

## Laboratory Report of Analysis

To: ADEC-Air & Water Quality  
555 Cordova St  
Anchorage, AK 99501  
907-741-1026

Report Number: **1225452**

Client Project: **Kenai River Metals Monitoring**

Dear Sarah Apsens,

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 Justin 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  
Project Manager  
Justin.Nelson@sgs.com

Date

## Case Narrative

SGS Client: **ADEC-Air & Water Quality**  
SGS Project: **1225452**  
Project Name/Site: **Kenai River Metals Monitoring**  
Project Contact: **Sarah Apsens**

Refer to sample receipt form for information on sample condition.

\*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, indemnification 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) & 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.



### Sample Summary

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
RM 70	1225452001	09/08/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 70 DUP	1225452002	09/08/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 82.1	1225452003	09/08/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 82.1 DUP	1225452004	09/08/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 76	1225452005	09/08/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 82	1225452006	09/08/2022	09/09/2022	Water (Surface, Eff., Ground)
Field Blank	1225452007	09/08/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 20.75	1225452008	09/07/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 19	1225452009	09/07/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 40	1225452010	09/06/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 70	1225452011	09/08/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 70 DUP	1225452012	09/08/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 82.1	1225452013	09/08/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 82.1 DUP	1225452014	09/08/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 76	1225452015	09/08/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 82	1225452016	09/08/2022	09/09/2022	Water (Surface, Eff., Ground)
Field Blank	1225452017	09/08/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 20.75	1225452018	09/07/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 19	1225452019	09/07/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 40	1225452020	09/06/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 12.75	1225452021	09/07/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 31	1225452022	09/06/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 21	1225452023	09/07/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 19.1	1225452024	09/07/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 19.1 DUP	1225452025	09/07/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 21.1	1225452026	09/07/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 5	1225452027	09/06/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 10.1	1225452028	09/07/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 23	1225452029	09/06/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 40 DUP	1225452030	09/06/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 12.75	1225452031	09/07/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 31	1225452032	09/06/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 21	1225452033	09/07/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 19.1	1225452034	09/07/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 19.1 DUP	1225452035	09/07/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 21.1	1225452036	09/07/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 5	1225452037	09/06/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 10.1	1225452038	09/07/2022	09/09/2022	Water (Surface, Eff., Ground)
RM 23	1225452039	09/06/2022	09/09/2022	Water (Surface, Eff., Ground)

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### Sample Summary

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
RM 40 DUP	1225452040	09/06/2022	09/09/2022	Water (Surface, Eff., Ground)
Disposal	1225452041	09/06/2022	09/09/2022	Water (Surface, Eff., Ground)

<u>Method</u>	<u>Method Description</u>
SM 5310B	Dissolved Organic Carbon
SM21 2340B	Hardness as CaCO3 by ICP-MS
EP200.8	Metals in Drinking Water by ICP-MS DISSO
EP200.8	Metals in Water by 200.8 ICP-MS
SM21 2540C	Total Dissolved Solids SM18 2540C

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### Detectable Results Summary

Client Sample ID: **RM 70**  
 Lab Sample ID: 1225452001

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	13800	ug/L
Hardness as CaCO3	39.8	mg/L
Magnesium	1300	ug/L
Zinc	40.6	ug/L
Total Dissolved Solids	57.0	mg/L

**Waters Department**

Client Sample ID: **RM 70 DUP**  
 Lab Sample ID: 1225452002

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	13900	ug/L
Hardness as CaCO3	40.1	mg/L
Magnesium	1280	ug/L
Zinc	39.2	ug/L
Total Dissolved Solids	65.0	mg/L

**Waters Department**

Client Sample ID: **RM 82.1**  
 Lab Sample ID: 1225452003

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	13700	ug/L
Hardness as CaCO3	39.3	mg/L
Magnesium	1220	ug/L
Zinc	76.4	ug/L
Total Dissolved Solids	61.0	mg/L

**Waters Department**

Client Sample ID: **RM 82.1 DUP**  
 Lab Sample ID: 1225452004

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	13600	ug/L
Hardness as CaCO3	39.0	mg/L
Magnesium	1240	ug/L
Zinc	41.2	ug/L
Total Dissolved Solids	54.0	mg/L

**Waters Department**

Client Sample ID: **RM 76**  
 Lab Sample ID: 1225452005

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	13700	ug/L
Hardness as CaCO3	39.2	mg/L
Magnesium	1200	ug/L
Zinc	30.8	ug/L
Total Dissolved Solids	64.0	mg/L

**Waters Department**

Client Sample ID: **RM 82**  
 Lab Sample ID: 1225452006

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	13400	ug/L
Hardness as CaCO3	38.2	mg/L
Magnesium	1180	ug/L
Zinc	27.0	ug/L
Total Dissolved Solids	60.0	mg/L

**Waters Department**

### Detectable Results Summary

Client Sample ID: **Field Blank**

Lab Sample ID: 1225452007

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Zinc	93.7	ug/L

Client Sample ID: **RM 20.75**

Lab Sample ID: 1225452008

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	10900	ug/L
Hardness as CaCO <sub>3</sub>	31.7	mg/L
Magnesium	1120	ug/L
Zinc	94.1	ug/L
Total Dissolved Solids	49.0	mg/L

**Waters Department**

Client Sample ID: **RM 19**

Lab Sample ID: 1225452009

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	10900	ug/L
Hardness as CaCO <sub>3</sub>	41.0	mg/L
Magnesium	3340	ug/L
Zinc	133	ug/L
TOC Average, Dissolved	14.4	mg/L
Total Dissolved Solids	84.0	mg/L

**Waters Department**

Client Sample ID: **RM 40**

Lab Sample ID: 1225452010

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	11000	ug/L
Hardness as CaCO <sub>3</sub>	31.6	mg/L
Magnesium	1030	ug/L
Zinc	60.3	ug/L
Total Dissolved Solids	39.0	mg/L

**Waters Department**

Client Sample ID: **RM 70**

Lab Sample ID: 1225452011

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	5880	ug/L
Magnesium	3350	ug/L
Potassium	4590	ug/L
Sodium	29600	ug/L
Zinc	42.5	ug/L

Client Sample ID: **RM 70 DUP**

Lab Sample ID: 1225452012

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	32.9	ug/L
Calcium	552	ug/L
Copper	121	ug/L
Magnesium	188	ug/L
Sodium	2200	ug/L
Zinc	81.9	ug/L

### Detectable Results Summary

Client Sample ID: **RM 82.1**

Lab Sample ID: 1225452013

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	35.9	ug/L
Calcium	589	ug/L
Copper	588	ug/L
Lead	2.98	ug/L
Magnesium	154	ug/L
Sodium	2100	ug/L
Zinc	73.8	ug/L

Client Sample ID: **RM 82.1 DUP**

Lab Sample ID: 1225452014

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	634	ug/L
Magnesium	153	ug/L
Sodium	2100	ug/L
Zinc	19.9	ug/L

Client Sample ID: **RM 76**

Lab Sample ID: 1225452015

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	28.7	ug/L
Calcium	917	ug/L
Copper	168	ug/L
Magnesium	157	ug/L
Sodium	2050	ug/L

Client Sample ID: **RM 82**

Lab Sample ID: 1225452016

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	31.7	ug/L
Copper	88.5	ug/L
Magnesium	154	ug/L
Sodium	2100	ug/L

Client Sample ID: **Field Blank**

Lab Sample ID: 1225452017

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	27.1	ug/L
Copper	429	ug/L
Magnesium	156	ug/L
Sodium	2130	ug/L
Zinc	16.5	ug/L

Client Sample ID: **RM 20.75**

Lab Sample ID: 1225452018

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	32.3	ug/L
Copper	48.8	ug/L
Magnesium	152	ug/L
Sodium	1970	ug/L



### Detectable Results Summary

Client Sample ID: **RM 19**  
 Lab Sample ID: 1225452019  
**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	30.6	ug/L
Copper	594	ug/L
Lead	2.10	ug/L
Magnesium	150	ug/L
Sodium	2020	ug/L
Zinc	135	ug/L

Client Sample ID: **RM 40**  
 Lab Sample ID: 1225452020  
**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	33.0	ug/L
Calcium	746	ug/L
Copper	132	ug/L
Magnesium	155	ug/L
Sodium	2500	ug/L

Client Sample ID: **RM 12.75**  
 Lab Sample ID: 1225452021  
**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	11200	ug/L
Hardness as CaCO <sub>3</sub>	32.9	mg/L
Magnesium	1170	ug/L
Zinc	85.4	ug/L
Total Dissolved Solids	41.0	mg/L

**Waters Department**

Client Sample ID: **RM 31**  
 Lab Sample ID: 1225452022  
**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	11500	ug/L
Hardness as CaCO <sub>3</sub>	33.5	mg/L
Magnesium	1190	ug/L
Zinc	70.9	ug/L
TOC Average, Dissolved	1.00	mg/L
Total Dissolved Solids	41.0	mg/L

**Waters Department**

Client Sample ID: **RM 21**  
 Lab Sample ID: 1225452023  
**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	10800	ug/L
Hardness as CaCO <sub>3</sub>	31.7	mg/L
Magnesium	1120	ug/L
Zinc	44.7	ug/L
Total Dissolved Solids	45.0	mg/L

**Waters Department**

Client Sample ID: **RM 19.1**  
 Lab Sample ID: 1225452024  
**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	10800	ug/L
Hardness as CaCO <sub>3</sub>	31.7	mg/L
Magnesium	1120	ug/L
Zinc	72.1	ug/L
Total Dissolved Solids	51.0	mg/L

**Waters Department**

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### Detectable Results Summary

Client Sample ID: **RM 19.1 DUP**

Lab Sample ID: 1225452025

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	10800	ug/L
Hardness as CaCO3	31.5	mg/L
Magnesium	1110	ug/L
Zinc	13.6	ug/L
Total Dissolved Solids	51.0	mg/L

**Waters Department**

Client Sample ID: **RM 21.1**

Lab Sample ID: 1225452026

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	10700	ug/L
Hardness as CaCO3	31.3	mg/L
Magnesium	1100	ug/L
Zinc	70.9	ug/L
Total Dissolved Solids	48.0	mg/L

**Waters Department**

Client Sample ID: **RM 5**

Lab Sample ID: 1225452027

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	10600	ug/L
Hardness as CaCO3	32.6	mg/L
Magnesium	1470	ug/L
Zinc	76.0	ug/L
TOC Average, Dissolved	2.73	mg/L
Total Dissolved Solids	48.0	mg/L

**Waters Department**

Client Sample ID: **RM 10.1**

Lab Sample ID: 1225452028

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	11000	ug/L
Hardness as CaCO3	32.0	mg/L
Magnesium	1110	ug/L
Zinc	69.9	ug/L
Total Dissolved Solids	47.0	mg/L

**Waters Department**

Client Sample ID: **RM 23**

Lab Sample ID: 1225452029

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	11200	ug/L
Hardness as CaCO3	32.6	mg/L
Magnesium	1120	ug/L
Zinc	62.9	ug/L
Total Dissolved Solids	43.0	mg/L

**Waters Department**

Client Sample ID: **RM 40 DUP**

Lab Sample ID: 1225452030

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	10700	ug/L
Hardness as CaCO3	30.9	mg/L
Magnesium	1030	ug/L
Zinc	107	ug/L
Total Dissolved Solids	39.0	mg/L

**Waters Department**

### Detectable Results Summary

Client Sample ID: **RM 12.75**

Lab Sample ID: 1225452031

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	54.1	ug/L
Lead	2.86	ug/L
Magnesium	155	ug/L
Sodium	2050	ug/L
Zinc	146	ug/L

Client Sample ID: **RM 19.1**

Lab Sample ID: 1225452034

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	26.5	ug/L
Calcium	72500	ug/L
Magnesium	16200	ug/L
Potassium	1950	ug/L
Sodium	31500	ug/L
Zinc	26.2	ug/L

Client Sample ID: **RM 19.1 DUP**

Lab Sample ID: 1225452035

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	62.6	ug/L
Calcium	35300	ug/L
Magnesium	12000	ug/L
Potassium	1420	ug/L
Sodium	9270	ug/L
Zinc	31.9	ug/L

Client Sample ID: **RM 21.1**

Lab Sample ID: 1225452036

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	53900	ug/L
Magnesium	9580	ug/L
Potassium	1630	ug/L
Sodium	33500	ug/L
Zinc	14.4	ug/L

Client Sample ID: **RM 5**

Lab Sample ID: 1225452037

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	73200	ug/L
Magnesium	16300	ug/L
Potassium	1910	ug/L
Sodium	31700	ug/L
Zinc	17.2	ug/L

### Detectable Results Summary

Client Sample ID: **RM 10.1**

Lab Sample ID: 1225452038

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	24200	ug/L
Copper	3.90	ug/L
Magnesium	18600	ug/L
Potassium	934	ug/L
Sodium	7430	ug/L
Zinc	24.4	ug/L

Client Sample ID: **RM 23**

Lab Sample ID: 1225452039

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	28.0	ug/L
Calcium	46900	ug/L
Magnesium	17700	ug/L
Potassium	12100	ug/L
Sodium	18400	ug/L

Client Sample ID: **RM 40 DUP**

Lab Sample ID: 1225452040

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	1940	ug/L
Magnesium	245	ug/L
Sodium	58900	ug/L



