

ARS Aleut Analytical, LLC 4307 Arctic Boulevard Anchorage, AK 99503 Phone: 907-258-2155 Fax: 907-258-6634

8/16/2016

Kenai Watershed Forum 44129 Sterling Highway Soldotna, AK 99669

Attn: Branden Bornemann

Work Order #: A1607441

Date: 8/16/2016

Work ID: KWF Baseline Monitoring 2016

Date Received: 7/26/2016

Proj #: 2016

### **Sample Identification**

Lab Sample Number	Client Description	Lab Sample Number	Client Description
A1607441-01	RM 6.5 Cunningham Park	A1607441-02	RM 10 Beaver Creek
A1607441-03	RM 10.1 Kenai River	A1607441-04	RM 12.5 Pillars
A1607441-05	RM 18 Poachers Cove	A1607441-06	Trip Blank

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,

Jerry Baker Project Manager

SERRY Balsea

"The Science of Analysis, The Art of Service"

### Case Narrative

ARS Aleut Analytical, LLC Work Order: A1607441

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:

Five (5) samples were received 7/26/2016 12:05 PM at a temperature of 11.1°C at ARS Aleut Analytical - Anchorage. The samples arrived within 24 hours on ice. The samples were received in good condition and in order per chain of custody.

REVIEW FOR COMPLIANCE WITH ANALYTICA QA PLAN:

A summary of our review is shown below.

All analytical results contained in this report have been reviewed under Analytica's internal quality assurance and quality control program. Any deviations in quality control parameters for specific analyses are noted in the following text.

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

Test Method: SM4500-NO3E - Nitrogen (Nitrate), Cadmium Reduction Method - nitrate+nitrite pres f - Aqueous

The following is a subcontracted test and has been represented to us as having met criteria:

Test Method: 200.8 - Metals by ICP/MS -200.8 metals - Aqueous Test Method: 200. 7 - Metals by ICP - 200.7 metals - Aqueous

Test Method: 624 - Purgeable Organics by GC/MS - VOCs by GC/MS - Aqueous

ARS Aleut Analytical, LLC

Workorder (SDG): A1607441

**KWF Baseline Monitoring 2016** Project:

Client: **Kenai Watershed Forum** 

**Client Project Number:** 2016

**Report Section: Client Sample Report** 

Client Sample Name: RM 6.5 Cunningham Park

Matrix:	Aqueous	Collection Date:	//26/2016 8:15:00AM

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

A1607441-01A 8/11/2016 4:35:00PM Lab Sample Number: Analysis Date:

08-11-2016 16:08 Prep Date: Instrument: Thermospectr

Analytical Method ID: SM4500-NO3E - Nitrogen (Nitrate), Cadmium Reduction Method -Nile Name:

Dilution Factor: Prep Method ID:

A160811011 Prep Batch Number:

Report Basis: As Received **Analyst Initials:** LL

Sample prep wt./vol: 25.00 Prep Extract Vol: 25.00 ml ml

< 2.00 pH on receipt:

Analyte CASNo Result Flags Units PQL MDL <u>run #:</u> Nitrate-Nitrite as Nitrogen mg/L 0.10 0.028 0.114

The following test was conducted by: TestAmerica - Denver

A1607441-01E Lab Sample Number: Analysis Date: 8/9/2016 2:24:00AM

08-08-2016 20:08 Prep Date: Instrument: Analytical Method ID: 624 - Purgeable Organics by GC/MS - VOCs by GC/MS File Name:

Prep Method ID: Dilution Factor: 1

R1608151120-5 Prep Batch Number:

Report Basis: As Received Analyst Initials: RSN

Sample prep wt /vol-Prep Extract Vol: m1

Sample prep wi./voi.					1	rep Extract voi.		1111	
<u>Analyte</u>	CASNo	Result	Flags Units	<b>PQL</b>	<b>MDL</b>			<u>r</u>	un #:
Benzene	71-43-2	ND	ug/L	1.0	0.16				1
Ethylbenzene	100-41-4	ND	ug/L	1.0	0.16				
m&p Xylenes	108-38-3/106-	ND	ug/L	2.0	0.19				
O-Xylene	95-47-6	ND	ug/L	1.0	0.19				
Toluene	108-88-3	ND	ug/L	1.0	0.17				
<u>Surrogate</u> p-Bromofluorobenzene	<u>CASNo</u> 460-00-4	Result 100	Flags Units ug/L			% Recov 100	<u>LCL</u> 79	<u>UCL</u> 119	<u>run #:</u> 1

ug/L Toluene D-8 108-88-3D 105 105 80 120

The following test was conducted by: TestAmerica - Denver

Lab Sample Number: A1607441-01C 8/8/2016 4:26:00PM Analysis Date:

Prep Date: 08-05-2016 14:08 Instrument: Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved 200.8 Metals File Name:

Prep Method ID: Dilution Factor:

R1608151131-8 Prep Batch Number:

As Received LMT Report Basis: Analyst Initials:

Sample prep wt./vol: Prep Extract Vol: ml

< 2.00pH on receipt:

Flags Units PQL MDL Analyte CASNo Result <u>run #:</u> Arsenic 7440-38-2 ND ug/L 5.0 0.50 Cadmium ND ug/L 1.0 0.040 7440-43-9 ug/L Chromium 3.0 0.88 7440-47-3 ND

