium | | 11900 | 1000 | | ug/l | EPA 200.7 |
| Iron | | 1110 | 300 | | ug/l | EPA 200.7 |
| **FC5912-14** | **RM 36-MOOSE RIVER** | | | | | |
| Calcium | | 11800 | 1000 | | ug/l | EPA 200.7 |
| Iron | | 2140 | 300 | | ug/l | EPA 200.7 |
| **FC5912-15** | **RM 36-MOOSE RIVER-DUP** | | | | | |
| Calcium | | 11700 | 1000 | | ug/l | EPA 200.7 |
| Iron | | 1770 | 300 | | ug/l | EPA 200.7 |
| **FC5912-16** | **RM 40-BING'S LANDING** | | | | | |
| Calcium | | 10800 | 1000 | | ug/l | EPA 200.7 |
| Iron | | 757 | 300 | | ug/l | EPA 200.7 |
| **FC5912-17** | **RM 44-MOUTH OF KILLEY RIVER** | | | | | |
| Calcium | | 8850 | 1000 | | ug/l | EPA 200.7 |
| Iron | | 2070 | 300 | | ug/l | EPA 200.7 |

# Summary of Hits



**Job Number:** FC5912
**Account:** SGS North America, Inc
**Project:** 1231846
**Collected:** 05/02/23 thru 05/03/23



| Lab Sample ID / Analyte | Client Sample ID | Result/ Qual | RL | MDL | Units | Method |
|---|---|---|---|---|---|---|
| **FC5912-18** | **RM 50-SKILAK LAKE OUTFLOW** | | | | | |
| Calcium | | 8370 | 1000 | | ug/l | EPA 200.7 |
| Iron | | 316 | 300 | | ug/l | EPA 200.7 |
| **FC5912-19** | **RM 70-JIM'S LANDING** | | | | | |
| Calcium | | 19100 | 1000 | | ug/l | EPA 200.7 |
| **FC5912-20** | **RM 74-RUSSIAN RIVER** | | | | | |
| Calcium | | 24100 | 1000 | | ug/l | SW846 6010D |
| **FC5912-21** | **RM 82-KENAI LAKE BRIDGE** | | | | | |
| Calcium | | 15300 | 1000 | | ug/l | SW846 6010D |
| **FC5912-22** | **RM 79.5-JUNEAU CREEK** | | | | | |
| Calcium | | 20000 | 1000 | | ug/l | SW846 6010D |
| **FC5912-23** | **RM 0-NO NAME CREEK-FB** | | | | | |
| No hits reported in this sample. | | | | | | |
| **FC5912-24** | **RM 12.5-PILLARS-FIELD BLANK** | | | | | |
| Calcium | | 10700 | 1000 | | ug/l | SW846 6010D |
| Iron | | 1920 | 300 | | ug/l | SW846 6010D |

(a) Sample dilution required due to difficult matrix.

## Sample Results

Report of Analysis

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 0-NO NAME CREEK
**Lab Sample ID:** FC5912-1
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/03/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 9790 | 1000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Copper | < 25 | 25 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Iron | 5410 | 300 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Magnesium | < 5000 | 5000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Zinc | < 20 | 20 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA19432
(2) Prep QC Batch: MP42262

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 1.5-KENAI CITY DOCK-DUP
**Lab Sample ID:** FC5912-2
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/03/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium [a] | 316000 | 5000 | ug/l | 5 | 05/18/23 | 05/23/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Copper [a] | < 130 | 130 | ug/l | 5 | 05/18/23 | 05/23/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Iron [a] | 12000 | 1500 | ug/l | 5 | 05/18/23 | 05/23/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Magnesium [a] | 991000 | 25000 | ug/l | 5 | 05/18/23 | 05/23/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Zinc [a] | < 100 | 100 | ug/l | 5 | 05/18/23 | 05/23/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA19438
(2) Prep QC Batch: MP42262

(a) Sample dilution required due to difficult matrix.

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 1.5-KENAI CITY DOCK
**Lab Sample ID:** FC5912-3
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/03/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium [a] | 291000 | 5000 | ug/l | 5 | 05/18/23 | 05/23/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Copper [a] | < 130 | 130 | ug/l | 5 | 05/18/23 | 05/23/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Iron [a] | 12200 | 1500 | ug/l | 5 | 05/18/23 | 05/23/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Magnesium [a] | 906000 | 25000 | ug/l | 5 | 05/18/23 | 05/23/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Zinc [a] | < 100 | 100 | ug/l | 5 | 05/18/23 | 05/23/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA19438
(2) Prep QC Batch: MP42262

(a) Sample dilution required due to difficult matrix.

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 6.5-CUNNINGHAM PARK
**Lab Sample ID:** FC5912-4
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/03/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 13700 | 1000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Copper | < 25 | 25 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Iron | 13800 | 300 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Magnesium | 6780 | 5000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Zinc | 41.3 | 20 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA19432
(2) Prep QC Batch: MP42262

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 10-BEAVER CREEK
**Lab Sample ID:** FC5912-5
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/03/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 8440 | 1000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Copper | < 25 | 25 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Iron | 8630 | 300 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Magnesium | < 5000 | 5000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Zinc | < 20 | 20 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA19432
(2) Prep QC Batch: MP42262

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 12.5-PILLARS
**Lab Sample ID:** FC5912-6
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/03/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 11000 | 1000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Copper | < 25 | 25 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Iron | 2020 | 300 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Magnesium | < 5000 | 5000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Zinc | < 20 | 20 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA19432
(2) Prep QC Batch: MP42262

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 18-POACHER' S COVE
**Lab Sample ID:** FC5912-7
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/03/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 11400 | 1000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Copper | < 25 | 25 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Iron | 1890 | 300 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Magnesium | < 5000 | 5000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Zinc | < 20 | 20 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA19432
(2) Prep QC Batch: MP42262

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 19-SLIKOK CREEK
**Lab Sample ID:** FC5912-8
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/03/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 5510 | 1000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Copper | < 25 | 25 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Iron | 1210 | 300 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Magnesium | < 5000 | 5000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Zinc | < 20 | 20 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA19432
(2) Prep QC Batch: MP42262