Results of **RM 70**

Client Sample ID: **RM 70**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452001  
Lab Project ID: 1225452

Collection Date: 09/08/22 11:30  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	13800	500	150	ug/L	1		09/17/22 16:31
Copper	3.00 U	3.00	1.00	ug/L	1		09/17/22 16:31
Magnesium	1300	50.0	15.0	ug/L	1		09/17/22 16:31
Zinc	40.6	10.0	3.10	ug/L	1		09/17/22 16:31

**Batch Information**

Analytical Batch: MMS11680  
Analytical Method: EP200.8  
Analyst: DSD  
Analytical Date/Time: 09/17/22 16:31  
Container ID: 1225452001-D

Prep Batch: MXX35451  
Prep Method: E200.2  
Prep Date/Time: 09/12/22 10:38  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	39.8	5.00	5.00	mg/L	1		09/17/22 16:31

**Batch Information**

Analytical Batch: MMS11680  
Analytical Method: SM21 2340B  
Analyst: DSD  
Analytical Date/Time: 09/17/22 16:31  
Container ID: 1225452001-D

Prep Batch: MXX35451  
Prep Method: E200.2  
Prep Date/Time: 09/12/22 10:38  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 70**

Client Sample ID: **RM 70**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452001  
Lab Project ID: 1225452

Collection Date: 09/08/22 11:30  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/26/22 23:34

**Batch Information**

Analytical Batch: WTC3239  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/26/22 23:34  
Container ID: 1225452001-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	57.0	10.0	3.10	mg/L	1		09/13/22 17:03

**Batch Information**

Analytical Batch: STS7389  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 09/13/22 17:03  
Container ID: 1225452001-C

Print Date: 10/06/2022 1:14:40PM



Results of RM 70 DUP

Client Sample ID: RM 70 DUP
Client Project ID: Kenai River Metals Monitoring
Lab Sample ID: 1225452002
Lab Project ID: 1225452

Collection Date: 09/08/22 11:30
Received Date: 09/09/22 08:34
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Metals by ICP/MS

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Calcium, Copper, Magnesium, and Zinc.

Batch Information

Analytical Batch: MMS11680
Analytical Method: EP200.8
Analyst: DSD
Analytical Date/Time: 09/17/22 16:43
Container ID: 1225452002-D
Prep Batch: MXX35451
Prep Method: E200.2
Prep Date/Time: 09/12/22 10:38
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Hardness as CaCO3.

Batch Information

Analytical Batch: MMS11680
Analytical Method: SM21 2340B
Analyst: DSD
Analytical Date/Time: 09/17/22 16:43
Container ID: 1225452002-D
Prep Batch: MXX35451
Prep Method: E200.2
Prep Date/Time: 09/12/22 10:38
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 70 DUP**

Client Sample ID: **RM 70 DUP**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452002  
Lab Project ID: 1225452

Collection Date: 09/08/22 11:30  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/27/22 00:15

**Batch Information**

Analytical Batch: WTC3239  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/27/22 00:15  
Container ID: 1225452002-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	65.0	10.0	3.10	mg/L	1		09/13/22 17:03

**Batch Information**

Analytical Batch: STS7389  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 09/13/22 17:03  
Container ID: 1225452002-C

Print Date: 10/06/2022 1:14:40PM





Results of **RM 82.1**

Client Sample ID: **RM 82.1**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452003  
Lab Project ID: 1225452

Collection Date: 09/08/22 10:15  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	13700	500	150	ug/L	1		09/17/22 16:46
Copper	3.00 U	3.00	1.00	ug/L	1		09/17/22 16:46
Magnesium	1220	50.0	15.0	ug/L	1		09/17/22 16:46
Zinc	76.4	10.0	3.10	ug/L	1		09/17/22 16:46

**Batch Information**

Analytical Batch: MMS11680  
Analytical Method: EP200.8  
Analyst: DSD  
Analytical Date/Time: 09/17/22 16:46  
Container ID: 1225452003-D

Prep Batch: MXX35451  
Prep Method: E200.2  
Prep Date/Time: 09/12/22 10:38  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	39.3	5.00	5.00	mg/L	1		09/17/22 16:46

**Batch Information**

Analytical Batch: MMS11680  
Analytical Method: SM21 2340B  
Analyst: DSD  
Analytical Date/Time: 09/17/22 16:46  
Container ID: 1225452003-D

Prep Batch: MXX35451  
Prep Method: E200.2  
Prep Date/Time: 09/12/22 10:38  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



Results of **RM 82.1**

Client Sample ID: **RM 82.1**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452003  
Lab Project ID: 1225452

Collection Date: 09/08/22 10:15  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/27/22 00:31

**Batch Information**

Analytical Batch: WTC3239  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/27/22 00:31  
Container ID: 1225452003-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	61.0	10.0	3.10	mg/L	1		09/13/22 17:03

**Batch Information**

Analytical Batch: STS7389  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 09/13/22 17:03  
Container ID: 1225452003-C

Print Date: 10/06/2022 1:14:40PM



Results of RM 82.1 DUP

Client Sample ID: RM 82.1 DUP
Client Project ID: Kenai River Metals Monitoring
Lab Sample ID: 1225452004
Lab Project ID: 1225452

Collection Date: 09/08/22 10:15
Received Date: 09/09/22 08:34
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Metals by ICP/MS

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Calcium, Copper, Magnesium, and Zinc.

Batch Information

Analytical Batch: MMS11680
Analytical Method: EP200.8
Analyst: DSD
Analytical Date/Time: 09/17/22 16:49
Container ID: 1225452004-D
Prep Batch: MXX35451
Prep Method: E200.2
Prep Date/Time: 09/12/22 10:38
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Hardness as CaCO3.

Batch Information

Analytical Batch: MMS11680
Analytical Method: SM21 2340B
Analyst: DSD
Analytical Date/Time: 09/17/22 16:49
Container ID: 1225452004-D
Prep Batch: MXX35451
Prep Method: E200.2
Prep Date/Time: 09/12/22 10:38
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



Results of **RM 82.1 DUP**

Client Sample ID: **RM 82.1 DUP**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452004  
Lab Project ID: 1225452

Collection Date: 09/08/22 10:15  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/27/22 00:45

**Batch Information**

Analytical Batch: WTC3239  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/27/22 00:45  
Container ID: 1225452004-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	54.0	10.0	3.10	mg/L	1		09/13/22 17:03

**Batch Information**

Analytical Batch: STS7389  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 09/13/22 17:03  
Container ID: 1225452004-C

Print Date: 10/06/2022 1:14:40PM



Results of RM 76

Client Sample ID: RM 76
Client Project ID: Kenai River Metals Monitoring
Lab Sample ID: 1225452005
Lab Project ID: 1225452

Collection Date: 09/08/22 10:50
Received Date: 09/09/22 08:34
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Metals by ICP/MS

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Rows include Calcium, Copper, Magnesium, and Zinc.

Batch Information

Analytical Batch: MMS11680
Analytical Method: EP200.8
Analyst: DSD
Analytical Date/Time: 09/17/22 16:59
Container ID: 1225452005-D
Prep Batch: MXX35451
Prep Method: E200.2
Prep Date/Time: 09/12/22 10:38
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row includes Hardness as CaCO3.

Batch Information

Analytical Batch: MMS11680
Analytical Method: SM21 2340B
Analyst: DSD
Analytical Date/Time: 09/17/22 16:59
Container ID: 1225452005-D
Prep Batch: MXX35451
Prep Method: E200.2
Prep Date/Time: 09/12/22 10:38
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



Results of **RM 76**

Client Sample ID: **RM 76**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452005  
Lab Project ID: 1225452

Collection Date: 09/08/22 10:50  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/27/22 00:58

**Batch Information**

Analytical Batch: WTC3239  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/27/22 00:58  
Container ID: 1225452005-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	64.0	10.0	3.10	mg/L	1		09/13/22 17:03

**Batch Information**

Analytical Batch: STS7389  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 09/13/22 17:03  
Container ID: 1225452005-C

Print Date: 10/06/2022 1:14:40PM



Results of **RM 82**

Client Sample ID: **RM 82**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452006  
Lab Project ID: 1225452

Collection Date: 09/08/22 10:25  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	13400	500	150	ug/L	1		09/17/22 17:02
Copper	3.00 U	3.00	1.00	ug/L	1		09/17/22 17:02
Magnesium	1180	50.0	15.0	ug/L	1		09/17/22 17:02
Zinc	27.0	10.0	3.10	ug/L	1		09/17/22 17:02

**Batch Information**

Analytical Batch: MMS11680	Prep Batch: MXX35451
Analytical Method: EP200.8	Prep Method: E200.2
Analyst: DSD	Prep Date/Time: 09/12/22 10:38
Analytical Date/Time: 09/17/22 17:02	Prep Initial Wt./Vol.: 20 mL
Container ID: 1225452006-D	Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	38.2	5.00	5.00	mg/L	1		09/17/22 17:02

**Batch Information**

Analytical Batch: MMS11680	Prep Batch: MXX35451
Analytical Method: SM21 2340B	Prep Method: E200.2
Analyst: DSD	Prep Date/Time: 09/12/22 10:38
Analytical Date/Time: 09/17/22 17:02	Prep Initial Wt./Vol.: 20 mL
Container ID: 1225452006-D	Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 82**

Client Sample ID: **RM 82**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452006  
Lab Project ID: 1225452

Collection Date: 09/08/22 10:25  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/25/22 21:56

**Batch Information**

Analytical Batch: WTC3236  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/25/22 21:56  
Container ID: 1225452006-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	60.0	10.0	3.10	mg/L	1		09/13/22 17:03

**Batch Information**

Analytical Batch: STS7389  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 09/13/22 17:03  
Container ID: 1225452006-C

Print Date: 10/06/2022 1:14:40PM





**Results of Field Blank**

Client Sample ID: **Field Blank**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452007  
Lab Project ID: 1225452

Collection Date: 09/08/22 11:00  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	500 U	500	150	ug/L	1		09/17/22 17:05
Copper	3.00 U	3.00	1.00	ug/L	1		09/17/22 17:05
Magnesium	50.0 U	50.0	15.0	ug/L	1		09/17/22 17:05
Zinc	93.7	10.0	3.10	ug/L	1		09/17/22 17:05

**Batch Information**

Analytical Batch: MMS11680  
Analytical Method: EP200.8  
Analyst: DSD  
Analytical Date/Time: 09/17/22 17:05  
Container ID: 1225452007-D

Prep Batch: MXX35451  
Prep Method: E200.2  
Prep Date/Time: 09/12/22 10:38  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	5.00 U	5.00	5.00	mg/L	1		09/17/22 17:05

**Batch Information**

Analytical Batch: MMS11680  
Analytical Method: SM21 2340B  
Analyst: DSD  
Analytical Date/Time: 09/17/22 17:05  
Container ID: 1225452007-D

Prep Batch: MXX35451  
Prep Method: E200.2  
Prep Date/Time: 09/12/22 10:38  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of Field Blank**

Client Sample ID: **Field Blank**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452007  
Lab Project ID: 1225452

Collection Date: 09/08/22 11:00  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/25/22 22:17

**Batch Information**

Analytical Batch: WTC3236  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/25/22 22:17  
Container ID: 1225452007-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	10.5 U	10.5	3.26	mg/L	1		09/13/22 17:03

**Batch Information**

Analytical Batch: STS7389  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 09/13/22 17:03  
Container ID: 1225452007-C

Print Date: 10/06/2022 1:14:40PM



Results of **RM 20.75**

Client Sample ID: **RM 20.75**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452008  
Lab Project ID: 1225452

Collection Date: 09/07/22 11:30  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	10900	500	150	ug/L	1		09/17/22 17:08
Copper	3.00 U	3.00	1.00	ug/L	1		09/17/22 17:08
Magnesium	1120	50.0	15.0	ug/L	1		09/17/22 17:08
Zinc	94.1	10.0	3.10	ug/L	1		09/17/22 17:08

**Batch Information**

Analytical Batch: MMS11680  
Analytical Method: EP200.8  
Analyst: DSD  
Analytical Date/Time: 09/17/22 17:08  
Container ID: 1225452008-D

Prep Batch: MXX35451  
Prep Method: E200.2  
Prep Date/Time: 09/12/22 10:38  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	31.7	5.00	5.00	mg/L	1		09/17/22 17:08

**Batch Information**

Analytical Batch: MMS11680  
Analytical Method: SM21 2340B  
Analyst: DSD  
Analytical Date/Time: 09/17/22 17:08  
Container ID: 1225452008-D

Prep Batch: MXX35451  
Prep Method: E200.2  
Prep Date/Time: 09/12/22 10:38  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 20.75**

Client Sample ID: **RM 20.75**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452008  
Lab Project ID: 1225452

Collection Date: 09/07/22 11:30  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/25/22 22:41

**Batch Information**

Analytical Batch: WTC3236  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/25/22 22:41  
Container ID: 1225452008-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	49.0	10.0	3.10	mg/L	1		09/13/22 17:03

**Batch Information**

Analytical Batch: STS7389  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 09/13/22 17:03  
Container ID: 1225452008-C

Print Date: 10/06/2022 1:14:40PM



Results of **RM 19**

Client Sample ID: **RM 19**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452009  
Lab Project ID: 1225452

