

September 03, 2008

Report to:

Lantz Indergard
Lisbon Valley Mining Company, LLC
P.O. Box 248
La Sal, UT 84530

Bill to:

Lantz Indergard
Lisbon Valley Mining Company, LLC
P.O. Box 248
La Sal, UT 84530

Project ID:

ACZ Project ID: L70867

Lantz Indergard:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on July 31, 2008. This project has been assigned to ACZ's project number, L70867. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 12.0. The enclosed results relate only to the samples received under L70867. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after October 03, 2008. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.



Sue Webber has reviewed and approved this report.



Lisbon Valley Mining Company, LLC

September 03, 2008

Project ID:

ACZ Project ID: L70867

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 1 miscellaneous sample from Lisbon Valley Mining Company, LLC on July 31, 2008. The sample was received in good condition. Upon receipt, the sample custodian removed the sample from the cooler, inspected the contents, and logged the sample into ACZ's computerized Laboratory Information Management System (LIMS). The sample was assigned ACZ LIMS project number L70867. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were performed within EPA recommended holding times.

Sample Analysis

This sample was analyzed for inorganic, radiochemistry parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports. The following anomaly required further explanation not provided by the Extended Qualifier Report:

1. For the Gross Beta duplicate data flagged with an "N1" in the QC Summary, the RER was out of control limits due to the uneven drying of sediment on the planchette. No further action was taken since there was an additional duplicate within control limits.

Lisbon Valley Mining Company, LLC

Project ID:

Sample ID: LEACH SOLUTION

ACZ Sample ID: **L70867-01**

Date Sampled: 07/30/08 14:08

Date Received: 07/31/08

Sample Matrix: Leachate

Inorganic Prep

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Total Hot Plate Digestion	M200.2 ICP							08/12/08 16:03	jws
Total Hot Plate Digestion	M200.2 ICP-MS							08/04/08 15:36	jws

Metals Analysis

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, total	M200.7 ICP	740		*	mg/L	0.6	3	08/15/08 18:06	ear/aeh
Arsenic, total	M200.8 ICP-MS	1.520		*	mg/L	0.003	0.005	08/07/08 12:20	msh
Barium, total	M200.7 ICP		U	*	mg/L	0.06	0.3	08/15/08 18:06	ear/aeh
Cadmium, total	M200.8 ICP-MS	36.00		*	mg/L	0.02	0.1	08/11/08 0:54	erf/msh
Calcium, dissolved	M200.7 ICP	474		*	mg/L	4	20	08/19/08 2:38	ear/aeh
Chromium, total	M200.7 ICP	0.5	B	*	mg/L	0.2	1	08/20/08 14:06	ear/aeh
Copper, total	M200.7 ICP	594		*	mg/L	0.2	1	08/15/08 18:06	ear/aeh
Iron, total	M200.7 ICP	1640		*	mg/L	0.4	1	08/20/08 14:06	ear/aeh
Lead, total	M200.8 ICP-MS	1.3200		*	mg/L	0.0005	0.003	08/07/08 12:20	msh
Magnesium, dissolved	M200.7 ICP	909		*	mg/L	4	20	08/19/08 2:38	ear/aeh
Manganese, total	M200.7 ICP	382		*	mg/L	0.1	0.5	08/15/08 18:06	ear/aeh
Mercury, total	M245.1 CVAA		U	*	mg/L	0.0002	0.001	08/06/08 15:01	pmc
Nickel, total	M200.7 ICP	3.4		*	mg/L	0.2	1	08/19/08 21:45	aeh
Selenium, total	M200.8 ICP-MS	0.0745		*	mg/L	0.0005	0.003	08/07/08 12:20	msh
Silver, total	M200.7 ICP		U	*	mg/L	0.2	0.5	08/15/08 18:06	ear/aeh
Sodium, dissolved	M200.7 ICP	139		*	mg/L	6	30	08/19/08 2:38	ear/aeh
Uranium, total	M200.8 ICP-MS	2.22		*	mg/L	0.02	0.1	08/11/08 0:54	erf/msh
Vanadium, total	M200.7 ICP	3.9		*	mg/L	0.1	0.5	08/20/08 14:06	ear/aeh
Zinc, total	M200.7 ICP	109		*	mg/L	0.2	1	08/19/08 21:45	aeh

Wet Chemistry

Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Fluoride	SM4500F-C	46		*	mg/L	8	40	08/14/08 12:11	jlf
Hardness as CaCO3	SM2340B - Calculation	4920			mg/L	1	7	09/03/08 9:46	calc
Lab Filtration	SM 3030 B			*				07/31/08 17:27	tbd
Lab Filtration & Acidification	SM 3030 B			*				07/31/08 19:52	kah
pH (lab)	SM4500H+ B								
pH		1.4	H	*	units	0.1	0.1	08/04/08 0:00	gkj
pH measured at		22.0		*	C	0.1	0.1	08/04/08 0:00	gkj
Residue, Filterable (TDS) @180C	SM2540C	28300	H	*	mg/L	20	40	08/07/08 13:16	kah
Sulfate	SM4500 SO4-D	21000		*	mg/L	1000	5000	08/12/08 9:52	kah

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit, typically 5 times the MDL.
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
U	Analyte was analyzed for but not detected at the indicated MDL

Method References

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2)	EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3)	EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(5)	EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
(6)	Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3)	Animal matrices for Inorganic analyses are reported on an "as received" basis.

