October 21, 2011

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 August 5, 2011, Brooks Rand Labs (BRL) received eight (8) water samples and eight (8) brine shrimp samples. The water samples were logged-in for the contracted analyses of total mercury (Hg), monomethyl mercury (MeHg), arsenic (As), copper (Cu), cadmium (Cd), lead (Pb), selenium (Se), and thallium (Tl). The biota samples were logged-in for mercury (Hg), arsenic (As), cadmium (Cd), copper (Cu), lead (Pb), selenium (Se), and thallium (Tl) analyses. The samples were received, prepared, analyzed, and stored according to BRL SOPs and EPA methodology.

A separate, addendum report will be issued for the Hg analysis of brine shrimp samples.

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.

Batch B111249 (Hg – Waters)
Samples were prepared three days out of the required 28 holding time. All samples were preserved with 0.1% hydrochloric acid at the time of sample receipt; however, a complete bromine monochloride preparation occurred 31 days after sample collection. All sample results were qualified **H** for the exceedance.

Batch B111278 (ICP-MS - Biota)
The As and Se analysis of the method duplicate (DUP) and the native sample *GSL 4069* (1134052-01) produced elevated relative percent differences (RPD). All brine shrimp samples were suspended in water. Excess water was decanted during sample preparation but the level of heterogeneity was not ideal. The As result was qualified **M** for duplicate imprecision and all other As sample results were consequently qualified **J-M** by association. The Se results satisfied the secondary criteria for duplicate precision as the results were less than 5x the MRL and within 1 MRL value of each other. No qualification of the Se data was necessary.

The As analysis of the third method blank was determined to be a Grubb's outlier with a result of (0.010 mg/kg). The result was omitted from the batch and the sample results were method blank-corrected by the average of the three remaining method blank results.

Batch B111283 (ICP-MS – Biota)
The Pb analysis of the certified reference material (CRM) DORM-3 yielded a recovery of 50%. While this recovery does not meet the acceptance criteria, the results were consistent with the past two years of historical data generated by BRL. On this basis, no qualification of the data was necessary.

The Cu and Pb analysis of the DUP and the native sample *GSL 4069* (1134052-01) produced elevated RPDs. The Cu result was qualified **M** for duplicate imprecision. As noted above, all brine shrimp samples suspended in water and a traditional biota homogenization was not possible. Excess water was decanted during sample preparation but the level of heterogeneity was not ideal. All other As sample results were consequently qualified **J-M** by association. The Pb results satisfied the secondary criteria for duplicate precision as the results were less than 5x the MRL and within 1 MRL value of each other. No qualification of the Pb data was necessary.

The Cu analysis of the fourth method blank (0.14 mg/kg) and the Tl analysis first method blank (0.012 mg/kg) samples were determined to be Grubb's outliers.. The results were omitted from the batch and the sample results were method blank-corrected by the average of the Cu and Tl three remaining method blanks.

Batch B111341 (ICP-MS - Waters)
The reductive precipitation (RP) preparation performed on samples *N1018 0.5m* (1134052-10) and *GSL 3510 0.5m* (1134052-15) was very dark after adding the RP reagents and precipitate formed on the sides of the bottle. This is not typical behavior of RP sample preparations and the precipitate could not be filtered. No qualification of the data was ascribed; however, a low bias of sample results may be a product of the precipitate.

Sample *GSL 4069 0.2m* (1134052-12) was preserved with nitric acid by the client and the sample had a pH of 10 prior to filtration during the RP preparation process. There was insufficient volume to re-prepare the sample and all results for sample *GSL 4069 0.2m* (1134052-12) were qualified **J** as estimates.

During the filtration of sample *GSL 4069 0.5m* (1134052-13) the clamp holding the filtrate became loose and a little less than 1/3 of the sample filtrate volume was lost. This had not happened before and BRL qualified the sample results **J** for potential low bias.

Due to limited volume, matrix spike/matrix spike duplicate sets could not be performed. Individual method duplicates and post-preparation spikes (PS) were analyzed instead.

The certified reference materials were certified at a level less than the MRL or not certified for Pb, Se, and Tl analyses. These results were not reported.

Please note, batch quality control sample Laboratory Fortified Blank (1139001) is a freshwater matrix and does not match the client sample's matrix in this report.

The seawater laboratory fortified blank (LFB) (B111341-MS2) was not spiked for Tl analysis. Additionally the certified reference materials were not certified for Tl either. All Tl sample results were qualified **J** for lack of quality control measures. Furthermore, the PS' did not produce passing recoveries. Analyses were performed on samples from a separate sample delivery group and no samples from this were report were qualified on the basis of the PS recoveries.

The seawater LFB (B111341-MS2) and the PS' were spiked with As concentrations less than the associated native sample concentrations. The recoveries were therefore not considered valid indicators of data quality.

The Pb and Se recoveries of seawater LFB (B111341-MS2) were elevated at 139% and 155%. All Pb and Se sample results were qualified **J** on an account of the seawater LFB analysis.

The Cd, Cu, Se, and Tl analyses of the PS' did not meet the acceptance criterion. Analyses were performed on samples from a separate sample delivery group and no samples from this report were qualified on the basis of the PS recoveries.

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 me if you have any questions regarding this report.

