FIRST NATION HEALTH AUTHORITY
ATTN: [redacted]
[redacted]
Vancouver BC V6E 4S5

Date Received: 19-AUG-14
Report Date: 15-SEP-14 13:55 (MT)
Version: FINAL

Client Phone: [redacted]

Certificate of Analysis

Lab Work Order #: **L1504356**
Project P.O. #: NOT SUBMITTED
Job Reference:
C of C Numbers: PG002
Legal Site Desc:

Comments: Please note ALS identified samples L1504356-1 to -5 were sublet to ALS Kelso for Arsenic 3 and 5 testing.

[redacted]
Senior Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	L1504356-1	L1504356-2	L1504356-3	L1504356-4	L1504356-5
Description	Fish	Fish	Fish	Fish	Fish
Sampled Date	31-JUL-14	31-JUL-14	31-JUL-14	31-JUL-14	31-JUL-14
Sampled Time					
Client ID	1 SOCKEYE-SKYLINE RD(FS) (MUSCLE+SKIN)	2 SOCKEYE-SKYLINE RD(FS) (MUSCLE+SKIN)	3 SOCKEYE-SKYLINE RD(FS) (MUSCLE+SKIN)	4 SOCKEYE-SKYLINE RD(FS) (MUSCLE+SKIN)	5 SOCKEYE-SKYLINE RD(FS) (MUSCLE+SKIN)
Grouping / **Analyte**					
TISSUE					
Metals					
Aluminum (Al)-Total (mg/kg wwt)	<0.40	<0.40	<0.40	<0.40	0.51
Antimony (Sb)-Total (mg/kg wwt)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total (mg/kg wwt)	0.397	0.651	0.384	0.425	0.285
Barium (Ba)-Total (mg/kg wwt)	0.114	0.107	0.085	0.135	0.104
Beryllium (Be)-Total (mg/kg wwt)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total (mg/kg wwt)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total (mg/kg wwt)	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)-Total (mg/kg wwt)	0.0136	0.0080	0.0047	0.0059	0.0047
Calcium (Ca)-Total (mg/kg wwt)	506	683	377	622	434
Cesium (Cs)-Total (mg/kg wwt)	0.0231	0.0188	0.0207	0.0182	0.0204
Chromium (Cr)-Total (mg/kg wwt)	0.034	<0.010	<0.010	<0.010	0.017
Cobalt (Co)-Total (mg/kg wwt)	0.0080	0.0079	0.0049	0.0050	0.0060
Copper (Cu)-Total (mg/kg wwt)	1.19	1.20	0.703	0.635	0.873
Iron (Fe)-Total (mg/kg wwt)	7.50	8.27	5.63	5.53	7.04
Lead (Pb)-Total (mg/kg wwt)	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Lithium (Li)-Total (mg/kg wwt)	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium (Mg)-Total (mg/kg wwt)	292	257	258	272	289
Manganese (Mn)-Total (mg/kg wwt)	0.161	0.193	0.140	0.191	0.167
Mercury (Hg)-Total (mg/kg wwt)	0.0488	0.0328	0.113	0.0318	0.0432
Molybdenum (Mo)-Total (mg/kg wwt)	0.0082	0.0069	0.0075	0.0052	0.0074
Nickel (Ni)-Total (mg/kg wwt)	<0.040	<0.040	<0.040	<0.040	<0.040
Phosphorus (P)-Total (mg/kg wwt)	2650	2560	2350	2520	2570
Potassium (K)-Total (mg/kg wwt)	3660	3130	3200	3040	3370
Rubidium (Rb)-Total (mg/kg wwt)	1.02	0.740	0.817	0.707	0.790
Selenium (Se)-Total (mg/kg wwt)	0.310	0.314	0.302	0.315	0.321
Sodium (Na)-Total (mg/kg wwt)	605	431	524	411	487
Strontium (Sr)-Total (mg/kg wwt)	2.35	3.47	1.77	3.25	2.09
Tellurium (Te)-Total (mg/kg wwt)	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total (mg/kg wwt)	0.00120	0.00087	0.00084	0.00087	0.00080
Tin (Sn)-Total (mg/kg wwt)	0.024	<0.020	<0.020	0.023	0.032
Uranium (U)-Total (mg/kg wwt)	0.00316	0.00167	0.00315	0.00484	0.00321
Vanadium (V)-Total (mg/kg wwt)	<0.020	<0.020	<0.020	<0.020	0.139
Zinc (Zn)-Total (mg/kg wwt)	10.6	10.1	5.23	6.21	5.28
Zirconium (Zr)-Total (mg/kg wwt)	<0.040	<0.040	<0.040	<0.040	<0.040