Collection Date: 09/07/22 15:00  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	10900	500	150	ug/L	1		09/17/22 17:11
Copper	3.00 U	3.00	1.00	ug/L	1		09/17/22 17:11
Magnesium	3340	50.0	15.0	ug/L	1		09/17/22 17:11
Zinc	133	10.0	3.10	ug/L	1		09/17/22 17:11

**Batch Information**

Analytical Batch: MMS11680  
Analytical Method: EP200.8  
Analyst: DSD  
Analytical Date/Time: 09/17/22 17:11  
Container ID: 1225452009-D

Prep Batch: MXX35451  
Prep Method: E200.2  
Prep Date/Time: 09/12/22 10:38  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	41.0	5.00	5.00	mg/L	1		09/17/22 17:11

**Batch Information**

Analytical Batch: MMS11680  
Analytical Method: SM21 2340B  
Analyst: DSD  
Analytical Date/Time: 09/17/22 17:11  
Container ID: 1225452009-D

Prep Batch: MXX35451  
Prep Method: E200.2  
Prep Date/Time: 09/12/22 10:38  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 19**

Client Sample ID: **RM 19**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452009  
Lab Project ID: 1225452

Collection Date: 09/07/22 15:00  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	14.4	1.00	0.400	mg/L	1		09/25/22 23:00

**Batch Information**

Analytical Batch: WTC3236  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/25/22 23:00  
Container ID: 1225452009-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	84.0	10.0	3.10	mg/L	1		09/10/22 17:33

**Batch Information**

Analytical Batch: STS7386  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 09/10/22 17:33  
Container ID: 1225452009-C

Print Date: 10/06/2022 1:14:40PM

## Results of RM 40

Client Sample ID: **RM 40**  
 Client Project ID: **Kenai River Metals Monitoring**  
 Lab Sample ID: 1225452010  
 Lab Project ID: 1225452

Collection Date: 09/06/22 10:00  
 Received Date: 09/09/22 08:34  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	11000	500	150	ug/L	1		09/17/22 17:14
Copper	3.00 U	3.00	1.00	ug/L	1		09/17/22 17:14
Magnesium	1030	50.0	15.0	ug/L	1		09/17/22 17:14
Zinc	60.3	10.0	3.10	ug/L	1		09/17/22 17:14

## Batch Information

Analytical Batch: MMS11680  
 Analytical Method: EP200.8  
 Analyst: DSD  
 Analytical Date/Time: 09/17/22 17:14  
 Container ID: 1225452010-D

Prep Batch: MXX35451  
 Prep Method: E200.2  
 Prep Date/Time: 09/12/22 10:38  
 Prep Initial Wt./Vol.: 20 mL  
 Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	31.6	5.00	5.00	mg/L	1		09/17/22 17:14

## Batch Information

Analytical Batch: MMS11680  
 Analytical Method: SM21 2340B  
 Analyst: DSD  
 Analytical Date/Time: 09/17/22 17:14  
 Container ID: 1225452010-D

Prep Batch: MXX35451  
 Prep Method: E200.2  
 Prep Date/Time: 09/12/22 10:38  
 Prep Initial Wt./Vol.: 20 mL  
 Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 40**

Client Sample ID: **RM 40**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452010  
Lab Project ID: 1225452

Collection Date: 09/06/22 10:00  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/25/22 23:19

**Batch Information**

Analytical Batch: WTC3236  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/25/22 23:19  
Container ID: 1225452010-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	39.0	10.0	3.10	mg/L	1		09/10/22 17:33

**Batch Information**

Analytical Batch: STS7386  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 09/10/22 17:33  
Container ID: 1225452010-C

Print Date: 10/06/2022 1:14:40PM





**Results of RM 70**

Client Sample ID: **RM 70**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452011  
Lab Project ID: 1225452

Collection Date: 09/08/22 11:30  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

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

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	20.0 U	20.0	6.20	ug/L	1		09/21/22 21:50
Cadmium	0.500 U	0.500	0.150	ug/L	1		09/21/22 21:50
Calcium	5880	500	150	ug/L	1		09/21/22 21:50
Copper	3.00 U	3.00	1.00	ug/L	1		09/21/22 21:50
Lead	2.00 U	2.00	0.500	ug/L	1		09/21/22 21:50
Magnesium	3350	50.0	15.0	ug/L	1		09/21/22 21:50
Potassium	4590	500	150	ug/L	1		09/21/22 21:50
Selenium	5.00 U	5.00	1.50	ug/L	1		09/21/22 21:50
Sodium	29600	500	150	ug/L	1		09/21/22 21:50
Zinc	42.5	10.0	3.10	ug/L	1		09/21/22 21:50

**Batch Information**

Analytical Batch: MMS11687  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 09/21/22 21:50  
Container ID: 1225452011-B

Prep Batch: MXX35474  
Prep Method: E200.2  
Prep Date/Time: 09/19/22 15:02  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 70 DUP**

Client Sample ID: **RM 70 DUP**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452012  
Lab Project ID: 1225452

Collection Date: 09/08/22 11:30  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

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

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	32.9	20.0	6.20	ug/L	1		09/21/22 22:01
Cadmium	0.500 U	0.500	0.150	ug/L	1		09/21/22 22:01
Calcium	552	500	150	ug/L	1		09/21/22 22:01
Copper	121	3.00	1.00	ug/L	1		09/21/22 22:01
Lead	2.00 U	2.00	0.500	ug/L	1		09/21/22 22:01
Magnesium	188	50.0	15.0	ug/L	1		09/21/22 22:01
Potassium	500 U	500	150	ug/L	1		09/21/22 22:01
Selenium	5.00 U	5.00	1.50	ug/L	1		09/21/22 22:01
Sodium	2200	500	150	ug/L	1		09/21/22 22:01
Zinc	81.9	10.0	3.10	ug/L	1		09/21/22 22:01

**Batch Information**

Analytical Batch: MMS11687  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 09/21/22 22:01  
Container ID: 1225452012-B

Prep Batch: MXX35474  
Prep Method: E200.2  
Prep Date/Time: 09/19/22 15:02  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 82.1**

Client Sample ID: **RM 82.1**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452013  
Lab Project ID: 1225452

Collection Date: 09/08/22 10:15  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

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

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	35.9	20.0	6.20	ug/L	1		09/21/22 22:03
Cadmium	0.500 U	0.500	0.150	ug/L	1		09/21/22 22:03
Calcium	589	500	150	ug/L	1		09/21/22 22:03
Copper	588	3.00	1.00	ug/L	1		09/21/22 22:03
Lead	2.98	2.00	0.500	ug/L	1		09/21/22 22:03
Magnesium	154	50.0	15.0	ug/L	1		09/21/22 22:03
Potassium	500 U	500	150	ug/L	1		09/21/22 22:03
Selenium	5.00 U	5.00	1.50	ug/L	1		09/21/22 22:03
Sodium	2100	500	150	ug/L	1		09/21/22 22:03
Zinc	73.8	10.0	3.10	ug/L	1		09/21/22 22:03

**Batch Information**

Analytical Batch: MMS11687  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 09/21/22 22:03  
Container ID: 1225452013-B

Prep Batch: MXX35474  
Prep Method: E200.2  
Prep Date/Time: 09/19/22 15:02  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



### Results of RM 82.1 DUP

Client Sample ID: **RM 82.1 DUP**  
 Client Project ID: **Kenai River Metals Monitoring**  
 Lab Sample ID: 1225452014  
 Lab Project ID: 1225452

Collection Date: 09/08/22 10:15  
 Received Date: 09/09/22 08:34  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

### Results by Dissolved Metals by ICP/MS

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	20.0 U	20.0	6.20	ug/L	1		09/21/22 22:06
Cadmium	0.500 U	0.500	0.150	ug/L	1		09/21/22 22:06
Calcium	634	500	150	ug/L	1		09/21/22 22:06
Copper	15.0 U	15.0	5.00	ug/L	5		09/30/22 13:15
Lead	2.00 U	2.00	0.500	ug/L	1		09/21/22 22:06
Magnesium	153	50.0	15.0	ug/L	1		09/21/22 22:06
Potassium	500 U	500	150	ug/L	1		09/21/22 22:06
Selenium	5.00 U	5.00	1.50	ug/L	1		09/21/22 22:06
Sodium	2100	500	150	ug/L	1		09/21/22 22:06
Zinc	19.9	10.0	3.10	ug/L	1		09/21/22 22:06

### Batch Information

Analytical Batch: MMS11704  
 Analytical Method: EP200.8  
 Analyst: HGS  
 Analytical Date/Time: 09/30/22 13:15  
 Container ID: 1225452014-B

Prep Batch: MX35474  
 Prep Method: E200.2  
 Prep Date/Time: 09/19/22 15:02  
 Prep Initial Wt./Vol.: 20 mL  
 Prep Extract Vol: 50 mL

Analytical Batch: MMS11687  
 Analytical Method: EP200.8  
 Analyst: HGS  
 Analytical Date/Time: 09/21/22 22:06  
 Container ID: 1225452014-B

Prep Batch: MX35474  
 Prep Method: E200.2  
 Prep Date/Time: 09/19/22 15:02  
 Prep Initial Wt./Vol.: 20 mL  
 Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 76**

Client Sample ID: **RM 76**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452015  
Lab Project ID: 1225452

Collection Date: 09/08/22 10:50  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

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

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	28.7	20.0	6.20	ug/L	1		09/21/22 22:14
Cadmium	0.500 U	0.500	0.150	ug/L	1		09/21/22 22:14
Calcium	917	500	150	ug/L	1		09/21/22 22:14
Copper	168	3.00	1.00	ug/L	1		09/21/22 22:14
Lead	2.00 U	2.00	0.500	ug/L	1		09/21/22 22:14
Magnesium	157	50.0	15.0	ug/L	1		09/21/22 22:14
Potassium	500 U	500	150	ug/L	1		09/21/22 22:14
Selenium	5.00 U	5.00	1.50	ug/L	1		09/21/22 22:14
Sodium	2050	500	150	ug/L	1		09/21/22 22:14
Zinc	10.0 U	10.0	3.10	ug/L	1		09/21/22 22:14

**Batch Information**

Analytical Batch: MMS11687  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 09/21/22 22:14  
Container ID: 1225452015-B

Prep Batch: MXX35474  
Prep Method: E200.2  
Prep Date/Time: 09/19/22 15:02  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 82**

Client Sample ID: **RM 82**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452016  
Lab Project ID: 1225452

Collection Date: 09/08/22 10:25  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

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

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	31.7	20.0	6.20	ug/L	1		09/21/22 22:17
Cadmium	0.500 U	0.500	0.150	ug/L	1		09/21/22 22:17
Calcium	500 U	500	150	ug/L	1		09/21/22 22:17
Copper	88.5	3.00	1.00	ug/L	1		09/21/22 22:17
Lead	2.00 U	2.00	0.500	ug/L	1		09/21/22 22:17
Magnesium	154	50.0	15.0	ug/L	1		09/21/22 22:17
Potassium	500 U	500	150	ug/L	1		09/21/22 22:17
Selenium	5.00 U	5.00	1.50	ug/L	1		09/21/22 22:17
Sodium	2100	500	150	ug/L	1		09/21/22 22:17
Zinc	10.0 U	10.0	3.10	ug/L	1		09/21/22 22:17

**Batch Information**

Analytical Batch: MMS11687  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 09/21/22 22:17  
Container ID: 1225452016-B

Prep Batch: MXX35474  
Prep Method: E200.2  
Prep Date/Time: 09/19/22 15:02  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of Field Blank**

Client Sample ID: **Field Blank**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452017  
Lab Project ID: 1225452

Collection Date: 09/08/22 11:00  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

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

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	27.1	20.0	6.20	ug/L	1		09/21/22 22:19
Cadmium	0.500 U	0.500	0.150	ug/L	1		09/21/22 22:19
Calcium	500 U	500	150	ug/L	1		09/21/22 22:19
Copper	429	3.00	1.00	ug/L	1		09/21/22 22:19
Lead	2.00 U	2.00	0.500	ug/L	1		09/21/22 22:19
Magnesium	156	50.0	15.0	ug/L	1		09/21/22 22:19
Potassium	500 U	500	150	ug/L	1		09/21/22 22:19
Selenium	5.00 U	5.00	1.50	ug/L	1		09/21/22 22:19
Sodium	2130	500	150	ug/L	1		09/21/22 22:19
Zinc	16.5	10.0	3.10	ug/L	1		09/21/22 22:19

**Batch Information**

Analytical Batch: MMS11687  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 09/21/22 22:19  
Container ID: 1225452017-B

Prep Batch: MXX35474  
Prep Method: E200.2  
Prep Date/Time: 09/19/22 15:02  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM

## Results of RM 20.75

Client Sample ID: **RM 20.75**  
 Client Project ID: **Kenai River Metals Monitoring**  
 Lab Sample ID: 1225452018  
 Lab Project ID: 1225452

Collection Date: 09/07/22 11:30  
 Received Date: 09/09/22 08:34  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Dissolved Metals by ICP/MS

