



March 3, 2010

AXYS Analytical Services
ATTN: Angelica Whetung
2045 Mills Road West
Sidney, BC V8L 5X2
Canada
awhetung@axys.com

RE: Work Order: 0939019, **Addendum A, Rev. 1**
Client Contract No: 4574

Project: AXS018
Purchase Order: 13691-A

Dear Ms. Whetung,

On September 24, 2009, Brooks Rand Labs (BRL) received twenty-five (25) homogenized fish tissue samples. Samples were logged-in for the contracted analyses of mercury (Hg), silver (Ag), aluminum (Al), cadmium (Cd), chromium (Cr), copper (Cu), iron (Fe), lead (Pb), nickel (Ni), selenium (Se), zinc (Zn), and total solids determination. All samples were received, prepared, analyzed, and stored according to BRL SOPs and EPA methodology.

The report containing results for all analytes except Al and Pb was issued on December 23, 2009. This report (Addendum A, Rev. 1) includes only the Al and Pb results. Furthermore, the original Addendum A report was issued December 31, 2009.

The analysis of CRMs IAEA-407 and NRCC DORM-3 for Al and Pb produced recoveries below BRL's acceptance criteria range of 75 – 125%. The initial recoveries of both CRMs were confirmed by re-analysis, and then again confirmed by re-preparation and re-analysis. The initial recovery for Al in CRM IAEA-407 was 45%, and CRM DORM-3 yielded a 60% recovery. The recovery for Pb in CRM IAEA-407 was 72%, while DORM-3 yielded a 52% recovery. Consequently, all sample results for Al and Pb have been qualified J and should be considered estimates. BRL considers the present sample preparation method a “total recoverable” digestion procedure for all biota samples analyzed for Al and Pb. All other quality control samples used to assess method accuracy (e.g., matrix spikes and laboratory fortified blanks) produced recoveries within the control limits; therefore, BRL considers the reported results valid. While it is difficult to evaluate the overall accuracy of the sample results from any one quality control parameter, a reasonable hypothesis is that the Pb data may be slightly biased low and the Al data may be significantly biased low.

Both of the CRMs referenced above were purchased and analyzed prior to the time of sample submittal. However, analysis of biota samples for Al and Pb is performed infrequently at BRL, and the DORM-3 CRM is relatively new (a replacement made by the CRM vendor for DORM-2). Consequently there was insufficient data to evaluate the recovery trends of both metals in these CRMs. It should be noted IAEA-407 (a fish tissue CRM) has certified concentrations for Al and Pb; however, DORM-3 (a fish protein CRM) is certified only for Pb (the Al value provided by the CRM vendor is only an informational value).

A detailed report concerning this issue, along with R&D results, has been provided to Axys Analytical Services separately (Addendum A, unrevised).

Sample results have been reported on a wet and dry-weight basis in both the hard copy report and electronic data deliverables. The reporting units of all batch quality control samples in which client samples were utilized have been reported on a **dry-weight basis**. All other quality control samples (i.e. CRMs, BLKs) have been reported on a wet-weight basis. This was due to a limitation of BRL's laboratory information management system. Samples results below or equal to the MDL were reported at the MDL and qualified **U**. Sample results above the MDL but below or equal to the MRL were reported qualified **B** and should be considered estimates.

Sequence 0900876, Batch B091422 – Al and Pb

The analysis of B091422-DUP1, -DUP2, and -DUP3 and the corresponding native sample results [L13452-3 / Winnicut-10 Males (0939019-03), L13452-11 / Squamscott R.-11 Females (0939019-11), and L13452-21 / Deer Meadow Bk-20 Females (0939019-21)] produced RPDs which exceeded the control limit for Al, Pb, or both elements. The native sample concentrations and the DUP1 concentrations for both Al and Pb, in addition to the native sample concentrations and the DUP2 and DUP3 concentrations for Pb analysis, were less than five times the MRL and the differences between the duplicates were less than two times the MRL, thus satisfying the secondary acceptance criteria for method precision. However, the Al result for sample L13452-11 / Squamscott R.-11 Females (0939019-11) was qualified **M** for duplicate imprecision and should be considered an estimate. No further qualification of the data was required.

The results were method blank corrected as described in the calculations section of the relevant BRL SOP(s) and may have been evaluated using reporting limits that have been adjusted to account for sample aliquot size. Please refer to the *Sample Results* page for sample-specific MDLs, MRLs, and other details. All data was reported without further qualification and other all associated quality control sample results meet the acceptance criteria.

BRL, an accredited laboratory, certifies that the reported results of all analyses for which BRL is NELAP accredited meet all NELAP requirements. For more information please see the *Report Information* page in your report. Please feel free to contact us if you have any questions regarding this report.

Sincerely,



Tiffany Stilwater
Project Manager
tiffany@brooksrnd.com



Michelle Briscoe
VP of Analytical Services
michelle@brooksrnd.com

Report Information

Laboratory Accreditation

BRL is accredited by the *National Environmental Laboratory Accreditation Program* (NELAP) through the State of Florida Department of Health, Bureau of Laboratories (E87982) and is certified to perform many environmental analyses. BRL is also certified by many other states to perform environmental analyses. For a current list of our accreditations/certifications, please visit our website at <http://www.brooksrand.com/default.asp?contentID=586>. Results reported relate only to the samples listed in the report.