Sincerely,

Tiffany Stilwater
Project Manager
tiffany@brooksrand.com

Jen Hartmann
Project Manager
jen@brooksrand.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
GSL 4069	1134052-01	Biota	Sample	07/30/2011	08/05/2011
GSL 2767	1134052-02	Biota	Sample	07/29/2011	08/05/2011
GSL @ AIC	1134052-03	Biota	Sample	07/29/2011	08/05/2011
GSL 2820	1134052-04	Biota	Sample	07/28/2011	08/05/2011
N1018	1134052-05	Biota	Sample	07/28/2011	08/05/2011
GSL 2267	1134052-06	Biota	Sample	07/28/2011	08/05/2011
GSL 3510	1134052-07	Biota	Sample	07/29/2011	08/05/2011
GSL 2565	1134052-08	Biota	Sample	07/28/2011	08/05/2011
N1018 0.2m	1134052-09	Water	Sample	07/28/2011	08/05/2011
N1018 0.5m	1134052-10	Water	Sample	07/28/2011	08/05/2011
GSL 4069 0.2m	1134052-11	Water	Sample	07/30/2011	08/05/2011
GSL 4069 0.2m	1134052-12	Water	Field Duplicate	07/30/2011	08/05/2011
GSL 4069 0.5m	1134052-13	Water	Sample	07/30/2011	08/05/2011
GSL 3510 0.2m	1134052-14	Water	Sample	07/29/2011	08/05/2011
GSL 3510 0.5m	1134052-15	Water	Sample	07/29/2011	08/05/2011
GSL 4069 FB	1134052-16	DIW	Field Blank	07/30/2011	08/05/2011

Batch Summary

Analyte	Lab Matrix	Method	Prepared	Analyzed	Batch	Sequence
As	Biota	EPA 1638 DRC	08/30/2011	08/31/2011	B111278	1100602
Cd	Biota	EPA 1638	08/30/2011	09/02/2011	B111283	1100609
Cu	Biota	EPA 1638	08/30/2011	09/02/2011	B111283	1100609
Pb	Biota	EPA 1638	08/30/2011	09/02/2011	B111283	1100609
Se	Biota	EPA 1638 DRC	08/30/2011	08/31/2011	B111278	1100602
Tl	Biota	EPA 1638	08/30/2011	09/02/2011	B111283	1100609
As	Water	EPA 1640 RP	09/13/2011	09/21/2011	B111341	1100647
Cd	Water	EPA 1640 RP	09/13/2011	09/21/2011	B111341	1100647
Cu	Water	EPA 1640 RP	09/13/2011	09/21/2011	B111341	1100647
Hg	Water	EPA 1631	08/29/2011	09/06/2011	B111249	1100612
MeHg	Water	EPA 1630	08/29/2011	08/31/2011	B111251	1100600
Pb	Water	EPA 1640 RP	09/13/2011	09/21/2011	B111341	1100647
Se	Water	EPA 1640 RP	09/13/2011	09/21/2011	B111341	1100647
Tl	Water	EPA 1640 RP	09/13/2011	09/21/2011	B111341	1100647

Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
GSL @ AIC										
1134052-03	As	Biota	N/A	0.097	J-M	0.002	0.015	mg/kg	B111278	1100602
1134052-03	Cd	Biota	N/A	0.008	B	0.005	0.015	mg/kg	B111283	1100609
1134052-03	Cu	Biota	N/A	0.15	J-M	0.02	0.12	mg/kg	B111283	1100609
1134052-03	Pb	Biota	N/A	0.034		0.003	0.031	mg/kg	B111283	1100609
1134052-03	Se	Biota	N/A	0.04	U	0.04	0.12	mg/kg	B111278	1100602
1134052-03	Tl	Biota	N/A	0.002	U	0.002	0.006	mg/kg	B111283	1100609
GSL 2267										
1134052-06	As	Biota	N/A	0.774	J-M	0.002	0.016	mg/kg	B111278	1100602
1134052-06	Cd	Biota	N/A	0.020		0.006	0.016	mg/kg	B111283	1100609
1134052-06	Cu	Biota	N/A	0.77	J-M	0.02	0.13	mg/kg	B111283	1100609
1134052-06	Pb	Biota	N/A	0.057		0.003	0.033	mg/kg	B111283	1100609
1134052-06	Se	Biota	N/A	0.16		0.04	0.12	mg/kg	B111278	1100602
1134052-06	Tl	Biota	N/A	0.002	U	0.002	0.007	mg/kg	B111283	1100609
GSL 2565										
1134052-08	As	Biota	N/A	0.455	J-M	0.003	0.019	mg/kg	B111278	1100602
1134052-08	Cd	Biota	N/A	0.007	U	0.007	0.019	mg/kg	B111283	1100609
1134052-08	Cu	Biota	N/A	0.50	J-M	0.03	0.15	mg/kg	B111283	1100609
1134052-08	Pb	Biota	N/A	0.015	B	0.004	0.038	mg/kg	B111283	1100609
1134052-08	Se	Biota	N/A	0.09	B	0.05	0.14	mg/kg	B111278	1100602
1134052-08	Tl	Biota	N/A	0.002	U	0.002	0.008	mg/kg	B111283	1100609
GSL 2767										
1134052-02	As	Biota	N/A	0.723	J-M	0.002	0.015	mg/kg	B111278	1100602
1134052-02	Cd	Biota	N/A	0.021		0.005	0.015	mg/kg	B111283	1100609
1134052-02	Cu	Biota	N/A	0.65	J-M	0.02	0.12	mg/kg	B111283	1100609
1134052-02	Pb	Biota	N/A	0.025	B	0.003	0.030	mg/kg	B111283	1100609
1134052-02	Se	Biota	N/A	0.12		0.04	0.11	mg/kg	B111278	1100602
1134052-02	Tl	Biota	N/A	0.001	U	0.001	0.006	mg/kg	B111283	1100609

Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
GSL 2820										
1134052-04	As	Biota	N/A	0.688	J-M	0.003	0.020	mg/kg	B111278	1100602
1134052-04	Cd	Biota	N/A	0.018	B	0.007	0.020	mg/kg	B111283	1100609
1134052-04	Cu	Biota	N/A	0.66	J-M	0.03	0.16	mg/kg	B111283	1100609
1134052-04	Pb	Biota	N/A	0.014	B	0.004	0.040	mg/kg	B111283	1100609
1134052-04	Se	Biota	N/A	0.14	B	0.05	0.15	mg/kg	B111278	1100602
1134052-04	Tl	Biota	N/A	0.002	U	0.002	0.008	mg/kg	B111283	1100609
GSL 3510										
1134052-07	As	Biota	N/A	0.946	J-M	0.003	0.018	mg/kg	B111278	1100602
1134052-07	Cd	Biota	N/A	0.014	B	0.006	0.018	mg/kg	B111283	1100609
1134052-07	Cu	Biota	N/A	0.74	J-M	0.03	0.14	mg/kg	B111283	1100609
1134052-07	Pb	Biota	N/A	0.011	B	0.004	0.036	mg/kg	B111283	1100609
1134052-07	Se	Biota	N/A	0.20		0.04	0.13	mg/kg	B111278	1100602
1134052-07	Tl	Biota	N/A	0.002	U	0.002	0.007	mg/kg	B111283	1100609
GSL 3510 0.2m										
1134052-14	As	Water	T	56.0		0.06	0.20	µg/L	B111341	1100647
1134052-14	Cd	Water	T	0.031		0.006	0.020	µg/L	B111341	1100647
1134052-14	Cu	Water	T	0.99		0.08	0.20	µg/L	B111341	1100647
1134052-14	Hg	Water	T	4.42	H	0.60	1.59	ng/L	B111249	1100612
1134052-14	MeHg	Water	T	2.14		0.020	0.049	ng/L	B111251	1100600
1134052-14	Pb	Water	T	0.991	J	0.004	0.026	µg/L	B111341	1100647
1134052-14	Se	Water	T	0.258	J, B	0.140	0.400	µg/L	B111341	1100647
1134052-14	Tl	Water	T	0.032	J	0.004	0.020	µg/L	B111341	1100647
GSL 3510 0.5m										
1134052-15	As	Water	T	107		0.06	0.20	µg/L	B111341	1100647
1134052-15	Cd	Water	T	0.071		0.006	0.020	µg/L	B111341	1100647
1134052-15	Cu	Water	T	5.09		0.08	0.20	µg/L	B111341	1100647
1134052-15	Hg	Water	T	40.6	H	0.15	0.40	ng/L	B111249	1100612
1134052-15	MeHg	Water	T	29.1		0.020	0.050	ng/L	B111251	1100600
1134052-15	Pb	Water	T	2.28	J	0.004	0.026	µg/L	B111341	1100647
1134052-15	Se	Water	T	0.420	J	0.140	0.400	µg/L	B111341	1100647
1134052-15	Tl	Water	T	0.023	J	0.004	0.020	µg/L	B111341	1100647

Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
GSL 4069										
1134052-01	As	Biota	N/A	0.835	M	0.003	0.017	mg/kg	B111278	1100602
1134052-01	Cd	Biota	N/A	0.013	B	0.006	0.017	mg/kg	B111283	1100609
1134052-01	Cu	Biota	N/A	0.93	M	0.03	0.13	mg/kg	B111283	1100609
1134052-01	Pb	Biota	N/A	0.067		0.003	0.034	mg/kg	B111283	1100609
1134052-01	Se	Biota	N/A	0.12	B	0.04	0.13	mg/kg	B111278	1100602
1134052-01	Tl	Biota	N/A	0.002	U	0.002	0.007	mg/kg	B111283	1100609
GSL 4069 0.2m										
1134052-11	As	Water	T	67.0		0.06	0.20	µg/L	B111341	1100647
1134052-12	As	Water	T	91.6	J	0.06	0.20	µg/L	B111341	1100647
1134052-11	Cd	Water	T	0.046		0.006	0.020	µg/L	B111341	1100647
1134052-12	Cd	Water	T	0.047	J	0.006	0.020	µg/L	B111341	1100647
1134052-11	Cu	Water	T	1.62		0.08	0.20	µg/L	B111341	1100647
1134052-12	Cu	Water	T	1.50	J	0.08	0.20	µg/L	B111341	1100647
1134052-11	Hg	Water	T	2.05	H	0.15	0.40	ng/L	B111249	1100612
1134052-12	Hg	Water	T	2.05	H	0.15	0.40	ng/L	B111249	1100612
1134052-11	MeHg	Water	T	0.538		0.020	0.049	ng/L	B111251	1100600
1134052-11	Pb	Water	T	1.18	J	0.004	0.026	µg/L	B111341	1100647
1134052-12	Pb	Water	T	1.09	J	0.004	0.026	µg/L	B111341	1100647
1134052-11	Se	Water	T	0.312	J, B	0.140	0.400	µg/L	B111341	1100647
1134052-12	Se	Water	T	0.240	J, B	0.140	0.400	µg/L	B111341	1100647
1134052-11	Tl	Water	T	0.032	J	0.004	0.020	µg/L	B111341	1100647
1134052-12	Tl	Water	T	0.035	J	0.004	0.020	µg/L	B111341	1100647
GSL 4069 0.5m										
1134052-13	As	Water	T	56.7	J	0.06	0.20	µg/L	B111341	1100647
1134052-13	Cd	Water	T	0.034	J	0.006	0.020	µg/L	B111341	1100647
1134052-13	Cu	Water	T	1.07	J	0.08	0.20	µg/L	B111341	1100647
1134052-13	Hg	Water	T	3.60	H	0.60	1.61	ng/L	B111249	1100612
1134052-13	MeHg	Water	T	4.52		0.020	0.050	ng/L	B111251	1100600
1134052-13	Pb	Water	T	0.980	J	0.004	0.026	µg/L	B111341	1100647
1134052-13	Se	Water	T	0.261	J, B	0.140	0.400	µg/L	B111341	1100647
1134052-13	Tl	Water	T	0.032	J	0.004	0.020	µg/L	B111341	1100647

Sample Results

Sample	Analyte	Report Matrix	Fraction	Result	Qualifier	MDL	MRL	Unit	Batch	Sequence
GSL 4069 FB										
1134052-16	As	DIW	T	0.06	U	0.06	0.20	µg/L	B111341	1100647
1134052-16	Cd	DIW	T	0.006	U	0.006	0.020	µg/L	B111341	1100647
1134052-16	Cu	DIW	T	0.17	B	0.08	0.20	µg/L	B111341	1100647
1134052-16	Hg	DIW	T	0.15	H, U	0.15	0.41	ng/L	B111249	1100612
1134052-16	Pb	DIW	T	0.004	J, U	0.004	0.026	µg/L	B111341	1100647
1134052-16	Se	DIW	T	0.140	J, U	0.140	0.400	µg/L	B111341	1100647
1134052-16	Tl	DIW	T	0.004	J, U	0.004	0.020	µg/L	B111341	1100647
N1018										
1134052-05	As	Biota	N/A	0.892	J-M	0.003	0.020	mg/kg	B111278	1100602
1134052-05	Cd	Biota	N/A	0.017	B	0.007	0.020	mg/kg	B111283	1100609
1134052-05	Cu	Biota	N/A	0.72	J-M	0.03	0.16	mg/kg	B111283	1100609
1134052-05	Pb	Biota	N/A	0.017	B	0.004	0.040	mg/kg	B111283	1100609
1134052-05	Se	Biota	N/A	0.23		0.05	0.15	mg/kg	B111278	1100602
1134052-05	Tl	Biota	N/A	0.002	U	0.002	0.008	mg/kg	B111283	1100609
N1018 0.2m										
1134052-09	As	Water	T	67.8		0.06	0.20	µg/L	B111341	1100647
1134052-09	Cd	Water	T	0.045		0.006	0.020	µg/L	B111341	1100647
1134052-09	Cu	Water	T	1.43		0.08	0.20	µg/L	B111341	1100647
1134052-09	Hg	Water	T	2.23	H	0.15	0.40	ng/L	B111249	1100612
1134052-09	MeHg	Water	T	0.592		0.020	0.049	ng/L	B111251	1100600
1134052-09	Pb	Water	T	1.13	J	0.004	0.026	µg/L	B111341	1100647
1134052-09	Se	Water	T	0.197	J, B	0.140	0.400	µg/L	B111341	1100647
1134052-09	Tl	Water	T	0.038	J	0.004	0.020	µg/L	B111341	1100647
N1018 0.5m										
1134052-10	As	Water	T	85.1		0.06	0.20	µg/L	B111341	1100647
1134052-10	Cd	Water	T	0.096		0.006	0.020	µg/L	B111341	1100647
1134052-10	Cu	Water	T	4.59		0.08	0.20	µg/L	B111341	1100647
1134052-10	Hg	Water	T	45.7	H	0.62	1.66	ng/L	B111249	1100612
1134052-10	MeHg	Water	T	29.3		0.020	0.049	ng/L	B111251	1100600
1134052-10	Pb	Water	T	3.95	J	0.004	0.026	µg/L	B111341	1100647
1134052-10	Se	Water	T	0.404	J	0.140	0.400	µg/L	B111341	1100647
1134052-10	Tl	Water	T	0.045	J	0.004	0.020	µg/L	B111341	1100647

Project ID: UDE-SL1101
PM: Tiffany Stilwater

Client PM: Jodi Gardberg

Accuracy & Precision Summary

Batch: B111249
Lab Matrix: Water
Method: EPA 1631

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B111249-SRM1	**Certified Reference Material (1136036, THg ICV 1641d)**						
	Hg		15.68	15.83	ng/L	101% 85-115	
B111249-MS2	**Matrix Spike (1134052-10)**						
	Hg	45.69	210.5	271.3	ng/L	107% 71-125	
B111249-MSD2	**Matrix Spike Duplicate (1134052-10)**						
	Hg	45.69	205.8	261.7	ng/L	105% 71-125	4% 24

Accuracy & Precision Summary

Batch: B111251
Lab Matrix: Water
Method: EPA 1630

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B111251-BS1	**Laboratory Fortified Blank (1135001)**						
	MeHg		1.015	1.135	ng/L	112% 67-133	
B111251-BS2	**Laboratory Fortified Blank (1135001)**						
	MeHg		1.003	1.040	ng/L	104% 67-133	
B111251-MS1	**Matrix Spike (1133001-01)**						
	MeHg	0.836	5.075	6.994	ng/L	121% 65-135	
B111251-MSD1	**Matrix Spike Duplicate (1133001-01)**						
	MeHg	0.836	5.068	7.139	ng/L	124% 65-135	2% 35

Project ID: UDE-SL1101
PM: Tiffany Stilwater

Client PM: Jodi Gardberg

Accuracy & Precision Summary

Batch: B111278
Lab Matrix: Biota
Method: EPA 1638 DRC

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B111278-BS2	**Laboratory Fortified Blank (1136028)**						
	As		22.00	21.47	mg/kg	98% 75-125	
	Se		5.600	5.05	mg/kg	90% 75-125	
B111278-SRM1	**Certified Reference Material (1051006, DORM-3)**						
	As		6.880	6.958	mg/kg	101% 75-125	
	Se		3.300	3.57	mg/kg	108% N/A	
B111278-SRM2	**Certified Reference Material (0910049, IAEA 407)**						
	As		12.60	13.28	mg/kg	105% 75-125	
	Se		2.830	2.48	mg/kg	87% 75-125	
B111278-DUP1	**Duplicate (1134052-01)**						
	As	0.835		0.456	mg/kg		*59%* 30
	Se	0.12		0.08	mg/kg		*37%* 30
B111278-MS1	**Matrix Spike (1134052-01)**						
	As	0.835	20.26	21.19	mg/kg	101% 70-130	
	Se	0.12	5.157	4.94	mg/kg	94% 70-130	
B111278-MSD1	**Matrix Spike Duplicate (1134052-01)**						
	As	0.835	19.54	21.32	mg/kg	105% 70-130	0.6% 30
	Se	0.12	4.973	4.96	mg/kg	97% 70-130	0.5% 30

Accuracy & Precision Summary

Batch: B111283
Lab Matrix: Biota
Method: EPA 1638

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B111283-BS2	**Laboratory Fortified Blank (1136028)**						
	Cd		26.00	25.00	mg/kg	96% 75-125	
	Cu		3.200	3.27	mg/kg	102% 75-125	
	Pb		0.8000	0.814	mg/kg	102% 75-125	
	Tl		0.1600	0.167	mg/kg	104% 75-125	
B111283-SRM1	**Certified Reference Material (1051006, DORM-3)**						
	Cd		0.2900	0.313	mg/kg	108% 75-125	
	Cu		15.50	16.70	mg/kg	108% 75-125	
	Pb		0.3950	0.198	mg/kg	*50%* 75-125	
B111283-SRM2	**Certified Reference Material (0910049, IAEA 407)**						
	Cd		0.1890	0.184	mg/kg	97% 75-125	
	Cu		3.280	3.52	mg/kg	107% 75-125	
	Pb		0.1200	0.149	mg/kg	124% 75-125	
B111283-DUP1	**Duplicate (1134052-01)**						
	Cd	0.013		ND	mg/kg		N/C 30
	Cu	0.93		0.57	mg/kg		*49%* 30
	Pb	0.067		0.046	mg/kg		*37%* 30
	Tl	ND		ND	mg/kg		N/C 30
B111283-MS1	**Matrix Spike (1134052-01)**						
	Cd	0.013	23.94	23.19	mg/kg	97% 70-130	
	Cu	0.93	2.947	3.57	mg/kg	90% 70-130	
	Pb	0.067	0.7366	0.768	mg/kg	95% 70-130	
	Tl	ND	0.1473	0.170	mg/kg	116% 70-130	
B111283-MSD1	**Matrix Spike Duplicate (1134052-01)**						
	Cd	0.013	23.09	22.43	mg/kg	97% 70-130	3% 30
	Cu	0.93	2.842	3.62	mg/kg	95% 70-130	1% 30
	Pb	0.067	0.7105	0.788	mg/kg	102% 70-130	3% 30
	Tl	ND	0.1421	0.159	mg/kg	112% 70-130	7% 30

Accuracy & Precision Summary

Batch: B111341
Lab Matrix: Water
Method: EPA 1640 RP

Sample	Analyte	Native	Spike	Result	Units	REC & Limits	RPD & Limits
B111341-BS2	**Laboratory Fortified Blank (1139001)**						
	As		1.000	0.85	µg/L	85% 70-130	
	Cd		0.1000	0.103	µg/L	103% 70-130	
	Cu		1.000	0.90	µg/L	90% 70-130	
	Pb		0.1300	0.131	µg/L	100% 70-130	
	Se		2.000	2.314	µg/L	116% 70-130	
B111341-SRM1	**Certified Reference Material (1136009, CASS-5)**						
	As		1.240	1.06	µg/L	86% 75-125	
	Cd		0.02150	0.026	µg/L	120% 75-125	
	Cu		0.3800	0.30	µg/L	80% 75-125	
B111341-SRM2	**Certified Reference Material (1136010, SLEW-3)**						
	As		1.360	1.22	µg/L	89% 75-125	
	Cd		0.04800	0.045	µg/L	95% 75-125	
	Cu		1.550	1.31	µg/L	84% 75-125	
B111341-MS2	**Matrix Spike (0944029-53)**						
	As	1.18	1.000	2.72	µg/L	*154%* 70-130	
	Cd	0.067	0.1000	0.194	µg/L	127% 70-130	
	Cu	0.39	1.000	1.37	µg/L	98% 70-130	
	Pb	0.004	0.1300	0.185	µg/L	*139%* 70-130	
	Se	ND	2.000	3.102	µg/L	*155%* 70-130	
B111341-DUP2	**Duplicate (1133001-04)**						
	As	108.5		104.4	µg/L		4% 30
	Cd	0.174		0.166	µg/L		5% 30
	Cu	5.53		5.39	µg/L		2% 30
	Pb	4.702		4.613	µg/L		2% 30
	Se	0.480		0.482	µg/L		0.5% 30
	Tl	0.055		0.053	µg/L		5% 30

Accuracy & Precision Summary

B111341-PS3	**Post Spike (1133001-04)**						
	As	108.5	5.000	113.2	µg/L	95%	75-125
	Cd	0.174	0.5000	0.904	µg/L	*146%*	75-125
	Cu	5.53	5.000	12.32	µg/L	*136%*	75-125
	Pb	4.702	1.250	6.233	µg/L	122%	75-125
	Se	0.480	5.000	9.195	µg/L	*174%*	75-125
	Tl	0.055	0.2500	0.374	µg/L	*127%*	75-125
B111341-PS4	**Post Spike (1133001-04)**						
	As	108.5	5.000	112.2	µg/L	76%	75-125
	Cd	0.174	0.5000	0.907	µg/L	*147%*	75-125
	Cu	5.53	5.000	12.11	µg/L	*132%*	75-125
	Pb	4.702	1.250	6.191	µg/L	119%	75-125
	Se	0.480	5.000	9.259	µg/L	*176%*	75-125
	Tl	0.055	0.2500	0.384	µg/L	*131%*	75-125

Project ID: UDE-SL1101
PM: Tiffany Stilwater

Client PM: Jodi Gardberg

Method Blanks & Reporting Limits

Batch: B111249
Matrix: Water
Method: EPA 1631
Analyte: Hg

Sample	Result	Units
B111249-BLK1	0.11	ng/L
B111249-BLK2	0.09	ng/L
B111249-BLK3	0.08	ng/L
B111249-BLK4	0.11	ng/L

Average: 0.10 **Standard Deviation:** 0.02 **MDL:** 0.15
Limit: 0.50 **Limit:** 0.10 **MRL:** 0.40

Project ID: UDE-SL1101
PM: Tiffany Stilwater

Client PM: Jodi Gardberg

Method Blanks & Reporting Limits

Batch: B111251
Matrix: Water
Method: EPA 1630
Analyte: MeHg

Sample	Result	Units
B111251-BLK1	0.026	ng/L
B111251-BLK2	0.024	ng/L
B111251-BLK3	0.024	ng/L
B111251-BLK4	0.024	ng/L

Average: 0.025 **Standard Deviation:** 0.001 **MDL:** 0.022
Limit: 0.045 **Limit:** 0.015 **MRL:** 0.055

Project ID: UDE-SL1101
PM: Tiffany Stilwater

Client PM: Jodi Gardberg

Method Blanks & Reporting Limits

Batch: B111278
Matrix: Biota
Method: EPA 1638 DRC
Analyte: As 91

Sample	Result	Units
B111278-BLK1	0.001	mg/kg
B111278-BLK2	0.0003	mg/kg
B111278-BLK4	0.002	mg/kg

Average: 0.001 **Standard Deviation:** 0.001 **MDL:** 0.003
Limit: 0.020 **Limit:** 0.003 **MRL:** 0.020

Analyte: Se 78

Sample	Result	Units
B111278-BLK1	-0.002	mg/kg
B111278-BLK2	-0.009	mg/kg
B111278-BLK3	-0.002	mg/kg
B111278-BLK4	-0.01	mg/kg

Average: -0.01 **Standard Deviation:** 0.00 **MDL:** 0.05
Limit: 0.15 **Limit:** 0.05 **MRL:** 0.15

Method Blanks & Reporting Limits

Batch: B111283
Matrix: Biota
Method: EPA 1638
Analyte: Cd 114

Sample	Result	Units
B111283-BLK1	-0.0004	mg/kg
B111283-BLK2	-0.001	mg/kg
B111283-BLK3	-0.0009	mg/kg
B111283-BLK4	-0.002	mg/kg

Average: -0.001 **Standard Deviation:** 0.001 **MDL:** 0.007
Limit: 0.020 **Limit:** 0.007 **MRL:** 0.020

Analyte: Cu 63

Sample	Result	Units
B111283-BLK1	0.006	mg/kg
B111283-BLK2	-0.004	mg/kg
B111283-BLK3	-0.005	mg/kg

Average: 0.00 **Standard Deviation:** 0.01 **MDL:** 0.03
Limit: 0.16 **Limit:** 0.03 **MRL:** 0.16

Analyte: Pb

Sample	Result	Units
B111283-BLK1	-0.00004	mg/kg
B111283-BLK2	-0.0003	mg/kg
B111283-BLK3	-0.0006	mg/kg
B111283-BLK4	-0.0006	mg/kg

Average: 0.000 **Standard Deviation:** 0.000 **MDL:** 0.004
Limit: 0.040 **Limit:** 0.004 **MRL:** 0.040

Analyte: Tl

Sample	Result	Units
B111283-BLK2	0.005	mg/kg
B111283-BLK3	0.003	mg/kg
B111283-BLK4	0.003	mg/kg

Average: 0.004 **Standard Deviation:** 0.001 **MDL:** 0.002
Limit: 0.008 **Limit:** 0.002 **MRL:** 0.008

Method Blanks & Reporting Limits

Batch: B111341
Matrix: Water
Method: EPA 1640 RP
Analyte: As 75

Sample	Result	Units
B111341-BLK1	0.01	µg/L
B111341-BLK2	0.01	µg/L
B111341-BLK3	-0.004	µg/L
B111341-BLK4	0.02	µg/L

Average: 0.01 **Standard Deviation:** 0.01 **MDL:** 0.06
Limit: 0.20 **Limit:** 0.06 **MRL:** 0.20

Analyte: Cd 114

Sample	Result	Units
B111341-BLK1	-0.002	µg/L
B111341-BLK2	-0.003	µg/L
B111341-BLK3	-0.001	µg/L
B111341-BLK4	-0.004	µg/L

Average: -0.003 **Standard Deviation:** 0.001 **MDL:** 0.006
Limit: 0.020 **Limit:** 0.006 **MRL:** 0.020

Analyte: Cu 63

Sample	Result	Units
B111341-BLK1	0.05	µg/L
B111341-BLK2	0.02	µg/L
B111341-BLK3	0.02	µg/L
B111341-BLK4	0.02	µg/L

Average: 0.03 **Standard Deviation:** 0.02 **MDL:** 0.08
Limit: 0.20 **Limit:** 0.08 **MRL:** 0.20

Method Blanks & Reporting Limits

Analyte: Pb

Sample	Result	Units
B111341-BLK1	0.006	µg/L
B111341-BLK2	0.009	µg/L
B111341-BLK3	0.007	µg/L
B111341-BLK4	0.006	µg/L

Average: 0.007 **Standard Deviation:** 0.001 **MDL:** 0.004
Limit: 0.026 **Limit:** 0.004 **MRL:** 0.026

Analyte: Se 82

Sample	Result	Units
B111341-BLK1	0.007	µg/L
B111341-BLK2	0.024	µg/L
B111341-BLK3	-0.021	µg/L
B111341-BLK4	0.019	µg/L

Average: 0.007 **Standard Deviation:** 0.020 **MDL:** 0.140
Limit: 0.400 **Limit:** 0.140 **MRL:** 0.400

Analyte: Tl

Sample	Result	Units
B111341-BLK1	0.0003	µg/L
B111341-BLK2	-0.0003	µg/L
B111341-BLK3	-0.0007	µg/L
B111341-BLK4	-0.0008	µg/L

Average: 0.000 **Standard Deviation:** 0.000 **MDL:** 0.004
Limit: 0.020 **Limit:** 0.004 **MRL:** 0.020

Project ID: UDE-SL1101
PM: Tiffany Stilwater

Client PM: Jodi Gardberg

Sample Containers

Lab ID: 1134052-01
Sample: GSL 4069
Report Matrix: Biota
Sample Type: Sample
Collected: 07/30/2011
Received: 08/05/2011

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Jar HDPE	16 oz.	Client Provided	none	n/a		Cooler

Lab ID: 1134052-02
Sample: GSL 2767
Report Matrix: Biota
Sample Type: Sample
Collected: 07/29/2011
Received: 08/05/2011

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Jar HDPE	16 oz.	Client Provided	none	n/a		Cooler

Lab ID: 1134052-03
Sample: GSL @ AIC
Report Matrix: Biota
Sample Type: Sample
Collected: 07/29/2011
Received: 08/05/2011

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Jar HDPE	16 oz.	Client Provided	none	n/a		Cooler

Lab ID: 1134052-04
Sample: GSL 2820
Report Matrix: Biota
Sample Type: Sample
Collected: 07/28/2011
Received: 08/05/2011

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Jar HDPE	16 oz.	Client Provided	none	n/a		Cooler

Lab ID: 1134052-05
Sample: N1018
Report Matrix: Biota
Sample Type: Sample
Collected: 07/28/2011
Received: 08/05/2011

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Jar HDPE	16 oz.	Client Provided	none	n/a		Cooler

Lab ID: 1134052-06
Sample: GSL 2267
Report Matrix: Biota
Sample Type: Sample
Collected: 07/28/2011
Received: 08/05/2011

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Jar HDPE	16 oz.	Client Provided	none	n/a		Cooler

Sample Containers

Lab ID: 1134052-07 **Report Matrix:** Biota **Collected:** 07/29/2011
Sample: GSL 3510 **Sample Type:** Sample **Received:** 08/05/2011

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Jar HDPE	16 oz.	Client Provided	none	n/a		Cooler

Lab ID: 1134052-08 **Report Matrix:** Biota **Collected:** 07/28/2011
Sample: GSL 2565 **Sample Type:** Sample **Received:** 08/05/2011

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Jar HDPE	16 oz.	Client Provided	none	n/a		Cooler

Lab ID: 1134052-09 **Report Matrix:** Water **Collected:** 07/28/2011
Sample: N1018 0.2m **Sample Type:** Sample **Received:** 08/05/2011

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	7144339030	0.1% HCl (BRL)	1121032	<2	Cooler
B	Bottle FLPE Hg-SP	250 mL	7144339030	1mL 9N H2SO4 (PP)	1125022	<2	Cooler
C	Bottle HDPE ICP-RP	250 mL	No Lot #	HNO3 (Client)	Client Preserve	<2	Cooler

Lab ID: 1134052-10 **Report Matrix:** Water **Collected:** 07/28/2011
Sample: N1018 0.5m **Sample Type:** Sample **Received:** 08/05/2011

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	7144339030	0.1% HCl (BRL)	1121032	<2	Cooler
B	Bottle FLPE Hg-SP	250 mL	7144339030	1mL 9N H2SO4 (PP)	1125022	<2	Cooler
C	Bottle HDPE ICP-RP	250 mL	No Lot #	HNO3 (Client)	Client Preserve	<2	Cooler

Lab ID: 1134052-11 **Report Matrix:** Water **Collected:** 07/30/2011
Sample: GSL 4069 0.2m **Sample Type:** Sample **Received:** 08/05/2011

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	7144339030	0.1% HCl (BRL)	1121032	<2	Cooler
B	Bottle FLPE Hg-SP	250 mL	7144339030	1mL 9N H2SO4 (PP)	1125022	<2	Cooler
C	Bottle HDPE ICP-RP	250 mL	No Lot #	HNO3 (Client)	Client Preserve	<2	Cooler

Sample Containers

Lab ID: 1134052-12 **Report Matrix:** Water **Collected:** 07/30/2011
Sample: GSL 4069 0.2m **Sample Type:** Field Duplicate **Received:** 08/05/2011

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	7144339030	0.1% HCl (BRL)	1121032	<2	Cooler
C	Bottle HDPE ICP-RP	250 mL	No Lot #	HNO3 (Client)	Client Preserve	<2	Cooler

Lab ID: 1134052-13 **Report Matrix:** Water **Collected:** 07/30/2011
Sample: GSL 4069 0.5m **Sample Type:** Sample **Received:** 08/05/2011

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	7144339030	0.1% HCl (BRL)	1121032	<2	Cooler
B	Bottle FLPE Hg-SP	250 mL	7144339030	1mL 9N H2SO4 (PP)	1125022	<2	Cooler
C	Bottle HDPE ICP-RP	250 mL	No Lot #	HNO3 (Client)	Client Preserve	<2	Cooler

Lab ID: 1134052-14 **Report Matrix:** Water **Collected:** 07/29/2011
Sample: GSL 3510 0.2m **Sample Type:** Sample **Received:** 08/05/2011

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	7144339030	0.1% HCl (BRL)	1121032	<2	Cooler
B	Bottle FLPE Hg-SP	250 mL	7144339030	1mL 9N H2SO4 (PP)	1125022	<2	Cooler
C	Bottle HDPE ICP-RP	250 mL	No Lot #	HNO3 (Client)	Client Preserve	<2	Cooler

Lab ID: 1134052-15 **Report Matrix:** Water **Collected:** 07/29/2011
Sample: GSL 3510 0.5m **Sample Type:** Sample **Received:** 08/05/2011

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	7144339030	0.1% HCl (BRL)	1121032	<2	Cooler
B	Bottle FLPE Hg-SP	250 mL	7144339030	1mL 9N H2SO4 (PP)	1125022	<2	Cooler
C	Bottle HDPE ICP-RP	250 mL	No Lot #	HNO3 (Client)	Client Preserve	<2	Cooler

Lab ID: 1134052-16 **Report Matrix:** DIW **Collected:** 07/30/2011
Sample: GSL 4069 FB **Sample Type:** Field Blank **Received:** 08/05/2011

Des	Container	Size	Lot	Preservation	P-Lot	pH	Ship. Cont.
A	Bottle FLPE Hg-T	250 mL	7144339030	0.1% HCl (BRL)	1121032	<2	Cooler
C	Bottle HDPE ICP-RP	250 mL	No Lot #	HNO3 (Client)	Client Preserve	<2	Cooler

Project ID: UDE-SL1101
PM: Tiffany Stilwater

Client PM: Jodi Gardberg

Shipping Containers

Cooler

Received: August 5, 2011 9:30
Tracking No: 8764 0642 8180 via FedEx
Coolant Type: Ice
Temperature: 6.8 °C

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

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

C2

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3958 6th Avenue NW
Seattle, WA 98107
Phone: 206-632-6206
Fax: 206-632-6017
samples@brooksrand.com
www.brooksrand.com

Chain of Custody Record

1134052

BRL Report 1134052

White: LAB COPY
Yellow: CUSTOMER COPY

Client: USGS - UT Water Science Ctr.	Address: 2329 West Orton Circle Salt Lake City, UT 84119	COC receipt confirmation? (Y) / N
Contact: Tom Marston		If so, by: (email) / fax (circle one)
Client project ID: WSV-0611Ø1		Email: tmarston@usgs.gov
PO #:	Phone #: 801-908-5030	Fax #:

Requested TAT in business days:
- ☑ 20 (standard)
- ☐ 15
- ☐ 10
- ☐ 5
- ☐ Other ____

Surcharges apply for expedited turn around times.

	Sample ID	Collection: Date	Collection: Time	Miscellaneous: Sampler (initials)	Miscellaneous: Matrix type	Miscellaneous: # of containers	Miscellaneous: Field filtered? (Y/N)	Field Preservation: Unpreserved/ ice only	Field Preservation: HCl / HNO_3 (circle one)	Field Preservation: Other (specify)	Analyses required: Total Hg, EPA 1631	Analyses required: Methyl Hg, EPA 1630	Analyses required: ICP-MS Metals (specify)	Analyses required: As / Se species (specify)	Analyses required: % Solids	Analyses required: Filtration	Analyses required: Other (specify)	Analyses required: Other (specify)	Comments
1	GSL 4069	7/30/11	10:10	RB	Brine Shrimp	1	N	1	—	—	1		✓	✓					8 Large containers
2	GSL 2767	7/29/11	14:50	RB	|	1	Y	1	—	—	1		✓	✓					containing brine
3	GSL @ AIL	7/29/11	10:15	RB	|	1	Y	1	—	—	1		✓	✓					shrimp in environment
4	GSL 2820	7/28/11	14:00	RB	|	1	Y	1	—	—	1		✓	✓					water. (Unrinsed)
5	N1018	7/28/11	15:20	RB	|	1	Y	1	—	—	1		✓	✓					
6	GSL 2767	7/28/11	09:50	RB	|	1	Y	1	—	—	1		✓	✓					
7	GSL 3510	7/29/11	13:00	RB	|	1	Y	1	—	—	1		✓	✓					
8	GSL 2565	7/28/11	12:25	RB	↓	1	Y	1	—	—	1		✓	✓					
9																			
10																			

Relinquished by: Tom Marston	Date: 8/4/11	Time: 16:00	Relinquished by:
Received by:	Date:	Time:	Received at BRL by: Tyler Peck
Shipping carrier:	# of coolers:		BRL work order ID:

Date:	Time:	
Date: 8/5/11	Time: 0930	
BRL project ID:		

BROOKS RAND LABS
MEANINGFUL METALS DATA
3958 6th Avenue NW
Seattle, WA 98107
Phone: 206-632-6206
Fax: 206-632-6017
samples@brooksrand.com
www.brooksrand.com

Chain of Custody Record

1134052

BRL Report 1134052

White: LAB COPY
Yellow: CUSTOMER COPY

Client: USGS-Utah Water Science Ctr	Address: 2329 West Orton Circle Salt Lake City, UT 84119	COC receipt confirmation? (Y) / N
Contact: Tom Marston		If so, by: (email) / fax (circle one)
Client project ID: WSU-0611Ø1		Email: tmarston@usgs.gov
PO #:	Phone #: 801-908-5030	Fax #:

Requested TAT in business days:
- ☑ 20 (standard)
- ☐ 15
- ☐ 10
- ☐ 5
- ☐ Other ____

Surcharges apply for expedited turn around times.

	Sample ID	Collection: Date	Collection: Time	Miscellaneous: Sampler (initials)	Miscellaneous: Matrix type	Miscellaneous: # of containers	Miscellaneous: Field filtered? (Y/N)	Field Preservation: Unpreserved / ice only	Field Preservation: HCl / HNO3 (circle one)	Field Preservation: Other (specify) Sulfuric	Analyses required: Total Hg, EPA 1631	Analyses required: Methyl Hg, EPA 1630	Analyses required: ICP-MS Metals (specify)	Analyses required: As / Se species (specify)	Analyses required: % Solids	Analyses required: Filtration	Analyses required: Other (specify)	Analyses required: Other (specify)	Comments
1	N1018 0.2m	7/28/11	15:40	TM	H_2O	3	N	THg	1	1	1	1	1	1					Each site, other than
2	N1018 0.5m	7/28/11	16:00	TM	"	3	N	THg	1	1	1	1	1	1					blank and replicate,
3	USL 4069 0.2m	7/30/11	10:30	TM	"	3	N	THg	1	1	1	1	1	1					was 3 bottles, one
4	USL 4069 0.2m	7/30/11	10:35	TM	"	2	N	THg	1	0	1	0	1	1					unpreserved THg, one
5	USL 4069 0.5m	7/30/11	10:55	TM	"	3	N	THg	1	1	1	1	1	1					MeHg, and one 250mL
6	USL 3510 0.2m	7/29/11	12:45	TM	"	3	N	THg	1	1	1	1	1	1					bottle for Se, As, Cd,
7	USL 3510 0.5m	7/29/11	13:15	TM	"	3	N	THg	1	1	1	1	1	1					Cu, Ag, and Zn, preserved
8	USL 4069 FB	7/30/11	11:25	TM	"	2	N	THg	1	0	1	0	1	1					with HNO_3. Rep
9					"														and blank don't have
10																			MeHg.

Relinquished by: Tom Marston	Date: 8/4/11	Time: 16:00	Relinquished by:
Received by:	Date:	Time:	Received at BRL by: Tyler Rath
Shipping carrier:	# of coolers:		BRL work order ID:

Date:	Time:	
Date: 8/5/11	Time: 0930	
BRL project ID:		