ARS Aleut Analytical, LLC

Workorder (SDG): A1607441

Project: KWF Baseline Monitoring 2016

Client: Kenai Watershed Forum

Client Project Number: 2016

**Report Section:** Client Sample Report

Client Sample Name: RM 6.5 Cunningham Park

Matrix:	Aqueous				(	Collection Date:	7/26/2016	8:15:00AM
Lab Sample Number:	A1607441-01C					Analysis Date:	8/8/2016	4:26:00PM
Prep Date:	08-05-2016 14:08					Instrument:		
Analytical Method ID:	200.8 - Metals by ICF	P/MS - Dissolv	ed 200.8 Metals			File Name:		
Prep Method ID:						Dilution Factor:	1	
Prep Batch Number:	R1608151131-8							
Report Basis:	As Received					Analyst Initials:	LMT	
Sample prep wt./vol:						Prep Extract Vol:		ml
pH on receipt:	< 2.00							
<b>Analyte</b>	CASNo	Result	Flags Units	<u>PQL</u>	<u>MDL</u>			<u>run #:</u>
Copper	7440-50-8	ND	ug/L	2.0	0.20			1
Lead	7439-92-1	ND	ug/L	1.0	0.10			
Zinc	7440-66-6	35.0	ug/L	10	2.0			
The following test was	conducted by: TestAme	rica - Denver						
Lab Sample Number:	A1607441-01B					Analysis Date:	8/9/2016	1:38:00AM
Prep Date:	08-08-2016 08:08					Instrument:		
Analytical Method ID:	200. 7 - Metals by ICP	- 200.7 metals	3			File Name:		
Prep Method ID:						Dilution Factor:	1	
Prep Batch Number:	R1608151130-7							
Report Basis:	As Received					Analyst Initials:	CMK	
Sample prep wt./vol:						Prep Extract Vol:		ml
pH on receipt:	< 2.00							
<b>Analyte</b>	<b>CASNo</b>	Result	Flags Units	<u>PQL</u>				<u>run #:</u>
Calcium	7440-70-2	11,000	ug/L	200	35			1
Iron	7439-89-6	750	ug/L	100	22			
Magnesium	7439-96-4	1,200	ug/L	200	11			

ARS Aleut Analytical, LLC

Workorder (SDG): A1607441

Project: KWF Baseline Monitoring 2016

Client: Kenai Watershed Forum

Client Project Number: 2016

**Report Section:** Client Sample Report

Client Sample Name: RM 10 Beaver Creek

Cheft Sample Name.	RM 10	Beaver C	reek					
Matrix:	Aqueous				C	Collection Date:	7/26/2016 9:18:00AM	
The following test was	s conducted by: ARS Al	eut Analytical,	LLC					
Lab Sample Number:	A1607441-02A					Analysis Date:	8/11/2016 4:35:00PN	1
Prep Date:	08-11-2016 16:08					Instrument:	Thermospectr	
Analytical Method ID:	SM4500-NO3E - Nitr	ogen (Nitrate)	, Cadmium Redu	iction M	ethod -	Nile Name:		
Prep Method ID:						Dilution Factor:	1	
Prep Batch Number:	A160811011							
Report Basis:	As Received					Analyst Initials:	LL	
Sample prep wt./vol:						Prep Extract Vol:	25.00 ml	
pH on receipt:	< 2.00							
<b>Analyte</b>	<b>CASNo</b>	Result	Flags Units		<u>MDL</u>		<u>run #:</u>	
Nitrate-Nitrite as Nitrogen		ND	mg/L	0.10	0.028	3	1	
The following test was	conducted by: TestAm	erica - Denver						
Lab Sample Number:	A1607441-02C					Analysis Date:	8/8/2016 4:36:00PM	
Prep Date:	08-05-2016 14:08					Instrument:		
Analytical Method ID:	200.8 - Metals by IC	P/MS - Dissol	ved 200.8 Metal	s		File Name:		
Prep Method ID:						Dilution Factor:	1	
Prep Batch Number:	R1608151131-8							
Report Basis:	As Received					Analyst Initials:	LMT	
Sample prep wt./vol:						Prep Extract Vol:	ml	
pH on receipt:	< 2.00							
Analyte Arsenic	<u>CASNo</u>	Result	Flags Units	<u>PQL</u> 5.0	MDL 0.50		<u>run #:</u>	
Cadmium	7440-38-2	6.0 ND	ug/L	1.0	0.040		1	
Chromium	7440-43-9 7440-47-3	ND ND	ug/L ug/L	3.0	0.040			
Copper	7440-50-8	ND	ug/L ug/L	2.0	0.20			
Lead	7439-92-1	ND	ug/L	1.0	0.10			
Zinc	7440-66-6	69.0	ug/L	10	2.0			
					2.0			
_	s conducted by: TestAm	erica - Denver					0/0/2016 1 40 00 434	r
Lab Sample Number:	A1607441-02B 08-08-2016 08:08					Analysis Date:	8/9/2016 1:40:00AM	
Prep Date:	200. 7 - Metals by ICl	P - 200 7 meta	le			Instrument: File Name:		
Prep Method ID:	200. 7 Wetting by Ten	200.7 meta				Dilution Factor:	1	
Prep Batch Number:	R1608151130-7					Dilution Factor.	1	
Report Basis:	As Received					Analyst Initials:	CMK	
Sample prep wt./vol:						Prep Extract Vol:	ml	
	< 2.00					-r ====================================		
Analyte		D 14	Flags Units	DOL	MDL		<u>run #:</u>	
	CASNo	Result	riags Units	rol	MIDL		i uii π.	
Calcium	<u>CASNo</u> 7440-70-2	22,000	ug/L	200	35		1	
Calcium Iron			_				1	