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

	Sample ID	L1504356-6	L1504356-7			
	Description	Fish	Fish			
	Sampled Date	31-JUL-14	31-JUL-14			
	Sampled Time					
	Client ID	2 SOCKEYE-SKYLINE RD(FS) (MUSCLE+SKIN) REPLICATE	4 SOCKEYE-SKYLINE RD(FS) (MUSCLE+SKIN) REPLICATE			
Grouping	Analyte					
TISSUE						
Metals	Aluminum (Al)-Total (mg/kg wwt)	<0.40	<0.40			
	Antimony (Sb)-Total (mg/kg wwt)	<0.0020	<0.0020			
	Arsenic (As)-Total (mg/kg wwt)	0.535	0.576			
	Barium (Ba)-Total (mg/kg wwt)	0.081	0.167			
	Beryllium (Be)-Total (mg/kg wwt)	<0.0020	<0.0020			
	Bismuth (Bi)-Total (mg/kg wwt)	<0.0020	<0.0020			
	Boron (B)-Total (mg/kg wwt)	<0.20	<0.20			
	Cadmium (Cd)-Total (mg/kg wwt)	0.0074	0.0078			
	Calcium (Ca)-Total (mg/kg wwt)	605	653			
	Cesium (Cs)-Total (mg/kg wwt)	0.0187	0.0176			
	Chromium (Cr)-Total (mg/kg wwt)	<0.010	<0.010			
	Cobalt (Co)-Total (mg/kg wwt)	0.0057	0.0081			
	Copper (Cu)-Total (mg/kg wwt)	0.904	1.24			
	Iron (Fe)-Total (mg/kg wwt)	7.42	8.90			
	Lead (Pb)-Total (mg/kg wwt)	<0.0040	<0.0040			
	Lithium (Li)-Total (mg/kg wwt)	<0.10	<0.10			
	Magnesium (Mg)-Total (mg/kg wwt)	273	274			
	Manganese (Mn)-Total (mg/kg wwt)	0.178	0.240			
	Mercury (Hg)-Total (mg/kg wwt)	0.0328	0.0343			
	Molybdenum (Mo)-Total (mg/kg wwt)	0.0069	0.0077			
	Nickel (Ni)-Total (mg/kg wwt)	<0.040	<0.040			
	Phosphorus (P)-Total (mg/kg wwt)	2670	2660			
	Potassium (K)-Total (mg/kg wwt)	3370	2940			
	Rubidium (Rb)-Total (mg/kg wwt)	0.809	0.713			
	Selenium (Se)-Total (mg/kg wwt)	0.315	0.341			
	Sodium (Na)-Total (mg/kg wwt)	440	412			
	Strontium (Sr)-Total (mg/kg wwt)	3.06	3.40			
	Tellurium (Te)-Total (mg/kg wwt)	<0.0040	<0.0040			
	Thallium (Tl)-Total (mg/kg wwt)	0.00083	0.00106			
	Tin (Sn)-Total (mg/kg wwt)	<0.020	<0.020			
	Uranium (U)-Total (mg/kg wwt)	0.00143	0.00638			
	Vanadium (V)-Total (mg/kg wwt)	0.020	<0.020			
	Zinc (Zn)-Total (mg/kg wwt)	10.8	7.29			
	Zirconium (Zr)-Total (mg/kg wwt)	<0.040	<0.040			