Field Quality Control Samples

Please be notified that certain EPA methods require the collection of field quality control samples of an appropriate type and frequency; failure to do so is considered a deviation from some methods and for compliance purposes should only be done with the approval of regulatory authorities. Please see the specific EPA methods for details regarding required field quality control samples.

Common Abbreviations

BLK	method blank	MS	matrix spike
BRL	Brooks Rand Labs	MSD	matrix spike duplicate
BS	laboratory fortified blank	ND	non-detect
CAL	calibration standard	NR	non-reportable
CCV	continuing calibration verification	PS	post preparation spike
COC	chain of custody record	REC	percent recovery
CRM	certified reference material	RPD	relative percent difference
D	dissolved fraction	RSD	relative standard deviation
DUP	duplicate	SCV	secondary calibration verification
ICV	initial calibration verification	SOP	standard operating procedure
MDL	method detection limit	SRM	standard reference material
MRL	method reporting limit	T	total recoverable fraction

Definition of Data Qualifiers

(Effective 9/23/09)

B	Detected by the instrument, the result is > the MDL but ≤ the MRL. Result is reported and considered an estimate.
E	An estimated value due to the presence of interferences. A full explanation is presented in the narrative.
H	Holding time and/or preservation requirements not met. Result is estimated.
J	Estimated value. A full explanation is presented in the narrative.
J-M	Duplicate precision (RPD) for associated QC sample was not within acceptance criteria. Result is estimated.
J-N	Spike recovery for associated QC sample was not within acceptance criteria. Result is estimated.
M	Duplicate precision (RPD) was not within acceptance criteria. Result is estimated.
N	Spike recovery was not within acceptance criteria. Result is estimated.
R	Rejected, unusable value. A full explanation is presented in the narrative.
U	Result is ≤ the MDL or client requested reporting limit (CRRL). Result reported as the MDL or CRRL.
X	Result is not BLK-corrected and is within 10x the absolute value of the highest detectable BLK in the batch. Result is estimated.

These qualifiers are based on those previously utilized by Brooks Rand, Ltd., those found in the EPA SOW ILM03.0, Exhibit B, Section III, pg. B-18, and the USEPA Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses; USEPA; July 2002. These supersede all previous qualifiers ever employed by BRL.



Sample Information

Sample	Lab ID	Report Matrix	Type	Sampled	Received
L13452-1 / Chandler River- 6 Females	0939019-01	Tissue	Sample	unknown	09/24/2009
L13452-2 / East Bay- 9 Females	0939019-02	Tissue	Sample	unknown	09/24/2009
L13452-3 / Winnicut- 10 Males	0939019-03	Tissue	Sample	unknown	09/24/2009
L13452-4 / Tannery Brook- 10 Males	0939019-04	Tissue	Sample	unknown	09/24/2009
L13452-5 / Fore River- 6 Females	0939019-05	Tissue	Sample	unknown	09/24/2009
L13452-6 / Parker River- 10 Females	0939019-06	Tissue	Sample	unknown	09/24/2009
L13452-7 / Deer Meadow Bk- 20 Males	0939019-07	Tissue	Sample	unknown	09/24/2009
L13452-8 / North River- 3 Males	0939019-08	Tissue	Sample	unknown	09/24/2009
L13452-9 / North River- 2 Females	0939019-09	Tissue	Sample	unknown	09/24/2009
L13452-10 / Crane River -10 Females	0939019-10	Tissue	Sample	unknown	09/24/2009
L13452-11 / Squamscott R. -11 Females	0939019-11	Tissue	Sample	unknown	09/24/2009
L13452-12 / Squamscott R. - 10 Males	0939019-12	Tissue	Sample	unknown	09/24/2009
L13452-13 / Long Creek - 12 Males	0939019-13	Tissue	Sample	unknown	09/24/2009
L13452-14 / Jones River- 10 Males	0939019-14	Tissue	Sample	unknown	09/24/2009
L13452-15 / Jones River- 10 Females	0939019-15	Tissue	Sample	unknown	09/24/2009
L13452-16 / Mast Landing -10 Males	0939019-16	Tissue	Sample	unknown	09/24/2009
L13452-17 / Tannery Brook - 10 Females	0939019-17	Tissue	Sample	unknown	09/24/2009
L13452-18 / East Bay - 10 Males	0939019-18	Tissue	Sample	unknown	09/24/2009
L13452-19 / Mast Landing - 10 Females	0939019-19	Tissue	Sample	unknown	09/24/2009
L13452-20 / Chandler River - 7 Males	0939019-20	Tissue	Sample	unknown	09/24/2009
L13452-21 / Deer Meadow Bk- 20 Females	0939019-21	Tissue	Sample	unknown	09/24/2009
L13452-22 / Long Creek- 7 Females	0939019-22	Tissue	Sample	unknown	09/24/2009
L13452-23 / Crane River- 10 Males	0939019-23	Tissue	Sample	unknown	09/24/2009
L13452-24 / Parker River- 10 Males	0939019-24	Tissue	Sample	unknown	09/24/2009
L13452-25 / Fore River - 10 Males	0939019-25	Tissue	Sample	unknown	09/24/2009