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 21-SOLDOTNA BRIDGE
**Lab Sample ID:** FC5912-9
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/03/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 10600 | 1000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Copper | < 25 | 25 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Iron | 1560 | 300 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Magnesium | < 5000 | 5000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Zinc | < 20 | 20 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA19432
(2) Prep QC Batch: MP42262

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 22-SOLDOTNA CREEK
**Lab Sample ID:** FC5912-10
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/02/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 10400 | 1000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Copper | < 25 | 25 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Iron | 1330 | 300 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Magnesium | < 5000 | 5000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Zinc | < 20 | 20 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA19432
(2) Prep QC Batch: MP42262

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 23-SWIFTWATER PARK
**Lab Sample ID:** FC5912-11
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/02/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 15400 | 1000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Copper | < 25 | 25 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Iron | 327 | 300 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Magnesium | 5470 | 5000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Zinc | < 20 | 20 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA19432
(2) Prep QC Batch: MP42262

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 30-FUNNY RIVER
**Lab Sample ID:** FC5912-12
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/02/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 7600 | 1000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Copper | < 25 | 25 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Iron | 2690 | 300 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Magnesium | < 5000 | 5000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Zinc | < 20 | 20 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA19432
(2) Prep QC Batch: MP42262

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 31-MORGAN' S LANDING
**Lab Sample ID:** FC5912-13
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/02/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 11900 | 1000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Copper | < 25 | 25 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Iron | 1110 | 300 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Magnesium | < 5000 | 5000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Zinc | < 20 | 20 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA19432
(2) Prep QC Batch: MP42262

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 36-MOOSE RIVER
**Lab Sample ID:** FC5912-14
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/02/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 11800 | 1000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Iron | 2140 | 300 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Magnesium | < 5000 | 5000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA19432
(2) Prep QC Batch: MP42262

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 36-MOOSE RIVER-DUP
**Lab Sample ID:** FC5912-15
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/02/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 11700 | 1000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Iron | 1770 | 300 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Magnesium | < 5000 | 5000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA19432
(2) Prep QC Batch: MP42262

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 40-BING'S LANDING
**Lab Sample ID:** FC5912-16
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/02/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 10800 | 1000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Iron | 757 | 300 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Magnesium | < 5000 | 5000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA19432
(2) Prep QC Batch: MP42262

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 44-MOUTH OF KILLEY RIVER
**Lab Sample ID:** FC5912-17
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/02/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 8850 | 1000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Iron | 2070 | 300 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Magnesium | < 5000 | 5000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA19432
(2) Prep QC Batch: MP42262

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 50-SKILAK LAKE OUTFLOW
**Lab Sample ID:** FC5912-18
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/02/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 8370 | 1000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Iron | 316 | 300 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Magnesium | < 5000 | 5000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA19432
(2) Prep QC Batch: MP42262

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 70-JIM'S LANDING
**Lab Sample ID:** FC5912-19
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/02/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 19100 | 1000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Iron | < 300 | 300 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |
| Magnesium | < 5000 | 5000 | ug/l | 1 | 05/18/23 | 05/22/23 | LM | EPA 200.7 [1] | EPA 200.7 [2] |

(1) Instrument QC Batch: MA19432
(2) Prep QC Batch: MP42262

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 74-RUSSIAN RIVER
**Lab Sample ID:** FC5912-20
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/02/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 24100 | 1000 | ug/l | 1 | 05/19/23 | 05/22/23 | LM | SW846 6010D [1] | SW846 3010A [2] |
| Iron | < 300 | 300 | ug/l | 1 | 05/19/23 | 05/22/23 | LM | SW846 6010D [1] | SW846 3010A [2] |
| Magnesium | < 5000 | 5000 | ug/l | 1 | 05/19/23 | 05/22/23 | LM | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA19429
(2) Prep QC Batch: MP42269

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 82-KENAI LAKE BRIDGE
**Lab Sample ID:** FC5912-21
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/02/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 15300 | 1000 | ug/l | 1 | 05/19/23 | 05/22/23 | LM | SW846 6010D [1] | SW846 3010A [2] |
| Iron | < 300 | 300 | ug/l | 1 | 05/19/23 | 05/22/23 | LM | SW846 6010D [1] | SW846 3010A [2] |
| Magnesium | < 5000 | 5000 | ug/l | 1 | 05/19/23 | 05/22/23 | LM | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA19429
(2) Prep QC Batch: MP42269

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 79.5-JUNEAU CREEK
**Lab Sample ID:** FC5912-22
**Matrix:** AQ - Water
**Project:** 1231846

**Date Sampled:** 05/02/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 20000 | 1000 | ug/l | 1 | 05/19/23 | 05/22/23 | LM | SW846 6010D [1] | SW846 3010A [2] |
| Iron | < 300 | 300 | ug/l | 1 | 05/19/23 | 05/22/23 | LM | SW846 6010D [1] | SW846 3010A [2] |
| Magnesium | < 5000 | 5000 | ug/l | 1 | 05/19/23 | 05/22/23 | LM | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA19429
(2) Prep QC Batch: MP42269

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 0-NO NAME CREEK-FB
**Lab Sample ID:** FC5912-23
**Matrix:** AQ - Field Blank Water
**Project:** 1231846

**Date Sampled:** 05/02/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | < 1000 | 1000 | ug/l | 1 | 05/19/23 | 05/22/23 | LM | SW846 6010D [1] | SW846 3010A [2] |
| Copper | < 25 | 25 | ug/l | 1 | 05/19/23 | 05/22/23 | LM | SW846 6010D [1] | SW846 3010A [2] |
| Iron | < 300 | 300 | ug/l | 1 | 05/19/23 | 05/22/23 | LM | SW846 6010D [1] | SW846 3010A [2] |
| Magnesium | < 5000 | 5000 | ug/l | 1 | 05/19/23 | 05/22/23 | LM | SW846 6010D [1] | SW846 3010A [2] |
| Zinc | < 20 | 20 | ug/l | 1 | 05/19/23 | 05/22/23 | LM | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA19429
(2) Prep QC Batch: MP42269

RL = Reporting Limit

SGS North America Inc.