ARS Aleut Analytical, LLC

Workorder (SDG): A1607441

Project: KWF Baseline Monitoring 2016

Client: Kenai Watershed Forum

Client Project Number: 2016

**Report Section:** Client Sample Report

**CASNo** 

7440-70-2

7439-89-6

7439-96-4

Result

11,000

1,500

1,400

Flags Units

ug/L

ug/L

ug/L

PQL MDL

35

22

11

200

100

200

<u>run #:</u>

Client Sample Name: RM 10.1 Kenai River

Matrix:	Chem Sample Name.		RM 10.	1 Kenai Ri	ver						
Lab Sample Number:	Matrix:	Aqu	eous					C	Collection Date:	7/26/2016	9:55:00AM
Prep   Date   08-11-2016 16:08   SM4500-NO3E - Nitrogen (Nitrate), Cadmium Reduction Method ID:   SM4500-NO3E - Nitrogen (Nitrate), Cadmium Reduction Method ID:   Nite Name:   Prep Method ID:   Prep Method ID:   As Received   Sample prep wit.voic   25:00 ml     Sample prep wit.voic   Sample prep wit.voi	The following test was	conducted	l by: ARS Ale	ut Analytical,L	LC						
Analytical Method ID:   SM4500-NO3E - Nitrogen (Nitrate), Cadmium Reduction Method ID:   Prep Method ID:   A160811011   Report Basis:   A8 Received   A160811011   Report Basis:   A8 Received   A160811011   Analytical Initials:   L1   Analytical Initials:   L2   Analytical Initials:   L2   Analytical Initials:   L3   Analytical Initial	Lab Sample Number:	A16074	41-03A						Analysis Date:	8/11/20	16 4:35:00PM
Prep Method ID:         Al 60811011         As Received         Juntal Along Militalis:         LL           Report Basis:         As Received         ————————————————————————————————————	_									Thermo	spectr
Report Basis:   As Received   As Received	Analytical Method ID:	SM4500-	NO3E - Nitro	ogen (Nitrate),	Cadmi	um Reduc	ction Me	ethod -	Nile Name:		
Report Basis:   As Received   Sample prep wt./vol:   25.00 ml	Prep Method ID:								Dilution Factor:	1	
Sample prep wt./vol: 25.00 ml   Prep Extract Vol: 25.00 ml   Prep Hon receipt: 2.00   Prep Extract Vol: 25.00 ml   Prep Hon receipt: 2.00   Prep Hon receipt: 3.100   Prep Hon r	Prep Batch Number:	A16081	1011								
PH on receipt:   Analyte   Nitrate-Nitrite as Nitrogen   CASNo   Result   ND   Plags   Units   mg/L   0.00   0.028	Report Basis:	As Recei	ved						Analyst Initials:	LL	
Namity   Nitrate-Nitrite as Nitrogen   ND   ND   ND   ND   ND   ND   ND   N	Sample prep wt./vol:	25.00	ml						Prep Extract Vol:	25.00	ml
Maily train	pH on receipt:	2.00									
Analysis Date:   Anal	<u>Analyte</u>		CASNo		<u>Flags</u>				3		
Analysis Date:   Analysis Date:   Solition   Solition	The following test was	conducted	l hv: Test Ame	rica - Denver							
Prep Date:   08-05-2016 14:08   Instrument:			-	nica Bonvoi					Analysis Date:	8/8/2010	5 4:40:00PM
Analytical Method ID:   200.8 - Metals by ICP/MS - Dissolved 200.8 Metals   File Name:   Dilution Factor:   1	-								-	0, 0, 201	
Prep Method ID:				P/MS - Dissolv	ed 200	.8 Metals			File Name:		
Prep Batch Number:   R1608151131-8   Report Basis:   As Received   As Received   Analyst Initials:   LMT	•		•						Dilution Factor:	1	
Report Basis:	•	R16081	51131-8								
Sample prep wt./vol: pH on receipt: < 2.00	-								Analyst Initials:	LMT	
Phon receipt: < 2.00   Phon receipt: < 2.00   Phon receipt: < 2.00   Phon receipt:   Phon re	-										ml
Analyte Arsenic         CASNo 7440-38-2         Result ND         Flags Units ug/L         EVENT OF STATE (STATE (STAT									· r		
Arsenic 7440-38-2 ND ug/L 5.0 0.50 1 Cadmium 7440-43-9 ND ug/L 1.0 0.040 Chromium 7440-47-3 ND ug/L 3.0 0.88 Copper 7440-50-8 ND ug/L 2.0 0.20 Lead 7439-92-1 ND ug/L 1.0 0.10 Zinc 7440-66-6 35.0 ug/L 10 2.0  The following test was conducted by: TestAmerica - Denver Lab Sample Number: A1607441-03B Prep Date: 08-08-2016 08:08 Analytical Method ID: 200. 7 - Metals by ICP - 200.7 metals Prep Method ID: Prep Batch Number: R1608151130-7 Report Basis: As Received  Analyst Initials: CMK Sample prep wt./vol: ml			CASNo	Result	Flags	Units	PQL	MDL			<u>run #:</u>
Chromium 7440-47-3 ND ug/L 3.0 0.88  Copper 7440-50-8 ND ug/L 2.0 0.20  Lead 7439-92-1 ND ug/L 1.0 0.10  Zinc 7440-66-6 35.0 ug/L 10 2.0  The following test was conducted by: TestAmerica - Denver  Lab Sample Number: A1607441-03B Analysis Date: 8/9/2016 1:43:00AM  Prep Date: 08-08-2016 08:08 Instrument:  Analytical Method ID: 200. 7 - Metals by ICP - 200.7 metals  Prep Method ID: Dilution Factor: 1  Prep Batch Number: R1608151130-7  Report Basis: As Received Analyst Initials: CMK  Sample prep wt./vol: Prep Extract Vol: ml	Arsenic	7	7440-38-2	ND			5.0	0.50			1
Copper 7440-50-8 ND ug/L 2.0 0.20  Lead 7439-92-1 ND ug/L 1.0 0.10  Zinc 7440-66-6 35.0 ug/L 10 2.0  The following test was conducted by: TestAmerica - Denver  Lab Sample Number: A1607441-03B Analysis Date: 8/9/2016 1:43:00AM  Prep Date: 08-08-2016 08:08 Instrument:  Analytical Method ID: 200. 7 - Metals by ICP - 200.7 metals  Prep Method ID: Dilution Factor: 1  Prep Batch Number: R1608151130-7  Report Basis: As Received Analyst Initials: CMK  Sample prep wt./vol: Prep Extract Vol: ml	Cadmium	7	7440-43-9	ND		ug/L	1.0	0.040	)		
Lead 7439-92-1 ND ug/L 1.0 0.10  Zinc 7440-66-6 35.0 ug/L 10 2.0  The following test was conducted by: TestAmerica - Denver  Lab Sample Number: A1607441-03B Analysis Date: 8/9/2016 1:43:00AM  Prep Date: 08-08-2016 08:08 Instrument:  Analytical Method ID: 200. 7 - Metals by ICP - 200.7 metals  Prep Method ID: Dilution Factor: 1  Prep Batch Number: R1608151130-7  Report Basis: As Received Analyst Initials: CMK  Sample prep wt./vol: Prep Extract Vol: ml	Chromium	7	7440-47-3	ND		ug/L	3.0	0.88			
Zinc 7440-66-6 35.0 ug/L 10 2.0  The following test was conducted by: TestAmerica - Denver  Lab Sample Number: A1607441-03B Analysis Date: 8/9/2016 1:43:00AM  Prep Date: 08-08-2016 08:08 Instrument:  Analytical Method ID: 200. 7 - Metals by ICP - 200.7 metals  Prep Method ID: Dilution Factor: 1  Prep Batch Number: R1608151130-7  Report Basis: As Received Analyst Initials: CMK  Sample prep wt./vol: Prep Extract Vol: ml	Copper	7	7440-50-8	ND		ug/L	2.0	0.20			
The following test was conducted by: TestAmerica - Denver  Lab Sample Number: A1607441-03B Analysis Date: 8/9/2016 1:43:00AM  Prep Date: 08-08-2016 08:08 Instrument:  Analytical Method ID: 200. 7 - Metals by ICP - 200.7 metals  Prep Method ID: Dilution Factor: 1  Prep Batch Number: R1608151130-7  Report Basis: As Received Analyst Initials: CMK  Sample prep wt./vol: Prep Extract Vol: ml	Lead	7	7439-92-1	ND		ug/L	1.0	0.10			
Lab Sample Number: A1607441-03B Analysis Date: 8/9/2016 1:43:00AM Prep Date: 08-08-2016 08:08 Instrument: Analytical Method ID: 200. 7 - Metals by ICP - 200.7 metals File Name:  Prep Method ID: Dilution Factor: 1  Prep Batch Number: R1608151130-7  Report Basis: As Received Analyst Initials: CMK  Sample prep wt./vol: ml	Zinc	7	7440-66-6	35.0		ug/L	10	2.0			
Lab Sample Number: A1607441-03B Analysis Date: 8/9/2016 1:43:00AM Prep Date: 08-08-2016 08:08 Instrument: Analytical Method ID: 200. 7 - Metals by ICP - 200.7 metals File Name:  Prep Method ID: Dilution Factor: 1  Prep Batch Number: R1608151130-7  Report Basis: As Received Analyst Initials: CMK  Sample prep wt./vol: ml	The following test was	conducted	by: TestAme	rica - Denver							
Prep Date: 08-08-2016 08:08 Instrument: Analytical Method ID: 200. 7 - Metals by ICP - 200.7 metals Prep Method ID: Dilution Factor: 1 Prep Batch Number: R1608151130-7 Report Basis: As Received Analyst Initials: CMK Sample prep wt./vol: ml	~		•						Analysis Date:	8/9/2010	5 1:43:00AM
Prep Method ID:  Prep Batch Number: R1608151130-7  Report Basis: As Received Analyst Initials: CMK  Sample prep wt./vol: Prep Extract Vol: ml	-										
Prep Batch Number: R1608151130-7 Report Basis: As Received Analyst Initials: CMK Sample prep wt./vol: Prep Extract Vol: ml	Analytical Method ID:	200. 7 - N	Metals by ICP	- 200.7 metals					File Name:		
Report Basis: As Received Analyst Initials: CMK Sample prep wt./vol: Prep Extract Vol: ml	Prep Method ID:								Dilution Factor:	1	
Report Basis: As Received Analyst Initials: CMK Sample prep wt./vol: Prep Extract Vol: ml	Prep Batch Number:	R160815	51130-7								
Sample prep wt./vol: Prep Extract Vol: ml	-	As Recei	ved						Analyst Initials:	CMK	
2.00	_								•		ml
									1		