Batch Summary

Analyte	Lab Matrix	Method	Prepared	Analyzed	Batch	Sequence
%TS	Biota	SM 2540G	10/09/2009	10/14/2009	B091377	N/A
Al	Biota	EPA Method 1638 mod.	10/21/2009	10/22/2009	B091422	0900876
Pb	Biota	EPA Method 1638 mod.	10/21/2009	10/22/2009	B091422	0900876



Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
L13452-1 / Chandler River- 6 Females										
0939019-01	%TS	Tissue	N/A	21.72		0.10	0.33	%	B091377	N/A
0939019-01	Al	Tissue	N/A	12.1	J	0.64	3.65	mg/kg dry	B091422	0900876
0939019-01	Al	Tissue	N/A	2.62	J	0.14	0.79	mg/kg	B091422	0900876
0939019-01	Pb	Tissue	N/A	0.478	J	0.018	0.182	mg/kg dry	B091422	0900876
0939019-01	Pb	Tissue	N/A	0.104	J	0.004	0.040	mg/kg	B091422	0900876
L13452-10 / Crane River -10 Females										
0939019-10	%TS	Tissue	N/A	21.57		0.10	0.33	%	B091377	N/A
0939019-10	Al	Tissue	N/A	16.6	J	0.64	3.64	mg/kg dry	B091422	0900876
0939019-10	Al	Tissue	N/A	3.57	J	0.14	0.79	mg/kg	B091422	0900876
0939019-10	Pb	Tissue	N/A	0.028	J, B	0.018	0.182	mg/kg dry	B091422	0900876
0939019-10	Pb	Tissue	N/A	0.006	J, B	0.004	0.039	mg/kg	B091422	0900876
L13452-11 / Squamscott R. -11 Females										
0939019-11	%TS	Tissue	N/A	20.39		0.10	0.33	%	B091377	N/A
0939019-11	Al	Tissue	N/A	120	J, M	0.66	3.79	mg/kg dry	B091422	0900876
0939019-11	Al	Tissue	N/A	24.4	J, M	0.14	0.77	mg/kg	B091422	0900876
0939019-11	Pb	Tissue	N/A	0.085	J, B	0.019	0.189	mg/kg dry	B091422	0900876
0939019-11	Pb	Tissue	N/A	0.017	J, B	0.004	0.039	mg/kg	B091422	0900876
L13452-12 / Squamscott R. - 10 Males										
0939019-12	%TS	Tissue	N/A	20.76		0.10	0.33	%	B091377	N/A
0939019-12	Al	Tissue	N/A	14.8	J	0.64	3.66	mg/kg dry	B091422	0900876
0939019-12	Al	Tissue	N/A	3.08	J	0.13	0.76	mg/kg	B091422	0900876
0939019-12	Pb	Tissue	N/A	0.028	J, B	0.018	0.183	mg/kg dry	B091422	0900876
0939019-12	Pb	Tissue	N/A	0.006	J, B	0.004	0.038	mg/kg	B091422	0900876
L13452-13 / Long Creek - 12 Males										
0939019-13	%TS	Tissue	N/A	22.06		0.10	0.33	%	B091377	N/A
0939019-13	Al	Tissue	N/A	3.18	J, B	0.61	3.49	mg/kg dry	B091422	0900876
0939019-13	Al	Tissue	N/A	0.70	J, B	0.13	0.77	mg/kg	B091422	0900876
0939019-13	Pb	Tissue	N/A	0.034	J, B	0.017	0.175	mg/kg dry	B091422	0900876
0939019-13	Pb	Tissue	N/A	0.008	J, B	0.004	0.039	mg/kg	B091422	0900876
L13452-14 / Jones River- 10 Males										
0939019-14	%TS	Tissue	N/A	21.06		0.10	0.33	%	B091377	N/A
0939019-14	Al	Tissue	N/A	14.0	J	0.57	3.24	mg/kg dry	B091422	0900876
0939019-14	Al	Tissue	N/A	2.94	J	0.12	0.68	mg/kg	B091422	0900876
0939019-14	Pb	Tissue	N/A	0.038	J, B	0.016	0.162	mg/kg dry	B091422	0900876
0939019-14	Pb	Tissue	N/A	0.008	J, B	0.003	0.034	mg/kg	B091422	0900876