# Report of Analysis





**Client Sample ID:** RM 12.5-PILLARS-FIELD BLANK
**Lab Sample ID:** FC5912-24
**Matrix:** AQ - Field Blank Water
**Project:** 1231846

**Date Sampled:** 05/02/23
**Date Received:** 05/09/23
**Percent Solids:** n/a

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Calcium | 10700 | 1000 | ug/l | 1 | 05/19/23 | 05/22/23 | LM | SW846 6010D [1] | SW846 3010A [2] |
| Copper | < 25 | 25 | ug/l | 1 | 05/19/23 | 05/22/23 | LM | SW846 6010D [1] | SW846 3010A [2] |
| Iron | 1920 | 300 | ug/l | 1 | 05/19/23 | 05/22/23 | LM | SW846 6010D [1] | SW846 3010A [2] |
| Magnesium | < 5000 | 5000 | ug/l | 1 | 05/19/23 | 05/22/23 | LM | SW846 6010D [1] | SW846 3010A [2] |
| Zinc | < 20 | 20 | ug/l | 1 | 05/19/23 | 05/22/23 | LM | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA19429
(2) Prep QC Batch: MP42269

RL = Reporting Limit

5

## Misc. Forms

### Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

**SGS North America Inc.**
**CHAIN OF CUSTODY RECORD**

FC5912

Alaska Florida
New Jersey Colorado
Texas North Carolina
Virginia Louisiana
www.us.sgs.com

| | | | |
|---|---|---|---|
| CLIENT: | SGS North America Inc. - Alaska Division | SGS Reference: | SGS Orlando, FL |
| CONTACT: | Justin Nelson PHONE NO: (907) 562-2343 | Additional Comments: | All soils report out in dry weight unless |
| PROJECT NAME: | 1231846 PWSID#: NPDL#: | | |
| REPORTS TO: | Justin.Nelson E-MAIL: Justin.Nelson@sgs.com; Env.Alaska.RefLabTeam@sgs.com | | |
| INVOICE TO: | SGS - Alaska QUOTE #: env.alaska.accounting@sgs.com P.O. #: 1231846 | | |



| RESERVED for lab use | SAMPLE IDENTIFICATION | DATE mm/dd/yy | TIME HHMM | MATRIX/ MATRIX CODE | # CONTAINERS | Preserv-ative Used: TYPE C = COMP G = GRAB MI = Multi Incre-mental Soils | HNO3 Calcium by 200.7 | HNO3 Iron by 200.7 | HNO3 Magnesium by 200.7 | HNO3 Zinc by 200.7 | HNO3 Copper by 200.7 | | SGS lab # | Location ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | RM 0 - No Name Creek | 05/03/2023 | 10:30:00 | Water | 1 | | X | X | X | X | X | | 1231846001 | |
| 2 | RM 1.5 - Kenai City Dock - DUP | 05/03/2023 | 13:37:00 | Water | 1 | | X | X | X | X | X | | 1231846002 | |
| 3 | RM 1.5 - Kenai City Dock | 05/03/2023 | 13:53:00 | Water | 1 | | X | X | X | X | X | | 1231846003 | |
| 4 | RM 6.5 - Cunningham Park | 05/03/2023 | 09:22:00 | Water | 1 | | X | X | X | X | X | | 1231846004 | |
| 5 | RM 10 - Beaver Creek | 05/03/2023 | 10:05:00 | Water | 1 | | X | X | X | X | X | | 1231846005 | |
| 6 | RM 12.5 Pillars | 05/03/2023 | 08:32:00 | Water | 1 | | X | X | X | X | X | | 1231846006 | |
| 7 | RM 18 - Poacher's Cove | 05/03/2023 | 09:24:00 | Water | 1 | | X | X | X | X | X | | 1231846007 | |
| 8 | RM 19 - Slikok Creek | 05/03/2023 | 08:47:00 | Water | 1 | | X | X | X | X | X | | 1231846008 | |
| 9 | RM 21 - Soldotna Bridge | 05/03/2023 | 09:27:00 | Water | 1 | | X | X | X | X | X | | 1231846009 | |
| 10 | RM 22 - Soldotna Creek | 05/02/2023 | 09:49:00 | Water | 1 | | X | X | X | X | X | | 1231846010 | |

| | | | | | |
|---|---|---|---|---|---|
| Relinquished By: (1) | Date 5/8 | Time 12pm | Received By: | DOD Project? NO | Data Deliverable Requirements: |
| Relinquished By: (2) | Date 5/9/23 | Time 9:20 | Received By: | Report to DL (J Flags)? If J- Report as DL/LOD/LOQ. NO | Level 2 + SGS EDD |
| Relinquished By: (3) | Date | Time | Received By: | Cooler ID: | Requested Turnaround Time and-or Special Instructions: |
| Relinquished By: (4) | Date | Time | Received For Laboratory By: | Temp Blank °C: or Ambient [ ] | Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT |

[X 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
[ ] 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

http://www.sgs.com/terms_and_conditions.htm

INITIAL ASSESSMENT

LABEL VERIFICATION

REVIEWED

F088_COC_REF_LAB_20190411

20.8° No ICE

**FC5912: Chain of Custody**
**Page 1 of 4**

## SGS North America Inc.
## CHAIN OF CUSTODY RECORD

FC5912

Alaska Florida
New Jersey Colorado
Texas North Carolina
Virginia Louisiana
www.us.sgs.com

| | | | |
|---|---|---|---|
| CLIENT: | SGS North America Inc. - Alaska Division | SGS Reference: | SGS Orlando, FL |
| CONTACT: | Justin Nelson PHONE NO: (907) 562-2343 | Additional Comments: | All soils report out in dry weight unless |
| PROJECT NAME: | 1231846 PWSID#: NPDL#: | | |
| REPORTS TO: | Justin.Nelson E-MAIL: Justin.Nelson@sgs.com; Env.Alaska.RefLabTeam@sgs.com | | |
| INVOICE TO: | SGS - Alaska env.alaska.accounting@sgs.com QUOTE #: P.O. #: 1231846 | | |



