ARS Aleut Analytical, LLC
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Phone: 907-258-2155
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8/5/2015

Kenai Watershed Forum
44129 Sterling Highway
Soldotna, AK 99669
Attn: Branden Bornemann

Work Order #: A1507367
Date: 8/5/2015
Work ID: KWF Baseline Monitoring 2015
Date Received: 7/21/2015
Proj #: none

Sample Identification

Lab Sample Number	Client Description	Lab Sample Number	Client Description
A1507367-01	RM 30-Funny River	A1507367-02	RM 31-Morgan's Landing
A1507367-03	RM 36-Moose River	A1507367-04	RM 36-Moose River Duplicate

Enclosed are the analytical results for the submitted sample(s). Please review the CASE NARRATIVE for a discussion of any data and/or quality control issues. Listings of data qualifiers, analytical codes, key dates, and QC relationships are provided at the end of the report.

Sincerely,

Carissa Cumine
Project Manager

"The Science of Analysis, The Art of Service"

Case Narrative

ARS Aleut Analytical

Work Order: A1507367

Samples were prepared and analyzed according to EPA or equivalent methods outlined in the following references:

Methods for the Determination of Metals in Environmental Samples, EPA/600/R-94/111, May 1994.

Standard Methods for the Examination of Water and Wastewater, 21st Edition, 2005.

SAMPLE RECEIPT:
Eight (8) samples were received on 7/21/2015 6:05:00 PM at a temperature of 2°C at AAA - Anchorage. The samples were received in good condition and in order per chain of custody.

REVIEW FOR COMPLIANCE WITH ARS Aleut Analytical QA PLAN
A summary of our review is shown below.

All analytical results contained in this report have been reviewed under AAA's internal quality assurance and quality control program. Any deviations in quality control parameters for specific analyses are noted in the following text. A complete quality assurance report, including laboratory control, matrix spike, and sample duplicate recoveries, is kept on file in our office and is available upon request.

All method specifications were met for the following tests, unless otherwise noted:

Test Method: SM4500-NO3E - Nitrogen (Nitrate), Cadmium Reduction Method - Nitrate+Nitrite pres - Aqueous
Test Method: SM4500-PE - Total Phos HACH 8190 - Aqueous

The following were subcontracted tests and have been represented to us as meeting criteria:
Test Method: 200.8 - Metals by ICP/MS - 200.8 Metals - Aqueous

Detailed Analytical Report

ARS Aleut Analytical

Workorder (SDG): A1507367

Project: **KWF Baseline Monitoring 2015**

Client: **Kenai Watershed Forum**

Client Project Number: **none**

Report Section: Client Sample Report

Client Sample Name: **RM 30-Funny River**

Matrix: Aqueous Collection Date: 7/21/2015 9:11:00AM

The following test was conducted by: ARS Aleut Analytical,LLC

Lab Sample Number: A1507367-01A
Prep Date: 7/24/2015
Analytical Method ID: SM4500-NO3E - Nitrogen (Nitrate), Cadmium Reduction Method - N
Prep Method ID:
Prep Batch Number: A150724012
Report Basis: As Received
Sample prep wt./vol: 25.00 ml

Analysis Date: 7/24/2015 8:30:00AM
Instrument: Thermospectr
File Name:
Dilution Factor: 1
Analyst Initials: RT
Prep Extract Vol: 25.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Nitrate-Nitrite as Nitrogen		**ND**		mg/L	0.10	0.015	1

The following test was conducted by: SGS Environmental Services Inc.

Lab Sample Number: A1507367-01B
Prep Date: 7/23/2015
Analytical Method ID: 200.8 - Metals by ICP/MS - 200.8 Metals
Prep Method ID:
Prep Batch Number: R1507291559-7
Report Basis: As Received
Sample prep wt./vol:

Analysis Date: 7/27/2015 3:51:00PM
Instrument:
File Name:
Dilution Factor: 1
Analyst Initials: EAB
Prep Extract Vol: ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Calcium	7440-70-2	**9,400**		ug/L	500	150	1
Iron	7439-89-6	**620**		ug/L	250	78	
Magnesium	7439-96-4	**3,400**		ug/L	50	15	

