

January 31, 2012

Utah Department of Environmental Protection
ATTN: Jodi Gardberg
195 North 1950 West, Third Floor
Salt Lake City, UT 84116
jgardberg@utah.gov

RE: Project UDE-SL1101

Client Project: Great Salt Lake Sampling

Dear Ms. Gardberg,

On November 3, 2011, Brooks Rand Labs (BRL) received nineteen (19) water samples and eight (8) biota samples. The samples were logged-in for the contracted analyses of total mercury (Hg), monomethyl mercury (MeHg) – for waters only, arsenic (As), copper (Cu), cadmium (Cd), lead (Pb), selenium (Se), and thallium (Tl). The samples were received, prepared, analyzed, and stored according to BRL SOPs and EPA methodology.

The results were blank-corrected as described in the calculations section of the relevant 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.

Not all certified reference materials (CRM) provided certified or informational values for all elements; therefore, not all elements were reported. All blank spikes (BS) that were less than the MRL were not reported unless otherwise noted.

In instances when either the native sample result and/or the duplicate (DUP) result were non-detectable (ND) concentrations, the relative percent difference (RPD) was not calculated (N/C).

Batch B111826 (Biota - Cd, Cu, Pb)

The Pb analysis of CRM DORM-3 recovered below acceptance criteria at 57%. This is in line with historic recoveries for this CRM, which has an average recovery over the last two years of 56%. Two other CRMs, TORT-2 and NIST-1547, were prepared and analyzed with the batch and recovered at acceptable levels (90% and 93%). All other quality control criteria were met and results were reported without qualification.

Batch B111841 (Reductive Precipitation - As, Se & Tl)

In instances where a matrix spike/matrix spike duplicate (MS/MSD) was spiked at a level less than the native sample, the recoveries are not considered valid indicators of data quality. However, these results are reported as a demonstration of precision. When the spiking levels were $\leq 25\%$ of the native sample concentrations, the recoveries were not reported (**NR**).

The As analysis of B111841-BS recovered at 55%. This was a freshwater blank spike and all freshwater samples were qualified **J**. The only sample affected was *GSL 4069 (FB)* (1145023-07).

Batch B112067 (Biota - TI)

There were elevated continuing calibration blanks (CCBs) bracketing these samples. It is possible that the results are biased high. Since all sample results were less than the MRL, no qualifications were necessary.

Batch B120081 (Column Chelation - Cu)

The result for method blank B120081-BLK1 (0.1556 µg/L) was omitted as a Grubb's outlier and was not used to method blank correct the results. All results were blank-corrected with the average of the three remaining method blanks.

There was suspected carryover due to high level samples. Two samples, *UT WSC* (1145023-09) and *GSL 4069 (FB)* (1145023-07), were near the MRL and were re-analyzed in batch B120141. Another sample, *GSL 4069 0.5m* (1145023-04), was analyzed after a matrix spike/matrix spike duplicate (MS/MSD) set. There was possible carryover contamination and the Cu sample result was qualified **J**. The sample was analyzed three other times and the relative standard deviation (RSD) between the four analyses was 16%.

Batch B120141 (Column Chelation - Cu)

Sample *UT WSC* (1145023-09) was exhausted during this analysis. Due to the limited volume of the sample, the batch MS/MSD set was performed on the field blank *GSL 4069 (FB)* (1145023-07).


The analysis of the duplicate of sample *GSL 4069 (FB)* (1145023-07) produced a RPD above the accepted limit (34%). The native sample and duplicate results were less than 5x the MRL and the difference between the two was less than the 2x the MRL. This satisfied the secondary acceptance criteria and no results were qualified.

The MS/MSD set performed on sample *GSL 4069 (FB)* (1145023-07) produced recoveries below the acceptance criteria range. As such the Cu result for sample *GSL 4069 (FB)* (1145023-07) was qualified **N** for accuracy imprecision. The Cu sample results for *UT WSC* (1145023-09) and *GSL 4069 (FB)* (1145023-07) were similar to previous analyses and no further qualification was required.

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,



Lydia Greaves
Project Manager
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Jen Hartmann
Project Manager
jen@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
N1018 0.2m	1145023-01	Water	Sample	10/28/2011	11/03/2011
N1018 0.5m	1145023-02	Water	Sample	10/28/2011	11/03/2011
GSL 4069 0.2m	1145023-03	Water	Sample	10/31/2011	11/03/2011
GSL 4069 0.5m	1145023-04	Water	Sample	10/31/2011	11/03/2011
GSL 3510 0.2m	1145023-05	Water	Sample	10/31/2011	11/03/2011
GSL 3510 0.5m	1145023-06	Water	Sample	10/31/2011	11/03/2011
GSL 4069 (FB)	1145023-07	DIW	Field Blank	10/31/2011	11/03/2011
GSL 4069 0.2m	1145023-08	Water	Field Duplicate	10/31/2011	11/03/2011
UT WSC	1145023-09	Water	Sample	10/26/2011	11/03/2011
GSL 4069	1145023-10	Brine Shrimp	Sample	10/31/2011	11/03/2011
GSL 3510	1145023-11	Brine Shrimp	Sample	10/31/2011	11/03/2011
GSL 3510 @ Farm Bay	1145023-12	Brine Shrimp	Sample	10/27/2011	11/03/2011
GSL 2820	1145023-13	Brine Shrimp	Sample	10/28/2011	11/03/2011
N1018	1145023-14	Brine Shrimp	Sample	10/28/2011	11/03/2011
GSL 2267	1145023-15	Brine Shrimp	Sample	10/27/2011	11/03/2011
GSL 2767	1145023-16	Brine Shrimp	Sample	10/27/2011	11/03/2011
GSL 2565	1145023-17	Brine Shrimp	Sample	10/28/2011	11/03/2011
GSL 2267 0.2m	1145023-18	Water	Sample	10/27/2011	11/03/2011
GSL 2267 0.5m	1145023-19	Water	Sample	10/27/2011	11/03/2011
GSL 2565 0.2m	1145023-20	Water	Sample	10/28/2011	11/03/2011
GSL 2565 0.5m	1145023-21	Water	Sample	10/28/2011	11/03/2011
GSL @ Farm Bay 0.2m	1145023-22	Water	Sample	10/27/2011	11/03/2011
GSL @ Farm Bay 0.5m	1145023-23	Water	Sample	10/28/2011	11/03/2011
GSL 2767 0.2m	1145023-24	Water	Sample	10/27/2011	11/03/2011
GSL 2767 0.5m	1145023-25	Water	Sample	10/27/2011	11/03/2011
GSL 2820 0.2m	1145023-26	Water	Sample	10/28/2011	11/03/2011
GSL 2820 0.5m	1145023-27	Water	Sample	10/28/2011	11/03/2011



Batch Summary

Analyte	Lab Matrix	Method	Prepared	Analyzed	Batch	Sequence
As	Biota	EPA 1638 DRC	11/22/2011	11/28/2011	B112005	1100834
Cd	Biota	EPA 1638	11/18/2011	12/05/2011	B111826	1100856
Cu	Biota	EPA 1638	11/18/2011	12/05/2011	B111826	1100856
Hg	Biota	EPA 1631 Appendix	11/23/2011	12/02/2011	B111915	1100838
Pb	Biota	EPA 1638	11/18/2011	12/05/2011	B111826	1100856
Se	Biota	EPA 1638 DRC	11/22/2011	11/28/2011	B112005	1100834
Tl	Biota	EPA 1638	12/12/2011	12/23/2011	B112067	1100917
As	Water	EPA 1640 RP	12/06/2011	12/08/2011	B111841	1100870
Cd	Water	EPA 1640 Column	11/08/2011	01/07/2012	B112103	1200020
Cu	Water	EPA 1640 Column	11/18/2011	01/26/2012	B120081	1200058
Cu	Water	EPA 1640 Column	11/08/2011	01/29/2012	B120141	1200066
Hg	Water	EPA 1631	11/21/2011	11/23/2011	B111935	1100826
MeHg	Water	EPA 1630	11/22/2011	11/23/2011	B111857	1100825
Pb	Water	EPA 1640 Column	11/08/2011	01/07/2012	B112103	1200020
Se	Water	EPA 1640 RP	12/06/2011	12/08/2011	B111841	1100870
Tl	Water	EPA 1640 RP	12/06/2011	12/08/2011	B111841	1100870



Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
GSL @ Farm Bay 0.2m										
1145023-22	As	Water	T	29.1		0.15	0.50	µg/L	B111841	1100870
1145023-22	Cd	Water	T	0.0105	U	0.0105	0.105	µg/L	B112103	1200020
1145023-22	Cu	Water	T	3.75		0.0211	0.211	µg/L	B120081	1200058
1145023-22	Hg	Water	T	6.48		0.15	0.41	ng/L	B111935	1100826
1145023-22	MeHg	Water	T	0.809		0.020	0.051	ng/L	B111857	1100825
1145023-22	Pb	Water	T	1.49		0.0105	0.105	µg/L	B112103	1200020
1145023-22	Se	Water	T	0.350	U	0.350	1.00	µg/L	B111841	1100870
1145023-22	TI	Water	T	0.010	U	0.010	0.050	µg/L	B111841	1100870
GSL @ Farm Bay 0.5m										
1145023-23	As	Water	T	80.5		0.15	0.50	µg/L	B111841	1100870
1145023-23	Cd	Water	T	0.0105	U	0.0105	0.105	µg/L	B112103	1200020
1145023-23	Cu	Water	T	3.36		0.0211	0.211	µg/L	B120081	1200058
1145023-23	Hg	Water	T	22.1		0.15	0.40	ng/L	B111935	1100826
1145023-23	MeHg	Water	T	1.37		0.020	0.050	ng/L	B111857	1100825
1145023-23	Pb	Water	T	1.72		0.0105	0.105	µg/L	B112103	1200020
1145023-23	Se	Water	T	0.350	U	0.350	1.00	µg/L	B111841	1100870
1145023-23	TI	Water	T	0.040	B	0.010	0.050	µg/L	B111841	1100870
GSL 2267										
1145023-15	As	Brine Shrimp	N/A	2.62		0.003	0.020	mg/kg	B112005	1100834
1145023-15	Cd	Brine Shrimp	N/A	0.053		0.007	0.020	mg/kg	B111826	1100856
1145023-15	Cu	Brine Shrimp	N/A	2.56		0.03	0.16	mg/kg	B111826	1100856
1145023-15	Hg	Brine Shrimp	N/A	48.4		0.77	1.92	ng/g	B111915	1100838
1145023-15	Pb	Brine Shrimp	N/A	0.551		0.004	0.040	mg/kg	B111826	1100856
1145023-15	Se	Brine Shrimp	N/A	0.34		0.05	0.15	mg/kg	B112005	1100834
1145023-15	TI	Brine Shrimp	N/A	0.003	B	0.002	0.006	mg/kg	B112067	1100917



Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
GSL 2267 0.2m										
1145023-18	As	Water	T	68.4		0.15	0.50	µg/L	B111841	1100870
1145023-18	Cd	Water	T	0.0105	U	0.0105	0.105	µg/L	B112103	1200020
1145023-18	Cu	Water	T	2.28		0.0211	0.211	µg/L	B120081	1200058
1145023-18	Hg	Water	T	3.23		0.15	0.40	ng/L	B111935	1100826
1145023-18	MeHg	Water	T	0.645		0.019	0.049	ng/L	B111857	1100825
1145023-18	Pb	Water	T	1.18		0.0105	0.105	µg/L	B112103	1200020
1145023-18	Se	Water	T	0.350	U	0.350	1.00	µg/L	B111841	1100870
1145023-18	TI	Water	T	0.032	B	0.010	0.050	µg/L	B111841	1100870
GSL 2267 0.5m										
1145023-19	As	Water	T	61.5		0.15	0.50	µg/L	B111841	1100870
1145023-19	Cd	Water	T	0.0105	U	0.0105	0.105	µg/L	B112103	1200020
1145023-19	Cu	Water	T	2.59		0.0211	0.211	µg/L	B120081	1200058
1145023-19	Hg	Water	T	11.4		0.15	0.40	ng/L	B111935	1100826
1145023-19	MeHg	Water	T	5.00		0.020	0.050	ng/L	B111857	1100825
1145023-19	Pb	Water	T	1.31		0.0105	0.105	µg/L	B112103	1200020
1145023-19	Se	Water	T	0.350	U	0.350	1.00	µg/L	B111841	1100870
1145023-19	TI	Water	T	0.026	B	0.010	0.050	µg/L	B111841	1100870
GSL 2565										
1145023-17	As	Brine Shrimp	N/A	2.99		0.003	0.018	mg/kg	B112005	1100834
1145023-17	Cd	Brine Shrimp	N/A	0.054		0.006	0.018	mg/kg	B111826	1100856
1145023-17	Cu	Brine Shrimp	N/A	1.73		0.03	0.14	mg/kg	B111826	1100856
1145023-17	Hg	Brine Shrimp	N/A	48.9		0.79	1.98	ng/g	B111915	1100838
1145023-17	Pb	Brine Shrimp	N/A	0.162		0.004	0.036	mg/kg	B111826	1100856
1145023-17	Se	Brine Shrimp	N/A	0.38		0.04	0.13	mg/kg	B112005	1100834
1145023-17	TI	Brine Shrimp	N/A	0.003	B	0.002	0.008	mg/kg	B112067	1100917



Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
GSL 2565 0.2m										
1145023-20	As	Water	T	66.9		0.15	0.50	µg/L	B111841	1100870
1145023-20	Cd	Water	T	0.0105	U	0.0105	0.105	µg/L	B112103	1200020
1145023-20	Cu	Water	T	2.35		0.0211	0.211	µg/L	B120081	1200058
1145023-20	Hg	Water	T	2.97		0.15	0.41	ng/L	B111935	1100826
1145023-20	MeHg	Water	T	0.385		0.020	0.050	ng/L	B111857	1100825
1145023-20	Pb	Water	T	1.09		0.0105	0.105	µg/L	B112103	1200020
1145023-20	Se	Water	T	0.350	U	0.350	1.00	µg/L	B111841	1100870
1145023-20	TI	Water	T	0.033	B	0.010	0.050	µg/L	B111841	1100870
GSL 2565 0.5m										
1145023-21	As	Water	T	123		0.15	0.50	µg/L	B111841	1100870
1145023-21	Cd	Water	T	0.0669	B	0.0105	0.105	µg/L	B112103	1200020
1145023-21	Cu	Water	T	14.9		0.0211	0.211	µg/L	B120081	1200058
1145023-21	Hg	Water	T	29.2		0.15	0.41	ng/L	B111935	1100826
1145023-21	MeHg	Water	T	16.2		0.020	0.050	ng/L	B111857	1100825
1145023-21	Pb	Water	T	5.83		0.0105	0.105	µg/L	B112103	1200020
1145023-21	Se	Water	T	0.507	B	0.350	1.00	µg/L	B111841	1100870
1145023-21	TI	Water	T	0.059		0.010	0.050	µg/L	B111841	1100870
GSL 2767										
1145023-16	As	Brine Shrimp	N/A	4.58		0.003	0.018	mg/kg	B112005	1100834
1145023-16	Cd	Brine Shrimp	N/A	0.066		0.006	0.018	mg/kg	B111826	1100856
1145023-16	Cu	Brine Shrimp	N/A	2.36		0.03	0.14	mg/kg	B111826	1100856
1145023-16	Hg	Brine Shrimp	N/A	85.7		0.75	1.87	ng/g	B111915	1100838
1145023-16	Pb	Brine Shrimp	N/A	0.490		0.004	0.036	mg/kg	B111826	1100856
1145023-16	Se	Brine Shrimp	N/A	0.46		0.04	0.13	mg/kg	B112005	1100834
1145023-16	TI	Brine Shrimp	N/A	0.005	B	0.002	0.009	mg/kg	B112067	1100917



Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
GSL 2767 0.2m										
1145023-24	As	Water	T	46.4		0.15	0.50	µg/L	B111841	1100870
1145023-24	Cd	Water	T	0.0105	U	0.0105	0.105	µg/L	B112103	1200020
1145023-24	Cu	Water	T	2.63		0.0211	0.211	µg/L	B120081	1200058
1145023-24	Hg	Water	T	4.32		0.15	0.40	ng/L	B111935	1100826
1145023-24	MeHg	Water	T	1.11		0.020	0.051	ng/L	B111857	1100825
1145023-24	Pb	Water	T	1.45		0.0105	0.105	µg/L	B112103	1200020
1145023-24	Se	Water	T	0.350	U	0.350	1.00	µg/L	B111841	1100870
1145023-24	TI	Water	T	0.029	B	0.010	0.050	µg/L	B111841	1100870
GSL 2767 0.5m										
1145023-25	As	Water	T	71.9		0.15	0.50	µg/L	B111841	1100870
1145023-25	Cd	Water	T	0.0105	U	0.0105	0.105	µg/L	B112103	1200020
1145023-25	Cu	Water	T	2.34		0.0211	0.211	µg/L	B120081	1200058
1145023-25	Hg	Water	T	4.52		0.15	0.40	ng/L	B111935	1100826
1145023-25	MeHg	Water	T	1.27		0.020	0.049	ng/L	B111857	1100825
1145023-25	Pb	Water	T	1.25		0.0105	0.105	µg/L	B112103	1200020
1145023-25	Se	Water	T	0.350	U	0.350	1.00	µg/L	B111841	1100870
1145023-25	TI	Water	T	0.033	B	0.010	0.050	µg/L	B111841	1100870
GSL 2820										
1145023-13	As	Brine Shrimp	N/A	3.48		0.003	0.020	mg/kg	B112005	1100834
1145023-13	Cd	Brine Shrimp	N/A	0.049		0.007	0.020	mg/kg	B111826	1100856
1145023-13	Cu	Brine Shrimp	N/A	1.64		0.03	0.16	mg/kg	B111826	1100856
1145023-13	Hg	Brine Shrimp	N/A	44.6		0.76	1.89	ng/g	B111915	1100838
1145023-13	Pb	Brine Shrimp	N/A	0.140		0.004	0.039	mg/kg	B111826	1100856
1145023-13	Se	Brine Shrimp	N/A	0.42		0.05	0.15	mg/kg	B112005	1100834
1145023-13	TI	Brine Shrimp	N/A	0.003	B	0.002	0.007	mg/kg	B112067	1100917



Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
GSL 2820 0.2m										
1145023-26	As	Water	T	62.9		0.15	0.50	µg/L	B111841	1100870
1145023-26	Cd	Water	T	0.0105	U	0.0105	0.105	µg/L	B112103	1200020
1145023-26	Cu	Water	T	2.16		0.0211	0.211	µg/L	B120081	1200058
1145023-26	Hg	Water	T	2.92		0.15	0.41	ng/L	B111935	1100826
1145023-26	MeHg	Water	T	0.625		0.021	0.052	ng/L	B111857	1100825
1145023-26	Pb	Water	T	1.17		0.0105	0.105	µg/L	B112103	1200020
1145023-26	Se	Water	T	0.350	U	0.350	1.00	µg/L	B111841	1100870
1145023-26	TI	Water	T	0.030	B	0.010	0.050	µg/L	B111841	1100870
GSL 2820 0.5m										
1145023-27	As	Water	T	70.1		0.15	0.50	µg/L	B111841	1100870
1145023-27	Cd	Water	T	0.0105	U	0.0105	0.105	µg/L	B112103	1200020
1145023-27	Cu	Water	T	2.31		0.0211	0.211	µg/L	B120081	1200058
1145023-27	Hg	Water	T	3.14		0.15	0.40	ng/L	B111935	1100826
1145023-27	MeHg	Water	T	0.492		0.021	0.052	ng/L	B111857	1100825
1145023-27	Pb	Water	T	1.16		0.0105	0.105	µg/L	B112103	1200020
1145023-27	Se	Water	T	0.350	U	0.350	1.00	µg/L	B111841	1100870
1145023-27	TI	Water	T	0.034	B	0.010	0.050	µg/L	B111841	1100870
GSL 3510										
1145023-11	As	Brine Shrimp	N/A	4.20		0.003	0.019	mg/kg	B112005	1100834
1145023-11	Cd	Brine Shrimp	N/A	0.057		0.007	0.019	mg/kg	B111826	1100856
1145023-11	Cu	Brine Shrimp	N/A	2.40		0.03	0.15	mg/kg	B111826	1100856
1145023-11	Hg	Brine Shrimp	N/A	68.1		0.71	1.78	ng/g	B111915	1100838
1145023-11	Pb	Brine Shrimp	N/A	0.145		0.004	0.038	mg/kg	B111826	1100856
1145023-11	Se	Brine Shrimp	N/A	0.44		0.05	0.14	mg/kg	B112005	1100834
1145023-11	TI	Brine Shrimp	N/A	0.002	U	0.002	0.008	mg/kg	B112067	1100917
GSL 3510 @ Farm Bay										
1145023-12	As	Brine Shrimp	N/A	1.89		0.003	0.019	mg/kg	B112005	1100834
1145023-12	Cd	Brine Shrimp	N/A	0.034		0.007	0.019	mg/kg	B111826	1100856
1145023-12	Cu	Brine Shrimp	N/A	1.83		0.03	0.15	mg/kg	B111826	1100856
1145023-12	Hg	Brine Shrimp	N/A	7.39		0.70	1.75	ng/g	B111915	1100838
1145023-12	Pb	Brine Shrimp	N/A	0.630		0.004	0.037	mg/kg	B111826	1100856
1145023-12	Se	Brine Shrimp	N/A	0.13	B	0.05	0.14	mg/kg	B112005	1100834
1145023-12	TI	Brine Shrimp	N/A	0.004	B	0.001	0.005	mg/kg	B112067	1100917



Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
GSL 3510 0.2m										
1145023-05	As	Water	T	74.3		0.15	0.50	µg/L	B111841	1100870
1145023-05	Cd	Water	T	0.0105	U	0.0105	0.105	µg/L	B112103	1200020
1145023-05	Cu	Water	T	2.27		0.0211	0.211	µg/L	B120081	1200058
1145023-05	Hg	Water	T	4.40		0.15	0.40	ng/L	B111935	1100826
1145023-05	MeHg	Water	T	1.39		0.020	0.051	ng/L	B111857	1100825
1145023-05	Pb	Water	T	1.12		0.0105	0.105	µg/L	B112103	1200020
1145023-05	Se	Water	T	0.350	U	0.350	1.00	µg/L	B111841	1100870
1145023-05	TI	Water	T	0.031	B	0.010	0.050	µg/L	B111841	1100870
GSL 3510 0.5m										
1145023-06	As	Water	T	112		0.15	0.50	µg/L	B111841	1100870
1145023-06	Cd	Water	T	0.0595	B	0.0105	0.105	µg/L	B112103	1200020
1145023-06	Cu	Water	T	11.7		0.0211	0.211	µg/L	B120081	1200058
1145023-06	Hg	Water	T	37.1		0.15	0.40	ng/L	B111935	1100826
1145023-06	MeHg	Water	T	26.6		0.020	0.051	ng/L	B111857	1100825
1145023-06	Pb	Water	T	4.83		0.0105	0.105	µg/L	B112103	1200020
1145023-06	Se	Water	T	0.525	B	0.350	1.00	µg/L	B111841	1100870
1145023-06	TI	Water	T	0.041	B	0.010	0.050	µg/L	B111841	1100870
GSL 4069										
1145023-10	As	Brine Shrimp	N/A	3.63		0.003	0.019	mg/kg	B112005	1100834
1145023-10	Cd	Brine Shrimp	N/A	0.040		0.007	0.019	mg/kg	B111826	1100856
1145023-10	Cu	Brine Shrimp	N/A	1.75		0.03	0.15	mg/kg	B111826	1100856
1145023-10	Hg	Brine Shrimp	N/A	61.8		0.80	2.01	ng/g	B111915	1100838
1145023-10	Pb	Brine Shrimp	N/A	0.120		0.004	0.038	mg/kg	B111826	1100856
1145023-10	Se	Brine Shrimp	N/A	0.36		0.05	0.14	mg/kg	B112005	1100834
1145023-10	TI	Brine Shrimp	N/A	0.002	B	0.001	0.005	mg/kg	B112067	1100917



Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
GSL 4069 (FB)										
1145023-07	As	DIW	T	0.15	J, U	0.15	0.50	µg/L	B111841	1100870
1145023-07	Cd	DIW	T	0.0011	U	0.0011	0.0105	µg/L	B112103	1200020
1145023-07	Cu	DIW	T	0.0037	N, B	0.0021	0.0211	µg/L	B120141	1200066
1145023-07	Hg	DIW	T	0.15	U	0.15	0.40	ng/L	B111935	1100826
1145023-07	MeHg	DIW	T	0.021	B	0.019	0.048	ng/L	B111857	1100825
1145023-07	Pb	DIW	T	0.0011	U	0.0011	0.0105	µg/L	B112103	1200020
1145023-07	Se	DIW	T	0.350	U	0.350	1.00	µg/L	B111841	1100870
1145023-07	TI	DIW	T	0.010	U	0.010	0.050	µg/L	B111841	1100870
GSL 4069 0.2m										
1145023-03	As	Water	T	56.5		0.15	0.50	µg/L	B111841	1100870
1145023-08	As	Water	T	56.9		0.15	0.50	µg/L	B111841	1100870
1145023-03	Cd	Water	T	0.0105	U	0.0105	0.105	µg/L	B112103	1200020
1145023-08	Cd	Water	T	0.0105	U	0.0105	0.105	µg/L	B112103	1200020
1145023-03	Cu	Water	T	2.75		0.0211	0.211	µg/L	B120081	1200058
1145023-08	Cu	Water	T	2.52		0.0211	0.211	µg/L	B120081	1200058
1145023-03	Hg	Water	T	3.55		0.30	0.81	ng/L	B111935	1100826
1145023-08	Hg	Water	T	3.82		0.15	0.40	ng/L	B111935	1100826
1145023-03	MeHg	Water	T	0.655		0.021	0.052	ng/L	B111857	1100825
1145023-08	MeHg	Water	T	0.595		0.021	0.051	ng/L	B111857	1100825
1145023-03	Pb	Water	T	1.21		0.0105	0.105	µg/L	B112103	1200020
1145023-08	Pb	Water	T	1.24		0.0105	0.105	µg/L	B112103	1200020
1145023-03	Se	Water	T	0.350	U	0.350	1.00	µg/L	B111841	1100870
1145023-08	Se	Water	T	0.350	U	0.350	1.00	µg/L	B111841	1100870
1145023-03	TI	Water	T	0.031	B	0.010	0.050	µg/L	B111841	1100870
1145023-08	TI	Water	T	0.040	B	0.010	0.050	µg/L	B111841	1100870
GSL 4069 0.5m										
1145023-04	As	Water	T	68.2		0.15	0.50	µg/L	B111841	1100870
1145023-04	Cd	Water	T	0.0105	U	0.0105	0.105	µg/L	B112103	1200020
1145023-04	Cu	Water	T	3.30	J	0.0211	0.211	µg/L	B120081	1200058
1145023-04	Hg	Water	T	5.82		0.15	0.41	ng/L	B111935	1100826
1145023-04	MeHg	Water	T	0.695		0.020	0.049	ng/L	B111857	1100825
1145023-04	Pb	Water	T	1.27		0.0105	0.105	µg/L	B112103	1200020
1145023-04	Se	Water	T	0.350	U	0.350	1.00	µg/L	B111841	1100870
1145023-04	TI	Water	T	0.036	B	0.010	0.050	µg/L	B111841	1100870



Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
N1018										
1145023-14	As	Brine Shrimp	N/A	3.05		0.003	0.019	mg/kg	B112005	1100834
1145023-14	Cd	Brine Shrimp	N/A	0.053		0.007	0.019	mg/kg	B111826	1100856
1145023-14	Cu	Brine Shrimp	N/A	2.47		0.03	0.15	mg/kg	B111826	1100856
1145023-14	Hg	Brine Shrimp	N/A	65.1		0.77	1.93	ng/g	B111915	1100838
1145023-14	Pb	Brine Shrimp	N/A	0.515		0.004	0.038	mg/kg	B111826	1100856
1145023-14	Se	Brine Shrimp	N/A	0.41		0.05	0.14	mg/kg	B112005	1100834
1145023-14	Tl	Brine Shrimp	N/A	0.003	B	0.002	0.008	mg/kg	B112067	1100917
N1018 0.2m										
1145023-01	As	Water	T	82.9		0.15	0.50	µg/L	B111841	1100870
1145023-01	Cd	Water	T	0.0105	U	0.0105	0.105	µg/L	B112103	1200020
1145023-01	Cu	Water	T	2.91		0.0211	0.211	µg/L	B120081	1200058
1145023-01	Hg	Water	T	3.65		0.15	0.40	ng/L	B111935	1100826
1145023-01	MeHg	Water	T	0.905		0.020	0.049	ng/L	B111857	1100825
1145023-01	Pb	Water	T	1.17		0.0105	0.105	µg/L	B112103	1200020
1145023-01	Se	Water	T	0.350	U	0.350	1.00	µg/L	B111841	1100870
1145023-01	Tl	Water	T	0.035	B	0.010	0.050	µg/L	B111841	1100870
N1018 0.5m										
1145023-02	As	Water	T	89.3		0.15	0.50	µg/L	B111841	1100870
1145023-02	Cd	Water	T	0.0780	B	0.0105	0.105	µg/L	B112103	1200020
1145023-02	Cu	Water	T	15.0		0.0211	0.211	µg/L	B120081	1200058
1145023-02	Hg	Water	T	47.3		0.15	0.41	ng/L	B111935	1100826
1145023-02	MeHg	Water	T	25.2		0.020	0.049	ng/L	B111857	1100825
1145023-02	Pb	Water	T	5.62		0.0105	0.105	µg/L	B112103	1200020
1145023-02	Se	Water	T	0.350	U	0.350	1.00	µg/L	B111841	1100870
1145023-02	Tl	Water	T	0.046	B	0.010	0.050	µg/L	B111841	1100870



Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
UT WSC										
1145023-09	As	Water	T	0.15	U	0.15	0.50	µg/L	B111841	1100870
1145023-09	Cd	Water	T	0.0105	U	0.0105	0.105	µg/L	B112103	1200020
1145023-09	Cu	Water	T	0.0168	B	0.0021	0.0211	µg/L	B120141	1200066
1145023-09	Hg	Water	T	0.15	U	0.15	0.40	ng/L	B111935	1100826
1145023-09	MeHg	Water	T	0.025	B	0.020	0.050	ng/L	B111857	1100825
1145023-09	Pb	Water	T	0.0363	B	0.0105	0.105	µg/L	B112103	1200020
1145023-09	Se	Water	T	0.350	U	0.350	1.00	µg/L	B111841	1100870
1145023-09	Tl	Water	T	0.010	U	0.010	0.050	µg/L	B111841	1100870



Accuracy & Precision Summary

Batch: B111826
Lab Matrix: Biota
Method: EPA 1638

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B111826-BS1	Laboratory Fortified Blank (1147033)						
	Cd		0.4000	0.398	mg/kg	99% 75-125	
	Cu		11.00	12.87	mg/kg	117% 75-125	
	Pb		1.000	1.097	mg/kg	110% 75-125	
B111826-BS2	Laboratory Fortified Blank (1147034)						
	Cd		0.4000	0.376	mg/kg	94% 75-125	
	Cu		11.00	12.23	mg/kg	111% 75-125	
	Pb		1.000	1.063	mg/kg	106% 75-125	
B111826-SRM1	Certified Reference Material (1051005, TORT-2)						
	Cd		26.70	26.64	mg/kg	100% 75-125	
	Cu		106.0	109.3	mg/kg	103% 75-125	
	Pb		0.3500	0.315	mg/kg	90% 75-125	
B111826-SRM2	Certified Reference Material (0951025, DORM-3)						
	Cd		0.2900	0.296	mg/kg	102% 75-125	
	Cu		15.50	17.15	mg/kg	111% 75-125	
	Pb		0.3950	0.224	mg/kg	57% 75-125	
B111826-SRM3	Certified Reference Material (0822035, NIST 1547 - peach leaves)						
	Cu		3.700	3.82	mg/kg	103% 75-125	
	Pb		0.8700	0.811	mg/kg	93% 75-125	
B111826-DUP2	Duplicate (1145023-10)						
	Cd	0.040		0.043	mg/kg		7% 30
	Cu	1.75		1.73	mg/kg		1% 30
	Pb	0.120		0.126	mg/kg		4% 30
B111826-MS2	Matrix Spike (1145023-10)						
	Cd	0.040	0.3960	0.410	mg/kg	94% 70-130	
	Cu	1.75	10.89	13.28	mg/kg	106% 70-130	
	Pb	0.120	0.9901	1.109	mg/kg	100% 70-130	



Accuracy & Precision Summary

Batch: B111826
Lab Matrix: Biota
Method: EPA 1638

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B111826-MSD2	Matrix Spike Duplicate (1145023-10)						
	Cd	0.040	0.3802	0.389	mg/kg	92% 70-130	5% 30
	Cu	1.75	10.46	12.63	mg/kg	104% 70-130	5% 30
	Pb	0.120	0.9506	1.080	mg/kg	101% 70-130	3% 30

Accuracy & Precision Summary

Batch: B111841
Lab Matrix: Water
Method: EPA 1640 RP

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B111841-BS1	Laboratory Fortified Blank (1150012)						
	As		2.600	1.44	µg/L	55% 70-130	
	Se		0.4000	0.363	µg/L	91% 70-130	
	Tl		0.1300	0.120	µg/L	92% 70-130	
B111841-SRM1	Certified Reference Material (1147006, CASS-5)						
	As		1.240	0.93	µg/L	75% 75-125	
B111841-SRM2	Certified Reference Material (1147014, SLEW-3)						
	As		1.360	1.32	µg/L	97% 75-125	
B111841-MS3	Matrix Spike (0944029-65)						
	As	1.29	2.600	3.83	µg/L	98% 70-130	
	Se	0.091	0.4000	0.469	µg/L	94% 70-130	
	Tl	0.010	0.1300	0.143	µg/L	102% 70-130	
B111841-DUP1	Duplicate (1145023-01)						
	As	82.85		72.59	µg/L		13% 30
	Se	ND		ND	µg/L		N/C 30
	Tl	0.035		0.032	µg/L		9% 30
B111841-MS1	Matrix Spike (1145023-01)						
	As	82.85	13.00	84.92	µg/L	NR 70-130	
	Se	ND	2.000	2.107	µg/L	89% 70-130	
	Tl	0.035	0.6500	0.711	µg/L	104% 70-130	
B111841-MSD1	Matrix Spike Duplicate (1145023-01)						
	As	82.85	13.00	64.39	µg/L	NR 70-130	28% 30
	Se	ND	2.000	1.999	µg/L	84% 70-130	5% 30
	Tl	0.035	0.6500	0.600	µg/L	87% 70-130	17% 30
B111841-DUP2	Duplicate (1145023-18)						
	As	68.38		66.95	µg/L		2% 30
	Se	ND		ND	µg/L		N/C 30
	Tl	0.032		0.030	µg/L		6% 30



Accuracy & Precision Summary

Batch: B111841
Lab Matrix: Water
Method: EPA 1640 RP

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B111841-MS2	Matrix Spike (1145023-18)						
	As	68.38	13.00	62.11	µg/L	NR 70-130	
	Se	ND	2.000	2.277	µg/L	106% 70-130	
	Tl	0.032	0.6500	0.621	µg/L	91% 70-130	
B111841-MSD2	Matrix Spike Duplicate (1145023-18)						
	As	68.38	13.00	57.27	µg/L	NR 70-130	8% 30
	Se	ND	2.000	2.209	µg/L	103% 70-130	3% 30
	Tl	0.032	0.6500	0.619	µg/L	90% 70-130	0.2% 30



Accuracy & Precision Summary

Batch: B111857
Lab Matrix: Water
Method: EPA 1630

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B111857-BS1	Laboratory Fortified Blank (1144038) MeHg		0.9943	0.863	ng/L	87% 67-133	
B111857-BS2	Laboratory Fortified Blank (1144038) MeHg		0.9932	0.786	ng/L	79% 67-133	
B111857-MS1	Matrix Spike (1145011-01) MeHg	0.072	1.497	1.530	ng/L	97% 65-135	
B111857-MSD1	Matrix Spike Duplicate (1145011-01) MeHg	0.072	1.499	1.517	ng/L	96% 65-135	0.8% 35
B111857-MS2	Matrix Spike (1145023-05) MeHg	1.389	4.933	6.786	ng/L	109% 65-135	
B111857-MSD2	Matrix Spike Duplicate (1145023-05) MeHg	1.389	5.082	7.150	ng/L	113% 65-135	5% 35



Accuracy & Precision Summary

Batch: B111915
 Lab Matrix: Biota
 Method: EPA 1631 Appendix

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B111915-SRM1	Certified Reference Material (0951025, DORM-3) Hg		382.0	375.3	ng/g	98% 75-125	
B111915-SRM2	Certified Reference Material (0951025, DORM-3) Hg		382.0	382.0	ng/g	100% 75-125	
B111915-SRM3	Certified Reference Material (1051005, TORT-2) Hg		270.0	280.5	ng/g	104% 75-125	
B111915-DUP5	Duplicate (1145023-10) Hg	61.80		58.95	ng/g		5% 30
B111915-MS5	Matrix Spike (1145023-10) Hg	61.80	229.5	275.2	ng/g	93% 70-130	
B111915-MSD5	Matrix Spike Duplicate (1145023-10) Hg	61.80	244.7	300.2	ng/g	97% 70-130	9% 30



Accuracy & Precision Summary

Batch: B111935
Lab Matrix: Water
Method: EPA 1631

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B111935-SRM1	Certified Reference Material (1145032, NIST 1641d 1000x dilution)						
	Hg		15.68	16.27	ng/L	104% 85-115	
B111935-MS1	Matrix Spike (1145023-03)						
	Hg	3.55	15.94	20.59	ng/L	107% 71-125	
B111935-MSD1	Matrix Spike Duplicate (1145023-03)						
	Hg	3.55	16.06	20.69	ng/L	107% 71-125	0.5% 24
B111935-MS4	Matrix Spike (1145024-03)						
	Hg	17.49	84.21	114.0	ng/L	115% 71-125	
B111935-MSD4	Matrix Spike Duplicate (1145024-03)						
	Hg	17.49	84.21	115.4	ng/L	116% 71-125	1% 24

Accuracy & Precision Summary

Batch: B112005
Lab Matrix: Biota
Method: EPA 1638 DRC

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B112005-BS1	Laboratory Fortified Blank (1147033)						
	As		2.000	1.964	mg/kg	98% 75-125	
	Se		2.000	1.84	mg/kg	92% 75-125	
B112005-BS2	Laboratory Fortified Blank (1145042)						
	As		28.00	30.41	mg/kg	109% 75-125	
	Se		2.000	1.83	mg/kg	92% 75-125	
B112005-SRM1	Certified Reference Material (1051005, TORT-2)						
	As		21.60	22.63	mg/kg	105% 75-125	
	Se		5.630	5.64	mg/kg	100% 75-125	
B112005-SRM2	Certified Reference Material (0951025, DORM-3)						
	As		6.880	6.990	mg/kg	102% 75-125	
	Se		3.300	3.48	mg/kg	105% N/A	
B112005-SRM3	Certified Reference Material (0822035, NIST 1547 - peach leaves)						
	As		0.06000	0.069	mg/kg	115% 75-125	
B112005-DUP3	Duplicate (1145023-10)						
	As	3.626		3.750	mg/kg		3% 30
	Se	0.36		0.35	mg/kg		3% 30
B112005-MS3	Matrix Spike (1145023-10)						
	As	3.626	29.70	37.80	mg/kg	115% 70-130	
	Se	0.36	1.980	2.41	mg/kg	104% 70-130	
B112005-MSD3	Matrix Spike Duplicate (1145023-10)						
	As	3.626	28.52	37.12	mg/kg	117% 70-130	2% 30
	Se	0.36	1.901	2.40	mg/kg	107% 70-130	0.5% 30



Accuracy & Precision Summary

Batch: B112067
 Lab Matrix: Biota
 Method: EPA 1638

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B112067-BS1	Laboratory Fortified Blank (1151003) TI		0.01000	0.011	mg/kg	112% 75-125	
B112067-DUP1	Duplicate (1145023-12) TI	0.004		0.005	mg/kg		21% 30
B112067-MS1	Matrix Spike (1145023-12) TI	0.004	0.006916	0.011	mg/kg	105% 70-130	
B112067-MSD1	Matrix Spike Duplicate (1145023-12) TI	0.004	0.009940	0.012	mg/kg	88% 70-130	13% 30



Accuracy & Precision Summary

Batch: B112103
Lab Matrix: Water
Method: EPA 1640 Column

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B112103-BS1	Laboratory Fortified Blank (1143006)						
	Cd		0.1053	0.0785	µg/L	75% 75-125	
	Pb		0.2632	0.2111	µg/L	80% 75-125	
B112103-DUP1	Duplicate (1145023-01)						
	Cd	ND		ND	µg/L		N/C 20
	Pb	1.173		1.179	µg/L		0.5% 20
B112103-MS1	Matrix Spike (1145023-01)						
	Cd	ND	21.05	18.66	µg/L	90% 75-125	
	Pb	1.173	21.05	20.93	µg/L	94% 75-125	
B112103-MSD1	Matrix Spike Duplicate (1145023-01)						
	Cd	ND	21.05	18.21	µg/L	87% 75-125	2% 20
	Pb	1.173	21.05	20.56	µg/L	92% 75-125	2% 20
B112103-DUP2	Duplicate (1145023-08)						
	Cd	ND		ND	µg/L		N/C 20
	Pb	1.237		1.202	µg/L		3% 20
B112103-MS2	Matrix Spike (1145023-08)						
	Cd	ND	21.05	18.53	µg/L	88% 75-125	
	Pb	1.237	21.05	21.05	µg/L	94% 75-125	
B112103-MSD2	Matrix Spike Duplicate (1145023-08)						
	Cd	ND	21.05	18.48	µg/L	88% 75-125	0.2% 20
	Pb	1.237	21.05	21.42	µg/L	96% 75-125	2% 20



Accuracy & Precision Summary

Batch: B120081
 Lab Matrix: Water
 Method: EPA 1640 Column

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B120081-BS1	Laboratory Fortified Blank (1143006) Cu		1.053	1.104	µg/L	105% 75-125	
B120081-SRM1	Certified Reference Material (1132017, CASS-5) Cu		0.3800	0.3747	µg/L	99% 75-125	
B120081-SRM2	Certified Reference Material (1132018, SLEW-3) Cu		1.550	1.675	µg/L	108% 75-125	
B120081-DUP1	Duplicate (1145023-02) Cu	15.04		15.01	µg/L		0.2% 20
B120081-MS1	Matrix Spike (1145023-02) Cu	15.04	31.58	46.58	µg/L	100% 75-125	
B120081-MSD1	Matrix Spike Duplicate (1145023-02) Cu	15.04	31.58	47.48	µg/L	103% 75-125	2% 20
B120081-DUP2	Duplicate (1145023-03) Cu	2.754		2.567	µg/L		7% 20
B120081-MS2	Matrix Spike (1145023-03) Cu	2.754	31.58	37.82	µg/L	111% 75-125	
B120081-MSD2	Matrix Spike Duplicate (1145023-03) Cu	2.754	31.58	35.65	µg/L	104% 75-125	6% 20



Accuracy & Precision Summary

Batch: B120141
 Lab Matrix: Water
 Method: EPA 1640 Column

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B120141-BS1	Laboratory Fortified Blank (1143006) Cu		1.053	1.121	µg/L	107% 75-125	
B120141-SRM1	Certified Reference Material (1136009, CASS-5) Cu		0.3800	0.3968	µg/L	104% 75-125	
B120141-SRM2	Certified Reference Material (1136010, SLEW-3) Cu		1.550	1.682	µg/L	109% 75-125	
B120141-DUP1	Duplicate (1145023-07) Cu	0.0037		0.0026	µg/L		34% 20
B120141-MS1	Matrix Spike (1145023-07) Cu	0.0037	2.105	0.5804	µg/L	27% 75-125	
B120141-MSD1	Matrix Spike Duplicate (1145023-07) Cu	0.0037	2.105	0.6514	µg/L	31% 75-125	12% 20



Method Blanks & Reporting Limits

Batch: B111826
Matrix: Biota
Method: EPA 1638
Analyte: Cd 114

Sample	Result	Units			
B111826-BLK1	-0.0004	mg/kg			
B111826-BLK2	-0.0002	mg/kg			
B111826-BLK3	-0.001	mg/kg			
B111826-BLK4	-0.0009	mg/kg			
Average:	-0.001		Standard Deviation:	0.000	MDL: 0.007
Limit:	0.020		Limit:	0.007	MRL: 0.020

Analyte: Cu 63

Sample	Result	Units			
B111826-BLK1	-0.005	mg/kg			
B111826-BLK2	-0.003	mg/kg			
B111826-BLK3	-0.004	mg/kg			
B111826-BLK4	-0.003	mg/kg			
Average:	0.00		Standard Deviation:	0.00	MDL: 0.03
Limit:	0.16		Limit:	0.03	MRL: 0.16

Analyte: Pb

Sample	Result	Units			
B111826-BLK1	-0.002	mg/kg			
B111826-BLK2	-0.001	mg/kg			
B111826-BLK3	-0.002	mg/kg			
B111826-BLK4	-0.001	mg/kg			
Average:	-0.002		Standard Deviation:	0.001	MDL: 0.004
Limit:	0.040		Limit:	0.004	MRL: 0.040



Method Blanks & Reporting Limits

Batch: B111841
Matrix: Water
Method: EPA 1640 RP
Analyte: As 75

Sample	Result	Units			
B111841-BLK1	0.003	µg/L			
B111841-BLK2	0.009	µg/L			
B111841-BLK3	0.01	µg/L			
B111841-BLK4	0.005	µg/L			
	Average: 0.01		Standard Deviation: 0.00	MDL: 0.03	
	Limit: 0.10		Limit: 0.03	MRL: 0.10	

Analyte: Se 77

Sample	Result	Units			
B111841-BLK1	0.004	µg/L			
B111841-BLK2	-0.006	µg/L			
B111841-BLK3	-0.0004	µg/L			
B111841-BLK4	0.017	µg/L			
	Average: 0.004		Standard Deviation: 0.010	MDL: 0.070	
	Limit: 0.200		Limit: 0.070	MRL: 0.200	

Analyte: Tl

Sample	Result	Units			
B111841-BLK1	0.00002	µg/L			
B111841-BLK2	-0.00002	µg/L			
B111841-BLK3	0.00001	µg/L			
B111841-BLK4	0.00004	µg/L			
	Average: 0.000		Standard Deviation: 0.000	MDL: 0.002	
	Limit: 0.010		Limit: 0.002	MRL: 0.010	



Method Blanks & Reporting Limits

Batch: B111857
Matrix: Water
Method: EPA 1630
Analyte: MeHg

Sample	Result	Units			
B111857-BLK1	0.005	ng/L			
B111857-BLK2	0.004	ng/L			
B111857-BLK3	0.001	ng/L			
B111857-BLK4	0.003	ng/L			
Average:	0.003		Standard Deviation:	0.002	MDL: 0.020
Limit:	0.045		Limit:	0.015	MRL: 0.050



Method Blanks & Reporting Limits

Batch: B111915
Matrix: Biota
Method: EPA 1631 Appendix
Analyte: Hg

Sample	Result	Units
B111915-BLK1	0.02	ng/g
B111915-BLK2	0.02	ng/g
B111915-BLK3	0.01	ng/g
B111915-BLK4	0.01	ng/g

Average: 0.02	Standard Deviation: 0.01	MDL: 0.04
Limit: 0.08	Limit: 0.03	MRL: 0.10



Method Blanks & Reporting Limits

Batch: B111935
Matrix: Water
Method: EPA 1631
Analyte: Hg

Sample	Result	Units
B111935-BLK1	0.05	ng/L
B111935-BLK2	0.06	ng/L
B111935-BLK3	0.07	ng/L
B111935-BLK4	0.04	ng/L

Average: 0.06	Standard Deviation: 0.01	MDL: 0.15
Limit: 0.50	Limit: 0.10	MRL: 0.40



Method Blanks & Reporting Limits

Batch: B112005
Matrix: Biota
Method: EPA 1638 DRC
Analyte: As 91

Sample	Result	Units			
B112005-BLK1	0.0006	mg/kg			
B112005-BLK2	0.001	mg/kg			
B112005-BLK3	0.0005	mg/kg			
B112005-BLK4	0.0002	mg/kg			
	Average: 0.001		Standard Deviation: 0.000	MDL: 0.003	
	Limit: 0.020		Limit: 0.003	MRL: 0.020	

Analyte: Se 78

Sample	Result	Units			
B112005-BLK1	-0.002	mg/kg			
B112005-BLK2	-0.005	mg/kg			
B112005-BLK3	-0.005	mg/kg			
B112005-BLK4	-0.007	mg/kg			
	Average: 0.00		Standard Deviation: 0.00	MDL: 0.05	
	Limit: 0.15		Limit: 0.05	MRL: 0.15	



Method Blanks & Reporting Limits

Batch: B112067
Matrix: Biota
Method: EPA 1638
Analyte: Tl

Sample	Result	Units			
B112067-BLK1	0.0001	mg/kg			
B112067-BLK2	0.0001	mg/kg			
B112067-BLK3	0.0003	mg/kg			
B112067-BLK4	0.0001	mg/kg			
	Average: 0.000		Standard Deviation: 0.000	MDL: 0.002	
	Limit: 0.008		Limit: 0.002	MRL: 0.008	



Method Blanks & Reporting Limits

Batch: B112103
Matrix: Water
Method: EPA 1640 Column
Analyte: Cd 114

Sample	Result	Units			
B112103-BLK1	0.0022	µg/L			
B112103-BLK2	0.0019	µg/L			
B112103-BLK3	0.0018	µg/L			
B112103-BLK4	0.0018	µg/L			
Average:	0.0019		Standard Deviation:	0.0002	MDL: 0.0011
Limit:	0.0105		Limit:	0.0011	MRL: 0.0105

Analyte: Pb

Sample	Result	Units			
B112103-BLK1	0.0004	µg/L			
B112103-BLK2	0.0005	µg/L			
B112103-BLK3	0.0022	µg/L			
B112103-BLK4	0.0007	µg/L			
Average:	0.0010		Standard Deviation:	0.0008	MDL: 0.0011
Limit:	0.0105		Limit:	0.0011	MRL: 0.0105



Method Blanks & Reporting Limits

Batch: B120081
Matrix: Water
Method: EPA 1640 Column
Analyte: Cu 63

Sample	Result	Units		
B120081-BLK2	0.0233	µg/L		
B120081-BLK3	0.0157	µg/L		
B120081-BLK4	0.0101	µg/L		
Average:	0.0164		Standard Deviation:	0.0066
Limit:	0.0211		Limit:	0.0021
			MDL:	0.0021
			MRL:	0.0211



Method Blanks & Reporting Limits

Batch: B120141
Matrix: Water
Method: EPA 1640 Column
Analyte: Cu 63

Sample	Result	Units		
B120141-BLK1	-0.0038	µg/L		
B120141-BLK2	-0.0055	µg/L		
B120141-BLK3	-0.0045	µg/L		
B120141-BLK4	-0.0058	µg/L		
Average:	-0.0049		Standard Deviation:	0.0009
Limit:	0.0211		Limit:	0.0021
			MDL:	0.0021
			MRL:	0.0211



Sample Containers

Lab ID: 1145023-01		Report Matrix: Water				Collected: 10/28/2011	
Sample: N1018 0.2m		Sample Type: Sample				Received: 11/03/2011	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	71470160 10	none	n/a		Cooler 1
B	Bottle FLPE Hg-SP	250 mL	71470160 10	1.5mL 18N H2SO4 (PP)	1132024	<2	Cooler 1
C	Bottle HDPE ICP-RP	250 mL	Client Provided	2ml of 7.7N HNO3	Client Preserve	<2	Cooler 1
D	Bottle HDPE ICP-ChelC	250 mL	Client Provided	2ml of 7.7N HNO3	Client Preserve	<2	Cooler 1
E	EXTRA_VOL	250 mL	Client Provided	0.2% HNO3 (BRL)	1141021	<2	Cooler 3

Lab ID: 1145023-02		Report Matrix: Water				Collected: 10/28/2011	
Sample: N1018 0.5m		Sample Type: Sample				Received: 11/03/2011	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	71470160 10	none	n/a		Cooler 1
B	Bottle FLPE Hg-SP	250 mL	71470160 10	1.5mL 18N H2SO4 (PP)	1132024	<2	Cooler 1
C	Bottle HDPE ICP-RP	250 mL	Client Provided	2ml of 7.7N HNO3	Client Preserve	<2	Cooler 1
D	Bottle HDPE ICP-ChelC	250 mL	Client Provided	2ml of 7.7N HNO3	Client Preserve	<2	Cooler 1
E	EXTRA_VOL	250 mL	Client Provided	0.2% HNO3 (BRL)	1141021	<2	Cooler 3

Lab ID: 1145023-03		Report Matrix: Water				Collected: 10/31/2011	
Sample: GSL 4069 0.2m		Sample Type: Sample				Received: 11/03/2011	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	500 mL	71490150 70	none	n/a		Cooler 1
B	Bottle FLPE Hg-SP	250 mL	71470160 10	1.5mL 18N H2SO4 (PP)	1132024	<2	Cooler 1
C	Bottle HDPE ICP-RP	250 mL	Client Provided	2ml of 7.7N HNO3	Client Preserve	<2	Cooler 1
D	Bottle HDPE ICP-ChelC	250 mL	Client Provided	2ml of 7.7N HNO3	Client Preserve	<2	Cooler 1
E	EXTRA_VOL	250 mL	Client Provided	0.2% HNO3 (BRL)	1141021	<2	Cooler 3



Sample Containers

Lab ID: 1145023-04		Report Matrix: Water				Collected: 10/31/2011	
Sample: GSL 4069 0.5m		Sample Type: Sample				Received: 11/03/2011	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	71470160 10	none	n/a		Cooler 1
B	Bottle FLPE Hg-SP	250 mL	71470160 10	0.5mL 18N H2SO4 (PP)	1132024	<2	Cooler 1
C	Bottle HDPE ICP-RP	250 mL	Client Provided	2ml of 7.7N HNO3	Client Preserved	<2	Cooler 1
D	Bottle HDPE ICP-ChelC	250 mL	Client Provided	2ml of 7.7N HNO3	Client Preserved	<2	Cooler 1
E	EXTRA_VOL	250 mL	Client Provided	0.2% HNO3 (BRL)	1141021	<2	Cooler 3

Lab ID: 1145023-05		Report Matrix: Water				Collected: 10/31/2011	
Sample: GSL 3510 0.2m		Sample Type: Sample				Received: 11/03/2011	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	71470160 10	none	n/a		Cooler 1
B	Bottle FLPE Hg-SP	250 mL	71470160 10	0.5mL 18N H2SO4 (PP)	1132024	<2	Cooler 1
C	Bottle HDPE ICP-RP	250 mL	Client Provided	2ml of 7.7N HNO3	Client Preserved	<2	Cooler 1
D	Bottle HDPE ICP-ChelC	250 mL	Client Provided	2ml of 7.7N HNO3	Client Preserved	<2	Cooler 1
E	EXTRA_VOL	250 mL	Client Provided	0.2% HNO3 (BRL)	1141021	<2	Cooler 3

Lab ID: 1145023-06		Report Matrix: Water				Collected: 10/31/2011	
Sample: GSL 3510 0.5m		Sample Type: Sample				Received: 11/03/2011	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	71470160 10	none	n/a		Cooler 1
B	Bottle FLPE Hg-SP	250 mL	71470160 10	0.5mL 18N H2SO4 (PP)	1132024	<2	Cooler 1
C	Bottle HDPE ICP-RP	250 mL	Client Provided	2ml of 7.7N HNO3	Client Preserved	<2	Cooler 1
D	Bottle HDPE ICP-ChelC	250 mL	Client Provided	2ml of 7.7N HNO3	Client Preserved	<2	Cooler 1
E	EXTRA_VOL	250 mL	Client Provided	0.2% HNO3 (BRL)	1141021	<2	Cooler 3



Sample Containers

Lab ID: 1145023-07		Report Matrix: DIW				Collected: 10/31/2011	
Sample: GSL 4069 (FB)		Sample Type: Field Blank				Received: 11/03/2011	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	71470160 10	none	n/a		Cooler 1
B	Bottle FLPE Hg-SP	250 mL	71470160 10	0.5mL 18N H2SO4 (PP)	1132024	<2	Cooler 1
C	Bottle HDPE ICP-RP	250 mL	Client Provided	2ml of 7.7N HNO3	Client Preserved	<2	Cooler 1
D	Bottle HDPE ICP-ChelC	250 mL	Client Provided	2ml of 7.7N HNO3	Client Preserved	<2	Cooler 1
E	EXTRA_VOL	250 mL	Client Provided	0.2% HNO3 (BRL)	1141021	<2	Cooler 3

Lab ID: 1145023-08		Report Matrix: Water				Collected: 10/31/2011	
Sample: GSL 4069 0.2m		Sample Type: Field Duplicate				Received: 11/03/2011	
Comments: THg was split off from MeHg container (150mL to THg)							
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	71470160 10	0.5mL 18N H2SO4 (PP)	1132024	<2	Cooler 1
B	Bottle FLPE Hg-SP	250 mL	71470160 10	0.5mL 18N H2SO4 (PP)	1132024	<2	Cooler 1
C	Bottle HDPE ICP-RP	250 mL	Client Provided	2ml of 7.7N HNO3	Client Preserved	<2	Cooler 1
D	Bottle HDPE ICP-ChelC	250 mL	Client Provided	2ml of 7.7N HNO3	Client Preserved	<2	Cooler 1
E	EXTRA_VOL	250 mL	Client Provided	0.2% HNO3 (BRL)	1141021	<2	Cooler 3

Lab ID: 1145023-09		Report Matrix: Water				Collected: 10/26/2011	
Sample: UT WSC		Sample Type: Sample				Received: 11/03/2011	
Comments: TM lab to take a split from container							
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	71470160 10	none	n/a		Cooler 1
B	Bottle FLPE Hg-SP	250 mL	71470160 10	0.5mL 18N H2SO4 (PP)	1132024	<2	Cooler 1
C	Bottle HDPE ICP-RP	250 mL	Client Provided	2ml of 7.7N HNO3	Client Preserved	<2	Cooler 1
D	Bottle HDPE ICP-ChelC	250 mL	Client Provided	2ml of 7.7N HNO3	Client Preserved	<2	Cooler 1



Sample Containers

Lab ID: 1145023-10 Sample: GSL 4069			Report Matrix: Brine Shrimp Sample Type: Sample		Collected: 10/31/2011 Received: 11/03/2011
Des Container A Client-Provided	Size 500 mL	Lot Client Provided	Preservation none	P-Lot n/a	pH Ship. Cont. Cooler 1
Lab ID: 1145023-11 Sample: GSL 3510			Report Matrix: Brine Shrimp Sample Type: Sample		Collected: 10/31/2011 Received: 11/03/2011
Des Container A Client-Provided	Size 500 mL	Lot Client Provided	Preservation none	P-Lot n/a	pH Ship. Cont. Cooler 1
Lab ID: 1145023-12 Sample: GSL 3510 @ Farm Bay			Report Matrix: Brine Shrimp Sample Type: Sample		Collected: 10/27/2011 Received: 11/03/2011
Des Container A Client-Provided	Size 500 mL	Lot Client Provided	Preservation none	P-Lot n/a	pH Ship. Cont. Cooler 1
Lab ID: 1145023-13 Sample: GSL 2820			Report Matrix: Brine Shrimp Sample Type: Sample		Collected: 10/28/2011 Received: 11/03/2011
Des Container A Client-Provided	Size 500 mL	Lot Client Provided	Preservation none	P-Lot n/a	pH Ship. Cont. Cooler 1
Lab ID: 1145023-14 Sample: N1018			Report Matrix: Brine Shrimp Sample Type: Sample		Collected: 10/28/2011 Received: 11/03/2011
Des Container A Client-Provided	Size 500 mL	Lot Client Provided	Preservation none	P-Lot n/a	pH Ship. Cont. Cooler 1
Lab ID: 1145023-15 Sample: GSL 2267			Report Matrix: Brine Shrimp Sample Type: Sample		Collected: 10/27/2011 Received: 11/03/2011
Des Container A Client-Provided	Size 500 mL	Lot Client Provided	Preservation none	P-Lot n/a	pH Ship. Cont. Cooler 1



Sample Containers

Lab ID: 1145023-16
Sample: GSL 2767
Report Matrix: Brine Shrimp
Sample Type: Sample
Collected: 10/27/2011
Received: 11/03/2011

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	500 mL	Client Provided	none	n/a		Cooler 1

Lab ID: 1145023-17
Sample: GSL 2565
Report Matrix: Brine Shrimp
Sample Type: Sample
Collected: 10/28/2011
Received: 11/03/2011

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Client-Provided	500 mL	Client Provided	none	n/a		Cooler 1

Lab ID: 1145023-18
Sample: GSL 2267 0.2m
Report Matrix: Water
Sample Type: Sample
Collected: 10/27/2011
Received: 11/03/2011

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	71470160 10	none	n/a		Cooler 2
B	Bottle FLPE Hg-SP	250 mL	71470160 10	.5mL 18N H2SO4 (PP)	1132024	<2	Cooler 2
C	Bottle HDPE ICP-RP	250 mL	Client Provided	HNO3 (Client)	nl of 7.7N HNC	<2	Cooler 2
D	Bottle HDPE ICP-ChelC	250 mL	Client Provided	HNO3 (Client)	nl of 7.7N HNC	<2	Cooler 2
E	EXTRA_VOL	250 mL	Client Provided	0.2% HNO3 (BRL)	1141021	<2	Cooler 3

Lab ID: 1145023-19
Sample: GSL 2267 0.5m
Report Matrix: Water
Sample Type: Sample
Collected: 10/27/2011
Received: 11/03/2011

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	71470160 10	none	n/a		Cooler 2
B	Bottle FLPE Hg-SP	250 mL	71470160 10	.5mL 18N H2SO4 (PP)	1132024	<2	Cooler 2
C	Bottle HDPE ICP-RP	250 mL	Client Provided	HNO3 (Client)	nl of 7.7N HNC	<2	Cooler 2
D	Bottle HDPE ICP-ChelC	250 mL	Client Provided	HNO3 (Client)	nl of 7.7N HNC	<2	Cooler 2
E	EXTRA_VOL	250 mL	Client Provided	0.2% HNO3 (BRL)	1141021	<2	Cooler 3



Sample Containers

Lab ID: 1145023-20		Report Matrix: Water				Collected: 10/28/2011	
Sample: GSL 2565 0.2m		Sample Type: Sample				Received: 11/03/2011	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	71470160 10	none	n/a		Cooler 2
B	Bottle FLPE Hg-SP	250 mL	71470160 10	.5mL 18N H2SO4 (PP)	1132024	<2	Cooler 2
C	Bottle HDPE ICP-RP	250 mL	Client Provided	HNO3 (Client)	nl of 7.7N HNC	<2	Cooler 2
D	Bottle HDPE ICP-ChelC	250 mL	Client Provided	HNO3 (Client)	nl of 7.7N HNC	<2	Cooler 2
E	EXTRA_VOL	250 mL	Client Provided	0.2% HNO3 (BRL)	1141021	<2	Cooler 3

Lab ID: 1145023-21		Report Matrix: Water				Collected: 10/28/2011	
Sample: GSL 2565 0.5m		Sample Type: Sample				Received: 11/03/2011	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	71470160 10	none	n/a		Cooler 2
B	Bottle FLPE Hg-SP	250 mL	71470160 10	.5mL 18N H2SO4 (PP)	1132024	<2	Cooler 2
C	Bottle HDPE ICP-RP	250 mL	Client Provided	HNO3 (Client)	nl of 7.7N HNC	<2	Cooler 2
D	Bottle HDPE ICP-ChelC	250 mL	Client Provided	HNO3 (Client)	nl of 7.7N HNC	<2	Cooler 2
E	EXTRA_VOL	250 mL	Client Provided	0.2% HNO3 (BRL)	1141021	<2	Cooler 3

Lab ID: 1145023-22		Report Matrix: Water				Collected: 10/27/2011	
Sample: GSL @ Farm Bay 0.2m		Sample Type: Sample				Received: 11/03/2011	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	71470160 10	none	n/a		Cooler 2
B	Bottle FLPE Hg-SP	250 mL	71470160 10	.5mL 18N H2SO4 (PP)	1132024	<2	Cooler 2
C	Bottle HDPE ICP-RP	250 mL	Client Provided	HNO3 (Client)	nl of 7.7N HNC	<2	Cooler 2
D	Bottle HDPE ICP-ChelC	250 mL	Client Provided	HNO3 (Client)	nl of 7.7N HNC	<2	Cooler 2
E	EXTRA_VOL	250 mL	Client Provided	0.2% HNO3 (BRL)	1141021	<2	Cooler 3



Sample Containers

Lab ID: 1145023-23		Report Matrix: Water				Collected: 10/28/2011	
Sample: GSL @ Farm Bay 0.5m		Sample Type: Sample				Received: 11/03/2011	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	71470160 10	none	n/a		Cooler 2
B	Bottle FLPE Hg-SP	250 mL	71470160 10	.5mL 18N H2SO4 (PP)	1132024	<2	Cooler 2
C	Bottle HDPE ICP-RP	250 mL	Client Provided	HNO3 (Client)	nl of 7.7N HNC	<2	Cooler 2
D	Bottle HDPE ICP-ChelC	250 mL	Client Provided	HNO3 (Client)	nl of 7.7N HNC	<2	Cooler 2
E	EXTRA_VOL	250 mL	Client Provided	0.2% HNO3 (BRL)	1141021	<2	Cooler 3

Lab ID: 1145023-24		Report Matrix: Water				Collected: 10/27/2011	
Sample: GSL 2767 0.2m		Sample Type: Sample				Received: 11/03/2011	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	71470160 10	none	n/a		Cooler 2
B	Bottle FLPE Hg-SP	250 mL	71470160 10	.5mL 18N H2SO4 (PP)	1132024	<2	Cooler 2
C	Bottle HDPE ICP-RP	250 mL	Client Provided	HNO3 (Client)	nl of 7.7N HNC	<2	Cooler 2
D	Bottle HDPE ICP-ChelC	250 mL	Client Provided	HNO3 (Client)	nl of 7.7N HNC	<2	Cooler 2
E	EXTRA_VOL	250 mL	Client Provided	0.2% HNO3 (BRL)	1141021	<2	Cooler 3

Lab ID: 1145023-25		Report Matrix: Water				Collected: 10/27/2011	
Sample: GSL 2767 0.5m		Sample Type: Sample				Received: 11/03/2011	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	71470160 10	none	n/a		Cooler 2
B	Bottle FLPE Hg-SP	250 mL	71470160 10	.5mL 18N H2SO4 (PP)	1132024	<2	Cooler 2
C	Bottle HDPE ICP-RP	250 mL	Client Provided	HNO3 (Client)	nl of 7.7N HNC	<2	Cooler 2
D	Bottle HDPE ICP-ChelC	250 mL	Client Provided	HNO3 (Client)	nl of 7.7N HNC	<2	Cooler 2
E	EXTRA_VOL	250 mL	Client Provided	0.2% HNO3 (BRL)	1141021	<2	Cooler 3



Sample Containers

Lab ID: 1145023-26		Report Matrix: Water				Collected: 10/28/2011	
Sample: GSL 2820 0.2m		Sample Type: Sample				Received: 11/03/2011	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	71470160 10	none	n/a		Cooler 2
B	Bottle FLPE Hg-SP	250 mL	71470160 10	.5mL 18N H2SO4 (PP)	1132024	<2	Cooler 2
C	Bottle HDPE ICP-RP	250 mL	Client Provided	HNO3 (Client)	nl of 7.7N HNC	<2	Cooler 2
D	Bottle HDPE ICP-ChelC	250 mL	Client Provided	HNO3 (Client)	nl of 7.7N HNC	<2	Cooler 2
E	EXTRA_VOL	250 mL	Client Provided	0.2% HNO3 (BRL)	1141021	<2	Cooler 3

Lab ID: 1145023-27		Report Matrix: Water				Collected: 10/28/2011	
Sample: GSL 2820 0.5m		Sample Type: Sample				Received: 11/03/2011	
Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	71470160 10	none	n/a		Cooler 2
B	Bottle FLPE Hg-SP	250 mL	71470160 10	.5mL 18N H2SO4 (PP)	1132024	<2	Cooler 2
C	Bottle HDPE ICP-RP	250 mL	Client Provided	HNO3 (Client)	nl of 7.7N HNC	<2	Cooler 2
D	Bottle HDPE ICP-ChelC	250 mL	Client Provided	HNO3 (Client)	nl of 7.7N HNC	<2	Cooler 2
E	EXTRA_VOL	250 mL	Client Provided	0.2% HNO3 (BRL)	1141021	<2	Cooler 3



Shipping Containers

Cooler 1

Received: November 3, 2011 8:45
Tracking No: 8764 0642 9360 via FedEx
Coolant Type: Ice
Temperature: 3.7 °C

Description: Cooler 1
Damaged in transit? No
Returned to client? No

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

Cooler 2

Received: November 3, 2011 8:45
Tracking No: 8764 0642 9370 via FedEx
Coolant Type: Ice
Temperature: 2.4 °C

Description: Cooler 2
Damaged in transit? No
Returned to client? No

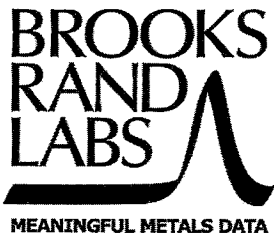
Custody seals present? No
Custody seals intact? No
COC present? Yes

Cooler 3

Received: November 3, 2011 8:45
Tracking No: 8764 0642 9440 via FedEx
Coolant Type: Ice
Temperature: 3.4 °C

Description: Cooler 3
Damaged in transit? No
Returned to client? No

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



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 Seattle, WA 98107
 Phone: 206-632-6206
 Fax: 206-632-6017

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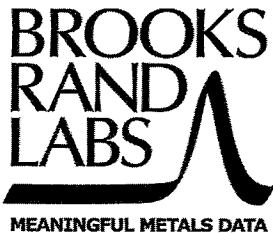
1145023

White: LAB COPY
 Yellow: CUSTOMER COPY

Client: <u>USGS - Utah Water Science Ctr.</u>	Address: <u>2329 Westa Orton Circle</u>	COC receipt confirmation? <input checked="" type="radio"/> Y <input type="radio"/> N
Contact: <u>Tom Marston</u>	<u>Salt Lake City, UT 84119</u>	If so, by: <u>email</u> / fax (circle one)
Client project ID: <u>WSU-061101</u>	Phone #:	Email: <u>tmarston@usgs.gov</u>
PO #:	Phone #:	Fax #:

Requested TAT in business days: <input checked="" type="checkbox"/> 20 (standard) <input type="checkbox"/> 15 <input type="checkbox"/> 10 <input type="checkbox"/> 5 <input type="checkbox"/> Other _____ <i>Surcharges apply for expedited turn around times.</i>	Collection		Miscellaneous				Field Preservation		Analyses required							Comments	
	Date	Time	Sampler (initials)	Matrix type	# of containers	Field filtered? (Y/N)	Unpreserved / ice only	HCl / HNO ₃ (circle one)	Other (specify)	Total Hg, EPA 1631	Methyl Hg, EPA 1630	ICP-MS Metals (specify)	As / Se species (specify)	% Solids	Filtration		Other (specify)
Sample ID																	
1	N1018 0.2m	10/28/11 10:30	TM	H ₂ O	4	N	THg	1	1	1	1						
2	N1018 0.5m	10/28/11 11:00															
3	GS2 406A 0.2m	10/31/11 13:15															
4	GS2 406A 0.5m	10/31/11 14:00															
5	GS2 3510 0.2m	10/31/11 10:45															
6	GS2 3510 0.5m	10/31/11 11:30															
7	GS2 406A (FB)	10/31/11 13:00															
8	GS2 406A 0.2m	10/31/11 13:20			3												
9	UT WSC	10/26/11 15:00			3												
10																	

Relinquished by: <u>Tom Marston</u>	Date: <u>11/2/11</u>	Time: <u>16:00</u>	Relinquished by:	Date:	Time:
Received by:	Date:	Time:	Received at BRL by: <u>[Signature]</u>	Date: <u>11/3/2011</u>	Time: <u>0845</u>
Shipping carrier:	# of coolers:	BRL work order ID:	BRL project ID:		



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 Fax: 206-632-6017

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Chain of Custody Record

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Client: <i>USGS - UT Water Science Ctr.</i>	Address: <i>2329 West Orton Circle Salt Lake City, UT 84119</i>	COC receipt confirmation? <input checked="" type="radio"/> Y / <input type="radio"/> N
Contact: <i>Tom Marston</i>		If so, by: <u>email</u> / fax (circle one)
Client project ID: <i>WSU-0611d1</i>		Email: <i>tmarston@usgs.gov</i>
PO #:	Phone #: <i>801-908-5030</i>	Fax #:

Requested TAT in business days: <input checked="" type="checkbox"/> 20 (standard) <input type="checkbox"/> 15 <input type="checkbox"/> 10 <input type="checkbox"/> 5 <input type="checkbox"/> Other _____ <i>Surcharges apply for expedited turn around times.</i>	Collection		Miscellaneous				Field Preservation			Analyses required							Comments	
	Date	Time	Sampler (initials)	Matrix type	# of containers	Field filtered? (Y/N)	<u>Unpreserved</u> / ice only	HCl / HNO ₃ (circle one)	Other (specify)	Total Hg, EPA 1631	Methyl Hg, EPA 1630	ICP-MS Metals (specify)	As / Se species (specify)	% Solids	Filtration	Other (specify)		Other (specify)
Sample ID																		
1	<i>BSL 4069</i>	<i>10/31/11</i>	<i>12:10</i>	<i>TM</i>	<i>Brine shrimp</i>	<i>1</i>	<i>Y</i>	<i>1</i>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<i>8 500mL bottles</i>
2	<i>BSL 3510</i>	<i>10/31/11</i>	<i>10:00</i>	<i>TM</i>														<i>containing brine</i>
3	<i>BSL @ Farm Bay</i>	<i>10/27/11</i>	<i>10:30</i>	<i>CA</i>														<i>shrimp in env.</i>
4	<i>BSL 2820</i>	<i>10/28/11</i>	<i>12:00</i>	<i>CA</i>														<i>water (unrinsed)</i>
5	<i>N1018</i>	<i>10/28/11</i>	<i>9:50</i>	<i>CA</i>														
6	<i>FA BSL 2267</i>	<i>10/27/11</i>	<i>13:00</i>	<i>CA</i>														
7	<i>BSL 2767</i>	<i>10/29/11</i>	<i>14:00</i>	<i>CA</i>														
8	<i>BSL 2565</i>	<i>10/28/11</i>	<i>13:40</i>	<i>CA</i>	↓	↓	↓	↓		↓		↓	↓					
9																		
10																		

Relinquished by: <i>Tom Marston</i>	Date: <i>11/2/11</i>	Time: <i>16:00</i>	Relinquished by:	Date:	Time:
Received by:	Date:	Time:	Received at BRL by: <i>[Signature]</i>	Date: <i>11/3/2011</i>	Time: <i>0845</i>
Shipping carrier:	# of coolers:	BRL work order ID:	BRL project ID:		

Chain of Custody Record

1145023

White: LAB COPY
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Client: <u>USGS - UT Water Science Center</u>	Address: <u>2329 West Orton Circle Salt Lake City, UT 84119</u>	COC receipt confirmation? <input checked="" type="radio"/> Y / <input type="radio"/> N
Contact: <u>Tom Marston</u>		If so, by: <u>email</u> / fax (circle one)
Client project ID: <u>WSU-061101</u>		Email: <u>tmarston@usgs.gov</u>
PO #:	Phone #: <u>801-908-5030</u>	Fax #:

Requested TAT in business days: <input checked="" type="checkbox"/> 20 (standard) <input type="checkbox"/> 15 <input type="checkbox"/> 10 <input type="checkbox"/> 5 <input type="checkbox"/> Other _____ Surcharges apply for expedited turn around times.	Collection		Miscellaneous				Field Preservation			Analyses required						Comments		
	Date	Time	Sampler (initials)	Matrix type	# of containers	Field filtered? (Y/N)	Unpreserved / ice only	HCl (<u>HNO₃</u>) (circle one)	Other (specify) <u>Methy 42564</u>	Total Hg, EPA 1631	Methyl Hg, EPA 1630	ICP-MS Metals (specify)	As / Se species (specify)	% Solids	Filtration		Other (specify)	Other (specify)
	Sample ID																	
	1	<u>GSL 2267 0.2m</u>	<u>10/27/11</u>	<u>13:00</u>	<u>TM</u>	<u>H₂O</u>	<u>4</u>	<u>N</u>	<u>Thy</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>				<u>Each site includes</u>
	2	<u>GSL 2267 0.5m</u>	<u>10/27/11</u>	<u>13:30</u>														<u>4 bottles, one</u>
	3	<u>GSL 2565 0.2m</u>	<u>10/28/11</u>	<u>14:10</u>														<u>unpreserved Thy, one</u>
	4	<u>GSL 2565 0.5m</u>	<u>10/28/11</u>	<u>14:45</u>														<u>preserved Methy, and</u>
	5	<u>GSL @ Farm. Bay 0.2m</u>	<u>10/27/11</u>	<u>10:30</u>														<u>two preserved bottles</u>
	6	<u>GSL @ Farm Bay 0.5m</u>	<u>10/28/11</u>	<u>11:15</u>														<u>for total trace</u>
	7	<u>GSL 2767 0.2m</u>	<u>10/27/11</u>	<u>15:00</u>														<u>metals.</u>
	8	<u>GSL 2767 0.5m</u>	<u>10/27/11</u>	<u>15:30</u>														
	9	<u>GSL 2820 0.2m</u>	<u>10/28/11</u>	<u>12:15</u>														
	10	<u>GSL 2820 0.5m</u>	<u>10/28/11</u>	<u>12:40</u>														

Relinquished by: <u>Tom Marston</u>	Date: <u>11/2/2011</u>	Time: <u>16:00</u>	Relinquished by:	Date:	Time:
Received by:	Date:	Time:	Received at BRL by: <u>[Signature]</u>	Date: <u>11/3/2011</u>	Time: <u>0845</u>
Shipping carrier:	# of coolers:	BRL work order ID:	BRL project ID:		