**Analyte** 

Calcium

Magnesium

Iron

ARS Aleut Analytical, LLC

Workorder (SDG): A1607441

Project: KWF Baseline Monitoring 2016

Client: Kenai Watershed Forum

Client Project Number: 2016

**Report Section:** Client Sample Report

Client Sample Name: RM 12.5 Pillars

Matrix:	Aqueous	Collection Date:	//26/2016 10:2/:00AM

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

Lab Sample Number: A1607441-04A Analysis Date: 8/11/2016 4:35:00PM

Prep Date: 08-11-2016 16:08 Instrument: Thermospectr

Analytical Method ID: SM4500-NO3E - Nitrogen (Nitrate), Cadmium Reduction Method - Nile Name:

Prep Method ID: Dilution Factor: 1

Prep Batch Number: A160811011

Report Basis: As Received Analyst Initials: LL

Sample prep wt./vol: 25.00 ml Prep Extract Vol: 25.00 ml

pH on receipt: < 2.00

AnalyteCASNoResultFlagsUnitsPQLMDLPQLMDLNitrate-Nitrite as Nitrogen0.101mg/L0.100.0281

The following test was conducted by: TestAmerica - Denver

Lab Sample Number: A1607441-04C Analysis Date: 8/8/2016 4:44:00PM

Prep Date: 08-05-2016 14:08 Instrument:
Analytical Method ID: 200.8 - Metals by ICP/MS - Dissolved 200.8 Metals File Name:

Prep Method ID: Dilution Factor: 1

Prep Batch Number: R1608151131-8

Report Basis: As Received Analyst Initials: LMT

Sample prep wt./vol: Prep Extract Vol: ml

pH on receipt: < 2.00

Analyte CASNo Result Flags Units PQL MDL <u>run #:</u> Arsenic 7440-38-2 ND ug/L 5.0 0.50 Cadmium 7440-43-9 ND ug/L 1.0 0.040 Chromium 7440-47-3 ND ug/L 3.0 0.88 0.20 Copper 7440-50-8 ND ug/L 2.0 Lead 7439-92-1 ND ug/L 1.0 0.10

The following test was conducted by: TestAmerica - Denver

7440-66-6

Lab Sample Number: A1607441-04B Analysis Date: 8/9/2016 1:46:00AM

ug/L

10

2.0

Prep Date: 08-08-2016 08:08 Instrument: Analytical Method ID: 200. 7 - Metals by ICP - 200.7 metals File Name:

ND

Prep Method ID: Dilution Factor: 1

Prep Batch Number: R1608151130-7

Report Basis: As Received Analyst Initials: CMK

Sample prep wt./vol: Prep Extract Vol: ml

pH on receipt: < 2.00

**Analyte** CASNo Result Flags Units POL MDL run #: Calcium 200 35 7440-70-2 11,000 ug/L 100 22 Iron 7439-89-6 ug/L 600 200 11 Magnesium 7439-96-4 ug/L 1,100