Work Order: 0939019
 Project ID: AXS018
 PM: Tiffany Stilwater



Client PM: Angelica Whetung
 Client PO: 13691-A

Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
L13452-15 / Jones River- 10 Females										
0939019-15	%TS	Tissue	N/A	20.96		0.10	0.33	%	B091377	N/A
0939019-15	Al	Tissue	N/A	17.9	J	0.61	3.50	mg/kg dry	B091422	0900876
0939019-15	Al	Tissue	N/A	3.75	J	0.13	0.73	mg/kg	B091422	0900876
0939019-15	Pb	Tissue	N/A	0.039	J, B	0.017	0.175	mg/kg dry	B091422	0900876
0939019-15	Pb	Tissue	N/A	0.008	J, B	0.004	0.037	mg/kg	B091422	0900876
L13452-16 / Mast Landing -10 Males										
0939019-16	%TS	Tissue	N/A	22.00		0.10	0.33	%	B091377	N/A
0939019-16	Al	Tissue	N/A	14.1	J	0.57	3.28	mg/kg dry	B091422	0900876
0939019-16	Al	Tissue	N/A	3.11	J	0.13	0.72	mg/kg	B091422	0900876
0939019-16	Pb	Tissue	N/A	0.025	J, B	0.016	0.164	mg/kg dry	B091422	0900876
0939019-16	Pb	Tissue	N/A	0.005	J, B	0.004	0.036	mg/kg	B091422	0900876
L13452-17 / Tannery Brook - 10 Females										
0939019-17	%TS	Tissue	N/A	20.12		0.10	0.33	%	B091377	N/A
0939019-17	Al	Tissue	N/A	10.1	J	0.67	3.80	mg/kg dry	B091422	0900876
0939019-17	Al	Tissue	N/A	2.03	J	0.13	0.76	mg/kg	B091422	0900876
0939019-17	Pb	Tissue	N/A	0.019	J, U	0.019	0.190	mg/kg dry	B091422	0900876
0939019-17	Pb	Tissue	N/A	0.004	J, U	0.004	0.038	mg/kg	B091422	0900876
L13452-18 / East Bay - 10 Males										
0939019-18	%TS	Tissue	N/A	23.30		0.10	0.33	%	B091377	N/A
0939019-18	Al	Tissue	N/A	5.71	J	0.60	3.42	mg/kg dry	B091422	0900876
0939019-18	Al	Tissue	N/A	1.33	J	0.14	0.80	mg/kg	B091422	0900876
0939019-18	Pb	Tissue	N/A	0.017	U, J	0.017	0.171	mg/kg dry	B091422	0900876
0939019-18	Pb	Tissue	N/A	0.004	U, J	0.004	0.040	mg/kg	B091422	0900876
L13452-19 / Mast Landing - 10 Females										
0939019-19	%TS	Tissue	N/A	19.03		0.10	0.33	%	B091377	N/A
0939019-19	Al	Tissue	N/A	3.49	J, B	0.67	3.82	mg/kg dry	B091422	0900876
0939019-19	Al	Tissue	N/A	0.66	J, B	0.13	0.73	mg/kg	B091422	0900876
0939019-19	Pb	Tissue	N/A	0.042	J, B	0.019	0.191	mg/kg dry	B091422	0900876
0939019-19	Pb	Tissue	N/A	0.008	J, B	0.004	0.036	mg/kg	B091422	0900876
L13452-2 / East Bay- 9 Females										
0939019-02	%TS	Tissue	N/A	21.25		0.10	0.33	%	B091377	N/A
0939019-02	Al	Tissue	N/A	5.22	J	0.63	3.60	mg/kg dry	B091422	0900876
0939019-02	Al	Tissue	N/A	1.11	J	0.13	0.76	mg/kg	B091422	0900876
0939019-02	Pb	Tissue	N/A	0.028	J, B	0.018	0.180	mg/kg dry	B091422	0900876
0939019-02	Pb	Tissue	N/A	0.006	J, B	0.004	0.038	mg/kg	B091422	0900876
L13452-20 / Chandler River - 7 Males										
0939019-20	%TS	Tissue	N/A	21.70		0.10	0.33	%	B091377	N/A
0939019-20	Al	Tissue	N/A	10.9	J	0.58	3.34	mg/kg dry	B091422	0900876
0939019-20	Al	Tissue	N/A	2.37	J	0.13	0.72	mg/kg	B091422	0900876
0939019-20	Pb	Tissue	N/A	0.017	U, J	0.017	0.167	mg/kg dry	B091422	0900876
0939019-20	Pb	Tissue	N/A	0.004	U, J	0.004	0.036	mg/kg	B091422	0900876



Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
L13452-21 / Deer Meadow Bk- 20 Females										
0939019-21	%TS	Tissue	N/A	20.61		0.10	0.33	%	B091377	N/A
0939019-21	Al	Tissue	N/A	7.07	J	0.66	3.78	mg/kg dry	B091422	0900876
0939019-21	Al	Tissue	N/A	1.46	J	0.14	0.78	mg/kg	B091422	0900876
0939019-21	Pb	Tissue	N/A	0.034	J, B	0.019	0.189	mg/kg dry	B091422	0900876
0939019-21	Pb	Tissue	N/A	0.007	J, B	0.004	0.039	mg/kg	B091422	0900876
L13452-22 / Long Creek- 7 Females										
0939019-22	%TS	Tissue	N/A	21.74		0.10	0.33	%	B091377	N/A
0939019-22	Al	Tissue	N/A	2.24	J, B	0.57	3.28	mg/kg dry	B091422	0900876
0939019-22	Al	Tissue	N/A	0.49	J, B	0.12	0.71	mg/kg	B091422	0900876
0939019-22	Pb	Tissue	N/A	0.029	J, B	0.016	0.164	mg/kg dry	B091422	0900876
0939019-22	Pb	Tissue	N/A	0.006	J, B	0.004	0.036	mg/kg	B091422	0900876
L13452-23 / Crane River- 10 Males										
0939019-23	%TS	Tissue	N/A	20.64		0.10	0.33	%	B091377	N/A
0939019-23	Al	Tissue	N/A	11.7	J	0.66	3.77	mg/kg dry	B091422	0900876
0939019-23	Al	Tissue	N/A	2.41	J	0.14	0.78	mg/kg	B091422	0900876
0939019-23	Pb	Tissue	N/A	0.069	J, B	0.019	0.188	mg/kg dry	B091422	0900876
0939019-23	Pb	Tissue	N/A	0.014	J, B	0.004	0.039	mg/kg	B091422	0900876
L13452-24 / Parker River- 10 Males										
0939019-24	%TS	Tissue	N/A	21.94		0.10	0.33	%	B091377	N/A
0939019-24	Al	Tissue	N/A	5.75	J	0.59	3.39	mg/kg dry	B091422	0900876
0939019-24	Al	Tissue	N/A	1.26	J	0.13	0.74	mg/kg	B091422	0900876
0939019-24	Pb	Tissue	N/A	0.021	J, B	0.017	0.169	mg/kg dry	B091422	0900876
0939019-24	Pb	Tissue	N/A	0.005	J, B	0.004	0.037	mg/kg	B091422	0900876
L13452-25 / Fore River - 10 Males										
0939019-25	%TS	Tissue	N/A	21.13		0.10	0.33	%	B091377	N/A
0939019-25	Al	Tissue	N/A	6.90	J	0.60	3.45	mg/kg dry	B091422	0900876
0939019-25	Al	Tissue	N/A	1.46	J	0.13	0.73	mg/kg	B091422	0900876
0939019-25	Pb	Tissue	N/A	0.039	J, B	0.017	0.173	mg/kg dry	B091422	0900876
0939019-25	Pb	Tissue	N/A	0.008	J, B	0.004	0.036	mg/kg	B091422	0900876
L13452-3 / Winnicut- 10 Males										
0939019-03	%TS	Tissue	N/A	21.18		0.10	0.33	%	B091377	N/A
0939019-03	Al	Tissue	N/A	11.4	J	0.63	3.58	mg/kg dry	B091422	0900876
0939019-03	Al	Tissue	N/A	2.41	J	0.13	0.76	mg/kg	B091422	0900876
0939019-03	Pb	Tissue	N/A	0.027	J, B	0.018	0.179	mg/kg dry	B091422	0900876
0939019-03	Pb	Tissue	N/A	0.006	J, B	0.004	0.038	mg/kg	B091422	0900876
L13452-4 / Tannery Brook- 10 Males										
0939019-04	%TS	Tissue	N/A	21.54		0.10	0.33	%	B091377	N/A
0939019-04	Al	Tissue	N/A	5.68	J	0.64	3.65	mg/kg dry	B091422	0900876
0939019-04	Al	Tissue	N/A	1.22	J	0.14	0.79	mg/kg	B091422	0900876
0939019-04	Pb	Tissue	N/A	0.018	J, U	0.018	0.182	mg/kg dry	B091422	0900876
0939019-04	Pb	Tissue	N/A	0.004	J, U	0.004	0.039	mg/kg	B091422	0900876



Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
L13452-5 / Fore River- 6 Females										
0939019-05	%TS	Tissue	N/A	20.40		0.10	0.33	%	B091377	N/A
0939019-05	Al	Tissue	N/A	3.29	J, B	0.59	3.35	mg/kg dry	B091422	0900876
0939019-05	Al	Tissue	N/A	0.67	J, B	0.12	0.68	mg/kg	B091422	0900876
0939019-05	Pb	Tissue	N/A	0.019	J, B	0.017	0.167	mg/kg dry	B091422	0900876
0939019-05	Pb	Tissue	N/A	0.004	J, B	0.003	0.034	mg/kg	B091422	0900876
L13452-6 / Parker River- 10 Females										
0939019-06	%TS	Tissue	N/A	20.07		0.10	0.33	%	B091377	N/A
0939019-06	Al	Tissue	N/A	2.81	J, B	0.64	3.67	mg/kg dry	B091422	0900876
0939019-06	Al	Tissue	N/A	0.56	J, B	0.13	0.74	mg/kg	B091422	0900876
0939019-06	Pb	Tissue	N/A	0.019	J, B	0.018	0.184	mg/kg dry	B091422	0900876
0939019-06	Pb	Tissue	N/A	0.004	J, B	0.004	0.037	mg/kg	B091422	0900876
L13452-7 / Deer Meadow Bk- 20 Males										
0939019-07	%TS	Tissue	N/A	20.31		0.10	0.33	%	B091377	N/A
0939019-07	Al	Tissue	N/A	6.60	J	0.67	3.80	mg/kg dry	B091422	0900876
0939019-07	Al	Tissue	N/A	1.34	J	0.14	0.77	mg/kg	B091422	0900876
0939019-07	Pb	Tissue	N/A	0.052	J, B	0.019	0.190	mg/kg dry	B091422	0900876
0939019-07	Pb	Tissue	N/A	0.011	J, B	0.004	0.039	mg/kg	B091422	0900876
L13452-8 / North River- 3 Males										
0939019-08	%TS	Tissue	N/A	23.31		0.10	0.33	%	B091377	N/A
0939019-08	Al	Tissue	N/A	3.01	J, B	0.57	3.28	mg/kg dry	B091422	0900876
0939019-08	Al	Tissue	N/A	0.70	J, B	0.13	0.76	mg/kg	B091422	0900876
0939019-08	Pb	Tissue	N/A	0.016	J, U	0.016	0.164	mg/kg dry	B091422	0900876
0939019-08	Pb	Tissue	N/A	0.004	J, U	0.004	0.038	mg/kg	B091422	0900876
L13452-9 / North River- 2 Females										
0939019-09	%TS	Tissue	N/A	22.06		0.10	0.33	%	B091377	N/A
0939019-09	Al	Tissue	N/A	4.56	J	0.63	3.61	mg/kg dry	B091422	0900876
0939019-09	Al	Tissue	N/A	1.01	J	0.14	0.80	mg/kg	B091422	0900876
0939019-09	Pb	Tissue	N/A	0.018	J, U	0.018	0.180	mg/kg dry	B091422	0900876
0939019-09	Pb	Tissue	N/A	0.004	J, U	0.004	0.040	mg/kg	B091422	0900876