The following test was conducted by: ARS Aleut Analytical,LLC

Lab Sample Number: A1507367-01C
Prep Date: 7/24/2015
Analytical Method ID: SM4500-PE - Total Phos HACH 8190
Prep Method ID: 4500-PB
Prep Batch Number: F150727004
Report Basis: As Received
Sample prep wt./vol: 5.00 ml

Analysis Date: 7/24/2015 5:00:00PM
Instrument: Spectrophoto
File Name:
Dilution Factor: 1
Analyst Initials: EW
Prep Extract Vol: 5.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Phosphorous, Total		**ND**		mg/L	0.10	0.025	1

Detailed Analytical Report

ARS Aleut Analytical

Workorder (SDG): A1507367

Project: **KWF Baseline Monitoring 2015**

Client: **Kenai Watershed Forum**

Client Project Number: **none**

Report Section: Client Sample Report

Client Sample Name: **RM 31-Morgan's Landing**

Matrix: Aqueous Collection Date: 7/21/2015 10:35:00AM

The following test was conducted by: ARS Aleut Analytical,LLC

Lab Sample Number: A1507367-02A
Prep Date: 7/24/2015
Analytical Method ID: SM4500-NO3E - Nitrogen (Nitrate), Cadmium Reduction Method - N
Prep Method ID:
Prep Batch Number: A150724012
Report Basis: As Received
Sample prep wt./vol: 25.00 ml

Analysis Date: 7/24/2015 8:30:00AM
Instrument: Thermospectr
File Name:
Dilution Factor: 1
Analyst Initials: RT
Prep Extract Vol: 25.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Nitrate-Nitrite as Nitrogen		**0.159**		mg/L	0.10	0.015	1

The following test was conducted by: SGS Environmental Services Inc.

Lab Sample Number: A1507367-02B
Prep Date: 7/23/2015
Analytical Method ID: 200.8 - Metals by ICP/MS - 200.8 Metals
Prep Method ID:
Prep Batch Number: R1507291559-7
Report Basis: As Received
Sample prep wt./vol:

Analysis Date: 7/27/2015 3:53:00PM
Instrument:
File Name:
Dilution Factor: 1
Analyst Initials: EAB
Prep Extract Vol: ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Calcium	7440-70-2	**10,000**		ug/L	500	150	1
Iron	7439-89-6	**440**		ug/L	250	78	
Magnesium	7439-96-4	**1,000**		ug/L	50	15	

The following test was conducted by: ARS Aleut Analytical,LLC

Lab Sample Number: A1507367-02C
Prep Date: 7/24/2015
Analytical Method ID: SM4500-PE - Total Phos HACH 8190
Prep Method ID: 4500-PB
Prep Batch Number: F150727004
Report Basis: As Received
Sample prep wt./vol: 5.00 ml

Analysis Date: 7/24/2015 5:00:00PM
Instrument: Spectrophoto
File Name:
Dilution Factor: 1
Analyst Initials: EW
Prep Extract Vol: 5.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Phosphorous, Total		**ND**		mg/L	0.10	0.025	1

Detailed Analytical Report

ARS Aleut Analytical

Workorder (SDG): A1507367

Project: **KWF Baseline Monitoring 2015**

Client: **Kenai Watershed Forum**

Client Project Number: **none**

Report Section: Client Sample Report

Client Sample Name: **RM 36-Moose River**

Matrix: Aqueous Collection Date: 7/21/2015 10:06:00AM

The following test was conducted by: ARS Aleut Analytical,LLC

Lab Sample Number: A1507367-03A
Prep Date: 7/24/2015
Analytical Method ID: SM4500-NO3E - Nitrogen (Nitrate), Cadmium Reduction Method - N
Prep Method ID:
Prep Batch Number: A150724012
Report Basis: As Received
Sample prep wt./vol: 25.00 ml

Analysis Date: 7/24/2015 8:30:00AM
Instrument: Thermospectr
File Name:
Dilution Factor: 1
Analyst Initials: RT
Prep Extract Vol: 25.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Nitrate-Nitrite as Nitrogen		**ND**		mg/L	0.10	0.015	1

The following test was conducted by: SGS Environmental Services Inc.