Zinc

ARS Aleut Analytical, LLC

Workorder (SDG): A1607441

Project: KWF Baseline Monitoring 2016

Client: Kenai Watershed Forum

Client Project Number: 2016

Report Section: Client Sample Report

Client Sample Name: RM 18 Poachers Cove

P	KIVI 10 I	oachers	Cove				
Matrix:	Aqueous				(	Collection Date:	7/26/2016 11:03:00AM
The following test was	conducted by: ARS Aleu	t Analytical,	LLC				
Lab Sample Number:	A1607441-05A					Analysis Date:	8/11/2016 4:35:00PM
Prep Date:	08-11-2016 16:08					Instrument:	Thermospectr
Analytical Method ID:	SM4500-NO3E - Nitrog	gen (Nitrate),	Cadmium Reduc	ction M	ethod -	Nile Name:	-
Prep Method ID:						Dilution Factor:	1
Prep Batch Number:	A160811011						
Report Basis:	As Received					Analyst Initials:	LL
Sample prep wt./vol:	25.00 ml					Prep Extract Vol:	25.00 ml
pH on receipt:	< 2.00						
Analyte Nitrate-Nitrite as Nitrogen	CASNo	<u>Result</u> 0.111	Flags Units mg/L	<u>PQL</u> 0.10	MDL 0.028		<u>run #:</u> 1
The following test was	conducted by: TestAmer						
Lab Sample Number:	A1607441-05C	ica - Delivei				Analysis Date:	8/8/2016 4:47:00PM
Prep Date:	08-05-2016 14:08					Instrument:	8/8/2010 4.47.001 WI
	200.8 - Metals by ICP/	MS - Dissolv	ved 200.8 Metals	<b>,</b>		File Name:	
Prep Method ID:	•					Dilution Factor:	1
Prep Batch Number:	R1608151131-8					Difference i decor.	-
Report Basis:	As Received					Analyst Initials:	LMT
Sample prep wt./vol:						Prep Extract Vol:	ml
	< 2.00					1	
<b>Analyte</b>	CASNo	Result	Flags Units	<u>PQ</u> L	MDL		<u>run #:</u>
Arsenic	7440-38-2	ND	ug/L	5.0	0.50		1
Cadmium	7440-43-9	ND	ug/L	1.0	0.040		
Chromium	7440-47-3	ND	ug/L	3.0	0.88		
Copper	7440-50-8	ND	ug/L	2.0	0.20		
Lead	7439-92-1	ND	ug/L	1.0	0.10		
Zinc	7440-66-6	60.0	ug/L	10	2.0		
The following test was	conducted by: TestAmer	ica - Denver					
Lab Sample Number:	A1607441-05B					Analysis Date:	8/9/2016 1:59:00AM
Prep Date:	08-08-2016 08:08					Instrument:	
•	200. 7 - Metals by ICP	· 200.7 metal	S			File Name:	
Prep Method ID:						Dilution Factor:	1
Prep Batch Number:	R1608151130-7						
Report Basis:	As Received					Analyst Initials:	CMK
Sample prep wt./vol:						Prep Extract Vol:	ml
pri on receipt.	< 2.00						
<u>Analyte</u> Calcium	<u>CASNo</u>	Result	Flags Units ug/L	PQL 200	MDL 35		<u>run #:</u>
Iron	7440-70-2 7439-89-6	11,000	ug/L ug/L	100	22		1
Magnesium	7439-89-6 7439-96-4	640	ug/L ug/L	200	11		
iviagnesium	7439-90-4	1,100	ug/L	200	11		

ARS Aleut Analytical, LLC

Workorder (SDG): A1607441

Project: KWF Baseline Monitoring 2016

Client: Kenai Watershed Forum

Client Project Number: 2016

**Report Section:** Client Sample Report

Client Sample Name: Trip Blank

Matrix: Aqueous Collection Date: 7/26/2016 11:03:00AM

The following test was conducted by: TestAmerica - Denver

Lab Sample Number: A1607441-06A Analysis Date: 8/9/2016 2:44:00AM

Prep Date: 08-08-2016 20:08 Instrument:
Analytical Method ID: 624 - Purgeable Organics by GC/MS - VOCs by GC/MS File Name:

Prep Method ID: Dilution Factor: 1

Prep Batch Number: R1608151120-5

Report Basis: As Received Analyst Initials: RSN

Sample prep wt./vol: Prep Extract Vol: ml

Sample prep wt./vol:					Pr	ep Extract Vol:		ml	
Analyte Benzene	<u>CASNo</u> 71-43-2	<u>Result</u> ND	Flags Units ug/L	<u>PQL</u> 1.0	MDL 0.16			<u>run</u>	# <u>:</u> 1
Ethylbenzene	100-41-4	ND	ug/L	1.0	0.16				
m&p Xylenes	108-38-3/106-	ND	ug/L	2.0	0.19				
O-Xylene	95-47-6	ND	ug/L	1.0	0.19				
Toluene	108-88-3	ND	ug/L	1.0	0.17				
Surrogate p-Bromofluorobenzene Toluene D-8	<u>CASNo</u> 460-00-4 108-88-3D	Result 99.00 106	Flags Units ug/L ug/L			% Recov 99.0 106	LCL 79 80	<u>UCL</u> <u>r</u> 119 120	un #: 1

ARS Aleut Analytical, LLC

Workorder (SDG): A1607441

Project: KWF Baseline Monitoring 2016

Client: Kenai Watershed Forum

Client Project Number: 2016

Report Section: Method Blank Report

Client Sample Name: MB

Matrix: Aqueous Collection Date: 8/11/2016 4:35:00PM

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

Lab Sample Number: A160811011-MB Analysis Date: 8/11/2016 4:35:00PM

Prep Date: 08-11-2016 16:08 Instrument: Thermospectr

Analytical Method ID: SM4500-NO3E - Nitrogen (Nitrate), Cadmium Reduction Method - Nile Name:

Prep Method ID: Dilution Factor:

Prep Batch Number: A160811011

Report Basis: As Received Analyst Initials: LL

Sample prep wt./vol: 25.00 ml Prep Extract Vol: 25.00 ml

pH on receipt: 0.00

AnalyteCASNoResultFlagsUnitsPQLMDLmg/LMDLNitrate-Nitrite as NitrogenNDmg/L0.100.0281

ARS Aleut Analytical, LLC

Workorder (SDG): A1607441

Project: KWF Baseline Monitoring 2016

Client: Kenai Watershed Forum

Client Project Number: 2016

Report Section: Method Blank Report

Client Sample Name: MB 280-336564/1-A

Matrix: Collection Date: 8/8/2016 8:00:00AM

The following test was conducted by: TestAmerica - Denver

Lab Sample Number: MB 280-336564/1-A Analysis Date: 8/9/2016 1:22:00AM

Prep Date: 08-08-2016 08:08 Instrument:
Analytical Method ID: 200. 7 - Metals by ICP - 200.7 metals File Name:

Prep Method ID: Dilution Factor: 1

Prep Batch Number: R1608151130-7

Report Basis: As Received Analyst Initials: CMK

Sample prep wt./vol: Prep Extract Vol: ml

PQL MDL **Analyte CASNo** Result Flags Units run#: Calcium 200 35 7440-70-2 ND ug/L ug/L 100 22 Iron 7439-89-6 ND ug/L 200 11 Magnesium 7439-96-4 ND

ARS Aleut Analytical, LLC

Workorder (SDG): A1607441

Project: KWF Baseline Monitoring 2016

Client: Kenai Watershed Forum

Client Project Number: 2016

Report Section: Method Blank Report

Client Sample Name: MB 280-337021/8

Matrix: Collection Date: 8/8/2016 8:56:00PM

The following test was conducted by: TestAmerica - Denver

Lab Sample Number: MB 280-337021/8 Analysis Date: 8/8/2016 8:56:00PM

Prep Date: 08-08-2016 20:08 Instrument: Analytical Method ID: 624 - Purgeable Organics by GC/MS - VOCs by GC/MS File Name:

Prep Method ID: Dilution Factor: 1

Prep Batch Number: R1608151120-5

Report Basis: As Received Analyst Initials: RSN

Prep Extract Vol: Sample prep wt./vol: ml PQL MDL **Analyte** CASNo Result Flags Units run#: Benzene 1.0 0.16 71-43-2 ND ug/L Ethylbenzene 1.0 0.16 100-41-4 ND ug/L m&p Xylenes 108-38-3/106-ND ug/L 2.0 0.19 O-Xylene 95-47-6 ND ug/L 1.0 0.19 Toluene ug/L 1.0 0.17 108-88-3 ND Surrogate CASNo Result **Flags** Units % Recov LCL UCL <u>run #:</u> p-Bromofluorobenzene 460-00-4 98.00 ug/L 98.0 79 119 1 Toluene D-8 108-88-3D ug/L 105 80 120 105

ARS Aleut Analytical, LLC

Workorder (SDG): A1607441

Project: KWF Baseline Monitoring 2016

Client: Kenai Watershed Forum

Client Project Number: 2016

Tests Run at: Analytica Environmental Laboratories - Anchorage, Alaska

Workorder (SDG): A1607441

Project: KWF Baseline Monitoring 2016

Project Number: QUALITY CONTROL REPORT

Prep Batch: A160811011

LCS REPORT

Analysis: SM4500-NO3E - Nitrogen (Nitrate), Cadmium Reduction Method -MB: A160811011-MB

Prep Date: 8/11/2016

Analyte Name SampResult LCSRes. SPLev Recov. Recov. Recov Lim RPDLim Flag

Nitrate-Nitrite as Nitrogen ND 0.567 0.614 92.3 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 significance. Otherwise it indicates that a matrix bias may exist at the analytical step.

ARS Aleut Analytical, LLC

Workorder (SDG): A1607441

Project: KWF Baseline Monitoring 2016

Client: Kenai Watershed Forum

Client Project Number: 2016

Tests Run at: TestAmerica - Denver

Workorder (SDG): A1607441

Project: KWF Baseline Monitoring 2016

Project Number: QUALITY CONTROL REPORT

Prep Batch: **R1608151130-7** 

LCS REPORT

Analysis: 200. 7 - Metals by ICP - 200.7 metals MB: MB 280-336564/1-A

Prep Date: 8/8/2016

MB Anal. Date: 8/9/2016 1:22:00AM Units: ug/L

LCS Anal. Date: 8/9/2016 1:24:00AM Matrix:

Analyte Name Recov Lim RPDLim Flag SampResult LCSRes. **SPLev** Recov. 90 - 111 50,000 Calcium ND 51,100 102.2 973 97.3 Iron ND 1,000 89 - 115 Magnesium ND 50,500 50,000 101.0 90 - 113

Prep Batch: R1608151120-5

LCS REPORT

Analysis: 624 - Purgeable Organics by GC/MS - VOCs by GC/MS MB: MB 280-337021/8

Prep Date: 8/8/2016

MB Anal. Date: 8/8/2016 8:56:00PM Units: ug/L

LCS Anal. Date: 8/8/2016 8:35:00PM Matrix:

Analyte Name Recov Lim RPDLim Flag SampResult LCSRes. **SPLev** Recov. Benzene ND 5.38 5.00 107.6 37 - 151 Ethylbenzene ND 4.94 5.00 98.8 37 - 162 m&p Xylenes ND 0 - 0 O-Xylene ND 0 - 0 ND 47 - 150 Toluene 5.40 108.0 5.00

ARS Aleut Analytical, LLC

Workorder (SDG): A1607441

Project: KWF Baseline Monitoring 2016

Client: Kenai Watershed Forum

Client Project Number: 2016

#### 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 significance. Otherwise it indicates that a matrix bias may exist at the analytical step.