Work Order: 0939019
Project ID: AXS018
PM: Tiffany Stilwater



Client PM: Angelica Whetung
Client PO: 13691-A

Accuracy & Precision Summary

Batch: B091377
Lab Matrix: Biota
Method: SM 2540G

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B091377-DUP1	Duplicate (0939019-03) %TS	21.18		21.16	%		0.1% 15
B091377-DUP2	Duplicate (0939019-04) %TS	21.54		21.51	%		0.1% 15
B091377-DUP3	Duplicate (0939019-06) %TS	20.07		20.42	%		2% 15



Accuracy & Precision Summary

Batch: B091422
 Lab Matrix: Biota
 Method: EPA Method 1638 mod.

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B091422-BS2	Laboratory Fortified Blank (0943032)						
	Al		100.0	101.8	mg/kg	102% 75-125	
	Pb		0.7600	0.767	mg/kg	101% 75-125	
B091422-SRM1	Certified Reference Material (0910049, IAEA 407 Fish Homogenate)						
	Al		13.80	6.15	mg/kg	45% 75-125	
	Pb		0.1200	0.086	mg/kg	72% 75-125	
B091422-SRM2	Certified Reference Material (0845005, DORM-3)						
	Al		1700	1016	mg/kg	60% 75-125	
	Pb		0.3950	0.206	mg/kg	52% 75-125	
B091422-DUP1	Duplicate (0939019-03)						
	Al	11.40		16.51	mg/kg		37% 30
	Pb	0.027		0.046	mg/kg		52% 30
B091422-MS1	Matrix Spike (0939019-03)						
	Al	11.40	468.3	487.5	mg/kg	102% 70-130	
	Pb	0.027	3.559	3.379	mg/kg	94% 70-130	
B091422-MSD1	Matrix Spike Duplicate (0939019-03)						
	Al	11.40	471.1	459.0	mg/kg	95% 70-130	6% 30
	Pb	0.027	3.580	3.303	mg/kg	91% 70-130	2% 30
B091422-DUP2	Duplicate (0939019-11)						
	Al	120.0		12.32	mg/kg		163% 30
	Pb	0.085		0.037	mg/kg		79% 30
B091422-MS2	Matrix Spike (0939019-11)						
	Al	120.0	490.5	502.5	mg/kg	78% 70-130	
	Pb	0.085	3.728	3.618	mg/kg	95% 70-130	
B091422-MSD2	Matrix Spike Duplicate (0939019-11)						
	Al	120.0	487.6	497.7	mg/kg	77% 70-130	1% 30
	Pb	0.085	3.706	3.615	mg/kg	95% 70-130	0.08% 30
B091422-DUP3	Duplicate (0939019-21)						
	Al	7.07		7.05	mg/kg		0.3% 30
	Pb	0.034		0.059	mg/kg		54% 30

Work Order: 0939019
Project ID: AXS018
PM: Tiffany Stilwater



Client PM: Angelica Whetung
Client PO: 13691-A

Accuracy & Precision Summary

Batch: B091422
Lab Matrix: Biota
Method: EPA Method 1638 mod.

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B091422-MS3	Matrix Spike (0939019-21)						
	Al	7.07	476.6	472.4	mg/kg	98% 70-130	
	Pb	0.034	3.622	3.423	mg/kg	94% 70-130	
B091422-MSD3	Matrix Spike Duplicate (0939019-21)						
	Al	7.07	479.5	470.8	mg/kg	97% 70-130	0.3% 30
	Pb	0.034	3.644	3.441	mg/kg	93% 70-130	0.5% 30

Work Order: 0939019
Project ID: AXS018
PM: Tiffany Stilwater



Client PM: Angelica Whetung
Client PO: 13691-A

Method Blanks & Reporting Limits

Batch: B091377
Matrix: Biota
Method: SM 2540G
Analyte: %TS

Sample	Result	Units	
B091377-BLK1	-0.05	%	
B091377-BLK2	-0.05	%	
Average:	-0.05		MDL: 0.10 %
Limit:	0.33		MRL: 0.33 %

Batch: B091422
Matrix: Biota
Method: EPA Method 1638 mod.
Analyte: Al

Sample	Result	Units	
B091422-BLK1	0.05	mg/kg	
B091422-BLK2	0.01	mg/kg	
B091422-BLK3	-0.02	mg/kg	
B091422-BLK4	-0.01	mg/kg	
Average:	0.01		Standard Deviation: 0.03
Limit:	0.80		Limit: 0.14
			MDL: 0.14 mg/kg
			MRL: 0.80 mg/kg

Analyte: Pb

Sample	Result	Units	
B091422-BLK1	0.000	mg/kg	
B091422-BLK2	0.000	mg/kg	
B091422-BLK3	0.000	mg/kg	
B091422-BLK4	0.000	mg/kg	
Average:	0.000		Standard Deviation: 0.000
Limit:	0.040		Limit: 0.004
			MDL: 0.004 mg/kg
			MRL: 0.040 mg/kg

Work Order: 0939019
 Project ID: AXS018
 PM: Tiffany Stilwater



Client PM: Angelica Whetung
 Client PO: 13691-A

Sample Containers

Lab ID:	Sample:	Report Matrix:	Sample Type:	Collected:	Received:			
0939019-01	L13452-1 / Chandler River- 6 Fem	Tissue	Sample	unknown	09/24/2009			
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments
A	Jar Glass	2-oz		None	N/A		Cooler	
0939019-02	L13452-2 / East Bay- 9 Females	Tissue	Sample	unknown	09/24/2009			
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments
A	Jar Glass	2-oz		None	N/A		Cooler	
0939019-03	L13452-3 / Winnicut- 10 Males	Tissue	Sample	unknown	09/24/2009			
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments
A	Jar Glass	2-oz		None	N/A		Cooler	
0939019-04	L13452-4 / Tannery Brook- 10 Mal	Tissue	Sample	unknown	09/24/2009			
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments
A	Jar Glass	2-oz		None	N/A		Cooler	
0939019-05	L13452-5 / Fore River- 6 Females	Tissue	Sample	unknown	09/24/2009			
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments
A	Jar Glass	2-oz		None	N/A		Cooler	
0939019-06	L13452-6 / Parker River- 10 Fema	Tissue	Sample	unknown	09/24/2009			
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments
A	Jar Glass	2-oz		None	N/A		Cooler	
0939019-07	L13452-7 / Deer Meadow Bk- 20 M	Tissue	Sample	unknown	09/24/2009			
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments
A	Jar Glass	2-oz		None	N/A		Cooler	

Work Order: 0939019
 Project ID: AXS018
 PM: Tiffany Stilwater



Client PM: Angelica Whetung
 Client PO: 13691-A

Sample Containers

Lab ID: 0939019-08		Report Matrix: Tissue		Collected: unknown				
Sample: L13452-8 / North River- 3 Males		Sample Type: Sample		Received: 09/24/2009				
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments
A	Jar Glass	2-oz		None	N/A		Cooler	
Lab ID: 0939019-09		Report Matrix: Tissue		Collected: unknown				
Sample: L13452-9 / North River- 2 Females		Sample Type: Sample		Received: 09/24/2009				
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments
A	Jar Glass	2-oz		None	N/A		Cooler	
Lab ID: 0939019-10		Report Matrix: Tissue		Collected: unknown				
Sample: L13452-10 / Crane River -10 Fema		Sample Type: Sample		Received: 09/24/2009				
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments
A	Jar Glass	2-oz		None	N/A		Cooler	
Lab ID: 0939019-11		Report Matrix: Tissue		Collected: unknown				
Sample: L13452-11 / Squamscott R. -11 Fe		Sample Type: Sample		Received: 09/24/2009				
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments
A	Jar Glass	2-oz		None	N/A		Cooler	
Lab ID: 0939019-12		Report Matrix: Tissue		Collected: unknown				
Sample: L13452-12 / Squamscott R. - 10 M		Sample Type: Sample		Received: 09/24/2009				
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments
A	Jar Glass	2-oz		None	N/A		Cooler	
Lab ID: 0939019-13		Report Matrix: Tissue		Collected: unknown				
Sample: L13452-13 / Long Creek - 12 Male		Sample Type: Sample		Received: 09/24/2009				
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments
A	Jar Glass	2-oz		None	N/A		Cooler	
Lab ID: 0939019-14		Report Matrix: Tissue		Collected: unknown				
Sample: L13452-14 / Jones River- 10 Males		Sample Type: Sample		Received: 09/24/2009				
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments
A	Jar Glass	2-oz		None	N/A		Cooler	

Work Order: 0939019
 Project ID: AXS018
 PM: Tiffany Stilwater



Client PM: Angelica Whetung
 Client PO: 13691-A

Sample Containers

Lab ID: 0939019-15 Sample: L13452-15 / Jones River- 10 Fema				Report Matrix: Tissue Sample Type: Sample				Collected: unknown Received: 09/24/2009	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments	
A	Jar Glass	2-oz		None	N/A		Cooler		
Lab ID: 0939019-16 Sample: L13452-16 / Mast Landing -10 Mal				Report Matrix: Tissue Sample Type: Sample				Collected: unknown Received: 09/24/2009	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments	
A	Jar Glass	2-oz		None	N/A		Cooler		
Lab ID: 0939019-17 Sample: L13452-17 / Tannery Brook - 10 Fe				Report Matrix: Tissue Sample Type: Sample				Collected: unknown Received: 09/24/2009	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments	
A	Jar Glass	2-oz		None	N/A		Cooler		
Lab ID: 0939019-18 Sample: L13452-18 / East Bay - 10 Males				Report Matrix: Tissue Sample Type: Sample				Collected: unknown Received: 09/24/2009	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments	
A	Jar Glass	2-oz		None	N/A		Cooler		
Lab ID: 0939019-19 Sample: L13452-19 / Mast Landing - 10 Fem				Report Matrix: Tissue Sample Type: Sample				Collected: unknown Received: 09/24/2009	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments	
A	Jar Glass	2-oz		None	N/A		Cooler		
Lab ID: 0939019-20 Sample: L13452-20 / Chandler River - 7 Ma				Report Matrix: Tissue Sample Type: Sample				Collected: unknown Received: 09/24/2009	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments	
A	Jar Glass	2-oz		None	N/A		Cooler		
Lab ID: 0939019-21 Sample: L13452-21 / Deer Meadow Bk- 20				Report Matrix: Tissue Sample Type: Sample				Collected: unknown Received: 09/24/2009	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments	
A	Jar Glass	2-oz		None	N/A		Cooler		