| RESERVED for lab use | SAMPLE IDENTIFICATION | DATE mm/dd/yy | TIME HHMM | MATRIX/ MATRIX CODE | # CONTAINERS | Preserv-ative Used: TYPE C = COMP G = GRAB MI = Multi Incre-mental Soils | HNO3 Calcium by 200.7 | HNO3 Iron by 200.7 | HNO3 Magnesium by 200.7 | HNO3 Zinc by 200.7 | HNO3 Copper by 200.7 | | SGS lab # | Location ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | RM 23 - Swiftwater Park | 05/02/2023 | 10:22:00 | Water | 1 | | X | X | X | X | X | | 1231846011 | |
| 12 | RM 30 - Funny River | 05/02/2023 | 08:57:00 | Water | 1 | | X | X | X | X | X | | 1231846012 | |
| 13 | RM 31 - Morgan's Landing | 05/02/2023 | 10:00:00 | Water | 1 | | X | X | X | X | X | | 1231846013 | |
| 14 | RM 36 - Moose River | 05/02/2023 | 10:38:00 | Water | 1 | | X | X | X | | | | 1231846014 | |
| 15 | RM 36 - Moose River-DUP | 05/02/2023 | 10:45:00 | Water | 1 | | X | X | X | | | | 1231846015 | |
| 16 | RM 40 - Bing's Landing | 05/02/2023 | 07:13:00 | Water | 1 | | X | X | X | | | | 1231846016 | |
| 17 | RM 44 - Mouth of Killey River | 05/02/2023 | 10:12:00 | Water | 1 | | X | X | X | | | | 1231846018 | |
| 18 | RM 50 - Skilak Lake Ourflow | 05/02/2023 | 08:34:00 | Water | 1 | | X | X | X | | | | 1231846019 | |
| 19 | RM 70 - Jim's Landing | 05/02/2023 | 11:11:00 | Water | 1 | | X | X | X | | | | 1231846020 | |
| 20 | RM 74 - Russian River | 05/02/2023 | 10:30:00 | Water | 1 | | X | X | X | | | | 1231846021 | |

| | | | | | |
|---|---|---|---|---|---|
| Relinquished By: (1) | Date 5/8 | Time 3pm | Received By: | DOD Project? NO | Data Deliverable Requirements: |
| | | | | Report to DL (J Flags)? NO<br>If J- Report as DL/LOD/LOQ. | Level 2 + SGS EDD |
| Relinquished By: (2) | Date 5/9/23 | Time 9:30 | Received By: | Cooler ID: | |
| | | | | Requested Turnaround Time and-or Special Instructions: | |
| Relinquished By: (3) | Date | Time | Received By: | Temp Blank °C: | Chain of Custody Seal: (Circle) |
| Relinquished By: (4) | Date | Time | Received For Laboratory By: | or Ambient [ ] | INTACT BROKEN ABSENT |

[X 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
[ ]5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

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F088_COC_REF_LAB_20190411

**FC5912: Chain of Custody**
**Page 2 of 4**

**SGS North America Inc.**
**CHAIN OF CUSTODY RECORD**

FC5912

Locations Nationwide
Alaska Florida
New Jersey Colorado
Texas North Carolina
Virginia Louisiana
www.us.sgs.com

| | | | |
|---|---|---|---|
| CLIENT: | SGS North America Inc. - Alaska Division | SGS Reference: | SGS Orlando, FL |
| CONTACT: | Justin Nelson | PHONE NO: | (907) 562-2343 |
| PROJECT NAME: | 1231846 | PWSID#: | |
| | | NPDL#: | |
| REPORTS TO: | Justin.Nelson | E-MAIL: | Justin.Nelson@sgs.com; Env.Alaska.RefLabTeam@sgs.com |
| INVOICE TO: | SGS - Alaska; env.alaska.accounting@sgs.com | QUOTE #: | |
| | | P.O. #: | 1231846 |

Additional Comments: All soils report out in dry weight unless

Page 3 of 3

| RESERVED for lab use | SAMPLE IDENTIFICATION | DATE mm/dd/yy | TIME HHMM | MATRIX/ MATRIX CODE | # CONTAINERS | Preserv-ative Used: | HNO3 Calcium by 200.7 | HNO3 Iron by 200.7 | HNO3 Magnesium by 200.7 | SGS lab # | Location ID |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 21 | RM 82 - Kenai Lake Bridge | 05/02/2023 | 08:35:00 | Water | 1 | | X | X | X | 1231846022 | |
| 22 | RM 79.5 - Juneau Creek | 05/02/2023 | 09:35:00 | Water | 1 | | X | X | X | 1231846023 | |
| 23 | RM 0 - No Name Creek-FB | 05/02/2023 | 10:30:00 | Water | 1 | | X | X | X | 1231846024 | |
| 24 | RM 12.5 - Pillars - FieldBlank | 05/02/2023 | 08:32:00 | Water | 1 | | X | X | X | 1231846025 | |

TYPE C = COMP G = GRAB MI = Multi Incre-mental Soils

| | | | |
|---|---|---|---|
| Relinquished By: (1) | Date 5/8 | Time 4pm | Received By: |
| Relinquished By: (2) | Date 5/9/23 | Time 920 | Received By: |
| Relinquished By: (3) | Date | Time | Received By: |
| Relinquished By: (4) | Date | Time | Received For Laboratory By: |

| | | |
|---|---|---|
| DOD Project? | NO | Data Deliverable Requirements: |
| Report to DL (J Flags)? If J- Report as DL/LOD/LOQ. | NO | Level 2 + SGS EDD |
| Cooler ID: | | |
| Requested Turnaround Time and-or Special Instructions: | | |
| Temp Blank °C: | or Ambient [ ] | Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT |

[X] 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
[ ] 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

http://www.sgs.com/terms_and_conditions.htm

REVIEWED

F088_COC_REF_LAB_20190411

# SGS Sample Receipt Summary

Revised Report - Revision 1

**Job Number:** FC5912 **Client:** SGS AK **Project:** 1231846

**Date / Time Received:** 5/9/2023 9:30:00 AM **Delivery Method:** FX **Airbill #'s:** 642042694385

**Therm ID:** IR 1; **Therm CF:** -0.1; **# of Coolers:** 1

**Cooler Temps (Raw Measured) °C:** Cooler 1: (20.8);

**Cooler Temps (Corrected) °C:** Cooler 1: (20.7);

| Cooler Information | Y | or | N |
|---|---|---|---|
| 1. Custody Seals Present | ☑ | | ☐ |
| 2. Custody Seals Intact | ☑ | | ☐ |
| 3. Temp criteria achieved | ☑ | | ☐ |
| 4. Cooler temp verification | IR Gun | | |
| 5. Cooler media | Ice (Bag) | | |

| Trip Blank Information | Y | or | N | N/A |
|---|---|---|---|---|
| 1. Trip Blank present / cooler | ☐ | | ☐ | ☑ |
| 2. Trip Blank listed on COC | ☐ | | ☐ | ☑ |