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	32.3	20.0	6.20	ug/L	1		09/21/22 22:22
Cadmium	0.500 U	0.500	0.150	ug/L	1		09/21/22 22:22
Calcium	500 U	500	150	ug/L	1		09/21/22 22:22
Copper	48.8	3.00	1.00	ug/L	1		09/21/22 22:22
Lead	2.00 U	2.00	0.500	ug/L	1		09/21/22 22:22
Magnesium	152	50.0	15.0	ug/L	1		09/21/22 22:22
Potassium	500 U	500	150	ug/L	1		09/21/22 22:22
Selenium	5.00 U	5.00	1.50	ug/L	1		09/21/22 22:22
Sodium	1970	500	150	ug/L	1		09/21/22 22:22
Zinc	10.0 U	10.0	3.10	ug/L	1		09/21/22 22:22

## Batch Information

Analytical Batch: MMS11687  
 Analytical Method: EP200.8  
 Analyst: HGS  
 Analytical Date/Time: 09/21/22 22:22  
 Container ID: 1225452018-B

Prep Batch: MXX35474  
 Prep Method: E200.2  
 Prep Date/Time: 09/19/22 15:02  
 Prep Initial Wt./Vol.: 20 mL  
 Prep Extract Vol: 50 mL





**Results of RM 19**

Client Sample ID: **RM 19**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452019  
Lab Project ID: 1225452

Collection Date: 09/07/22 15:00  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

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

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	30.6	20.0	6.20	ug/L	1		09/21/22 22:25
Cadmium	0.500 U	0.500	0.150	ug/L	1		09/21/22 22:25
Calcium	500 U	500	150	ug/L	1		09/21/22 22:25
Copper	594	3.00	1.00	ug/L	1		09/21/22 22:25
Lead	2.10	2.00	0.500	ug/L	1		09/21/22 22:25
Magnesium	150	50.0	15.0	ug/L	1		09/21/22 22:25
Potassium	500 U	500	150	ug/L	1		09/21/22 22:25
Selenium	5.00 U	5.00	1.50	ug/L	1		09/21/22 22:25
Sodium	2020	500	150	ug/L	1		09/21/22 22:25
Zinc	135	10.0	3.10	ug/L	1		09/21/22 22:25

**Batch Information**

Analytical Batch: MMS11687  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 09/21/22 22:25  
Container ID: 1225452019-B

Prep Batch: MXX35474  
Prep Method: E200.2  
Prep Date/Time: 09/19/22 15:02  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 40**

Client Sample ID: **RM 40**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452020  
Lab Project ID: 1225452

Collection Date: 09/06/22 10:00  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

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

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	33.0	20.0	6.20	ug/L	1		09/21/22 22:28
Cadmium	0.500 U	0.500	0.150	ug/L	1		09/21/22 22:28
Calcium	746	500	150	ug/L	1		09/21/22 22:28
Copper	132	3.00	1.00	ug/L	1		09/21/22 22:28
Lead	2.00 U	2.00	0.500	ug/L	1		09/21/22 22:28
Magnesium	155	50.0	15.0	ug/L	1		09/21/22 22:28
Potassium	500 U	500	150	ug/L	1		09/21/22 22:28
Selenium	5.00 U	5.00	1.50	ug/L	1		09/21/22 22:28
Sodium	2500	500	150	ug/L	1		09/21/22 22:28
Zinc	10.0 U	10.0	3.10	ug/L	1		09/21/22 22:28

**Batch Information**

Analytical Batch: MMS11687  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 09/21/22 22:28  
Container ID: 1225452020-B

Prep Batch: MXX35474  
Prep Method: E200.2  
Prep Date/Time: 09/19/22 15:02  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM

## Results of RM 12.75

Client Sample ID: **RM 12.75**  
 Client Project ID: **Kenai River Metals Monitoring**  
 Lab Sample ID: 1225452021  
 Lab Project ID: 1225452

Collection Date: 09/07/22 10:40  
 Received Date: 09/09/22 08:34  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	11200	500	150	ug/L	1		09/17/22 17:17
Copper	3.00 U	3.00	1.00	ug/L	1		09/17/22 17:17
Magnesium	1170	50.0	15.0	ug/L	1		09/17/22 17:17
Zinc	85.4	10.0	3.10	ug/L	1		09/17/22 17:17

## Batch Information

Analytical Batch: MMS11680  
 Analytical Method: EP200.8  
 Analyst: DSD  
 Analytical Date/Time: 09/17/22 17:17  
 Container ID: 1225452021-D

Prep Batch: MXX35451  
 Prep Method: E200.2  
 Prep Date/Time: 09/12/22 10:38  
 Prep Initial Wt./Vol.: 20 mL  
 Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	32.9	5.00	5.00	mg/L	1		09/17/22 17:17

## Batch Information

Analytical Batch: MMS11680  
 Analytical Method: SM21 2340B  
 Analyst: DSD  
 Analytical Date/Time: 09/17/22 17:17  
 Container ID: 1225452021-D

Prep Batch: MXX35451  
 Prep Method: E200.2  
 Prep Date/Time: 09/12/22 10:38  
 Prep Initial Wt./Vol.: 20 mL  
 Prep Extract Vol: 50 mL



**Results of RM 12.75**

Client Sample ID: **RM 12.75**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452021  
Lab Project ID: 1225452

Collection Date: 09/07/22 10:40  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/25/22 23:43

**Batch Information**

Analytical Batch: WTC3236  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/25/22 23:43  
Container ID: 1225452021-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	41.0	10.0	3.10	mg/L	1		09/10/22 17:33

**Batch Information**

Analytical Batch: STS7386  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 09/10/22 17:33  
Container ID: 1225452021-C

Print Date: 10/06/2022 1:14:40PM

## Results of RM 31

Client Sample ID: **RM 31**  
 Client Project ID: **Kenai River Metals Monitoring**  
 Lab Sample ID: 1225452022  
 Lab Project ID: 1225452

Collection Date: 09/06/22 11:00  
 Received Date: 09/09/22 08:34  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	11500	500	150	ug/L	1		09/17/22 17:20
Copper	3.00 U	3.00	1.00	ug/L	1		09/17/22 17:20
Magnesium	1190	50.0	15.0	ug/L	1		09/17/22 17:20
Zinc	70.9	10.0	3.10	ug/L	1		09/17/22 17:20

## Batch Information

Analytical Batch: MMS11680  
 Analytical Method: EP200.8  
 Analyst: DSD  
 Analytical Date/Time: 09/17/22 17:20  
 Container ID: 1225452022-D

Prep Batch: MXX35451  
 Prep Method: E200.2  
 Prep Date/Time: 09/12/22 10:38  
 Prep Initial Wt./Vol.: 20 mL  
 Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	33.5	5.00	5.00	mg/L	1		09/17/22 17:20

## Batch Information

Analytical Batch: MMS11680  
 Analytical Method: SM21 2340B  
 Analyst: DSD  
 Analytical Date/Time: 09/17/22 17:20  
 Container ID: 1225452022-D

Prep Batch: MXX35451  
 Prep Method: E200.2  
 Prep Date/Time: 09/12/22 10:38  
 Prep Initial Wt./Vol.: 20 mL  
 Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 31**

Client Sample ID: **RM 31**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452022  
Lab Project ID: 1225452

Collection Date: 09/06/22 11:00  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00	1.00	0.400	mg/L	1		09/26/22 00:02

**Batch Information**

Analytical Batch: WTC3236  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/26/22 00:02  
Container ID: 1225452022-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	41.0	10.0	3.10	mg/L	1		09/10/22 17:33

**Batch Information**

Analytical Batch: STS7386  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 09/10/22 17:33  
Container ID: 1225452022-C

Print Date: 10/06/2022 1:14:40PM

## Results of RM 21

Client Sample ID: **RM 21**  
 Client Project ID: **Kenai River Metals Monitoring**  
 Lab Sample ID: 1225452023  
 Lab Project ID: 1225452

Collection Date: 09/07/22 14:30  
 Received Date: 09/09/22 08:34  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	10800	500	150	ug/L	1		09/17/22 17:23
Copper	3.00 U	3.00	1.00	ug/L	1		09/17/22 17:23
Magnesium	1120	50.0	15.0	ug/L	1		09/17/22 17:23
Zinc	44.7	10.0	3.10	ug/L	1		09/17/22 17:23

## Batch Information

Analytical Batch: MMS11680  
 Analytical Method: EP200.8  
 Analyst: DSD  
 Analytical Date/Time: 09/17/22 17:23  
 Container ID: 1225452023-D

Prep Batch: MXX35451  
 Prep Method: E200.2  
 Prep Date/Time: 09/12/22 10:38  
 Prep Initial Wt./Vol.: 20 mL  
 Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	31.7	5.00	5.00	mg/L	1		09/17/22 17:23

## Batch Information

Analytical Batch: MMS11680  
 Analytical Method: SM21 2340B  
 Analyst: DSD  
 Analytical Date/Time: 09/17/22 17:23  
 Container ID: 1225452023-D

Prep Batch: MXX35451  
 Prep Method: E200.2  
 Prep Date/Time: 09/12/22 10:38  
 Prep Initial Wt./Vol.: 20 mL  
 Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



Results of **RM 21**

Client Sample ID: **RM 21**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452023  
Lab Project ID: 1225452

Collection Date: 09/07/22 14:30  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/26/22 00:21

**Batch Information**

Analytical Batch: WTC3236  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/26/22 00:21  
Container ID: 1225452023-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	45.0	10.0	3.10	mg/L	1		09/13/22 17:03

**Batch Information**

Analytical Batch: STS7389  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 09/13/22 17:03  
Container ID: 1225452023-C

Print Date: 10/06/2022 1:14:40PM





Results of **RM 19.1**

Client Sample ID: **RM 19.1**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452024  
Lab Project ID: 1225452

Collection Date: 09/07/22 11:10  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	10800	500	150	ug/L	1		09/17/22 17:26
Copper	3.00 U	3.00	1.00	ug/L	1		09/17/22 17:26
Magnesium	1120	50.0	15.0	ug/L	1		09/17/22 17:26
Zinc	72.1	10.0	3.10	ug/L	1		09/17/22 17:26

**Batch Information**

Analytical Batch: MMS11680  
Analytical Method: EP200.8  
Analyst: DSD  
Analytical Date/Time: 09/17/22 17:26  
Container ID: 1225452024-D

Prep Batch: MXX35451  
Prep Method: E200.2  
Prep Date/Time: 09/12/22 10:38  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	31.7	5.00	5.00	mg/L	1		09/17/22 17:26

**Batch Information**

Analytical Batch: MMS11680  
Analytical Method: SM21 2340B  
Analyst: DSD  
Analytical Date/Time: 09/17/22 17:26  
Container ID: 1225452024-D

Prep Batch: MXX35451  
Prep Method: E200.2  
Prep Date/Time: 09/12/22 10:38  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



Results of **RM 19.1**

Client Sample ID: **RM 19.1**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452024  
Lab Project ID: 1225452

Collection Date: 09/07/22 11:10  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/26/22 00:38

**Batch Information**

Analytical Batch: WTC3236  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/26/22 00:38  
Container ID: 1225452024-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	51.0	10.0	3.10	mg/L	1		09/13/22 17:03

**Batch Information**

Analytical Batch: STS7389  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 09/13/22 17:03  
Container ID: 1225452024-C

Print Date: 10/06/2022 1:14:40PM



Results of **RM 19.1 DUP**

Client Sample ID: **RM 19.1 DUP**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452025  
Lab Project ID: 1225452

Collection Date: 09/07/22 11:10  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	10800	500	150	ug/L	1		09/17/22 17:35
Copper	3.00 U	3.00	1.00	ug/L	1		09/17/22 17:35
Magnesium	1110	50.0	15.0	ug/L	1		09/17/22 17:35
Zinc	13.6	10.0	3.10	ug/L	1		09/17/22 17:35

**Batch Information**

Analytical Batch: MMS11680  
Analytical Method: EP200.8  
Analyst: DSD  
Analytical Date/Time: 09/17/22 17:35  
Container ID: 1225452025-D

Prep Batch: MXX35451  
Prep Method: E200.2  
Prep Date/Time: 09/12/22 10:38  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	31.5	5.00	5.00	mg/L	1		09/17/22 17:35

**Batch Information**

Analytical Batch: MMS11680  
Analytical Method: SM21 2340B  
Analyst: DSD  
Analytical Date/Time: 09/17/22 17:35  
Container ID: 1225452025-D

Prep Batch: MXX35451  
Prep Method: E200.2  
Prep Date/Time: 09/12/22 10:38  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



Results of **RM 19.1 DUP**

Client Sample ID: **RM 19.1 DUP**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452025  
Lab Project ID: 1225452

Collection Date: 09/07/22 11:10  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/26/22 01:28

**Batch Information**

Analytical Batch: WTC3236  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/26/22 01:28  
Container ID: 1225452025-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	51.0	10.0	3.10	mg/L	1		09/13/22 17:03

**Batch Information**

Analytical Batch: STS7389  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 09/13/22 17:03  
Container ID: 1225452025-C

Print Date: 10/06/2022 1:14:40PM



Results of **RM 21.1**

Client Sample ID: **RM 21.1**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452026  
Lab Project ID: 1225452

Collection Date: 09/07/22 14:15  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	10700	500	150	ug/L	1		09/17/22 17:38
Copper	3.00 U	3.00	1.00	ug/L	1		09/17/22 17:38
Magnesium	1100	50.0	15.0	ug/L	1		09/17/22 17:38
Zinc	70.9	10.0	3.10	ug/L	1		09/17/22 17:38