Work Order: 0939019
Project ID: AXS018
PM: Tiffany Stilwater



Client PM: Angelica Whetung
Client PO: 13691-A

Sample Containers

Lab ID:	Sample:	Report Matrix:	Sample Type:	Collected:	Received:			
0939019-22	L13452-22 / Long Creek- 7 Female	Tissue	Sample	unknown	09/24/2009			
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments
A	Jar Glass	2-oz		None	N/A		Cooler	
0939019-23	L13452-23 / Crane River- 10 Males	Tissue	Sample	unknown	09/24/2009			
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments
A	Jar Glass	2-oz		None	N/A		Cooler	
0939019-24	L13452-24 / Parker River- 10 Male	Tissue	Sample	unknown	09/24/2009			
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments
A	Jar Glass	2-oz		None	N/A		Cooler	
0939019-25	L13452-25 / Fore River - 10 Males	Tissue	Sample	unknown	09/24/2009			
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.	Comments
A	Jar Glass	2-oz		None	N/A		Cooler	

Shipping Containers

Cooler

Received: September 24, 2009 9:00
Tracking No: 942757540989 via FedEx
Coolant Type: Blue Ice
Temperature: 3.6°C

Description: Cooler
Damaged in transit? No
Returned to client? No

Custody seals present? No
Custody seals intact? No
COC present? Yes



AXYS

Axys Analytical Services Ltd

Release Chain Of Custody

SHIP TO : Brooks Rand
Telephone : 206-632-6206
Contact Person : Tiffany Stilwater

Project Chemist : Angie Whetung
Axys Contract No. : 4574

AX5018-0939019

WG30268-(REQ4734)

Axys Analytical Services Ltd., 2045 Mills Road, Sidney, BC, Canada V8L 5X2 Tel.(250) 655-5800 Fax.(250) 655-5811

AXYS ID	CLIENT ID	MATRIX	QUANTITY
L13452-1	Chandler River- 6 Females	Tissue	1
L13452-2	East Bay- 9 Females	Tissue	1
L13452-3	Winnicut- 10 Males	Tissue	1
L13452-4	Tannery Brook- 10 Males	Tissue	1
L13452-5	Fore River- 6 Females	Tissue	1
L13452-6	Parker River- 10 Females	Tissue	1
L13452-7	Deer Meadow Bk- 20 Males	Tissue	1
L13452-8	North River- 3 Males	Tissue	1
L13452-9	North River- 2 Females	Tissue	1
L13452-10	Crane River -10 Females	Tissue	1
L13452-11	Squamscott R. -11 Females	Tissue	1
L13452-12	Squamscott R. - 10 Males	Tissue	1
L13452-13	Long Creek - 12 Males	Tissue	1
L13452-14	Jones River- 10 Males	Tissue	1
L13452-15	Jones River- 10 Females	Tissue	1
L13452-16	Mast Landing -10 Males	Tissue	1
L13452-17	Tannery Brook - 10 Females	Tissue	1
L13452-18	East Bay - 10 Males	Tissue	1
L13452-19	Mast Landing - 10 Females	Tissue	1
L13452-20	Chandler River - 7 Males	Tissue	1
L13452-21	Deer Meadow Bk- 20 Females	Tissue	1
L13452-22	Long Creek- 7 Females	Tissue	1
L13452-23	Crane River- 10 Males	Tissue	1
L13452-24	Parker River- 10 Males	Tissue	1
L13452-25	Fore River - 10 Males	Tissue	1

No. Item(s): *25* Date Shipped: *22 SEP-09* Shipper's Name: *PAUL MILLER* WAY Bill #: *942757540989* Signature: *Paul Miller*

Relinquished by (Signature) Date _____ Time _____	Received by (Signature) <i>[Signature]</i> Date <i>9.24.09</i> Time <i>0910</i>	Courier FEDEX	Waybill No.
Relinquished by (Signature) Date _____ Time _____	Received by (Signature) Date _____ Time _____	Sample Receipt	

	Coolers		
	#1	#2	#3
Temp C			
Custody Seal #			
Seal Intact	Y/N		
	Y/N		



AXYS

Axys Analytical
Services Ltd

Release Chain Of Custody

SHIP TO : Brooks Rand
Telephone : 206-632-6206
Contact Person : Tiffany Stilwater

Project Chemist : Angie Whetung
Axys Contract No. : 4574
WG30268 (REQ4734)

Axys Analytical Services Ltd., 2045 Mills Road, Sidney, BC, Canada V8L 5X2 Tel.(250) 655-5800 Fax.(250) 655-5811

Sample Tag			

Notes :