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Duplicate	Barium (Ba)-Total	DUP-H	L1504356-1, -2, -3, -4, -5, -6, -7
Duplicate	Copper (Cu)-Total	DUP-H	L1504356-1, -2, -3, -4, -5, -6, -7
Duplicate	Iron (Fe)-Total	DUP-H	L1504356-1, -2, -3, -4, -5, -6, -7
Duplicate	Manganese (Mn)-Total	DUP-H	L1504356-1, -2, -3, -4, -5, -6, -7
Duplicate	Strontium (Sr)-Total	DUP-H	L1504356-1, -2, -3, -4, -5, -6, -7

Qualifiers for Individual Parameters Listed:

Qualifier	Description
DUP-H	Duplicate results outside ALS DQO, due to sample heterogeneity.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
HG-WET-CVAFS-VA	Tissue	Mercury in Tissue by CVAFS (WET)	EPA 200.3, EPA 245.7

This method is adapted from US EPA Method 200.3 "Sample Procedures for Spectrochemical Determination of Total Recoverable Elements in Biological Tissues" (1996). Tissue samples are homogenized and sub-sampled prior to hotblock digestion with nitric and hydrochloric acids, in combination with repeated additions of hydrogen peroxide. Analysis is by atomic fluorescence spectrophotometry or atomic absorption spectrophotometry, adapted from US EPA Method 245.7. This digestion procedure was implemented on October 5, 2009.

MET-WET-CCMS-VA	Tissue	Metals in Tissue by CRC ICPMS (WET)	EPA 200.3/6020A

This method is adapted from US EPA Method 200.3 "Sample Procedures for Spectrochemical Determination of Total Recoverable Elements in Biological Tissues" (1996). Tissue samples are homogenized and sub-sampled prior to hotblock digestion with nitric and hydrochloric acids, in combination with repeated additions of hydrogen peroxide. Instrumental analysis is by collision cell inductively coupled plasma - mass spectrometry (modified from EPA Method 6020A).

Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

PG002

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.
mg/kg - milligrams per kilogram based on dry weight of sample.
mg/kg wwt - milligrams per kilogram based on wet weight of sample.
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.
mg/L - milligrams per litre.
< - Less than.
D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

ALS Environmental
ALS Group USA, Corp.
1317 South 13th Avenue
Kelso, WA 98626
T: +1 360 577 7222
F: +1 360 636 1068
www.alsglobal.com

September 12, 2014

Analytical Report for Service Request No: K1409401

[redacted]
ALS Environmental - Canada
8081 Lougheed Hwy
Suite 100
Burnaby, BC V5A 1W9

CANADA

RE: L1504356

Dear [redacted]

Enclosed are the results of the samples submitted to our laboratory on September 04, 2014. For your reference, these analyses have been assigned our service request number K1409401.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is [redacted] You may also contact me via Email at [redacted]

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

[redacted]

CL/aj

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEC UST	http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L14-51
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	Not available	-
Idaho DHW	http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx	-
ISO 17025	http://www.pjlabs.com/	L14-50
Louisiana DEQ	http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx	03016
Maine DHS	Not available	WA01276
Michigan DEQ	http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html	9949
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Montana DPHHS	http://www.dphhs.mt.gov/publichealth/	CERT0047
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/oqa/	WA005
North Carolina DWQ	http://www.dwqlab.org/	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/envserv/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wisconsin DNR	http://dnr.wi.gov/	998386840
Wyoming (EPA Region 8)	http://www.epa.gov/region8/water/dwhome/wyomingdi.html	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Tissue - fish

L1504356

VANCOUVER

ALS Environmental

Subcontract Request Form

K14094401

Subcontract To:

ALS ENVIRONMENTAL - KELSO, WASHINGTON, USA
1317 S. 13TH AVE
KELSO,WA 98626

NOTES: Please reference on final report and invoice: PO# *L1504356*
ALS requires QC data to be provided with your final results.