| | W | or | S | N/A |
|---|---|---|---|---|
| 3. Type Of TB Received | ☐ | | ☐ | ☑ |

| Sample Information | Y | or | N | N/A |
|---|---|---|---|---|
| 1. Sample labels present on bottles | ☑ | | ☐ | |
| 2. Samples preserved properly | ☑ | | ☐ | |
| 3. Sufficient volume/containers recvd for analysis: | ☑ | | ☐ | |
| 4. Condition of sample | Intact | | | |
| 5. Sample recvd within HT | ☑ | | ☐ | |
| 6. Dates/Times/IDs on COC match Sample Label | ☑ | | ☐ | |
| 7. VOCs have headspace | ☐ | | ☐ | ☑ |
| 8. Bottles received for unspecified tests | ☐ | | ☑ | |
| 9. Compositing instructions clear | ☐ | | ☐ | ☑ |
| 10. Voa Soil Kits/Jars received past 48hrs? | ☐ | | ☐ | ☑ |
| 11. % Solids Jar received? | ☐ | | ☐ | ☑ |
| 12. Residual Chlorine Present? | ☐ | | ☐ | ☑ |

**Misc. Information**

Number of Encores: 25-Gram _____ 5-Gram _____

Number of 5035 Field Kits: _____

Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230320 pH 10-12 25BDH07 Other: (Specify) pH 1.0 - 12.0 222221

Residual Chlorine Test Strip Lot #: _____

Comments COOLER RECEIVED AT 20.8C DUE TO NO ICE

SM001
Rev. Date 05/24/17

Technician: NATHANS Date: 5/9/2023 9:30:00 AM Reviewer: _____ Date: _____

**FC5912: Chain of Custody**
**Page 4 of 4**

## Metals Analysis



### QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FC5912
Account: SGSAKA - SGS North America, Inc
Project: 1231846

QC Batch ID: MP42262
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 05/18/23

| Metal | RL | IDL | MDL | MB raw | final |
|---|---|---|---|---|---|
| Aluminum | 200 | 14 | 14 | | |
| Antimony | 6.0 | 1 | 1 | | |
| Arsenic | 10 | 1.3 | 1.3 | | |
| Barium | 200 | .5 | 1 | | |
| Beryllium | 4.0 | .1 | .2 | | |
| Boron | 100 | 5 | 10 | | |
| Cadmium | 5.0 | .1 | .2 | | |
| Calcium | 1000 | 50 | 50 | 7.3 | <1000 |
| Chromium | 10 | .5 | 1 | | |
| Cobalt | 50 | .2 | .2 | | |
| Copper | 25 | 1 | 1 | -0.10 | <25 |
| Iron | 300 | 15 | 17 | 2.7 | <300 |
| Lead | 5.0 | 1 | 1.1 | | |
| Lithium | 9.0 | .5 | 1.3 | | |
| Magnesium | 5000 | 35 | 35 | -0.90 | <5000 |
| Manganese | 15 | .25 | 1 | | |
| Molybdenum | 50 | .3 | .3 | | |
| Nickel | 40 | .4 | .4 | | |
| Potassium | 10000 | 100 | 200 | | |
| Selenium | 10 | 2 | 2.9 | | |
| Silver | 10 | .5 | .7 | | |
| Sodium | 10000 | 250 | 500 | | |
| Strontium | 10 | .25 | .5 | | |
| Thallium | 10 | 1 | 1.4 | | |
| Tin | 50 | .5 | 1 | | |
| Titanium | 10 | .5 | 1 | | |
| Vanadium | 50 | .5 | .6 | | |
| Zinc | 20 | 3 | 4.4 | 0.50 | <20 |

Associated samples MP42262: FC5912-1, FC5912-2, FC5912-3, FC5912-4, FC5912-5, FC5912-6, FC5912-7, FC5912-8, FC5912-9, FC5912-10, FC5912-11, FC5912-12, FC5912-13, FC5912-14, FC5912-15, FC5912-16, FC5912-17, FC5912-18, FC5912-19

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC5912
Account: SGSAKA - SGS North America, Inc
Project: 1231846

QC Batch ID: MP42262
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

| Prep Date: | | | 05/18/23 | | | | | 05/18/23 | |
|---|---|---|---|---|---|---|---|---|---|
| Metal | FC5853-1 Original | DUP | RPD | QC Limits | FC5853-1 Original | MS | Spikelot MPFLICP2 | % Rec | QC Limits |
| Aluminum | | | | | | | | | |
| Antimony | | | | | | | | | |
| Arsenic | | | | | | | | | |
| Barium | | | | | | | | | |
| Beryllium | anr | | | | | | | | |
| Boron | | | | | | | | | |
| Cadmium | anr | | | | | | | | |
| Calcium | 25000 | 27400 | 9.2 | 0-20 | 25000 | 55700 | 25000 | 122.8 | 70-130 |
| Chromium | anr | | | | | | | | |
| Cobalt | | | | | | | | | |
| Copper | 0.0 | 0.0 | NC | 0-20 | 0.0 | 128 | 250 | 51.2N(a) | 70-130 |
| Iron | 11500 | 12500 | 8.3 | 0-20 | 11500 | 42000 | 26000 | 117.3 | 70-130 |
| Lead | anr | | | | | | | | |
| Lithium | | | | | | | | | |
| Magnesium | 9380 | 10300 | 9.3 | 0-20 | 9380 | 38400 | 25000 | 116.1 | 70-130 |
| Manganese | | | | | | | | | |
| Molybdenum | | | | | | | | | |
| Nickel | anr | | | | | | | | |
| Potassium | | | | | | | | | |
| Selenium | | | | | | | | | |
| Silver | anr | | | | | | | | |
| Sodium | | | | | | | | | |
| Strontium | | | | | | | | | |
| Thallium | | | | | | | | | |
| Tin | | | | | | | | | |
| Titanium | | | | | | | | | |
| Vanadium | | | | | | | | | |
| Zinc | 704 | 762 | 7.9 | 0-20 | 704 | 1310 | 500 | 121.2 | 70-130 |