**Batch Information**

Analytical Batch: MMS11680  
Analytical Method: EP200.8  
Analyst: DSD  
Analytical Date/Time: 09/17/22 17:38  
Container ID: 1225452026-D

Prep Batch: MXX35451  
Prep Method: E200.2  
Prep Date/Time: 09/12/22 10:38  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	31.3	5.00	5.00	mg/L	1		09/17/22 17:38

**Batch Information**

Analytical Batch: MMS11680  
Analytical Method: SM21 2340B  
Analyst: DSD  
Analytical Date/Time: 09/17/22 17:38  
Container ID: 1225452026-D

Prep Batch: MXX35451  
Prep Method: E200.2  
Prep Date/Time: 09/12/22 10:38  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 21.1**

Client Sample ID: **RM 21.1**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452026  
Lab Project ID: 1225452

Collection Date: 09/07/22 14:15  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/26/22 01:42

**Batch Information**

Analytical Batch: WTC3236  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/26/22 01:42  
Container ID: 1225452026-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	48.0	10.0	3.10	mg/L	1		09/13/22 17:03

**Batch Information**

Analytical Batch: STS7389  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 09/13/22 17:03  
Container ID: 1225452026-C

Print Date: 10/06/2022 1:14:40PM



Results of **RM 5**

Client Sample ID: **RM 5**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452027  
Lab Project ID: 1225452

Collection Date: 09/06/22 14:40  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	10600	500	150	ug/L	1		09/17/22 17:41
Copper	3.00 U	3.00	1.00	ug/L	1		09/17/22 17:41
Magnesium	1470	50.0	15.0	ug/L	1		09/17/22 17:41
Zinc	76.0	10.0	3.10	ug/L	1		09/17/22 17:41

**Batch Information**

Analytical Batch: MMS11680  
Analytical Method: EP200.8  
Analyst: DSD  
Analytical Date/Time: 09/17/22 17:41  
Container ID: 1225452027-D

Prep Batch: MXX35451  
Prep Method: E200.2  
Prep Date/Time: 09/12/22 10:38  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	32.6	5.00	5.00	mg/L	1		09/17/22 17:41

**Batch Information**

Analytical Batch: MMS11680  
Analytical Method: SM21 2340B  
Analyst: DSD  
Analytical Date/Time: 09/17/22 17:41  
Container ID: 1225452027-D

Prep Batch: MXX35451  
Prep Method: E200.2  
Prep Date/Time: 09/12/22 10:38  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM

## Results of RM 5

Client Sample ID: **RM 5**  
 Client Project ID: **Kenai River Metals Monitoring**  
 Lab Sample ID: 1225452027  
 Lab Project ID: 1225452

Collection Date: 09/06/22 14:40  
 Received Date: 09/09/22 08:34  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	2.73	1.00	0.400	mg/L	1		09/26/22 01:56

### Batch Information

Analytical Batch: WTC3236  
 Analytical Method: SM 5310B  
 Analyst: EBH  
 Analytical Date/Time: 09/26/22 01:56  
 Container ID: 1225452027-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	48.0	10.0	3.10	mg/L	1		09/10/22 17:33

### Batch Information

Analytical Batch: STS7386  
 Analytical Method: SM21 2540C  
 Analyst: EBH  
 Analytical Date/Time: 09/10/22 17:33  
 Container ID: 1225452027-C

Print Date: 10/06/2022 1:14:40PM



## Results of RM 10.1

Client Sample ID: **RM 10.1**  
 Client Project ID: **Kenai River Metals Monitoring**  
 Lab Sample ID: 1225452028  
 Lab Project ID: 1225452

Collection Date: 09/07/22 10:26  
 Received Date: 09/09/22 08:34  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	11000	500	150	ug/L	1		09/17/22 17:44
Copper	3.00 U	3.00	1.00	ug/L	1		09/17/22 17:44
Magnesium	1110	50.0	15.0	ug/L	1		09/17/22 17:44
Zinc	69.9	10.0	3.10	ug/L	1		09/17/22 17:44

## Batch Information

Analytical Batch: MMS11680  
 Analytical Method: EP200.8  
 Analyst: DSD  
 Analytical Date/Time: 09/17/22 17:44  
 Container ID: 1225452028-D

Prep Batch: MXX35451  
 Prep Method: E200.2  
 Prep Date/Time: 09/12/22 10:38  
 Prep Initial Wt./Vol.: 20 mL  
 Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	32.0	5.00	5.00	mg/L	1		09/17/22 17:44

## Batch Information

Analytical Batch: MMS11680  
 Analytical Method: SM21 2340B  
 Analyst: DSD  
 Analytical Date/Time: 09/17/22 17:44  
 Container ID: 1225452028-D

Prep Batch: MXX35451  
 Prep Method: E200.2  
 Prep Date/Time: 09/12/22 10:38  
 Prep Initial Wt./Vol.: 20 mL  
 Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM

## Results of RM 10.1

Client Sample ID: **RM 10.1**  
 Client Project ID: **Kenai River Metals Monitoring**  
 Lab Sample ID: 1225452028  
 Lab Project ID: 1225452

Collection Date: 09/07/22 10:26  
 Received Date: 09/09/22 08:34  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/26/22 02:11

## Batch Information

Analytical Batch: WTC3236  
 Analytical Method: SM 5310B  
 Analyst: EBH  
 Analytical Date/Time: 09/26/22 02:11  
 Container ID: 1225452028-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	47.0	10.0	3.10	mg/L	1		09/13/22 17:03

## Batch Information

Analytical Batch: STS7389  
 Analytical Method: SM21 2540C  
 Analyst: EBH  
 Analytical Date/Time: 09/13/22 17:03  
 Container ID: 1225452028-C

Print Date: 10/06/2022 1:14:40PM

## Results of RM 23

Client Sample ID: **RM 23**  
 Client Project ID: **Kenai River Metals Monitoring**  
 Lab Sample ID: 1225452029  
 Lab Project ID: 1225452

Collection Date: 09/06/22 11:50  
 Received Date: 09/09/22 08:34  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	11200	500	150	ug/L	1		09/17/22 17:47
Copper	3.00 U	3.00	1.00	ug/L	1		09/17/22 17:47
Magnesium	1120	50.0	15.0	ug/L	1		09/17/22 17:47
Zinc	62.9	10.0	3.10	ug/L	1		09/17/22 17:47

## Batch Information

Analytical Batch: MMS11680  
 Analytical Method: EP200.8  
 Analyst: DSD  
 Analytical Date/Time: 09/17/22 17:47  
 Container ID: 1225452029-D

Prep Batch: MXX35451  
 Prep Method: E200.2  
 Prep Date/Time: 09/12/22 10:38  
 Prep Initial Wt./Vol.: 20 mL  
 Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	32.6	5.00	5.00	mg/L	1		09/17/22 17:47

## Batch Information

Analytical Batch: MMS11680  
 Analytical Method: SM21 2340B  
 Analyst: DSD  
 Analytical Date/Time: 09/17/22 17:47  
 Container ID: 1225452029-D

Prep Batch: MXX35451  
 Prep Method: E200.2  
 Prep Date/Time: 09/12/22 10:38  
 Prep Initial Wt./Vol.: 20 mL  
 Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 23**

Client Sample ID: **RM 23**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452029  
Lab Project ID: 1225452

Collection Date: 09/06/22 11:50  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/26/22 02:24

**Batch Information**

Analytical Batch: WTC3236  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/26/22 02:24  
Container ID: 1225452029-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	43.0	10.0	3.10	mg/L	1		09/10/22 17:33

**Batch Information**

Analytical Batch: STS7386  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 09/10/22 17:33  
Container ID: 1225452029-C

Print Date: 10/06/2022 1:14:40PM



Results of **RM 40 DUP**

Client Sample ID: **RM 40 DUP**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452030  
Lab Project ID: 1225452

Collection Date: 09/06/22 10:00  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	10700	500	150	ug/L	1		09/17/22 16:37
Copper	3.00 U	3.00	1.00	ug/L	1		09/17/22 16:37
Magnesium	1030	50.0	15.0	ug/L	1		09/17/22 16:37
Zinc	107	10.0	3.10	ug/L	1		09/17/22 16:37

**Batch Information**

Analytical Batch: MMS11680  
Analytical Method: EP200.8  
Analyst: DSD  
Analytical Date/Time: 09/17/22 16:37  
Container ID: 1225452030-D

Prep Batch: MXX35451  
Prep Method: E200.2  
Prep Date/Time: 09/12/22 10:38  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	30.9	5.00	5.00	mg/L	1		09/17/22 16:37

**Batch Information**

Analytical Batch: MMS11680  
Analytical Method: SM21 2340B  
Analyst: DSD  
Analytical Date/Time: 09/17/22 16:37  
Container ID: 1225452030-D

Prep Batch: MXX35451  
Prep Method: E200.2  
Prep Date/Time: 09/12/22 10:38  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 40 DUP**

Client Sample ID: **RM 40 DUP**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452030  
Lab Project ID: 1225452

Collection Date: 09/06/22 10:00  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/26/22 02:38

**Batch Information**

Analytical Batch: WTC3236  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/26/22 02:38  
Container ID: 1225452030-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	39.0	10.0	3.10	mg/L	1		09/10/22 17:33

**Batch Information**

Analytical Batch: STS7386  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 09/10/22 17:33  
Container ID: 1225452030-C

Print Date: 10/06/2022 1:14:40PM



**Results of RM 12.75**

Client Sample ID: **RM 12.75**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452031  
Lab Project ID: 1225452

Collection Date: 09/07/22 10:40  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

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

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	54.1	20.0	6.20	ug/L	1		09/21/22 22:30
Cadmium	0.500 U	0.500	0.150	ug/L	1		09/21/22 22:30
Calcium	500 U	500	150	ug/L	1		09/21/22 22:30
Copper	15.0 U	15.0	5.00	ug/L	5		09/30/22 13:18
Lead	2.86	2.00	0.500	ug/L	1		09/21/22 22:30
Magnesium	155	50.0	15.0	ug/L	1		09/21/22 22:30
Potassium	500 U	500	150	ug/L	1		09/21/22 22:30
Selenium	5.00 U	5.00	1.50	ug/L	1		09/21/22 22:30
Sodium	2050	500	150	ug/L	1		09/21/22 22:30
Zinc	146	10.0	3.10	ug/L	1		09/21/22 22:30

**Batch Information**

Analytical Batch: MMS11704  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 09/30/22 13:18  
Container ID: 1225452031-B

Prep Batch: MX35474  
Prep Method: E200.2  
Prep Date/Time: 09/19/22 15:02  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Analytical Batch: MMS11687  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 09/21/22 22:30  
Container ID: 1225452031-B

Prep Batch: MX35474  
Prep Method: E200.2  
Prep Date/Time: 09/19/22 15:02  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 31**

Client Sample ID: **RM 31**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452032  
Lab Project ID: 1225452

Collection Date: 09/06/22 11:00  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

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

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	20.0 U	20.0	6.20	ug/L	1		09/21/22 22:33
Cadmium	0.500 U	0.500	0.150	ug/L	1		09/21/22 22:33
Calcium	500 U	500	150	ug/L	1		09/21/22 22:33
Copper	3.00 U	3.00	1.00	ug/L	1		09/21/22 22:33
Lead	2.00 U	2.00	0.500	ug/L	1		09/21/22 22:33
Magnesium	50.0 U	50.0	15.0	ug/L	1		09/21/22 22:33
Potassium	500 U	500	150	ug/L	1		09/21/22 22:33
Selenium	5.00 U	5.00	1.50	ug/L	1		09/21/22 22:33
Sodium	500 U	500	150	ug/L	1		09/21/22 22:33
Zinc	10.0 U	10.0	3.10	ug/L	1		09/21/22 22:33

**Batch Information**

Analytical Batch: MMS11687  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 09/21/22 22:33  
Container ID: 1225452032-B

Prep Batch: MXX35474  
Prep Method: E200.2  
Prep Date/Time: 09/19/22 15:02  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM





**Results of RM 21**

Client Sample ID: **RM 21**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452033  
Lab Project ID: 1225452

Collection Date: 09/07/22 14:30  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

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

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	20.0 U	20.0	6.20	ug/L	1		09/21/22 22:36
Cadmium	0.500 U	0.500	0.150	ug/L	1		09/21/22 22:36
Calcium	500 U	500	150	ug/L	1		09/21/22 22:36
Copper	3.00 U	3.00	1.00	ug/L	1		09/21/22 22:36
Lead	2.00 U	2.00	0.500	ug/L	1		09/21/22 22:36
Magnesium	50.0 U	50.0	15.0	ug/L	1		09/21/22 22:36
Potassium	500 U	500	150	ug/L	1		09/21/22 22:36
Selenium	5.00 U	5.00	1.50	ug/L	1		09/21/22 22:36
Sodium	500 U	500	150	ug/L	1		09/21/22 22:36
Zinc	10.0 U	10.0	3.10	ug/L	1		09/21/22 22:36

**Batch Information**

Analytical Batch: MMS11687  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 09/21/22 22:36  
Container ID: 1225452033-B

Prep Batch: MXX35474  
Prep Method: E200.2  
Prep Date/Time: 09/19/22 15:02  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 19.1**

Client Sample ID: **RM 19.1**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452034  
Lab Project ID: 1225452