Rush Arsenic Spec

Please see enclosed 5 **sample(s) in** 5 **Container(s)**

SAMPLE NUMBER	CLIENT ID / ANALYTICAL REQUIRED	DATE SAMPLED / DUE DATE	Priority Flag
L1504356-1	1 SOCKEYE-SKYLINE RD(FS)	7/ 31/ 2014	
	Special Request - Kelso (SPECIAL REQUEST-KL 14)	9/9/2014	
L1504356-2	2 SOCKEYE-SKYLINE RD(FS)	7/ 31/ 2014	
	Special Request - Kelso (SPECIAL REQUEST-KL 14)	9/9/2014	
L1504356-3	3 SOCKEYE-SKYLINE RD(FS)	7/ 31/ 2014	
	Special Request - Kelso (SPECIAL REQUEST-KL 14)	9/9/2014	
L1504356-4	4 SOCKEYE-SKYLINE RD(FS)	7/ 31/ 2014	
	Special Request - Kelso (SPECIAL REQUEST-KL 14)	9/9/2014	
L1504356-5	5 SOCKEYE-SKYLINE RD(FS)	7/ 31/ 2014	
	Special Request - Kelso (SPECIAL REQUEST-KL 14)	9/9/2014	

Subcontract Info Contact:
Analysis and reporting info contact:

8081 LOUGHEED HWY
SUITE 100
BURNABY,BC V5A 1W9
Phone:

Please email confirmation of receipt to:

Shipped By: _____ Date Shipped: HLG 25/ mail

Received By: ALS Date Received: 9/3/14 1000

Verified By: _____ Date Verified: _____

Temperature: _____

Sample Integrity Issues: _____

PC CL

Cooler Receipt and Preservation Form

Client / Project: ALS Canada Service Request *K14* 09401

Received: 9/4/14 Opened: 9/4/14 By: BK Unloaded: 9/4/14 By: BK

1. Samples were received via? *Mail* (*Fed Ex*) *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) (*Cooler*) *Box* *Envelope* *Other*_____ *NA*
3. Were custody seals on coolers? NA Y (N) If yes, how many and where?_____

   If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID NA	Tracking Number NA	Filed
~~AM~~ 9/4/14	20.2	NM	—	-.3	338		5319 1760 3421	
26.5								

4. Packing material: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* (*Dry Ice*)* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA (Y) N
6. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* NA (Y) N
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA (Y) N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA (Y) N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA (Y) N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* (NA) Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* (NA) Y N
12. Was C12/Res negative? (NA) Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time
ALL		X								

RUSH

Notes, Discrepancies, & Resolutions: * Ice melted completely

Client notified of temperature upon receipt 9/4/14 - CL

Earliest date analysis is 9/12/14 due to lab capacity. - CL 9/4/14

*Page*____ *of*____

Analytical Report

Client:	ALS Environmental - Canada	**Service Request:**	K1409401
Project:		**Date Collected:**	07/31/14
Sample Matrix:	Animal Tissue	**Date Received:**	09/4/14
Analysis Method:	Freeze Dry	**Units:**	Percent
Prep Method:	None	**Basis:**	Wet

Total Solids

Sample Name	Lab Code	Result	MRL	Dil.	Date Analyzed	Q
L1504356-1	K1409401-001	**24.4**	-	1	09/05/14 08:10	
L1504356-2	K1409401-002	**25.7**	-	1	09/05/14 08:10	
L1504356-3	K1409401-003	**22.4**	-	1	09/05/14 08:10	
L1504356-4	K1409401-004	**25.7**	-	1	09/05/14 08:10	
L1504356-5	K1409401-005	**26.7**	-	1	09/05/14 08:10	

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - Canada	**Service Request:**	K1409401
Project		**Date Collected:**	07/31/14
Sample Matrix:	Animal Tissue	**Date Received:**	09/04/14
		Date Analyzed:	09/05/14

Replicate Sample Summary
Inorganic Parameters

Sample Name:	L1504356-2	**Units:**	Percent
Lab Code:	K1409401-002	**Basis:**	Wet

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample K1409401-002DUP Result	Average	RPD	RPD Limit
Total Solids	Freeze Dry	-	25.7	24.8	25.3	4	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	ALS Environmental - Canada	**Service Request:**	K1409401
Project:	L1504356	**Date Collected:**	07/31/14
Sample Matrix:	Animal tissue	**Date Received:**	09/04/14

Total Metals

Sample Name:	L1504356-1	Units:	ug/g
Lab Code:	K1409401-001	Basis:	As Received
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic (III)	1632A	1632A	0.01	1	09/09/14	09/09/14	ND	
Arsenic (V)	1632A	1632A	0.02	1	NA	09/10/14	ND	
Inorganic Arsenic	1632A	1632A	0.02	1	09/08/14	09/10/14	ND	

Client:	ALS Environmental - Canada	**Service Request:**	K1409401
Project:	L1504356	**Date Collected:**	07/31/14
Sample Matrix:	Animal tissue	**Date Received:**	09/04/14

Total Metals

Sample Name:	L1504356-2	Units:	ug/g
Lab Code:	K1409401-002	Basis:	As Received
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic (III)	1632A	1632A	0.01	1	09/09/14	09/09/14	ND	
Arsenic (V)	1632A	1632A	0.02	1	NA	09/10/14	ND	
Inorganic Arsenic	1632A	1632A	0.02	1	09/08/14	09/10/14	ND	

Client:	ALS Environmental - Canada	**Service Request:**	K1409401
Project:	L1504356	**Date Collected:**	07/31/14
Sample Matrix:	Animal tissue	**Date Received:**	09/04/14

Total Metals

Sample Name:	L1504356-3	Units:	ug/g
Lab Code:	K1409401-003	Basis:	As Received
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic (III)	1632A	1632A	0.009	1	09/09/14	09/09/14	0.009	
Arsenic (V)	1632A	1632A	0.02	1	NA	09/10/14	ND	
Inorganic Arsenic	1632A	1632A	0.02	1	09/08/14	09/10/14	ND	

Client:	ALS Environmental - Canada	**Service Request:**	K1409401
Project:	L1504356	**Date Collected:**	07/31/14
Sample Matrix:	Animal tissue	**Date Received:**	09/04/14

Total Metals

Sample Name:	L1504356-4	Units:	ug/g
Lab Code:	K1409401-004	Basis:	As Received
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic (III)	1632A	1632A	0.01	1	09/09/14	09/09/14	ND	
Arsenic (V)	1632A	1632A	0.02	1	NA	09/10/14	ND	
Inorganic Arsenic	1632A	1632A	0.02	1	09/08/14	09/10/14	ND	

Client:	ALS Environmental - Canada	**Service Request:**	K1409401
Project:	L1504356	**Date Collected:**	07/31/14
Sample Matrix:	Animal tissue	**Date Received:**	09/04/14

Total Metals

Sample Name:	L1504356-5	Units:	ug/g
Lab Code:	K1409401-005	Basis:	As Received
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic (III)	1632A	1632A	0.01	1	09/09/14	09/09/14	ND	
Arsenic (V)	1632A	1632A	0.03	1	NA	09/10/14	ND	
Inorganic Arsenic	1632A	1632A	0.03	1	09/08/14	09/10/14	ND	

Client:	ALS Environmental - Canada	**Service Request:**	K1409401
Project:	L1504356	**Date Collected:**	07/31/14
Sample Matrix:	Animal tissue	**Date Received:**	09/04/14

Total Metals

Sample Name:	Method Blank 1	Units:	ug/g
Lab Code:	K1409401-MB1	Basis:	As Received
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic (III)	1632A	1632A	0.009	1	09/09/14	09/09/14	ND	
Inorganic Arsenic	1632A	1632A	0.004	1	09/08/14	09/10/14	ND	

Client:	ALS Environmental - Canada	**Service Request:**	K1409401
Project:	L1504356	**Date Collected:**	07/31/14
Sample Matrix:	Animal tissue	**Date Received:**	09/04/14

Total Metals

Sample Name:	Method Blank 2	Units:	ug/g
Lab Code:	K1409401-MB2	Basis:	As Received
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic (III)	1632A	1632A	0.009	1	09/09/14	09/09/14	ND	
Inorganic Arsenic	1632A	1632A	0.004	1	09/08/14	09/10/14	ND	