Associated samples MP42262: FC5912-1, FC5912-2, FC5912-3, FC5912-4, FC5912-5, FC5912-6, FC5912-7, FC5912-8, FC5912-9, FC5912-10, FC5912-11, FC5912-12, FC5912-13, FC5912-14, FC5912-15, FC5912-16, FC5912-17, FC5912-18, FC5912-19

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC5912
Account: SGSAKA - SGS North America, Inc
Project: 1231846

QC Batch ID: MP42262 Methods: EPA 200.7
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 05/18/23

| Metal | FC5853-1 Original | MSD | Spikelot MPFLICP2 | % Rec | MSD RPD | QC Limit |
|---|---|---|---|---|---|---|
| Aluminum | | | | | | |
| Antimony | | | | | | |
| Arsenic | | | | | | |
| Barium | | | | | | |
| Beryllium | anr | | | | | |
| Boron | | | | | | |
| Cadmium | anr | | | | | |
| Calcium | 25000 | 53700 | 25000 | 114.8 | 3.7 | 20 |
| Chromium | anr | | | | | |
| Cobalt | | | | | | |
| Copper | 0.0 | 167 | 250 | 66.8N(a) | 26.4 (b) | 20 |
| Iron | 11500 | 40900 | 26000 | 113.1 | 2.7 | 20 |
| Lead | anr | | | | | |
| Lithium | | | | | | |
| Magnesium | 9380 | 37200 | 25000 | 111.3 | 3.2 | 20 |
| Manganese | | | | | | |
| Molybdenum | | | | | | |
| Nickel | anr | | | | | |
| Potassium | | | | | | |
| Selenium | | | | | | |
| Silver | anr | | | | | |
| Sodium | | | | | | |
| Strontium | | | | | | |
| Thallium | | | | | | |
| Tin | | | | | | |
| Titanium | | | | | | |
| Vanadium | | | | | | |
| Zinc | 704 | 1260 | 500 | 111.2 | 3.9 | 20 |

Associated samples MP42262: FC5912-1, FC5912-2, FC5912-3, FC5912-4, FC5912-5, FC5912-6, FC5912-7, FC5912-8, FC5912-9, FC5912-10, FC5912-11, FC5912-12, FC5912-13, FC5912-14, FC5912-15, FC5912-16, FC5912-17, FC5912-18, FC5912-19

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference.
(b) High RPD indicates possible matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FC5912
Account: SGSAKA - SGS North America, Inc
Project: 1231846

QC Batch ID: MP42262
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 05/18/23

| Metal | BSP Result | Spikelot MPFLICP2 | % Rec | QC Limits |
|---|---|---|---|---|
| Aluminum | | | | |
| Antimony | | | | |
| Arsenic | | | | |
| Barium | | | | |
| Beryllium | anr | | | |
| Boron | | | | |
| Cadmium | anr | | | |
| Calcium | 26500 | 25000 | 106.0 | 85-115 |
| Chromium | anr | | | |
| Cobalt | | | | |
| Copper | 255 | 250 | 102.0 | 85-115 |
| Iron | 27400 | 26000 | 105.4 | 85-115 |
| Lead | anr | | | |
| Lithium | | | | |
| Magnesium | 26500 | 25000 | 106.0 | 85-115 |
| Manganese | | | | |
| Molybdenum | | | | |
| Nickel | anr | | | |
| Potassium | | | | |
| Selenium | | | | |
| Silver | anr | | | |
| Sodium | | | | |
| Strontium | | | | |
| Thallium | | | | |
| Tin | | | | |
| Titanium | | | | |
| Vanadium | | | | |
| Zinc | 530 | 500 | 106.0 | 85-115 |

Associated samples MP42262: FC5912-1, FC5912-2, FC5912-3, FC5912-4, FC5912-5, FC5912-6, FC5912-7, FC5912-8, FC5912-9, FC5912-10, FC5912-11, FC5912-12, FC5912-13, FC5912-14, FC5912-15, FC5912-16, FC5912-17, FC5912-18, FC5912-19

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FC5912
Account: SGSAKA - SGS North America, Inc
Project: 1231846

QC Batch ID: MP42262
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 05/18/23

| Metal | FC5853-1 Original | SDL 5:25 | %DIF | QC Limits |
|---|---|---|---|---|
| Aluminum | | | | |
| Antimony | | | | |
| Arsenic | | | | |
| Barium | | | | |
| Beryllium | anr | | | |
| Boron | | | | |
| Cadmium | anr | | | |
| Calcium | 25000 | 24900 | 0.5 | 0-10 |
| Chromium | anr | | | |
| Cobalt | | | | |
| Copper | 0.00 | 0.00 | NC | 0-10 |
| Iron | 11500 | 11200 | 1.8 | 0-10 |
| Lead | anr | | | |
| Lithium | | | | |
| Magnesium | 9380 | 9250 | 1.4 | 0-10 |
| Manganese | | | | |
| Molybdenum | | | | |
| Nickel | anr | | | |
| Potassium | | | | |
| Selenium | | | | |
| Silver | anr | | | |
| Sodium | | | | |
| Strontium | | | | |
| Thallium | | | | |
| Tin | | | | |
| Titanium | | | | |
| Vanadium | | | | |
| Zinc | 704 | 688 | 2.2 | 0-10 |

Associated samples MP42262: FC5912-1, FC5912-2, FC5912-3, FC5912-4, FC5912-5, FC5912-6, FC5912-7, FC5912-8, FC5912-9, FC5912-10, FC5912-11, FC5912-12, FC5912-13, FC5912-14, FC5912-15, FC5912-16, FC5912-17, FC5912-18, FC5912-19