Lab Sample Number: A1507367-03B
Prep Date: 7/23/2015
Analytical Method ID: 200.8 - Metals by ICP/MS - 200.8 Metals
Prep Method ID:
Prep Batch Number: R1507291559-7
Report Basis: As Received
Sample prep wt./vol:

Analysis Date: 7/27/2015 3:55:00PM
Instrument:
File Name:
Dilution Factor: 1
Analyst Initials: EAB
Prep Extract Vol: ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Calcium	7440-70-2	**21,000**		ug/L	500	150	1
Iron	7439-89-6	**670**		ug/L	250	78	
Magnesium	7439-96-4	**3,800**		ug/L	50	15	

The following test was conducted by: ARS Aleut Analytical,LLC

Lab Sample Number: A1507367-03C
Prep Date: 7/24/2015
Analytical Method ID: SM4500-PE - Total Phos HACH 8190
Prep Method ID: 4500-PB
Prep Batch Number: F150727004
Report Basis: As Received
Sample prep wt./vol: 5.00 ml

Analysis Date: 7/24/2015 5:00:00PM
Instrument: Spectrophoto
File Name:
Dilution Factor: 1
Analyst Initials: EW
Prep Extract Vol: 5.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Phosphorous, Total		**ND**		mg/L	0.10	0.025	1

Detailed Analytical Report

ARS Aleut Analytical

Workorder (SDG): A1507367

Project: **KWF Baseline Monitoring 2015**

Client: **Kenai Watershed Forum**

Client Project Number: **none**

Report Section: Client Sample Report

Client Sample Name: **RM 36-Moose River Duplicate**

Matrix: Aqueous Collection Date: 7/21/2015 10:04:00AM

The following test was conducted by: ARS Aleut Analytical,LLC

Lab Sample Number: A1507367-04A
Prep Date: 7/24/2015
Analytical Method ID: SM4500-NO3E - Nitrogen (Nitrate), Cadmium Reduction Method - N
Prep Method ID:
Prep Batch Number: A150724012
Report Basis: As Received
Sample prep wt./vol: 25.00 ml

Analysis Date: 7/24/2015 8:30:00AM
Instrument: Thermospectr
File Name:
Dilution Factor: 1
Analyst Initials: RT
Prep Extract Vol: 25.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Nitrate-Nitrite as Nitrogen		**ND**		mg/L	0.10	0.015	1

The following test was conducted by: SGS Environmental Services Inc.

Lab Sample Number: A1507367-04B
Prep Date: 7/23/2015
Analytical Method ID: 200.8 - Metals by ICP/MS - 200.8 Metals
Prep Method ID:
Prep Batch Number: R1507291559-7
Report Basis: As Received
Sample prep wt./vol:

Analysis Date: 7/27/2015 3:58:00PM
Instrument:
File Name:
Dilution Factor: 1
Analyst Initials: EAB
Prep Extract Vol: ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Calcium	7440-70-2	**20,000**		ug/L	500	150	1
Iron	7439-89-6	**650**		ug/L	250	78	
Magnesium	7439-96-4	**3,700**		ug/L	50	15	

The following test was conducted by: ARS Aleut Analytical,LLC

Lab Sample Number: A1507367-04C
Prep Date: 7/24/2015
Analytical Method ID: SM4500-PE - Total Phos HACH 8190
Prep Method ID: 4500-PB
Prep Batch Number: F150727004
Report Basis: As Received
Sample prep wt./vol: 5.00 ml

Analysis Date: 7/24/2015 5:00:00PM
Instrument: Spectrophoto
File Name:
Dilution Factor: 1
Analyst Initials: EW
Prep Extract Vol: 5.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Phosphorous, Total		**ND**		mg/L	0.10	0.025	1

Detailed Analytical Report

ARS Aleut Analytical

Workorder (SDG): A1507367

Project: **KWF Baseline Monitoring 2015**

Client: **Kenai Watershed Forum**

Client Project Number: **none**

Report Section: Method Blank Report

Client Sample Name: **MB**

Matrix: Aqueous Collection Date: 7/24/2015 8:30:00AM

The following test was conducted by: ARS Aleut Analytical,LLC

Lab Sample Number: A150724012-MB
Prep Date: 7/24/2015
Analytical Method ID: SM4500-NO3E - Nitrogen (Nitrate), Cadmium Reduction Method - N
Prep Method ID:
Prep Batch Number: A150724012
Report Basis: As Received
Sample prep wt./vol: 25.00 ml

Analysis Date: 7/24/2015 8:30:00AM
Instrument: Thermospectr
File Name:
Dilution Factor: 1
Analyst Initials: RT
Prep Extract Vol: 25.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Nitrate-Nitrite as Nitrogen		**ND**		mg/L	0.10	0.015	1

The following test was conducted by: SGS Environmental Services Inc.