Collection Date: 09/07/22 11:10  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

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

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	26.5	20.0	6.20	ug/L	1		09/21/22 22:38
Cadmium	0.500 U	0.500	0.150	ug/L	1		09/21/22 22:38
Calcium	72500	500	150	ug/L	1		09/21/22 22:38
Copper	3.00 U	3.00	1.00	ug/L	1		09/21/22 22:38
Lead	2.00 U	2.00	0.500	ug/L	1		09/21/22 22:38
Magnesium	16200	50.0	15.0	ug/L	1		09/21/22 22:38
Potassium	1950	500	150	ug/L	1		09/21/22 22:38
Selenium	5.00 U	5.00	1.50	ug/L	1		09/21/22 22:38
Sodium	31500	500	150	ug/L	1		09/21/22 22:38
Zinc	26.2	10.0	3.10	ug/L	1		09/21/22 22:38

**Batch Information**

Analytical Batch: MMS11687  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 09/21/22 22:38  
Container ID: 1225452034-B

Prep Batch: MXX35474  
Prep Method: E200.2  
Prep Date/Time: 09/19/22 15:02  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 19.1 DUP**

Client Sample ID: **RM 19.1 DUP**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452035  
Lab Project ID: 1225452

Collection Date: 09/07/22 11:10  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

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

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	62.6	20.0	6.20	ug/L	1		09/21/22 22:46
Cadmium	0.500 U	0.500	0.150	ug/L	1		09/21/22 22:46
Calcium	35300	500	150	ug/L	1		09/21/22 22:46
Copper	3.00 U	3.00	1.00	ug/L	1		09/21/22 22:46
Lead	2.00 U	2.00	0.500	ug/L	1		09/21/22 22:46
Magnesium	12000	50.0	15.0	ug/L	1		09/21/22 22:46
Potassium	1420	500	150	ug/L	1		09/21/22 22:46
Selenium	5.00 U	5.00	1.50	ug/L	1		09/21/22 22:46
Sodium	9270	500	150	ug/L	1		09/21/22 22:46
Zinc	31.9	10.0	3.10	ug/L	1		09/21/22 22:46

**Batch Information**

Analytical Batch: MMS11687  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 09/21/22 22:46  
Container ID: 1225452035-B

Prep Batch: MXX35474  
Prep Method: E200.2  
Prep Date/Time: 09/19/22 15:02  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 21.1**

Client Sample ID: **RM 21.1**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452036  
Lab Project ID: 1225452

Collection Date: 09/07/22 14:15  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

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

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	20.0 U	20.0	6.20	ug/L	1		09/21/22 22:49
Cadmium	0.500 U	0.500	0.150	ug/L	1		09/21/22 22:49
Calcium	53900	500	150	ug/L	1		09/21/22 22:49
Copper	3.00 U	3.00	1.00	ug/L	1		09/21/22 22:49
Lead	2.00 U	2.00	0.500	ug/L	1		09/21/22 22:49
Magnesium	9580	50.0	15.0	ug/L	1		09/21/22 22:49
Potassium	1630	500	150	ug/L	1		09/21/22 22:49
Selenium	5.00 U	5.00	1.50	ug/L	1		09/21/22 22:49
Sodium	33500	500	150	ug/L	1		09/21/22 22:49
Zinc	14.4	10.0	3.10	ug/L	1		09/21/22 22:49

**Batch Information**

Analytical Batch: MMS11687  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 09/21/22 22:49  
Container ID: 1225452036-B

Prep Batch: MXX35474  
Prep Method: E200.2  
Prep Date/Time: 09/19/22 15:02  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 5**

Client Sample ID: **RM 5**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452037  
Lab Project ID: 1225452

Collection Date: 09/06/22 14:40  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

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

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	20.0 U	20.0	6.20	ug/L	1		09/21/22 22:52
Cadmium	0.500 U	0.500	0.150	ug/L	1		09/21/22 22:52
Calcium	73200	500	150	ug/L	1		09/21/22 22:52
Copper	3.00 U	3.00	1.00	ug/L	1		09/21/22 22:52
Lead	2.00 U	2.00	0.500	ug/L	1		09/21/22 22:52
Magnesium	16300	50.0	15.0	ug/L	1		09/21/22 22:52
Potassium	1910	500	150	ug/L	1		09/21/22 22:52
Selenium	5.00 U	5.00	1.50	ug/L	1		09/21/22 22:52
Sodium	31700	500	150	ug/L	1		09/21/22 22:52
Zinc	17.2	10.0	3.10	ug/L	1		09/21/22 22:52

**Batch Information**

Analytical Batch: MMS11687  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 09/21/22 22:52  
Container ID: 1225452037-B

Prep Batch: MXX35474  
Prep Method: E200.2  
Prep Date/Time: 09/19/22 15:02  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



Results of **RM 10.1**

Client Sample ID: **RM 10.1**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452038  
Lab Project ID: 1225452

Collection Date: 09/07/22 10:26  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

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

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	100 U	100	31.0	ug/L	5		09/30/22 13:20
Cadmium	0.500 U	0.500	0.150	ug/L	1		09/21/22 22:55
Calcium	24200	500	150	ug/L	1		09/21/22 22:55
Copper	3.90	3.00	1.00	ug/L	1		09/21/22 22:55
Lead	2.00 U	2.00	0.500	ug/L	1		09/21/22 22:55
Magnesium	18600	50.0	15.0	ug/L	1		09/21/22 22:55
Potassium	934	500	150	ug/L	1		09/21/22 22:55
Selenium	5.00 U	5.00	1.50	ug/L	1		09/21/22 22:55
Sodium	7430	500	150	ug/L	1		09/21/22 22:55
Zinc	24.4	10.0	3.10	ug/L	1		09/21/22 22:55

Batch Information

Analytical Batch: MMS11704  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 09/30/22 13:20  
Container ID: 1225452038-B

Prep Batch: MX35474  
Prep Method: E200.2  
Prep Date/Time: 09/19/22 15:02  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Analytical Batch: MMS11687  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 09/21/22 22:55  
Container ID: 1225452038-B

Prep Batch: MX35474  
Prep Method: E200.2  
Prep Date/Time: 09/19/22 15:02  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 23**

Client Sample ID: **RM 23**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452039  
Lab Project ID: 1225452

Collection Date: 09/06/22 11:50  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

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

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	28.0	20.0	6.20	ug/L	1		09/21/22 22:57
Cadmium	0.500 U	0.500	0.150	ug/L	1		09/21/22 22:57
Calcium	46900	500	150	ug/L	1		09/21/22 22:57
Copper	3.00 U	3.00	1.00	ug/L	1		09/21/22 22:57
Lead	2.00 U	2.00	0.500	ug/L	1		09/21/22 22:57
Magnesium	17700	50.0	15.0	ug/L	1		09/21/22 22:57
Potassium	12100	500	150	ug/L	1		09/21/22 22:57
Selenium	5.00 U	5.00	1.50	ug/L	1		09/21/22 22:57
Sodium	18400	500	150	ug/L	1		09/21/22 22:57
Zinc	10.0 U	10.0	3.10	ug/L	1		09/21/22 22:57

**Batch Information**

Analytical Batch: MMS11687  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 09/21/22 22:57  
Container ID: 1225452039-B

Prep Batch: MXX35474  
Prep Method: E200.2  
Prep Date/Time: 09/19/22 15:02  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



**Results of RM 40 DUP**

Client Sample ID: **RM 40 DUP**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1225452040  
Lab Project ID: 1225452

Collection Date: 09/06/22 10:00  
Received Date: 09/09/22 08:34  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

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

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	20.0 U	20.0	6.20	ug/L	1		09/21/22 21:55
Cadmium	0.500 U	0.500	0.150	ug/L	1		09/21/22 21:55
Calcium	1940	500	150	ug/L	1		09/21/22 21:55
Copper	3.00 U	3.00	1.00	ug/L	1		09/21/22 21:55
Lead	2.00 U	2.00	0.500	ug/L	1		09/21/22 21:55
Magnesium	245	50.0	15.0	ug/L	1		09/21/22 21:55
Potassium	500 U	500	150	ug/L	1		09/21/22 21:55
Selenium	5.00 U	5.00	1.50	ug/L	1		09/21/22 21:55
Sodium	58900	500	150	ug/L	1		09/21/22 21:55
Zinc	10.0 U	10.0	3.10	ug/L	1		09/21/22 21:55

**Batch Information**

Analytical Batch: MMS11687  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 09/21/22 21:55  
Container ID: 1225452040-B

Prep Batch: MXX35474  
Prep Method: E200.2  
Prep Date/Time: 09/19/22 15:02  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 10/06/2022 1:14:40PM



## Method Blank

Blank ID: MB for HBN 1843066 [MXX/35451]  
 Blank Lab ID: 1684856

Matrix: Water (Surface, Eff., Ground)

### QC for Samples:

1225452001, 1225452002, 1225452003, 1225452004, 1225452005, 1225452006, 1225452007, 1225452008, 1225452009,  
 1225452010, 1225452021, 1225452022, 1225452023, 1225452024, 1225452025, 1225452026, 1225452027, 1225452028,  
 1225452029, 1225452030

## Results by EP200.8

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Calcium	250U	500	150	ug/L
Copper	1.50U	3.00	1.00	ug/L
Magnesium	25.0U	50.0	15.0	ug/L
Zinc	5.00U	10.0	3.10	ug/L

## Batch Information

Analytical Batch: MMS11680  
 Analytical Method: EP200.8  
 Instrument: Perkin Elmer Nexlon P5  
 Analyst: DSD  
 Analytical Date/Time: 9/17/2022 4:22:42PM

Prep Batch: MXX35451  
 Prep Method: E200.2  
 Prep Date/Time: 9/12/2022 10:38:31AM  
 Prep Initial Wt./Vol.: 20 mL  
 Prep Extract Vol: 50 mL

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1225452 [MXX35451]  
 Blank Spike Lab ID: 1684857  
 Date Analyzed: 09/17/2022 16:25

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1225452001, 1225452002, 1225452003, 1225452004, 1225452005, 1225452006, 1225452007,  
 1225452008, 1225452009, 1225452010, 1225452021, 1225452022, 1225452023, 1225452024,  
 1225452025, 1225452026, 1225452027, 1225452028, 1225452029, 1225452030

## Results by EP200.8

Parameter	Blank Spike (ug/L)			CL
	Spike	Result	Rec (%)	
Calcium	10000	10200	102	( 85-115 )
Copper	1000	1040	104	( 85-115 )
Magnesium	10000	9820	98	( 85-115 )
Zinc	1000	1000	100	( 85-115 )

## Batch Information

Analytical Batch: **MMS11680**  
 Analytical Method: **EP200.8**  
 Instrument: **Perkin Elmer Nexlon P5**  
 Analyst: **DSD**

Prep Batch: **MXX35451**  
 Prep Method: **E200.2**  
 Prep Date/Time: **09/12/2022 10:38**  
 Spike Init Wt./Vol.: 10000 ug/L Extract Vol: 50 mL  
 Dupe Init Wt./Vol.: Extract Vol:

## Matrix Spike Summary

Original Sample ID: 1225452001  
 MS Sample ID: 1684859 MS  
 MSD Sample ID:

Analysis Date: 09/17/2022 16:31  
 Analysis Date: 09/17/2022 16:34  
 Analysis Date:  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1225452001, 1225452030

## Results by EP200.8

Parameter	Sample	Matrix Spike (ug/L)			Spike Duplicate (ug/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Calcium	13800	10000	23700	98				70-130		
Copper	3.00U	1000	1050	105				70-130		
Magnesium	1300	10000	11200	99				70-130		
Zinc	40.6	1000	1050	101				70-130		

## Batch Information

Analytical Batch: MMS11680  
 Analytical Method: EP200.8  
 Instrument: Perkin Elmer Nexlon P5  
 Analyst: DSD  
 Analytical Date/Time: 9/17/2022 4:34:49PM

Prep Batch: MX35451  
 Prep Method: DW Digest for Metals on ICP-MS  
 Prep Date/Time: 9/12/2022 10:38:31AM  
 Prep Initial Wt./Vol.: 20.00mL  
 Prep Extract Vol: 50.00mL

Print Date: 10/06/2022 1:14:49PM



### Matrix Spike Summary

Original Sample ID: 1225452030  
MS Sample ID: 1684860 MS  
MSD Sample ID:

Analysis Date: 09/17/2022 16:37  
Analysis Date: 09/17/2022 16:40  
Analysis Date:  
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1225452002, 1225452003, 1225452004, 1225452005, 1225452006, 1225452007, 1225452008, 1225452009, 1225452010, 1225452021, 1225452022, 1225452023, 1225452024, 1225452025, 1225452026, 1225452027, 1225452028, 1225452029, 1225452030

### Results by EP200.8

Parameter	Sample	Matrix Spike (ug/L)			Spike Duplicate (ug/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Calcium	10700	10000	20700	100				70-130		
Copper	3.00U	1000	1030	103				70-130		
Magnesium	1030	10000	11000	99				70-130		
Zinc	107	1000	1120	101				70-130		

### Batch Information

Analytical Batch: MMS11680  
Analytical Method: EP200.8  
Instrument: Perkin Elmer Nexlon P5  
Analyst: DSD  
Analytical Date/Time: 9/17/2022 4:40:53PM

Prep Batch: MX335451  
Prep Method: DW Digest for Metals on ICP-MS  
Prep Date/Time: 9/12/2022 10:38:31AM  
Prep Initial Wt./Vol.: 20.00mL  
Prep Extract Vol: 50.00mL

Print Date: 10/06/2022 1:14:49PM

## Method Blank

Blank ID: MB for HBN 1843926 [MXX/35474]  
 Blank Lab ID: 1686482

Matrix: Water (Surface, Eff., Ground)

### QC for Samples:

1225452011, 1225452012, 1225452013, 1225452014, 1225452015, 1225452016, 1225452017, 1225452018, 1225452019,  
 1225452020, 1225452031, 1225452032, 1225452033, 1225452034, 1225452035, 1225452036, 1225452037, 1225452038,  
 1225452039, 1225452040

## Results by EP200.8

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Aluminum	10.0U	20.0	6.20	ug/L
Cadmium	0.250U	0.500	0.150	ug/L
Calcium	250U	500	150	ug/L
Copper	1.50U	3.00	1.00	ug/L
Lead	1.00U	2.00	0.500	ug/L
Magnesium	25.0U	50.0	15.0	ug/L
Potassium	250U	500	150	ug/L
Selenium	2.50U	5.00	1.50	ug/L
Sodium	250U	500	150	ug/L
Zinc	5.00U	10.0	3.10	ug/L

## Batch Information

Analytical Batch: MMS11687  
 Analytical Method: EP200.8  
 Instrument: P7 Agilent 7800  
 Analyst: HGS  
 Analytical Date/Time: 9/21/2022 9:42:11PM

Prep Batch: MXX35474  
 Prep Method: E200.2  
 Prep Date/Time: 9/19/2022 3:02:57PM  
 Prep Initial Wt./Vol.: 20 mL  
 Prep Extract Vol: 50 mL

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1225452 [MXX35474]  
 Blank Spike Lab ID: 1686483  
 Date Analyzed: 09/21/2022 21:44

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1225452011, 1225452012, 1225452013, 1225452014, 1225452015, 1225452016, 1225452017,  
 1225452018, 1225452019, 1225452020, 1225452031, 1225452032, 1225452033, 1225452034,  
 1225452035, 1225452036, 1225452037, 1225452038, 1225452039, 1225452040

## Results by EP200.8

Parameter	Blank Spike (ug/L)			CL
	Spike	Result	Rec (%)	
Aluminum	1000	966	97	(85-115)
Cadmium	100	99.3	99	(85-115)
Calcium	10000	10000	100	(85-115)
Copper	1000	1000	100	(85-115)
Lead	1000	1020	102	(85-115)
Magnesium	10000	9840	98	(85-115)
Potassium	10000	10100	101	(85-115)
Selenium	1000	995	100	(85-115)
Sodium	10000	9860	99	(85-115)
Zinc	1000	978	98	(85-115)

## Batch Information

Analytical Batch: **MMS11687**  
 Analytical Method: **EP200.8**  
 Instrument: **P7 Agilent 7800**  
 Analyst: **HGS**

Prep Batch: **MXX35474**  
 Prep Method: **E200.2**  
 Prep Date/Time: **09/19/2022 15:02**  
 Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 50 mL  
 Dupe Init Wt./Vol.: Extract Vol:

## Matrix Spike Summary

Original Sample ID: 1225452011  
 MS Sample ID: 1686485 MS  
 MSD Sample ID:

Analysis Date: 09/21/2022 21:50  
 Analysis Date: 09/21/2022 21:52  
 Analysis Date:  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1225452011, 1225452040

## Results by EP200.8

Parameter	Sample	Matrix Spike (ug/L)			Spike Duplicate (ug/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Aluminum	20.0U	1000	968	97				70-130		
Cadmium	0.500U	100	98.8	99				70-130		
Calcium	5880	10000	15900	100				70-130		
Copper	3.00U	1000	992	99				70-130		
Lead	2.00U	1000	1020	102				70-130		
Magnesium	3350	10000	13100	98				70-130		
Potassium	4590	10000	14600	100				70-130		
Selenium	5.00U	1000	978	98				70-130		
Sodium	29600	10000	39100	95				70-130		
Zinc	42.5	1000	1010	97				70-130		

## Batch Information

Analytical Batch: MMS11687  
 Analytical Method: EP200.8  
 Instrument: P7 Agilent 7800  
 Analyst: HGS  
 Analytical Date/Time: 9/21/2022 9:52:58PM

Prep Batch: MXX35474  
 Prep Method: DW Digest for Metals on ICP-MS  
 Prep Date/Time: 9/19/2022 3:02:57PM  
 Prep Initial Wt./Vol.: 20.00mL  
 Prep Extract Vol: 50.00mL

Print Date: 10/06/2022 1:14:58PM



### Matrix Spike Summary

Original Sample ID: 1225452040  
MS Sample ID: 1686486 MS  
MSD Sample ID:

Analysis Date: 09/21/2022 21:55  
Analysis Date: 09/21/2022 21:58  
Analysis Date:  
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1225452012, 1225452013, 1225452014, 1225452015, 1225452016, 1225452017, 1225452018, 1225452019, 1225452020, 1225452031, 1225452032, 1225452033, 1225452034, 1225452035, 1225452036, 1225452037, 1225452038, 1225452039, 1225452040

### Results by EP200.8

Parameter	Sample	Matrix Spike (ug/L)			Spike Duplicate (ug/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Aluminum	20.0U	1000	978	98				70-130		
Cadmium	0.500U	100	99.2	99				70-130		
Calcium	1940	10000	11900	100				70-130		
Copper	3.00U	1000	996	100				70-130		
Lead	2.00U	1000	1010	101				70-130		
Magnesium	245	10000	10100	98				70-130		
Potassium	500U	10000	10100	101				70-130		
Selenium	5.00U	1000	974	97				70-130		
Sodium	58900	10000	69800	109				70-130		
Zinc	10.0U	1000	984	98				70-130		

### Batch Information

Analytical Batch: MMS11687  
Analytical Method: EP200.8  
Instrument: P7 Agilent 7800  
Analyst: HGS  
Analytical Date/Time: 9/21/2022 9:58:22PM

Prep Batch: MXX35474  
Prep Method: DW Digest for Metals on ICP-MS  
Prep Date/Time: 9/19/2022 3:02:57PM  
Prep Initial Wt./Vol.: 20.00mL  
Prep Extract Vol: 50.00mL

Print Date: 10/06/2022 1:14:58PM





### Method Blank

Blank ID: MB for HBN 1843043 [STS/7386]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1684737

QC for Samples:

1225452009, 1225452010, 1225452021, 1225452022, 1225452027, 1225452029, 1225452030

### Results by SM21 2540C

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Dissolved Solids	5.00U	10.0	3.10	mg/L

### Batch Information

Analytical Batch: STS7386

Analytical Method: SM21 2540C

Instrument:

Analyst: EBH

Analytical Date/Time: 9/10/2022 5:33:17PM

Print Date: 10/06/2022 1:15:00PM

## Duplicate Sample Summary

Original Sample ID: 1225413015  
Duplicate Sample ID: 1684740  
QC for Samples:

Analysis Date: 09/10/2022 17:33  
Matrix: Water (Surface, Eff., Ground)

## Results by SM21 2540C

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Dissolved Solids	320	318	mg/L	0.63	(< 5 )

## Batch Information

Analytical Batch: STS7386  
Analytical Method: SM21 2540C  
Instrument:  
Analyst: EBH

Print Date: 10/06/2022 1:15:00PM

## Duplicate Sample Summary

Original Sample ID: 1225413018

Duplicate Sample ID: 1684741

QC for Samples:

1225452009, 1225452010, 1225452021, 1225452022, 1225452027, 1225452029, 1225452030

Analysis Date: 09/10/2022 17:33

Matrix: Water (Surface, Eff., Ground)

## Results by SM21 2540C

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Dissolved Solids	313	315	mg/L	0.64	(< 5 )

## Batch Information

Analytical Batch: STS7386

Analytical Method: SM21 2540C

Instrument:

Analyst: EBH

Print Date: 10/06/2022 1:15:00PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1225452 [STS7386]  
 Blank Spike Lab ID: 1684738  
 Date Analyzed: 09/10/2022 17:33

Spike Duplicate ID: LCSD for HBN 1225452 [STS7386]  
 Spike Duplicate Lab ID: 1684739  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1225452009, 1225452010, 1225452021, 1225452022, 1225452027, 1225452029, 1225452030

## Results by SM21 2540C

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Dissolved Solids	333	311	94	333	311	94	( 75-125 )	0.00	(< 5 )

## Batch Information

Analytical Batch: **STS7386**  
 Analytical Method: **SM21 2540C**  
 Instrument:  
 Analyst: **EBH**

Print Date: 10/06/2022 1:15:02PM



### Method Blank

Blank ID: MB for HBN 1843137 [STS/7389]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1685165

QC for Samples:

1225452001, 1225452002, 1225452003, 1225452004, 1225452005, 1225452006, 1225452007, 1225452008, 1225452023, 1225452024, 1225452025, 1225452026, 1225452028

### Results by SM21 2540C

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Dissolved Solids	5.00U	10.0	3.10	mg/L

### Batch Information

Analytical Batch: STS7389

Analytical Method: SM21 2540C

Instrument:

Analyst: EBH

Analytical Date/Time: 9/13/2022 5:03:00PM

Print Date: 10/06/2022 1:15:03PM

## Duplicate Sample Summary

Original Sample ID: 1225485001

Duplicate Sample ID: 1685168

QC for Samples:

1225452001, 1225452002, 1225452003, 1225452004, 1225452005, 1225452006, 1225452007, 1225452008, 1225452023, 1225452024, 1225452025, 1225452026, 1225452028

Analysis Date: 09/13/2022 17:03

Matrix: Water (Surface, Eff., Ground)

## Results by SM21 2540C

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Dissolved Solids	685	673	mg/L	1.70	(< 5 )

## Batch Information

Analytical Batch: STS7389

Analytical Method: SM21 2540C

Instrument:

Analyst: EBH

Print Date: 10/06/2022 1:15:05PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1225452 [STS7389]  
 Blank Spike Lab ID: 1685166  
 Date Analyzed: 09/13/2022 17:03

Spike Duplicate ID: LCSD for HBN 1225452 [STS7389]  
 Spike Duplicate Lab ID: 1685167  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1225452001, 1225452002, 1225452003, 1225452004, 1225452005, 1225452006, 1225452007, 1225452008, 1225452023, 1225452024, 1225452025, 1225452026, 1225452028

## Results by SM21 2540C

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Dissolved Solids	333	306	92	333	306	92	( 75-125 )	0.00	(< 5 )

## Batch Information

Analytical Batch: STS7389  
 Analytical Method: SM21 2540C  
 Instrument:  
 Analyst: EBH



SGS North America Inc. CHAIN OF CUSTODY RECORD

1225452



Cooler #1

us.sgs.com

**CLIENT:** Alaska Department of Environmental Conservation

**CONTACT:** Sarah Apsens **PHONE #:** 907 741 1026

**PROJECT NAME:** Kenai River Metals Monitoring **PROJECT/PWSID/PERMIT#:**

**REPORTS TO:** Sarah Apsens **E-MAIL:** sarah.apsens@alaska.gov **Profile #:** 3604795 DBR

**INVOICE TO:** sarah.apsens@alaska.gov dec.water.contracts@alaska.gov **QUOTE #:** NTP 22\*384 **P.O. #:** Term contract #18-220-20-2

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

**Section 3** **Preservative**

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/MATRIX CODE	# CONTAINERS	Comp Grab MI (Multi-Incremental)	Analysis*				REMARKS/LOC ID
							DOC 530B	TDS 2540C	200.8 metals 2340B Hardness	200.8 dissolved metals	
	1 AD DBRM 70	9/8/22	11:30	W	4	Grab	X	X	X	X	
	2 AD DBRM 70 DUP	9/8/22	11:30				X	X	X	X	
	3 AD DBRM 82.1	9/8/22	10:15				X	X	X	X	
	4 AD DBRM 82.1 DUP	9/8/22	10:15				X	X	X	X	
	5 AD DBRM 76	9/8/22	10:50				X	X	X	X	
	6 AD DBRM 82	9/8/22	10:25				X	X	X	X	
	7 AD DB Field Blank	9/8/22	11:00				X	X	X	X	
	8 AD DBRM 20.75	9/7/22	11:30				X	X	X	X	
	9 AD DBRM 19	9/7/22	15:00				X	X	X	X	
	10 AD DBRM 40	9/6/22	10:00				X	X	X	X	

**Section 4** **DOD Project?** Yes  No  **Data Deliverable Requirements:**

**Cooler ID:**

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

**Section 5**

Relinquished By: (1)	Date	Time	Received By:
<i>[Signature]</i>	9/8/22	15:00	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:
	09/10/2022	13:34	<i>[Signature]</i> TO

**Temp Blank °C:** 0.6 DB **Chain of Custody Seal: (Circle)** INTACT

**Delivery Method:** Hand Delivery  Commercial Delivery

http://www.sgs.com/terms-and-conditions





SGS North America Inc. CHAIN OF CUSTODY RECORD

1225452



Cooler #2

www.us.sgs.com

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

Page 1 of 1

CLIENT: Alaska Department of Environmental Conservation

CONTACT: Sarah Apsens PHONE #: 907 741 1026

PROJECT NAME: Kenai River Metals Monitoring PROJECT/PWSID/PERMIT#:

REPORTS TO: Sarah Apsens E-MAIL: sarah.apsens@alaska.gov Profile #:

INVOICE TO: sarah.apsens@alaska.gov dec.water.contracts@alaska.gov QUOTE #: NTP 22\*384 P.O. #: Term contract #18-220-20-2

Section 3

Preservative

# CONTAINERS

Comp Grab MI (Multi-Incremental)

HNO3

Analysis\*

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

REMARKS/LOC ID

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/MATRIX CODE	#	CONTAINERS	DOC 530B	TDS 2540C	200.8 metals 2340B Hardness	200.8 dissolved metals								
	RM 12.75	9/7/22	10:40	Water	4	Grab	X	X	X	X								
	RM 31	9/6/22	11:00				X	X	X	X								
	RM 21	9/7/22	14:30				X	X	X	X								
	RM 19.1	9/7/22	11:10				X	X	X	X								
	RM 19.1 DUP	9/7/22	11:10				X	X	X	X								
	RM 21.1	9/7/22	14:15				X	X	X	X								
	RM 5	9/6/22	14:40				X	X	X	X								
	RM 10.1	9/7/22	10:26				X	X	X	X								
	RM 23	9/6/22	11:50				X	X	X	X								
	RM 40 DUP	9/6/22	10:00				X	X	X	X								

Section 5	Relinquished By: (1)	Date	Time	Received By:
	<i>[Signature]</i>	9/8/22	15:00	
	Relinquished By: (2)	Date	Time	Received By:
	Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:	
	09/09/22	8:36	<i>[Signature]</i>	<i>[Signature]</i>

Section 4 DOD Project? Yes  No  Data Deliverable Requirements:

Cooler ID: \_\_\_\_\_

Requested Turnaround Time and/or Special Instructions: \_\_\_\_\_

Temp Blank °C: 2.5 D23 or Ambient [ ]

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Delivery Method: Hand Delivery [ ] Commercial Delivery [X]

http://www.sgs.com/terms-and-conditions



1225452

Returned Bottles Inventory



Name of individual returning bottles:

Date Received: 09/09/2022

Client Name: Alaska Department of Environ. Conservation

Received by: [Signature]

Project Name: Kenai River Metals Monitoring

SGS PM: Justin Nelson

HDPE/Nalgene:	1-L				
	500-ml				
	250-ml or 8-oz				
	125-ml or 4-oz	7			
	60-ml or 2-oz				
	other				
amber glass:	1-L				
	500-ml				
	250-ml or 8-oz	43			
	125-ml or 4-oz with or without septa				
	40-ml VOA vial				
	other				
Subtotal:	50				

Note: Returned bottles (regardless of size/pres.) are billed back at \$4/bottle unless otherwise quoted.

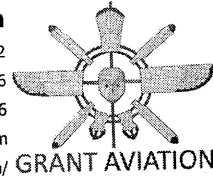
Amount to Invoice Client \$: 200

WO#: \_\_\_\_\_

# AIRBILL 10436032

I hereby declare that the goods contained herein do not contain dangerous goods.  
 Signed..... Date .....

**Grant Aviation**  
 6420 Kulis Dr. Anchorage, AK 99502  
**Phone:** 1 (888) 359-4726  
**Freephone:** 1 (888) 359-4726  
**Email:** res@flygrant.com  
**Web:** http://www.flygrant.com/



## FREIGHT DETAILS

**FROM/TO:** Kenai -> Anchorage International

**Flight Departs:** Sep 8 22 3:25 PM

**Receiver:** SGS  
 907-562-2343

**Sender:** DEC  
 907-4741-1026

**Accepted:** Thu, Sep 8 22 3:20:00 PM

Description & Comment	Quan.	Wgt.	Handle Fee	Hazmat Fee	Total
water Samples	4	118	-	-	\$88.85
Total Tax:					\$5.55
Total Payments made:					\$94.40
<b>Total Unpaid:</b>					<b>\$0.00</b>

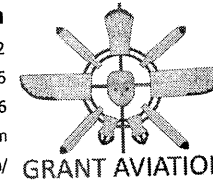
Received in good condition by: .....

## CUSTOMER COPY

# AIRBILL 10436032

I hereby declare that the goods contained herein do not contain dangerous goods.  
 Signed..... Date .....

**Grant Aviation**  
 6420 Kulis Dr. Anchorage, AK 99502  
**Phone:** 1 (888) 359-4726  
**Freephone:** 1 (888) 359-4726  
**Email:** res@flygrant.com  
**Web:** http://www.flygrant.com/



## FREIGHT DETAILS

**FROM/TO:** Kenai -> Anchorage International

**Flight Departs:** Sep 8 22 3:25 PM

**Receiver:** SGS  
 907-562-2343

**Sender:** DEC  
 907-4741-1026

**Accepted:** Thu, Sep 8 22 3:20:00 PM

Description & Comment	Quan.	Wgt.	Handle Fee	Hazmat Fee	Total
water Samples	4	118	-	-	\$88.85
TAX: Federal Excise Tax					\$5.55
Total Payments made:					\$94.40
<b>Total Unpaid:</b>					<b>\$0.00</b>

## TERMS AND CONDITIONS

Consignemnt Note Text

**Alert Expeditors Inc.**

**#420415**

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



Date 9-9-22  
From ADEL

To SGS Labs Inc

Collect  Prepay  Advance Charges

Job # ENH PO# Grant 10436032

56 samples X 4

4 at 118 LBS

Shipped Signature [Signature]

Received By: [Signature]

Total Charge  
92 of 95



SGS Workorder #:

1225452

1225452

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
-----------------	--------------------------	------------------------

**Chain of Custody / Temperature Requirements**

*Note: Temperature and COC seal information is found on the chain of custody form*

DOD only: Did all sample coolers have a corresponding COC?	N/A
If <0°C, were sample containers ice free?	N/A
Note containers received with ice:	

Identify any containers received at non-compliant temperature:  
  
(Use form FS-0029 if more space is needed)

**Holding Time / Documentation / Sample Condition Requirement**

*Note: Refer to form F-083 "Sample Guide" for specific holding times and sample containers.*

Were samples received within analytical holding time?	Yes
Do sample labels match COC? Record discrepancies.	Yes

**Note:** If information on containers differs from COC, default to COC information for login. If times differ <1hr, record details & login per COC.

Were analytical requests clear? <i>(i.e. method is specified for analyses with multiple option for method (Eg, BTEX 8021 vs 8260, Metals 6020 vs 200.8)</i>	Yes
--	-----

Were proper containers (type/mass/volume/preservative)used? Note: Exemption for metals analysis by 200.8/6020 in water.	Yes
--	-----

**Volatile Analysis Requirements (VOC, GRO, LL-Hg, etc.)**

Were all soil VOAs received with a corresponding % solids container?	N/A
Were Trip Blanks (e.g., VOAs, LL-Hg) in cooler with samples?	N/A
Were all water VOA vials free of headspace (e.g., bubbles ≤ 6mm)?	N/A
Were all soil VOAs field extracted with Methanol+BFB?	N/A

**Note to Client:** Any "No", answer above indicates non-compliance with standard procedures and may impact data quality.

**Additional notes (if applicable):**



## Sample Containers and Preservatives

<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>	<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>
1225452001-A	No Preservative Required	OK	1225452015-B	HNO3 to pH < 2	OK
1225452001-B	HCL to pH < 2	OK	1225452016-A	No Preservative Required	OK
1225452001-C	No Preservative Required	OK	1225452016-B	HNO3 to pH < 2	OK
1225452001-D	HNO3 to pH < 2	OK	1225452017-A	No Preservative Required	OK
1225452002-A	No Preservative Required	OK	1225452017-B	HNO3 to pH < 2	OK
1225452002-B	HCL to pH < 2	OK	1225452018-A	No Preservative Required	OK
1225452002-C	No Preservative Required	OK	1225452018-B	HNO3 to pH < 2	OK
1225452002-D	HNO3 to pH < 2	OK	1225452019-A	No Preservative Required	OK
1225452003-A	No Preservative Required	OK	1225452019-B	HNO3 to pH < 2	OK
1225452003-B	HCL to pH < 2	OK	1225452020-A	No Preservative Required	OK
1225452003-C	No Preservative Required	OK	1225452020-B	HNO3 to pH < 2	OK
1225452003-D	HNO3 to pH < 2	OK	1225452021-A	No Preservative Required	OK
1225452004-A	No Preservative Required	OK	1225452021-B	HCL to pH < 2	OK
1225452004-B	HCL to pH < 2	OK	1225452021-C	No Preservative Required	OK
1225452004-C	No Preservative Required	OK	1225452021-D	HNO3 to pH < 2	OK
1225452004-D	HNO3 to pH < 2	OK	1225452022-A	No Preservative Required	OK
1225452005-A	No Preservative Required	OK	1225452022-B	HCL to pH < 2	OK
1225452005-B	HCL to pH < 2	OK	1225452022-C	No Preservative Required	OK
1225452005-C	No Preservative Required	OK	1225452022-D	HNO3 to pH < 2	OK
1225452005-D	HNO3 to pH < 2	OK	1225452023-A	No Preservative Required	OK
1225452006-A	No Preservative Required	OK	1225452023-B	HCL to pH < 2	OK
1225452006-B	HCL to pH < 2	OK	1225452023-C	No Preservative Required	OK
1225452006-C	No Preservative Required	OK	1225452023-D	HNO3 to pH < 2	OK
1225452006-D	HNO3 to pH < 2	OK	1225452024-A	No Preservative Required	OK
1225452007-A	No Preservative Required	OK	1225452024-B	HCL to pH < 2	OK
1225452007-B	HCL to pH < 2	OK	1225452024-C	No Preservative Required	OK
1225452007-C	No Preservative Required	OK	1225452024-D	HNO3 to pH < 2	OK
1225452007-D	HNO3 to pH < 2	OK	1225452025-A	No Preservative Required	OK
1225452008-A	No Preservative Required	OK	1225452025-B	HCL to pH < 2	OK
1225452008-B	HCL to pH < 2	OK	1225452025-C	No Preservative Required	OK
1225452008-C	No Preservative Required	OK	1225452025-D	HNO3 to pH < 2	OK
1225452008-D	HNO3 to pH < 2	OK	1225452026-A	No Preservative Required	OK
1225452009-A	No Preservative Required	OK	1225452026-B	HCL to pH < 2	OK
1225452009-B	HCL to pH < 2	OK	1225452026-C	No Preservative Required	OK
1225452009-C	No Preservative Required	OK	1225452026-D	HNO3 to pH < 2	OK
1225452009-D	HNO3 to pH < 2	OK	1225452027-A	No Preservative Required	OK
1225452010-A	No Preservative Required	OK	1225452027-B	HCL to pH < 2	OK
1225452010-B	HCL to pH < 2	OK	1225452027-C	No Preservative Required	OK
1225452010-C	No Preservative Required	OK	1225452027-D	HNO3 to pH < 2	OK
1225452010-D	HNO3 to pH < 2	OK	1225452028-A	No Preservative Required	OK
1225452011-A	No Preservative Required	OK	1225452028-B	HCL to pH < 2	OK
1225452011-B	HNO3 to pH < 2	OK	1225452028-C	No Preservative Required	OK
1225452012-A	No Preservative Required	OK	1225452028-D	HNO3 to pH < 2	OK
1225452012-B	HNO3 to pH < 2	OK	1225452029-A	No Preservative Required	OK
1225452013-A	No Preservative Required	OK	1225452029-B	HCL to pH < 2	OK
1225452013-B	HNO3 to pH < 2	OK	1225452029-C	No Preservative Required	OK
1225452014-A	No Preservative Required	OK	1225452029-D	HNO3 to pH < 2	OK
1225452014-B	HNO3 to pH < 2	OK	1225452030-A	No Preservative Required	OK
1225452015-A	No Preservative Required	OK	1225452030-B	HCL to pH < 2	OK

<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>	<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>
1225452030-C	No Preservative Required	OK			
1225452030-D	HNO3 to pH < 2	OK			
1225452031-A	No Preservative Required	OK			
1225452031-B	HNO3 to pH < 2	OK			
1225452032-A	No Preservative Required	OK			
1225452032-B	HNO3 to pH < 2	OK			
1225452033-A	No Preservative Required	OK			
1225452033-B	HNO3 to pH < 2	OK			
1225452034-A	No Preservative Required	OK			
1225452034-B	HNO3 to pH < 2	OK			
1225452035-A	No Preservative Required	OK			
1225452035-B	HNO3 to pH < 2	OK			
1225452036-A	No Preservative Required	OK			
1225452036-B	HNO3 to pH < 2	OK			
1225452037-A	No Preservative Required	OK			
1225452037-B	HNO3 to pH < 2	OK			
1225452038-A	No Preservative Required	OK			
1225452038-B	HNO3 to pH < 2	OK			
1225452039-A	No Preservative Required	OK			
1225452039-B	HNO3 to pH < 2	OK			
1225452040-A	No Preservative Required	OK			
1225452040-B	HNO3 to pH < 2	OK			
1225452041-A	No Preservative Required	OK			

#### 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.