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

POST DIGESTATE SPIKE SUMMARY

Login Number: FC5912
Account: SGSAKA - SGS North America, Inc
Project: 1231846

QC Batch ID: MP42262 Methods: EPA 200.7
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 05/18/23

| Metal | Sample ml | Final ml | FC5853-1 Raw | Corr.** | PS ug/l | Spike ml | Spike ug/ml | Spike ug/l | % Rec | QC Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | | |
| Antimony | | | | | | | | | | |
| Arsenic | | | | | | | | | | |
| Barium | | | | | | | | | | |
| Beryllium | | | | | | | | | | |
| Boron | | | | | | | | | | |
| Cadmium | | | | | | | | | | |
| Calcium | 9.8 | 10 | 24980 | 24480.4 | 32520 | 0.2 | 250 | 5000 | 160.8*(a | 85-115 |
| Chromium | | | | | | | | | | |
| Cobalt | | | | | | | | | | |
| Copper | 9.8 | 10 | | | 105.8 | 0.2 | 5 | 100 | 105.8 | 85-115 |
| Iron | 9.8 | 10 | 11450 | 11221 | 15560 | 0.2 | 150 | 3000 | 144.6*(a | 85-115 |
| Lead | | | | | | | | | | |
| Lithium | | | | | | | | | | |
| Magnesium | 9.8 | 10 | 9380 | 9192.4 | 15680 | 0.2 | 250 | 5000 | 129.8*(a | 85-115 |
| Manganese | | | | | | | | | | |
| Molybdenum | | | | | | | | | | |
| Nickel | | | | | | | | | | |
| Potassium | | | | | | | | | | |
| Selenium | | | | | | | | | | |
| Silver | | | | | | | | | | |
| Sodium | | | | | | | | | | |
| Strontium | | | | | | | | | | |
| Thallium | | | | | | | | | | |
| Tin | | | | | | | | | | |
| Titanium | | | | | | | | | | |
| Vanadium | | | | | | | | | | |
| Zinc | 9.8 | 10 | 703.8 | 689.724 | 1023 | 0.2 | 12.5 | 250 | 133.3*(a | 85-115 |

Associated samples MP42262: FC5912-1, FC5912-2, FC5912-3, FC5912-4, FC5912-5, FC5912-6, FC5912-7, FC5912-8, FC5912-9, FC5912-10, FC5912-11, FC5912-12, FC5912-13, FC5912-14, FC5912-15, FC5912-16, FC5912-17, FC5912-18, FC5912-19

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FC5912
Account: SGSAKA - SGS North America, Inc
Project: 1231846

QC Batch ID: MP42269
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

| Prep Date: | | | | 05/19/23 | | 05/19/23 | |
|---|---|---|---|---|---|---|---|
| Metal | RL | IDL | MDL | MB raw | MB final | MB raw | MB final |
| Aluminum | 200 | 14 | 14 | | | | |
| Antimony | 6.0 | 1 | 1 | | | | |
| Arsenic | 10 | 1.3 | 1.3 | | | | |
| Barium | 200 | .5 | 1 | | | | |
| Beryllium | 4.0 | .1 | .2 | | | | |
| Boron | 100 | 5 | 10 | | | | |
| Cadmium | 5.0 | .1 | .2 | | | | |
| Calcium | 1000 | 50 | 50 | 10.8 | <1000 | 22.9 | <1000 |
| Chromium | 10 | .5 | 1 | | | | |
| Cobalt | 50 | .2 | .2 | | | | |
| Copper | 25 | 1 | 1 | | | | |
| Iron | 300 | 15 | 17 | 6.6 | <300 | 4.1 | <300 |
| Lead | 5.0 | 1 | 1.1 | | | | |
| Lithium | 10 | .5 | 1.3 | | | | |
| Magnesium | 5000 | 35 | 35 | -0.80 | <5000 | -19 | <5000 |
| Manganese | 15 | .25 | 1 | | | | |
| Molybdenum | 50 | .3 | .3 | | | | |
| Nickel | 40 | .4 | .4 | | | | |
| Potassium | 10000 | 100 | 200 | | | | |
| Selenium | 10 | 2 | 2.9 | | | | |
| Silver | 10 | .5 | .7 | | | | |
| Sodium | 10000 | 250 | 500 | | | | |
| Strontium | 10 | .25 | .5 | | | | |
| Thallium | 10 | 1 | 1.4 | | | | |
| Tin | 50 | .5 | 1 | | | | |
| Titanium | 10 | .5 | 1 | | | | |
| Vanadium | 50 | .5 | .6 | | | | |
| Zinc | 20 | 3 | 4.4 | 0.40 | <20 | 13.6 | * (a) |

Associated samples MP42269: FC5912-20, FC5912-21, FC5912-22, FC5912-23, FC5912-24

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) All associated samples with results >MDL "B" coded.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC5912
Account: SGSAKA - SGS North America, Inc
Project: 1231846

QC Batch ID: MP42269
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

| Prep Date: | | | 05/19/23 | | | | | 05/19/23 | |
|---|---|---|---|---|---|---|---|---|---|
| Metal | FC5887-23 Original | DUP | RPD | QC Limits | FC5887-23 Original | MS | Spikelot MPFLICP2 | % Rec | QC Limits |
| Aluminum | | | | | | | | | |
| Antimony | | | | | | | | | |
| Arsenic | anr | | | | | | | | |
| Barium | anr | | | | | | | | |
| Beryllium | anr | | | | | | | | |
| Boron | | | | | | | | | |
| Cadmium | anr | | | | | | | | |
| Calcium | 59900 | 61700 | 3.0 | 0-20 | 59900 | 88000 | 25000 | 112.4 | 80-120 |
| Chromium | anr | | | | | | | | |
| Cobalt | | | | | | | | | |
| Copper | | | | | | | | | |
| Iron | 29000 | 29300 | 1.0 | 0-20 | 29000 | 56600 | 26000 | 106.2 | 80-120 |
| Lead | anr | | | | | | | | |
| Lithium | | | | | | | | | |
| Magnesium | 7160 | 7370 | 2.9 | 0-20 | 7160 | 33800 | 25000 | 106.6 | 80-120 |
| Manganese | anr | | | | | | | | |
| Molybdenum | | | | | | | | | |
| Nickel | anr | | | | | | | | |
| Potassium | | | | | | | | | |
| Selenium | anr | | | | | | | | |
| Silver | anr | | | | | | | | |
| Sodium | anr | | | | | | | | |
| Strontium | | | | | | | | | |
| Thallium | | | | | | | | | |
| Tin | | | | | | | | | |
| Titanium | | | | | | | | | |
| Vanadium | | | | | | | | | |
| Zinc | 4.3 | 4.3 | 0.0 | 0-20 | 4.3 | 519 | 500 | 102.9 | 80-120 |

Associated samples MP42269: FC5912-20, FC5912-21, FC5912-22, FC5912-23, FC5912-24

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC5912
Account: SGSAKA - SGS North America, Inc
Project: 1231846