Lab Sample Number: 1278674
Prep Date: 7/23/2015
Analytical Method ID: 200.8 - Metals by ICP/MS - 200.8 Metals
Prep Method ID:
Prep Batch Number: R1507291559-7
Report Basis: As Received
Sample prep wt./vol:

Analysis Date: 7/27/2015 2:53:00PM
Instrument:
File Name:
Dilution Factor: 1
Analyst Initials: EAB
Prep Extract Vol: ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Calcium	7440-70-2	**ND**		ug/L	500	150	1
Iron	7439-89-6	**ND**		ug/L	250	78	
Magnesium	7439-96-4	**ND**		ug/L	50	15	

The following test was conducted by: ARS Aleut Analytical,LLC

Lab Sample Number: F150727004-MB
Prep Date: 7/24/2015
Analytical Method ID: SM4500-PE - Total Phos HACH 8190
Prep Method ID: 4500-PB
Prep Batch Number: F150727004
Report Basis: As Received
Sample prep wt./vol: 5.00 ml

Analysis Date: 7/24/2015 5:00:00PM
Instrument: Spectrophoto
File Name:
Dilution Factor: 1
Analyst Initials: EW
Prep Extract Vol: 5.00 ml

Analyte	CASNo	Result	Flags	Units	PQL	MDL	run #:
Phosphorous, Total		**ND**		mg/L	0.10	0.025	1

Workorder (SDG): A1507367

Project: **KWF Baseline Monitoring 2015**

Client: **Kenai Watershed Forum**

Client Project Number: **none**

Tests Run at: Analytica Environmental Laboratories - Anchorage, Alaska

Workorder (SDG): A1507367

Project: KWF Baseline Monitoring 2015

Project Number:

QUALITY CONTROL REPORT

Prep Batch: **A150724012**

LCS REPORT

Analysis: SM4500-NO3E - Nitrogen (Nitrate), Cadmium Reduction Method - MB: A150724012-MB

Prep Date: 7/24/2015

MB Anal. Date: 7/24/2015 8:30:00AM Units: mg/L

LCS Anal. Date: 7/24/2015 8:30:00AM Matrix: Aqueous

Analyte Name	SampResult	LCSRes.	SPLev	Recov.	Recov Lim	RPDLim	Flag
Nitrate-Nitrite as Nitrogen	ND	0.448	0.406	110	90 - 110		

FOOTNOTES TO QC REPORT

Note 1: Results are shown to three significant figures to avoid rounding errors in calculations.

Note 2: If the sample concentration is greater than 4 times the spike level, a recovery is not meaningful, and the result should be used as a replicate. In such cases the spike is not as high as expected random measurement variability of the sample result itself.

Note 3: For sample duplicates, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample and duplicate results are not five times the PQL or greater, then the RPD is not expected to fall within the window shown and the comparison should be made on the basis of the absolute difference. Analytica uses the criterion that the absolute difference should be less than the PQL for water or less than 2XPQL for other matrices.

Note 4: For serial dilutions, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample result is not 50 times the MDL or greater, then the fact that the RPD does not meet the 10% criterion has little signifcance. Otherwise it indicates that a matrix bias may exist at the analytical step.

Workorder (SDG): A1507367

Project: **KWF Baseline Monitoring 2015**

Client: **Kenai Watershed Forum**

Client Project Number: **none**

Tests Run at: SGS Environmental Services Inc.
Workorder (SDG): A1507367
Project: KWF Baseline Monitoring 2015
Project Number:

QUALITY CONTROL REPORT

Prep Batch: **R1507291559-7**

LCS REPORT

Analysis: 200.8 - Metals by ICP/MS - 200.8 Metals
MB: 1278674
Prep Date: 7/23/2015
MB Anal. Date: 7/27/2015 2:53:00PM
Units: ug/L
LCS Anal. Date: 7/27/2015 2:56:00PM
Matrix:

Analyte Name	SampResult	LCSRes.	SPLev	Recov.	Recov Lim	RPDLim	Flag
Calcium	ND	10,300	10,000	103	85 - 115		
Iron	ND	5,220	5,000	104	85 - 115		
Magnesium	ND	10,200	10,000	102	85 - 115		

FOOTNOTES TO QC REPORT

Note 1: Results are shown to three significant figures to avoid rounding errors in calculations.

Note 2: If the sample concentration is greater than 4 times the spike level, a recovery is not meaningful, and the result should be used as a replicate. In such cases the spike is not as high as expected random measurement variability of the sample result itself.

Note 3: For sample duplicates, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample and duplicate results are not five times the PQL or greater, then the RPD is not expected to fall within the window shown and the comparison should be made on the basis of the absolute difference. Analytica uses the criterion that the absolute difference should be less than the PQL for water or less than 2XPQL for other matrices.

Note 4: For serial dilutions, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample result is not 50 times the MDL or greater, then the fact that the RPD does not meet the 10% criterion has little signifcance. Otherwise it indicates that a matrix bias may exist at the analytical step.

Workorder (SDG): A1507367

Project: **KWF Baseline Monitoring 2015**

Client: **Kenai Watershed Forum**

Client Project Number: **none**

Tests Run at:

Workorder (SDG): A1507367

Project: KWF Baseline Monitoring 2015

Project Number:

QUALITY CONTROL REPORT

Prep Batch: **F150727004**

LCS REPORT

Analysis:	SM4500-PE - Total Phos HACH 8190	MB:	F150727004-MB
		Prep Date:	7/24/2015
MB Anal. Date:	7/24/2015 5:00:00PM	Units:	mg/L
LCS Anal. Date:	7/24/2015 5:00:00PM	Matrix:	Aqueous

Analyte Name	SampResult	LCSRes.	SPLev	Recov.	Recov Lim	RPDLim	Flag
Phosphorous, Total	ND	0.333	0.333	100	90 - 110		

FOOTNOTES TO QC REPORT

Note 1: Results are shown to three significant figures to avoid rounding errors in calculations.

Note 2: If the sample concentration is greater than 4 times the spike level, a recovery is not meaningful, and the result should be used as a replicate. In such cases the spike is not as high as expected random measurement variability of the sample result itself.

Note 3: For sample duplicates, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample and duplicate results are not five times the PQL or greater, then the RPD is not expected to fall within the window shown and the comparison should be made on the basis of the absolute difference. Analytica uses the criterion that the absolute difference should be less than the PQL for water or less than 2XPQL for other matrices.

Note 4: For serial dilutions, if the result is less than the PQL, the duplicate RPD is not applicable. If the sample result is not 50 times the MDL or greater, then the fact that the RPD does not meet the 10% criterion has little signifcance. Otherwise it indicates that a matrix bias may exist at the analytical step.

Workorder (SDG): A1507367

Project: **KWF Baseline Monitoring 2015**

Client: **Kenai Watershed Forum**

Client Project Number: **none**

QC BATCH ASSOCIATIONS - BY METHOD BLANK

Lab Project ID: **172,473** **Lab Project Number:** **A1507367**

Prep Date: 7/24/2015

Lab Method Blank Id: A150724012-MB
Prep Batch ID: A150724012
Method: SM4500-NO3E - Nitrogen (Nitrate), Cadmium Reduction Method -

This Method blank and sample preparation batch are associated with the following samples, spikes, and duplicates:

SampleNum	ClientSampleName	DataFile	AnalysisDate
A1507366-04A	Batch QC		7/24/2015 8:30:00AM
A1507367-01A	RM 30-Funny River		7/24/2015 8:30:00AM
A1507367-02A	RM 31-Morgan's Landing		7/24/2015 8:30:00AM
A1507367-03A	RM 36-Moose River		7/24/2015 8:30:00AM
A1507367-04A	RM 36-Moose River Duplicate		7/24/2015 8:30:00AM
A150724012-LCS	LCS		7/24/2015 8:30:00AM
A1507366-04A-DUP	DUP		7/24/2015 8:30:00AM
A1507366-04A-MS	MS		7/24/2015 8:30:00AM

Prep Date: 7/24/2015

Lab Method Blank Id: F150727004-MB
Prep Batch ID: F150727004
Method: SM4500-PE - Total Phos HACH 8190

This Method blank and sample preparation batch are associated with the following samples, spikes, and duplicates:

SampleNum	ClientSampleName	DataFile	AnalysisDate
A1507329-01E	Batch QC		7/24/2015 5:00:00PM
A1507367-01C	RM 30-Funny River		7/24/2015 5:00:00PM
A1507367-02C	RM 31-Morgan's Landing		7/24/2015 5:00:00PM
A1507367-03C	RM 36-Moose River		7/24/2015 5:00:00PM
A1507367-04C	RM 36-Moose River Duplicate		7/24/2015 5:00:00PM
F150727004-LCS	LCS		7/24/2015 5:00:00PM
A1507329-01E-DUP	DUP		7/24/2015 5:00:00PM
A1507329-01E-MS	MS		7/24/2015 5:00:00PM
A1507329-01E-MSD	MSD		7/24/2015 5:00:00PM

Workorder (SDG): A1507367

Project: **KWF Baseline Monitoring 2015**

Client: **Kenai Watershed Forum**

Client Project Number: **none**

QC BATCH ASSOCIATIONS - BY METHOD BLANK

Lab Project ID: **172,473** **Lab Project Number:** **A1507367**

Prep Date: 7/23/2015

Lab Method Blank Id: 1278674

Prep Batch ID: R1507291559-7

Method: 200.8 - Metals by ICP/MS - 200.8 Metals

This Method blank and sample preparation batch are associated with the following samples, spikes, and duplicates:

SampleNum	ClientSampleName	DataFile	AnalysisDate
A1507367-01B	RM 30-Funny River		7/27/2015 3:51:00PM
A1507367-02B	RM 31-Morgan's Landing		7/27/2015 3:53:00PM
A1507367-03B	RM 36-Moose River		7/27/2015 3:55:00PM
A1507367-04B	RM 36-Moose River Duplicate		7/27/2015 3:58:00PM
1278675	LCS for HBN 1714415 [MXX/28911		7/27/2015 2:56:00PM
1278677	1278793 MS FOR [MXX28911]		7/27/2015 3:31:00PM

Workorder (SDG): A1507367

Project: **KWF Baseline Monitoring 2015**

Client: **Kenai Watershed Forum**

Client Project Number: **none**

DATA FLAGS AND DEFINITIONS

The PQL is the Method Quantitation Limit as defined by USACE.
Reporting Limit: Limit below which results are shown as "ND". This may be the PQL, MDL, or a value between. See the report conventions below.

Result Field:

ND = Not Detected at or above the Reporting Limit
NA = Analyte not applicable (see Case Narrative for discussion)

Qualifier Fields:

LOW = Recovery is below Lower Control Limit
HIGH = Recovery , RPD, or other parameter is above Upper Control Limit
E = Reported concentration is above the instrument calibration upper range

Organic Analysis Flags:

B = Analyte was detected in the laboratory method blank
J = Analyte was detected above MDL or Reporting Limit but below the Quant Limit (PQL)

Inorganic Analysis Flags:

J = Analyte was detected above the Reporting Limit but below the Quant Limit (PQL)
W = Post digestion spike did not meet criteria
S = Reported value determined by the Method of Standard Additions (MSA)

Several ways of defining the limit of detection and quantitation are prevalent in the laboratory industry and may appear in Analytica reports. These include the following:

MRL = "minimum reporting level", from the EPA Safe Drinking Water program (SDW)
PQL = "practical quantitation limit", from SW-846
EQL = "estimated quantitation limit", from SW-846
LOQ = "limit of quantitation", from a number of authoritative sources

In Analytica's work, all of these terms have the same meaning, equivalent to the EPA definition of the MRL. This reporting level is supported by a satisfactory calibration data point which is at that level or lower, and also is supported by a method detection limit (MDL) determined by the procedure in 40CFR. The MDL is lower than the MRL and represents an estimate of the level where positive detections have a 99% probability of being real, but where quantitation accuracy is unknown.