#### SURROGATE RECOVERY SUMMARY REPORT

Test Method:	624 - Purgeable Orga	nics by GC/	MS - VOC	s by GC/MS		
Lab Sample #:	A1607441-01E		Di	lution:	1	
Analysis Date:	8/9/2016 2:24:00AM	- -	Cli	ient Sample:	RM 6.5 Cunningham Park	
Batch Number:	R1608151120-5		Da	ıta File:		
<b>AnalyteName</b>		<b>SSRecov</b>	<b>LCL</b>	<u>UCL</u>	<u>SSFlag</u>	<b>Result Status</b>
p-Bromofluorobenz	zene	100	79	119		Complete
Toluene D-8		105	80	120		Complete
Lab Sample #:	A1607441-06A		Di	lution:	1	
Analysis Date:	8/9/2016 2:44:00AM	- -	Cli	ient Sample:	Trip Blank	
Batch Number:	R1608151120-5		Da	ıta File:		
<b>AnalyteName</b>		<b>SSRecov</b>	<b>LCL</b>	<u>UCL</u>	<u>SSFlag</u>	<b>Result Status</b>
p-Bromofluorobenz	zene	99	79	119		Complete
Toluene D-8		106	80	120		Complete
Lab Sample #:	MB 280-337021/8		Di	lution:	1	
Analysis Date:	8/8/2016 8:56:00PM		Cli	ient Sample:	MB 280-337021/8	
Batch Number:	R1608151120-5		Da	ıta File:		
<b>AnalyteName</b>		<b>SSRecov</b>	<b>LCL</b>	<u>UCL</u>	<b>SSFlag</b>	<b>Result Status</b>
p-Bromofluorobenz	zene	98	79	119		Complete
Toluene D-8		105	80	120		Complete
Lab Sample #:	LCS 280-337021/6		Di	lution:	1	
Analysis Date:	8/8/2016 8:35:00PM		Cli	ient Sample:	LCS 280-337021/6	
Batch Number:	R1608151120-5		Da	ıta File:		
<b>AnalyteName</b>		<b>SSRecov</b>	<b>LCL</b>	<u>UCL</u>	<u>SSFlag</u>	Result Status
p-Bromofluorobenz	zene	98	79	119		Complete
Toluene D-8		105	80	120		Complete

ARS Aleut Analytical, LLC

Workorder (SDG): A1607441

Project: KWF Baseline Monitoring 2016

Client: Kenai Watershed Forum

Client Project Number: 2016

### QC BATCH ASSOCIATIONS - BY METHOD BLANK

Lab Project ID:	181,168	Lab Project Number:	A1607441	
Lab Method Blank Id: Prep Batch ID:	A160811011-MB A160811011			Prep Date: 8/11/2016
Method:		itrogen (Nitrate), Cadmiun		
This Method blank and		are associated with the follow		-
<u>SampleNum</u>	ClientSampleName	<u>DataF</u>	<u>file</u>	<u>AnalysisDate</u>
A1607319-01H	Batch QC			8/11/2016 4:35:00PM
A1607441-01A	RM 6.5 Cunningham F	Park		8/11/2016 4:35:00PM
A1607441-02A	RM 10 Beaver Creek			8/11/2016 4:35:00PM
A1607441-03A	RM 10.1 Kenai River			8/11/2016 4:35:00PM
A1607441-04A	RM 12.5 Pillars			8/11/2016 4:35:00PM
A1607441-05A	RM 18 Poachers Cove			8/11/2016 4:35:00PM
A160811011-LCS	LCS			8/11/2016 4:35:00PM
A1607319-01H-DUP	DUP			8/11/2016 4:35:00PM
A1607319-01H-MS	MS			8/11/2016 4:35:00PM
				Prep Date: 8/8/2016
Lab Method Blank Id:	MB 280-337021/8			
Prep Batch ID:	R1608151120-5		CC/MC	
Method:		ganics by GC/MS - VOCs I	•	
		are associated with the follow		-
<u>SampleNum</u>	ClientSampleName	<u>DataF</u>	<u>ʻile</u>	<u>AnalysisDate</u>
A1607441-01E	RM 6.5 Cunningham F	Park		8/9/2016 2:24:00AM
	_			
	Trip Blank			8/9/2016 2:44:00AM
	Trip Blank LCS 280-337021/6			8/9/2016 2:44:00AM 8/8/2016 8:35:00PM
LCS 280-337021/6	LCS 280-337021/6			
LCS 280-337021/6  Lab Method Blank Id:	LCS 280-337021/6  MB 280-336564/1-4	A		8/8/2016 8:35:00PM
LCS 280-337021/6  Lab Method Blank Id: Prep Batch ID:	MB 280-336564/1-4 R1608151130-7			8/8/2016 8:35:00PM
LCS 280-337021/6  Lab Method Blank Id: Prep Batch ID: Method:	MB 280-336564/1-A R1608151130-7 200. 7 - Metals by I	CP - 200.7 metals	ing complex as the con-	8/8/2016 8:35:00PM  Prep Date: 8/8/2016
LCS 280-337021/6  Lab Method Blank Id: Prep Batch ID: Method: This Method blank and	MB 280-336564/1-4 R1608151130-7 200. 7 - Metals by Io sample preparation batch a	CP - 200.7 metals are associated with the follow		8/8/2016 8:35:00PM  Prep Date: 8/8/2016  d duplicates:
LCS 280-337021/6  Lab Method Blank Id: Prep Batch ID: Method: This Method blank and SampleNum	MB 280-336564/1-4 R1608151130-7 200. 7 - Metals by Its sample preparation batch a ClientSampleName	CP - 200.7 metals are associated with the follow DataF		8/8/2016 8:35:00PM  Prep Date: 8/8/2016  d duplicates:  AnalysisDate
LCS 280-337021/6  Lab Method Blank Id: Prep Batch ID: Method: This Method blank and SampleNum A1607441-01B	MB 280-336564/1-4 R1608151130-7 200. 7 - Metals by Idesample preparation batch a ClientSampleName RM 6.5 Cunningham F	CP - 200.7 metals are associated with the follow DataF		8/8/2016 8:35:00PM  Prep Date: 8/8/2016  d duplicates:  AnalysisDate 8/9/2016 1:38:00AM
LCS 280-337021/6  Lab Method Blank Id: Prep Batch ID: Method: This Method blank and SampleNum A1607441-01B A1607441-02B	MB 280-336564/1-4 R1608151130-7 200. 7 - Metals by Its sample preparation batch a ClientSampleName RM 6.5 Cunningham F RM 10 Beaver Creek	CP - 200.7 metals are associated with the follow DataF		8/8/2016 8:35:00PM  Prep Date: 8/8/2016  duplicates:  AnalysisDate  8/9/2016 1:38:00AM  8/9/2016 1:40:00AM
LCS 280-337021/6  Lab Method Blank Id: Prep Batch ID: Method: This Method blank and SampleNum A1607441-01B A1607441-02B A1607441-03B	MB 280-336564/1-A R1608151130-7 200. 7 - Metals by Io sample preparation batch a ClientSampleName RM 6.5 Cunningham F RM 10 Beaver Creek RM 10.1 Kenai River	CP - 200.7 metals are associated with the follow DataF		8/8/2016 8:35:00PM  Prep Date: 8/8/2016  d duplicates:  AnalysisDate  8/9/2016 1:38:00AM  8/9/2016 1:40:00AM  8/9/2016 1:43:00AM
SampleNum A1607441-01B A1607441-02B A1607441-03B A1607441-04B	MB 280-336564/1-4 R1608151130-7 200. 7 - Metals by Io sample preparation batch a ClientSampleName RM 6.5 Cunningham F RM 10 Beaver Creek RM 10.1 Kenai River RM 12.5 Pillars	CP - 200.7 metals are associated with the follow DataF		8/8/2016 8:35:00PM  Prep Date: 8/8/2016  d duplicates:
LCS 280-337021/6  Lab Method Blank Id: Prep Batch ID: Method: This Method blank and SampleNum A1607441-01B A1607441-02B A1607441-03B A1607441-04B A1607441-05B	MB 280-336564/1-A R1608151130-7 200. 7 - Metals by Io sample preparation batch a ClientSampleName RM 6.5 Cunningham F RM 10 Beaver Creek RM 10.1 Kenai River	CP - 200.7 metals are associated with the follow DataF		8/8/2016 8:35:00PM  Prep Date: 8/8/2016  d duplicates:  AnalysisDate  8/9/2016 1:38:00AM  8/9/2016 1:40:00AM  8/9/2016 1:43:00AM

ARS Aleut Analytical, LLC

Workorder (SDG): A1607441

Project: KWF Baseline Monitoring 2016

Client: Kenai Watershed Forum

Client Project Number: 2016

#### 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

ARS Aleut Analytical, LLC

Workorder (SDG): A1607441

Project: KWF Baseline Monitoring 2016

Client: Kenai Watershed Forum

Client Project Number: 2016

### REPORTING CONVENTIONS FOR THIS REPORT

A1607441

<b>TestPkgName</b>	<u>Basis</u>	<u># Sig Figs</u>	Reporting Limit
200.7 (Aqueous) - 200.7 metals	As Received	2	Report to PQL
200.8 (Aqueous) - Dissolved 200.8 Metals	As Received	2	Report to PQL
4500-NO3E (Aqueous) - Nitrate+Nitrite pres	As Received	3	Report to PQL
624 (Aqueous) - VOCs by GC/MS	As Received	3	Report to PQL



## **AAA Chain of Custody Form**

4307 Arctic Blvd. Anchorage, AK 99503 (907) 258-2155 (907) 258-6634 fax ARS Corporate Office 2609 North River Road Port Allen, LA 70767 225.381.2991 225.381.2996 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:

Page\_\_\_\_ of \_\_\_\_

					.001.2000 10	`														
Client Name & Address:			TEAM ID: US Fish & Wildlife Service								Section To be Completed by AAA									
Kenai Watershed Forum			Project Name: Kenai River Baseline Project - July 2016							Quot	e ID No: A1	6030019	LGN: ALL A TILLE							
44129 Sterling Hwy														A1607441						
Soldotna, AK 99669										count #:		Cash:		Credit C	ard:					
Contact Person: Branden Bornema	Turnaround Time for Results (TAT)								Invoice to Name & Address:											
Phone No: 907-260-5449 c:953.2605			Standard Expedited (< 10 days, prior authorization required)																	
Fax No: (907) 260-5412			(please specify due date below; add'll charges may apply)																	
E-mail: branden@kenaiwatershed.org			Results Due Date:																	
Special Instructions/Comments:										P.O.	or Contract									
Lab Bottle Order No:					(er.)	δ	33E	Total	Metals			d Analysis/M	ethod			9				
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-Tota TR	Pres: HNO3 200.8 Dissolved Me	Lot#: Pres: HNO3	200000000000000000000000000000000000000	BTEX Lot#: Pres: HCl	Lof#: D	mies.	Lot#: Pres:	Field Preserved	Field Filtered	MS/MSD ?		
RM 6.5- Cunningham Park			7/26/16	815	Aq	8	<del></del>	>		<del>/</del>	<b>&gt;</b>	X						pH		
RM 10- Beaver Creek			7/26/16	918	Aq	4	2	>		54	~	4-3						,		
RM 10.1-Kenai River			7/26/110	955	PΑ	4	٠,	g/L		4	9			::						
RM 12.5Pillars			7/26/16	1027	Aq	4	7	>	/ /	×	1									
RM 18Poachers Cove			7/26/16	1103	Aq	4	4	<u> </u>	2	<b>※</b>	54									
Trip Blank					Aq	2	,					<del>5</del> /-								
				ŧ"																
														1						
	**																			
														1		_				
Collected/Relinquished by:	Date	Time	Received by:		Dat	e	Time				1	o be Comp	leted by	AAA						
Luke Violette	7/20/16	12:05	tan Schalt		7/26	116	1205	1205			ANC	<u>WAS</u>	<u>FBKS</u>							
Relinquished by:	Date	Time	Received by:		Date		Time	~~~~~	Chain-of- Custody Sea		eal?:									
			•						Initialed By:											
Relinquished by:	Date	Time	Received by:		Date		Time		Temp/Loc	•	11.4				_					
									Thermo ID#:		61109									
Name of Sampler: (printed)		L			<u> </u>		1		Shipping		£1,29	<del></del>								
	1, 5	1	à.	0.7.1					- inpping	V /CI				······						
2	* Plac	ed on	ice with	in 24 h	3. of	Sam	plans	<b>;</b>												