QC Batch ID: MP42269 Methods: SW846 6010D
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 05/19/23

| Metal | FC5887-23 Original | MSD | Spikelot MPFLICP2 | % Rec | MSD RPD | QC Limit |
|---|---|---|---|---|---|---|
| Aluminum | | | | | | |
| Antimony | | | | | | |
| Arsenic | anr | | | | | |
| Barium | anr | | | | | |
| Beryllium | anr | | | | | |
| Boron | | | | | | |
| Cadmium | anr | | | | | |
| Calcium | 59900 | 89300 | 25000 | 117.6 | 1.5 | 20 |
| Chromium | anr | | | | | |
| Cobalt | | | | | | |
| Copper | | | | | | |
| Iron | 29000 | 57100 | 26000 | 108.1 | 0.9 | 20 |
| Lead | anr | | | | | |
| Lithium | | | | | | |
| Magnesium | 7160 | 33800 | 25000 | 106.6 | 0.0 | 20 |
| Manganese | anr | | | | | |
| Molybdenum | | | | | | |
| Nickel | anr | | | | | |
| Potassium | | | | | | |
| Selenium | anr | | | | | |
| Silver | anr | | | | | |
| Sodium | anr | | | | | |
| Strontium | | | | | | |
| Thallium | | | | | | |
| Tin | | | | | | |
| Titanium | | | | | | |
| Vanadium | | | | | | |
| Zinc | 4.3 | 518 | 500 | 102.7 | 0.2 | 20 |

Associated samples MP42269: FC5912-20, FC5912-21, FC5912-22, FC5912-23, FC5912-24

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FC5912
Account: SGSAKA - SGS North America, Inc
Project: 1231846

QC Batch ID: MP42269
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 05/19/23

| Metal | BSP Result | Spikelot MPFLICP2 | % Rec | QC Limits |
|---|---|---|---|---|
| Aluminum | | | | |
| Antimony | | | | |
| Arsenic | anr | | | |
| Barium | anr | | | |
| Beryllium | anr | | | |
| Boron | | | | |
| Cadmium | anr | | | |
| Calcium | 27200 | 25000 | 108.8 | 80-120 |
| Chromium | anr | | | |
| Cobalt | | | | |
| Copper | | | | |
| Iron | 27500 | 26000 | 105.8 | 80-120 |
| Lead | anr | | | |
| Lithium | | | | |
| Magnesium | 26700 | 25000 | 106.8 | 80-120 |
| Manganese | anr | | | |
| Molybdenum | | | | |
| Nickel | anr | | | |
| Potassium | | | | |
| Selenium | anr | | | |
| Silver | anr | | | |
| Sodium | anr | | | |
| Strontium | | | | |
| Thallium | | | | |
| Tin | | | | |
| Titanium | | | | |
| Vanadium | | | | |
| Zinc | 518 | 500 | 103.6 | 80-120 |

Associated samples MP42269: FC5912-20, FC5912-21, FC5912-22, FC5912-23, FC5912-24

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FC5912
Account: SGSAKA - SGS North America, Inc
Project: 1231846

QC Batch ID: MP42269
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 05/19/23

| Metal | FC5887-23 Original | SDL 1:1 | %DIF | QC Limits |
|---|---|---|---|---|
| Aluminum | | | | |
| Antimony | | | | |
| Arsenic | anr | | | |
| Barium | anr | | | |
| Beryllium | anr | | | |
| Boron | | | | |
| Cadmium | anr | | | |
| Calcium | 59900 | 11600 | 80.6*(a) | 0-10 |
| Chromium | anr | | | |
| Cobalt | | | | |
| Copper | | | | |
| Iron | 29000 | 5660 | 80.5*(a) | 0-10 |
| Lead | anr | | | |
| Lithium | | | | |
| Magnesium | 7160 | 1400 | 80.4*(a) | 0-10 |
| Manganese | anr | | | |
| Molybdenum | | | | |
| Nickel | anr | | | |
| Potassium | | | | |
| Selenium | anr | | | |
| Silver | anr | | | |
| Sodium | anr | | | |
| Strontium | | | | |
| Thallium | | | | |
| Tin | | | | |
| Titanium | | | | |
| Vanadium | | | | |
| Zinc | 4.30 | 0.00 | 100.0(b) | 0-10 |

Associated samples MP42269: FC5912-20, FC5912-21, FC5912-22, FC5912-23, FC5912-24

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.
(b) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: FC5912
Account: SGSAKA - SGS North America, Inc
Project: 1231846

QC Batch ID: MP42269
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 05/19/23

| Metal | Sample ml | Final ml | FC5887-23 Raw | Corr.** | PS ug/l | Spike ml | Spike ug/ml | Spike ug/l | % Rec | QC Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| Aluminum | | | | | | | | | | |
| Antimony | | | | | | | | | | |
| Arsenic | | | | | | | | | | |
| Barium | | | | | | | | | | |
| Beryllium | | | | | | | | | | |
| Boron | | | | | | | | | | |
| Cadmium | | | | | | | | | | |
| Calcium | 9.8 | 10 | 59900 | 58702 | 64020 | 0.2 | 250 | 5000 | 106.4 | 80-120 |
| Chromium | | | | | | | | | | |
| Cobalt | | | | | | | | | | |
| Copper | | | | | | | | | | |
| Iron | 9.8 | 10 | 29040 | 28459.2 | 31590 | 0.2 | 150 | 3000 | 104.4 | 80-120 |
| Lead | | | | | | | | | | |
| Lithium | | | | | | | | | | |
| Magnesium | 9.8 | 10 | 7163 | 7019.74 | 12380 | 0.2 | 250 | 5000 | 107.2 | 80-120 |
| Manganese | | | | | | | | | | |
| Molybdenum | | | | | | | | | | |
| Nickel | | | | | | | | | | |
| Potassium | | | | | | | | | | |
| Selenium | | | | | | | | | | |
| Silver | | | | | | | | | | |
| Sodium | | | | | | | | | | |
| Strontium | | | | | | | | | | |
| Thallium | | | | | | | | | | |
| Tin | | | | | | | | | | |
| Titanium | | | | | | | | | | |
| Vanadium | | | | | | | | | | |
| Zinc | 9.8 | 10 | 4.3 | 4.214 | 259.6 | 0.2 | 12.5 | 250 | 102.2 | 80-120 |

Associated samples MP42269: FC5912-20, FC5912-21, FC5912-22, FC5912-23, FC5912-24

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested