



February 15, 2011

AXYS Analytical Services
ATTN: Cynthia Tomey
2045 Mills Road West
Sidney BC V8L 5X2
awhetung@axys.com

RE: BRL Project: AXS018

Client Contract No: 4574 WG35243 (REQ5505)
Purchase Order: 15097

Dear Ms. Tomey,

On January 18, 2011, Brooks Rand Labs (BRL) received four (4) 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), nickel (Ni), lead (Pb), selenium (Se), zinc (Zn), and total solids determination. All samples were received, prepared, analyzed, and stored according to BRL SOPs and EPA methodology.

The sample collection dates were provided by the client after samples were received at BRL. The month of collection was known, but not the date of the collection. All samples were logged-in for the first day of the known collection month. Please note EPA Method 1631 (Hg) cites samples have a one year holding time from the date of collection until analysis. EPA Method 1638 (ICP-MS metals) was written for the analysis of water samples; BRL performs a modification of this method for solid matrices and stipulates a one year holding time as well. BRL did not qualify sample results based on the collection month/year provided.

The recovery criteria limits did not apply to specific elements when the certified reference materials (CRMs) only listed information values. The recovery limits were not applicable (**N/A**). Not all CRMs provided certified or information values for all elements; therefore, not all elements were reported.

In instances where the native sample result and/or the associated method duplicate result were below the MDL the relative percent difference was not calculated (**N/C**).

The Ni analysis of DOLT-4 (B110198-SRM1) produced a recovery below the accepted limit (60%). The result and the certified value were less than 5x the MRL and the difference between the two was less than 2x the MRL. This satisfied the secondary acceptance criteria and no results were qualified.

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

been reported on a wet and dry-weight basis in both the hard copy report and electronic data deliverables.

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,

A handwritten signature in black ink that reads "Tiffany Stilwater". The signature is fluid and cursive, with the first name "Tiffany" being more prominent and the last name "Stilwater" following in a similar style.

Tiffany Stilwater
Project Manager
tiffany@brooksrnd.com

A handwritten signature in black ink that reads "Lydia Greaves". The signature is fluid and cursive, with the first name "Lydia" being more prominent and the last name "Greaves" following in a similar style.

Lydia Greaves
Project Coordinator
lydia@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
L15870-1 / Schoppee-10M	1104013-01	Biota	Sample	05/01/2010	01/18/2011
L15870-2 / Schoppee-10F	1104013-02	Biota	Sample	05/01/2010	01/18/2011
L15870-3 / Pleasant-10M	1104013-03	Biota	Sample	02/01/2010	01/18/2011
L15870-4 / Pleasant-10F	1104013-04	Biota	Sample	02/01/2010	01/18/2011

Batch Summary

Analyte	Lab Matrix	Method	Prepared	Analyzed	Batch	Sequence
%TS	Biota	SM 2540G	01/24/2011	01/26/2011	B110075	N/A
Ag	Biota	EPA Method 1638 mod	02/02/2011	02/08/2011	B110198	1100082
Al	Biota	EPA Method 1638 mod	01/24/2011	01/25/2011	B110094	1100055
Cd	Biota	EPA Method 1638 mod	01/24/2011	01/25/2011	B110094	1100055
Cr	Biota	EPA Method 1638 mod	01/24/2011	01/25/2011	B110094	1100055
Cu	Biota	EPA Method 1638 mod	01/24/2011	01/25/2011	B110094	1100055
Fe	Biota	EPA Method 1638 mod	01/24/2011	01/25/2011	B110094	1100055
Hg	Biota	EPA Method 1631, Appendix	01/31/2011	02/02/2011	B110083	1100072
Ni	Biota	EPA Method 1638 mod	02/02/2011	02/08/2011	B110198	1100082
Pb	Biota	EPA Method 1638 mod	01/24/2011	01/25/2011	B110094	1100055
Se	Biota	EPA 1638 mod DRC	01/24/2011	02/01/2011	B110125	1100068
Zn	Biota	EPA Method 1638 mod	01/24/2011	01/25/2011	B110094	1100055



Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
L15870-1 / Schoppee-10M										
1104013-01	%TS	Biota	N/A	20.93		0.01	0.03	%	B110075	N/A
1104013-01	Ag	Biota	N/A	0.047	U	0.047	0.474	mg/kg dry	B110198	1100082
1104013-01	Ag	Biota	N/A	0.010	U	0.010	0.099	mg/kg	B110198	1100082
1104013-01	Al	Biota	N/A	15.5		0.68	3.89	mg/kg dry	B110094	1100055
1104013-01	Al	Biota	N/A	3.25		0.14	0.81	mg/kg	B110094	1100055
1104013-01	Cd	Biota	N/A	0.015	U	0.015	0.049	mg/kg dry	B110094	1100055
1104013-01	Cd	Biota	N/A	0.003	U	0.003	0.010	mg/kg	B110094	1100055
1104013-01	Cr	Biota	N/A	0.70	B	0.24	0.73	mg/kg dry	B110094	1100055
1104013-01	Cr	Biota	N/A	0.15	B	0.05	0.15	mg/kg	B110094	1100055
1104013-01	Cu	Biota	N/A	7.20		0.15	0.78	mg/kg dry	B110094	1100055
1104013-01	Cu	Biota	N/A	1.51		0.03	0.16	mg/kg	B110094	1100055
1104013-01	Fe	Biota	N/A	22.7	B	5.8	24.3	mg/kg dry	B110094	1100055
1104013-01	Fe	Biota	N/A	4.7	B	1.2	5.1	mg/kg	B110094	1100055
1104013-01	Hg	Biota	N/A	259		9.42	23.6	µg/kg dry	B110083	1100072
1104013-01	Hg	Biota	N/A	54.3		1.97	4.93	µg/kg	B110083	1100072
1104013-01	Ni	Biota	N/A	0.86	B	0.24	0.95	mg/kg dry	B110198	1100082
1104013-01	Ni	Biota	N/A	0.18	B	0.05	0.20	mg/kg	B110198	1100082
1104013-01	Pb	Biota	N/A	0.052	B	0.019	0.195	mg/kg dry	B110094	1100055
1104013-01	Pb	Biota	N/A	0.011	B	0.004	0.041	mg/kg	B110094	1100055
1104013-01	Se	Biota	N/A	1.02		0.10	0.29	mg/kg dry	B110125	1100068
1104013-01	Se	Biota	N/A	0.21		0.02	0.06	mg/kg	B110125	1100068
1104013-01	Zn	Biota	N/A	79.8		1.36	4.87	mg/kg dry	B110094	1100055
1104013-01	Zn	Biota	N/A	16.7		0.29	1.02	mg/kg	B110094	1100055



Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
L15870-2 / Schoppee-10F										
1104013-02	%TS	Biota	N/A	22.25		0.01	0.03	%	B110075	N/A
1104013-02	Ag	Biota	N/A	0.044	U	0.044	0.439	mg/kg dry	B110198	1100082
1104013-02	Ag	Biota	N/A	0.010	U	0.010	0.098	mg/kg	B110198	1100082
1104013-02	Al	Biota	N/A	9.50		0.64	3.67	mg/kg dry	B110094	1100055
1104013-02	Al	Biota	N/A	2.11		0.14	0.82	mg/kg	B110094	1100055
1104013-02	Cd	Biota	N/A	0.018	B	0.014	0.046	mg/kg dry	B110094	1100055
1104013-02	Cd	Biota	N/A	0.004	B	0.003	0.010	mg/kg	B110094	1100055
1104013-02	Cr	Biota	N/A	1.26		0.23	0.69	mg/kg dry	B110094	1100055
1104013-02	Cr	Biota	N/A	0.28		0.05	0.15	mg/kg	B110094	1100055
1104013-02	Cu	Biota	N/A	2.11		0.14	0.73	mg/kg dry	B110094	1100055
1104013-02	Cu	Biota	N/A	0.47		0.03	0.16	mg/kg	B110094	1100055
1104013-02	Fe	Biota	N/A	31.9		5.5	22.9	mg/kg dry	B110094	1100055
1104013-02	Fe	Biota	N/A	7.1		1.2	5.1	mg/kg	B110094	1100055
1104013-02	Hg	Biota	N/A	453		8.25	20.6	µg/kg dry	B110083	1100072
1104013-02	Hg	Biota	N/A	101		1.84	4.59	µg/kg	B110083	1100072
1104013-02	Ni	Biota	N/A	0.22	U	0.22	0.88	mg/kg dry	B110198	1100082
1104013-02	Ni	Biota	N/A	0.05	U	0.05	0.20	mg/kg	B110198	1100082
1104013-02	Pb	Biota	N/A	0.034	B	0.018	0.183	mg/kg dry	B110094	1100055
1104013-02	Pb	Biota	N/A	0.007	B	0.004	0.041	mg/kg	B110094	1100055
1104013-02	Se	Biota	N/A	0.98		0.09	0.28	mg/kg dry	B110125	1100068
1104013-02	Se	Biota	N/A	0.22		0.02	0.06	mg/kg	B110125	1100068
1104013-02	Zn	Biota	N/A	77.4		1.28	4.59	mg/kg dry	B110094	1100055
1104013-02	Zn	Biota	N/A	17.2		0.29	1.02	mg/kg	B110094	1100055



Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
L15870-3 / Pleasant-10M										
1104013-03	%TS	Biota	N/A	22.41		0.01	0.03	%	B110075	N/A
1104013-03	Ag	Biota	N/A	0.045	U	0.045	0.449	mg/kg dry	B110198	1100082
1104013-03	Ag	Biota	N/A	0.010	U	0.010	0.101	mg/kg	B110198	1100082
1104013-03	Al	Biota	N/A	12.2		0.63	3.58	mg/kg dry	B110094	1100055
1104013-03	Al	Biota	N/A	2.73		0.14	0.80	mg/kg	B110094	1100055
1104013-03	Cd	Biota	N/A	0.013	U	0.013	0.045	mg/kg dry	B110094	1100055
1104013-03	Cd	Biota	N/A	0.003	U	0.003	0.010	mg/kg	B110094	1100055
1104013-03	Cr	Biota	N/A	0.89		0.22	0.67	mg/kg dry	B110094	1100055
1104013-03	Cr	Biota	N/A	0.20		0.05	0.15	mg/kg	B110094	1100055
1104013-03	Cu	Biota	N/A	10.6		0.13	0.72	mg/kg dry	B110094	1100055
1104013-03	Cu	Biota	N/A	2.39		0.03	0.16	mg/kg	B110094	1100055
1104013-03	Fe	Biota	N/A	23.8		5.4	22.4	mg/kg dry	B110094	1100055
1104013-03	Fe	Biota	N/A	5.3		1.2	5.0	mg/kg	B110094	1100055
1104013-03	Hg	Biota	N/A	208		8.32	20.8	µg/kg dry	B110083	1100072
1104013-03	Hg	Biota	N/A	46.7		1.87	4.66	µg/kg	B110083	1100072
1104013-03	Ni	Biota	N/A	1.85		0.22	0.90	mg/kg dry	B110198	1100082
1104013-03	Ni	Biota	N/A	0.42		0.05	0.20	mg/kg	B110198	1100082
1104013-03	Pb	Biota	N/A	0.042	B	0.018	0.179	mg/kg dry	B110094	1100055
1104013-03	Pb	Biota	N/A	0.009	B	0.004	0.040	mg/kg	B110094	1100055
1104013-03	Se	Biota	N/A	1.05		0.09	0.27	mg/kg dry	B110125	1100068
1104013-03	Se	Biota	N/A	0.24		0.02	0.06	mg/kg	B110125	1100068
1104013-03	Zn	Biota	N/A	63.1		1.25	4.48	mg/kg dry	B110094	1100055
1104013-03	Zn	Biota	N/A	14.1		0.28	1.00	mg/kg	B110094	1100055



Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
L15870-4 / Pleasant-10F										
1104013-04	%TS	Biota	N/A	20.99		0.01	0.03	%	B110075	N/A
1104013-04	Ag	Biota	N/A	0.047	U	0.047	0.473	mg/kg dry	B110198	1100082
1104013-04	Ag	Biota	N/A	0.010	U	0.010	0.099	mg/kg	B110198	1100082
1104013-04	Al	Biota	N/A	7.30		0.64	3.69	mg/kg dry	B110094	1100055
1104013-04	Al	Biota	N/A	1.53		0.14	0.77	mg/kg	B110094	1100055
1104013-04	Cd	Biota	N/A	0.014	U	0.014	0.046	mg/kg dry	B110094	1100055
1104013-04	Cd	Biota	N/A	0.003	U	0.003	0.010	mg/kg	B110094	1100055
1104013-04	Cr	Biota	N/A	0.76		0.23	0.69	mg/kg dry	B110094	1100055
1104013-04	Cr	Biota	N/A	0.16		0.05	0.15	mg/kg	B110094	1100055
1104013-04	Cu	Biota	N/A	1.61		0.14	0.74	mg/kg dry	B110094	1100055
1104013-04	Cu	Biota	N/A	0.34		0.03	0.15	mg/kg	B110094	1100055
1104013-04	Fe	Biota	N/A	16.6	B	5.5	23.0	mg/kg dry	B110094	1100055
1104013-04	Fe	Biota	N/A	3.5	B	1.2	4.8	mg/kg	B110094	1100055
1104013-04	Hg	Biota	N/A	381		8.80	22.0	µg/kg dry	B110083	1100072
1104013-04	Hg	Biota	N/A	79.9		1.85	4.62	µg/kg	B110083	1100072
1104013-04	Ni	Biota	N/A	0.24	U	0.24	0.95	mg/kg dry	B110198	1100082
1104013-04	Ni	Biota	N/A	0.05	U	0.05	0.20	mg/kg	B110198	1100082
1104013-04	Pb	Biota	N/A	0.028	B	0.018	0.184	mg/kg dry	B110094	1100055
1104013-04	Pb	Biota	N/A	0.006	B	0.004	0.039	mg/kg	B110094	1100055
1104013-04	Se	Biota	N/A	1.16		0.09	0.28	mg/kg dry	B110125	1100068
1104013-04	Se	Biota	N/A	0.24		0.02	0.06	mg/kg	B110125	1100068
1104013-04	Zn	Biota	N/A	56.6		1.29	4.61	mg/kg dry	B110094	1100055
1104013-04	Zn	Biota	N/A	11.9		0.27	0.97	mg/kg	B110094	1100055

Project ID: AXS018
PM: Tiffany Stilwater



BRL Report 1104013
Client PM: Cynthia Tomey
Client PO: 15097

Accuracy & Precision Summary

Batch: B110075
Lab Matrix: Biota
Method: SM 2540G

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B110075-DUP1	Duplicate (1104013-04) %TS	20.99		21.02	%		0.1% 15



Accuracy & Precision Summary

Batch: B110083

Lab Matrix: Biota

Method: EPA Method 1631, Appendix

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B110083-SRM1	Certified Reference Material (0910049, IAEA 407)						
	Hg		222.0	238.7	µg/kg	108% 75-125	
B110083-SRM2	Certified Reference Material (0910049, IAEA 407)						
	Hg		222.0	238.6	µg/kg	107% 75-125	
B110083-DUP3	Duplicate (1104013-01)						
	Hg	259.4		266.4	µg/kg dry		3% 30
B110083-MS3	Matrix Spike (1104013-01)						
	Hg	259.4	2365	2801	µg/kg dry	107% 70-130	
B110083-MSD3	Matrix Spike Duplicate (1104013-01)						
	Hg	259.4	2351	2803	µg/kg dry	108% 70-130	0.06% 30

Accuracy & Precision Summary

Batch: B110094

Lab Matrix: Biota

Method: EPA Method 1638 mod

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B110094-BS2	Laboratory Fortified Blank (1105006)						
	Al		20.00	19.31	mg/kg	97% 75-125	
	Cd		1.000	0.921	mg/kg	92% 75-125	
	Cr		20.00	18.09	mg/kg	90% 75-125	
	Cu		7.000	6.89	mg/kg	98% 75-125	
	Fe		200.0	187.3	mg/kg	94% 75-125	
	Pb		0.5000	0.505	mg/kg	101% 75-125	
	Zn		50.00	44.40	mg/kg	89% 75-125	
B110094-SRM1	Certified Reference Material (0951026, DOLT-4)						
	Al		200.0	56.18	mg/kg	28% N/A	
	Cd		24.30	22.91	mg/kg	94% 75-125	
	Cr		1.400	1.34	mg/kg	96% N/A	
	Cu		31.20	33.70	mg/kg	108% 75-125	
	Fe		1833	1743	mg/kg	95% 75-125	
	Pb		0.1600	0.128	mg/kg	80% 75-125	
	Zn		116.0	119.7	mg/kg	103% 75-125	
B110094-SRM2	Certified Reference Material (1051005, TORT-2)						
	Cd		26.70	24.22	mg/kg	91% 75-125	
	Cr		0.7700	0.72	mg/kg	94% 75-125	
	Cu		106.0	93.89	mg/kg	89% 75-125	
	Fe		105.0	84.7	mg/kg	81% 75-125	
	Pb		0.3500	0.295	mg/kg	84% 75-125	
	Zn		180.0	165.3	mg/kg	92% 75-125	
B110094-DUP1	Duplicate (1104013-04)						
	Al	7.30		6.86	mg/kg dry		6% 30
	Cd	ND		ND	mg/kg dry		N/C 30
	Cr	0.76		0.78	mg/kg dry		3% 30
	Cu	1.61		2.06	mg/kg dry		25% 30
	Fe	16.6		18.3	mg/kg dry		10% 30
	Pb	0.028		0.035	mg/kg dry		23% 30
	Zn	56.59		67.41	mg/kg dry		17% 30

Accuracy & Precision Summary

Batch: B110094

Lab Matrix: Biota

Method: EPA Method 1638 mod

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B110094-MS1	Matrix Spike (1104013-04)						
	Al	7.30	89.36	96.12	mg/kg dry	99% 70-130	
	Cd	ND	4.468	3.937	mg/kg dry	88% 70-130	
	Cr	0.76	89.36	75.11	mg/kg dry	83% 70-130	
	Cu	1.61	31.28	30.99	mg/kg dry	94% 70-130	
	Fe	16.6	893.6	784.6	mg/kg dry	86% 70-130	
	Pb	0.028	2.234	2.146	mg/kg dry	95% 70-130	
	Zn	56.59	223.4	252.2	mg/kg dry	88% 70-130	
B110094-MSD1	Matrix Spike Duplicate (1104013-04)						
	Al	7.30	88.37	89.73	mg/kg dry	93% 70-130	7% 30
	Cd	ND	4.418	3.974	mg/kg dry	90% 70-130	0.9% 30
	Cr	0.76	88.37	78.95	mg/kg dry	88% 70-130	5% 30
	Cu	1.61	30.93	32.75	mg/kg dry	101% 70-130	6% 30
	Fe	16.6	883.7	831.3	mg/kg dry	92% 70-130	6% 30
	Pb	0.028	2.209	2.216	mg/kg dry	99% 70-130	3% 30
	Zn	56.59	220.9	262.5	mg/kg dry	93% 70-130	4% 30

Project ID: AXS018
PM: Tiffany Stilwater



BRL Report 1104013
Client PM: Cynthia Tomey
Client PO: 15097

Accuracy & Precision Summary

Batch: B110125
Lab Matrix: Biota
Method: EPA 1638 mod DRC

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B110125-BS2	Laboratory Fortified Blank (1105006)						
	Se		5.000	4.02	mg/kg	80% 75-125	
B110125-SRM1	Certified Reference Material (0951026, DOLT-4)						
	Se		8.300	7.55	mg/kg	91% 75-125	
B110125-SRM2	Certified Reference Material (1051005, TORT-2)						
	Se		5.630	5.61	mg/kg	100% 75-125	
B110125-DUP1	Duplicate (1104013-04)						
	Se	1.16		1.15	mg/kg dry		1% 30
B110125-MS1	Matrix Spike (1104013-04)						
	Se	1.16	22.34	18.65	mg/kg dry	78% 70-130	
B110125-MSD1	Matrix Spike Duplicate (1104013-04)						
	Se	1.16	22.09	19.10	mg/kg dry	81% 70-130	2% 30

Accuracy & Precision Summary

Batch: B110198

Lab Matrix: Biota

Method: EPA Method 1638 mod

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B110198-BS2	Laboratory Fortified Blank (1106008)						
	Ag		0.5000	0.504	mg/kg	101% 75-125	
	Ni		1.000	1.01	mg/kg	101% 75-125	
B110198-SRM1	Certified Reference Material (0951026, DOLT-4)						
	Ag		0.9300	0.943	mg/kg	101% 75-125	
	Ni		0.9700	0.58	mg/kg	60% 75-125	
B110198-SRM2	Certified Reference Material (0951025, DORM-3)						
	Ag		0.04000	0.075	mg/kg	189% N/A	
	Ni		1.280	1.11	mg/kg	86% 75-125	
B110198-DUP1	Duplicate (1104013-04)						
	Ag	ND		ND	mg/kg dry		N/C 30
	Ni	ND		ND	mg/kg dry		N/C 30
B110198-MS1	Matrix Spike (1104013-04)						
	Ag	ND	2.363	2.250	mg/kg dry	96% 70-130	
	Ni	ND	4.725	4.30	mg/kg dry	95% 70-130	
B110198-MSD1	Matrix Spike Duplicate (1104013-04)						
	Ag	ND	2.317	2.365	mg/kg dry	103% 70-130	5% 30
	Ni	ND	4.633	4.06	mg/kg dry	92% 70-130	6% 30

Project ID: AXS018
PM: Tiffany Stilwater



BRL Report 1104013
Client PM: Cynthia Tomey
Client PO: 15097

Method Blanks & Reporting Limits

Batch: B110075
Matrix: Biota
Method: SM 2540G
Analyte: %TS

Sample	Result	Units
B110075-BLK1	0.00	%
B110075-BLK2	0.00	%

Average: 0.00

Limit: 0.03

MDL: 0.01

MRL: 0.03

Project ID: AXS018
PM: Tiffany Stilwater



BRL Report 1104013
Client PM: Cynthia Tomey
Client PO: 15097

Method Blanks & Reporting Limits

Batch: B110083

Matrix: Biota

Method: EPA Method 1631, Appendix

Analyte: Hg

Sample	Result	Units
B110083-BLK1	0.04	µg/kg
B110083-BLK2	0.04	µg/kg
B110083-BLK3	0.03	µg/kg
B110083-BLK4	0.04	µg/kg

Average: 0.04

Limit: 0.08

Standard Deviation: 0.01

Limit: 0.03

MDL: 0.04

MRL: 0.10

Method Blanks & Reporting Limits

Batch: B110094

Matrix: Biota

Method: EPA Method 1638 mod

Analyte: Al

Sample	Result	Units		
B110094-BLK1	0.14	mg/kg		
B110094-BLK2	0.15	mg/kg		
B110094-BLK3	0.33	mg/kg		
B110094-BLK4	0.09	mg/kg		
Average: 0.18		Standard Deviation: 0.11	MDL: 0.14	
Limit: 0.80		Limit: 0.14	MRL: 0.80	

Analyte: Cd 114

Sample	Result	Units		
B110094-BLK1	-0.002	mg/kg		
B110094-BLK2	-0.002	mg/kg		
B110094-BLK3	-0.002	mg/kg		
B110094-BLK4	-0.002	mg/kg		
Average: -0.002		Standard Deviation: 0.000	MDL: 0.003	
Limit: 0.010		Limit: 0.003	MRL: 0.010	

Analyte: Cr 52

Sample	Result	Units		
B110094-BLK1	-0.06	mg/kg		
B110094-BLK2	-0.05	mg/kg		
B110094-BLK3	-0.01	mg/kg		
B110094-BLK4	0.00	mg/kg		
Average: -0.03		Standard Deviation: 0.03	MDL: 0.05	
Limit: 0.15		Limit: 0.05	MRL: 0.15	

Analyte: Cu 63

Sample	Result	Units		
B110094-BLK1	0.00	mg/kg		
B110094-BLK2	0.00	mg/kg		
B110094-BLK3	0.00	mg/kg		
B110094-BLK4	0.00	mg/kg		
Average: 0.00		Standard Deviation: 0.00	MDL: 0.03	
Limit: 0.16		Limit: 0.03	MRL: 0.16	

Method Blanks & Reporting Limits

Analyte: Fe 57

Sample	Result	Units			
B110094-BLK1	-1.0	mg/kg			
B110094-BLK2	-0.8	mg/kg			
B110094-BLK3	-0.2	mg/kg			
B110094-BLK4	0.2	mg/kg			
Average: -0.5		Standard Deviation: 0.6	MDL: 1.2		
Limit: 5.0		Limit: 1.2	MRL: 5.0		

Analyte: Pb

Sample	Result	Units			
B110094-BLK1	-0.002	mg/kg			
B110094-BLK2	-0.002	mg/kg			
B110094-BLK3	-0.001	mg/kg			
B110094-BLK4	-0.001	mg/kg			
Average: -0.002		Standard Deviation: 0.001	MDL: 0.004		
Limit: 0.040		Limit: 0.004	MRL: 0.040		

Analyte: Zn 66

Sample	Result	Units			
B110094-BLK1	0.07	mg/kg			
B110094-BLK2	0.08	mg/kg			
B110094-BLK3	0.16	mg/kg			
B110094-BLK4	0.12	mg/kg			
Average: 0.11		Standard Deviation: 0.04	MDL: 0.28		
Limit: 1.00		Limit: 0.28	MRL: 1.00		

Project ID: AXS018
PM: Tiffany Stilwater



BRL Report 1104013
Client PM: Cynthia Tomey
Client PO: 15097

Method Blanks & Reporting Limits

Batch: B110125
Matrix: Biota
Method: EPA 1638 mod DRC
Analyte: Se 78

Sample	Result	Units		
B110125-BLK1	0.00	mg/kg		
B110125-BLK2	0.03	mg/kg		
B110125-BLK3	0.03	mg/kg		
B110125-BLK4	0.02	mg/kg		
Average: 0.02		Standard Deviation: 0.02	MDL: 0.02	
Limit: 0.06		Limit: 0.02	MRL: 0.06	

Method Blanks & Reporting Limits

Batch: B110198

Matrix: Biota

Method: EPA Method 1638 mod

Analyte: Ag 107

Sample	Result	Units			
B110198-BLK1	0.011	mg/kg			
B110198-BLK2	0.004	mg/kg			
B110198-BLK3	-0.001	mg/kg			
B110198-BLK4	-0.002	mg/kg			
Average: 0.003		Standard Deviation: 0.006	MDL: 0.010		
Limit: 0.100		Limit: 0.010	MRL: 0.100		

Analyte: Ni 60

Sample	Result	Units			
B110198-BLK1	0.00	mg/kg			
B110198-BLK2	0.00	mg/kg			
B110198-BLK3	0.00	mg/kg			
B110198-BLK4	0.00	mg/kg			
Average: 0.00		Standard Deviation: 0.00	MDL: 0.05		
Limit: 0.20		Limit: 0.05	MRL: 0.20		

Project ID: AXS018
PM: Tiffany Stilwater



BRL Report 1104013
Client PM: Cynthia Tomey
Client PO: 15097

Sample Containers

Lab ID: 1104013-01 Sample: L15870-1 / Schoppee-10M			Report Matrix: Biota Sample Type: Sample			Collected: 05/01/2010 Received: 01/18/2011	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Jar Glass	4 oz.	n/a	None	n/a		Styro Cooler/Card board Box
Lab ID: 1104013-02 Sample: L15870-2 / Schoppee-10F			Report Matrix: Biota Sample Type: Sample			Collected: 05/01/2010 Received: 01/18/2011	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Jar Glass	4 oz.	n/a	None	n/a		Styro Cooler/Card board Box
Lab ID: 1104013-03 Sample: L15870-3 / Pleasant-10M			Report Matrix: Biota Sample Type: Sample			Collected: 02/01/2010 Received: 01/18/2011	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Jar Glass	4 oz.	n/a	None	n/a		Styro Cooler/Card board Box
Lab ID: 1104013-04 Sample: L15870-4 / Pleasant-10F			Report Matrix: Biota Sample Type: Sample			Collected: 02/01/2010 Received: 01/18/2011	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Jar Glass	4 oz.	n/a	None	n/a		Styro Cooler/Card board Box

Shipping Containers

Styro Cooler/Cardboard Box

Received: January 18, 2011 10:00
Tracking No: 4633 0928 0107 via
Coolant Type: Dry Ice
Temperature: -25.0 °C

Description: Styro Cooler/Cardboard Box
Damaged in transit? No
Returned to client? No

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

**AXYS**Axys Analytical
Services Ltd

Page 1 of 1

BRL Report 1104013

Release Chain Of Custody

SHIP TO : Brooks Rand

Telephone : 206-632-6206

Contact Person : Tiffany Stilwater

1104013

~~1104012~~
TR

Project Chemist : Cynthia Tomey

Axys Contract No. : 4574

WG35243 (REQ5505)

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
L15870-1	Schoppee-10M	Tissue	1
L15870-2	Schoppee-10F	Tissue	1
L15870-3	Pleasant -10M	Tissue	1
L15870-4	Pleasant -10F	Tissue	1

No. Item(s): 4	Date Shipped: 17-JAN-11	Shipper's Name: PACEL HILLER	WAY Bill #: 463309280107	Signature:
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Relinquished by (Signature) Date	Time	Received by (Signature) Date	Time	Courier FEDEX	Waybill No.
Relinquished by (Signature) Date	Time	Received by (Signature) Date 1/18/2011	Time 1006		Sample Receipt

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

Notes :

PO # 15097