Client:	ALS Environmental - Canada	**Service Request:**	K1409401
Project:	L1504356	**Date Collected:**	07/31/14
Sample Matrix:	Animal tissue	**Date Received:**	09/04/14

Total Metals

Sample Name:	Method Blank 3	Units:	ug/g
Lab Code:	K1409401-MB3	Basis:	As Received
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Arsenic (III)	1632A	1632A	0.009	1	09/09/14	09/09/14	ND	
Inorganic Arsenic	1632A	1632A	0.004	1	09/08/14	09/10/14	ND	

ALS Group USA, Corp.
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QA/QC Report

Client:	ALS Environmental - Canada	**Service Request:**	K1409401
Project:	L1504356	**Date Collected:**	07/31/14
Sample Matrix:	Animal tissue	**Date Received:**	09/04/14
		Date Extracted:	09/08,09/09/14
		Date Analyzed:	09/09,09/10/14

Matrix Spike/Duplicate Matrix Spike Summary
Total Metals

Sample Name:	L1504356-1	Units:	ug/g
Lab Code:	K1409401-001MS, K1409401-001MSD	Basis:	As Received
Test Notes:			

				Spike Level		Sample	Spike Result		Percent Recovery				
Analyte	**Prep Method**	**Analysis Method**	**MRL**	MS	DMS	**Result**	MS	DMS	MS	DMS	Method Acceptance Limits	**Relative Percent Difference**	**Result Notes**
Arsenic (III)	1632A	1632A	0.009	0.48	0.47	ND	0.36	0.37	75	79	30-170	3	
Inorganic Arsenic	1632A	1632A	0.02	0.72	0.70	ND	0.64	0.59	89	84	50-150	8	

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dba ALS Environmental
QA/QC Report

Client:	ALS Environmental - Canada	**Service Request:**	K1409401
Project:	L1504356	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Extracted:	09/08,09/09/14
		Date Analyzed:	09/09,09/10/14

Ongoing Precision and Recovery (OPR) Sample Summary
Total Metals

Sample Name: Ongoing Precision and Recovery

Units: ug/g
Basis: NA

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Arsenic (III)	Method	1632A	2.000	1.47	74	30-170	
Inorganic Arsenic	Method	1632A	0.200	0.169	85	50-150	

ALS Group USA, Corp.
dba ALS Environmental
QA/QC Report

Client:	ALS Environmental - Canada	**Service Request:**	K1409401
Project:	L1504356	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Extracted:	NA
		Date Analyzed:	09/09,09/10/14

Calibration Verification (CALVER) Sample Summary
Total Metals

Sample Name: CALVER 1

Units: ug/L
Basis: NA

Test Notes:

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Arsenic (III)	NA	1632A	0.20	0.196	98	70-130	
Inorganic Arsenic	NA	1632A	0.20	0.196	98	80-120	

ALS Group USA, Corp.
dba ALS Environmental
QA/QC Report

Client:	ALS Environmental - Canada	**Service Request:**	K1409401
Project:	L1504356	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Extracted:	NA
		Date Analyzed:	09/09,09/10/14

Calibration Verification (CALVER) Sample Summary
Total Metals

Sample Name: CALVER 2

Units: ug/L
Basis: NA

Test Notes:

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Arsenic (III)	NA	1632A	0.20	0.195	98	70-130	
Inorganic Arsenic	NA	1632A	0.20	0.204	102	80-120	

ALS Group USA, Corp.
dba ALS Environmental
QA/QC Report

Client:	ALS Environmental - Canada	**Service Request:**	K1409401
Project:	L1504356	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Extracted:	NA
		Date Analyzed:	09/09,09/10/14

Calibration Verification (CALVER) Sample Summary
Total Metals

Sample Name: CALVER 3

Units: ug/L
Basis: NA

Test Notes:

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Arsenic (III)	NA	1632A	0.20	0.211	106	70-130	
Inorganic Arsenic	NA	1632A	0.20	0.203	101	80-120	