The MRL as defined by Analytica is the lowest demonstrated point of known quantitation accuracy.
The MRL should not be confused with the MCL, which is the EPA-defined "maximum contaminant level" allowed for certain regulated targets under specific regulations, such as the National Primary Drinking Water Regulations. Normally, the MRL is set at a level which is much lower than the MCL in order to ensure that levels are well below those limits. Not all target analytes have MCL levels established.

Other Flags may be applied. See Case Narrative for Description

Workorder (SDG): A1507367

Project: **KWF Baseline Monitoring 2015**

Client: **Kenai Watershed Forum**

Client Project Number: **none**

REPORTING CONVENTIONS FOR THIS REPORT

A1507367

TestPkgName	Basis	# Sig Figs	Reporting Limit
200.8 (Aqueous) - 200.8 Metals	As Received	2	Report to PQL
4500-NO3E (Aqueous) - Nitrate+Nitrite pres	As Received	3	Report to PQL
4500-PE/4500-PB (Aqueous) - Total Phos HACH 8190	As Received	2	Report to PQL

AAA Chain of Custody Form

ARS Aleut Analytical

4307 Arctic Blvd. Anchorage, AK 99503 (907) 258-2155 (907) 258-6634 fax

1325 W. 121st Avenue Westminster, CO 80234 303.469.8868 719.213.2478 fax

475 Hall Street Fairbanks, AK 99701 (907) 456-3116 (907) 456-3125 fax

701 W. Parks Hwy. #203 Wasilla, AK 99654 (907) 373-5440 (907) 258-6634 fax

Chain of Custody No:

Client Name & Address:
Kenai Watershed Forum
44129 Sterling Hwy
Soldotna, AK 99669

Contact Person: **Branden Bornemann**
Phone No: 907-260-5449 c:953.2605
Fax No: (907) 260-5412
E-mail: **branden@kenaiwatershed.org**

TEAM ID: Cook Inlet Aquaculture Assoc.
Project Name: Kenai River Baseline Project - July 2015

Turnaround Time for Results (TAT)
___ Standard ___ Expedited (< 10 days, prior authorization required)
(please specify due date below; add'l charges may apply)
Results Due Date:

Special Instructions/Comments:
DIS. metals not sampled or recd. PHL2

Section To be Completed by AAA
Quote ID No: A15040012
LGN: A1507367
Account #: Cash: Credit Card:
Invoice to Name & Address:
P.O. or Contract

Requested Analysis/Method

Lab Bottle Order No: / Client Sample Identification / Location	Date Sampled	Time Sampled	Matrix (S-DW-WW-Other)	No. of Containers	Nitrate SM4500-NO3E Lot #: Pres: H2SO4	200.8 Metals by ICP-Total TR Lot #: Pres: HNO3	2008 Dissolved Metals Lot #: Pres: HNO3	Total Phos SM4500 Lot #: Pres: H2SO4	Lot #: Pres:	Lot #: Pres:	Lot #: Pres:	Lot #: Pres:	Field Preserved	Field Filtered	MS/MSD ?
RM 30- Funny River	7/21/15	9:11A	Aq	4	X	X	X	X							
RM 31- Morgan's Landing	7/21/15	10:35A	Aq	4	X	X	X	X							
RM36 - Moose River	7/21/15	10:06A	Aq	4	X	X	X	X							
RM36 - Moose River Duplicate	7/21/15	10:04A	Aq	4	X	X	X	X							

Collected/Relinquished by:	Date	Time	Received by:	Date	Time
	7/21/15	11:21A		7/21/15	11:24A
Relinquished by:	Date	Time	Received by:	Date	Time
	7/21/15	11:30A		7/21/15	6:05 PM
Relinquished by:	Date	Time	Received by:	Date	Time
Name of Sampler: (printed)	Andy Wizik CIAA				

To be Completed by Analytica

Chain-of-Custody Seal?:	WES	ANC	WAS	FBKS
Initialed By:				
Temp/Loc:		5.2		
Thermo ID#:		Cell09		
Shipping Via:		Employee		