Lisbon Valley Mining Company, LLC
 Project ID:

ACZ Project ID: **L70867**

Aluminum, total M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG250069													
WG250069ICV	ICV	08/15/08 17:41	II080717-1	2		1.912	mg/L	95.6	95	105			
WG250069ICB	ICB	08/15/08 17:45				U	mg/L		-0.09	0.09			
WG249831LRB	LRB	08/15/08 17:59				U	mg/L		-0.066	0.066			
WG249831LFB	LFB	08/15/08 18:03	II080811-3	1		.996	mg/L	99.6	85	115			
L70984-01LFM2	LFM	08/15/08 18:14	II080811-3	1	.03	1.048	mg/L	101.8	70	130			
L70984-01LFMD2	LFMD	08/15/08 18:17	II080811-3	1	.03	1.057	mg/L	102.7	70	130	0.86	20	
L70999-02LFM	LFM	08/15/08 19:01	II080811-3	1	U	1.031	mg/L	103.1	70	130			
L70999-02LFMD	LFMD	08/15/08 19:04	II080811-3	1	U	1.031	mg/L	103.1	70	130	0	20	

Arsenic, total M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG249417													
WG249417ICV	ICV	08/07/08 9:46	MS080722-4	.05		.05146	mg/L	102.9	90	110			
WG249417ICB	ICB	08/07/08 9:52				U	mg/L		-0.0015	0.0015			
WG249331LRB	LRB	08/07/08 9:58				U	mg/L		-0.0011	0.0011			
WG249331LFB	LFB	08/07/08 10:04	MS080714-1	.05		.04706	mg/L	94.1	85	115			
L70775-10LFM	LFM	08/07/08 11:38	MS080714-1	.05	.0017	.05508	mg/L	106.8	70	130			
L70775-10LFMD	LFMD	08/07/08 11:44	MS080714-1	.05	.0017	.05467	mg/L	105.9	70	130	0.75	20	

Barium, total M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG250069													
WG250069ICV	ICV	08/15/08 17:41	II080717-1	2		1.9657	mg/L	98.3	95	105			
WG250069ICB	ICB	08/15/08 17:45				U	mg/L		-0.009	0.009			
WG249831LRB	LRB	08/15/08 17:59				U	mg/L		-0.0066	0.0066			
WG249831LFB	LFB	08/15/08 18:03	II080811-3	.5		.4989	mg/L	99.8	85	115			
L70984-01LFM2	LFM	08/15/08 18:14	II080811-3	.5	U	.4939	mg/L	98.8	70	130			
L70984-01LFMD2	LFMD	08/15/08 18:17	II080811-3	.5	U	.4983	mg/L	99.7	70	130	0.89	20	
L70999-02LFM	LFM	08/15/08 19:01	II080811-3	.5	.042	.5356	mg/L	98.7	70	130			
L70999-02LFMD	LFMD	08/15/08 19:04	II080811-3	.5	.042	.5342	mg/L	98.4	70	130	0.26	20	

Cadmium, total M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG249617													
WG249617ICV	ICV	08/10/08 23:03	MS080722-4	.05		.04981	mg/L	99.6	90	110			
WG249617ICB	ICB	08/10/08 23:10				U	mg/L		-0.0003	0.0003			
WG249330LRB	LRB	08/10/08 23:16				U	mg/L		-0.00022	0.00022			
WG249330LFB	LFB	08/10/08 23:22	MS080714-1	.05		.04906	mg/L	98.1	85	115			
L70889-04LFM	LFM	08/10/08 23:34	MS080714-1	.05	U	.04886	mg/L	97.7	70	130			
L70889-04LFMD	LFMD	08/10/08 23:41	MS080714-1	.05	U	.04924	mg/L	98.5	70	130	0.77	20	
WG249331LRB	LRB	08/11/08 0:05				U	mg/L		-0.00022	0.00022			
WG249331LFB	LFB	08/11/08 0:23	MS080714-1	.05		.0483	mg/L	96.6	85	115			

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Calcium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG250165													
WG250165ICV	ICV	08/19/08 1:40	II080717-3	100		97.37	mg/L	97.4	95	105			
WG250165ICB	ICB	08/19/08 1:43				U	mg/L		-0.6	0.6			
WG250165LFB	LFB	08/19/08 1:58	II080811-3	67.97008		66.33	mg/L	97.6	85	115			
L70855-01AS	AS	08/19/08 2:05	II080811-3	67.97008	67.2	131.78	mg/L	95	85	115			
L70855-01ASD	ASD	08/19/08 2:09	II080811-3	67.97008	67.2	128.35	mg/L	90	85	115	2.64	20	

Chromium, total M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG250289													
WG250289ICV	ICV	08/20/08 11:58	II080717-1	2		1.905	mg/L	95.3	95	105			
WG250289ICB	ICB	08/20/08 12:01				U	mg/L		-0.03	0.03			
WG250300													
WG249831LRB	LRB	08/20/08 13:59				U	mg/L		-0.022	0.022			
WG249831LFB	LFB	08/20/08 14:03	II080811-3	.5		.552	mg/L	110.4	85	115			
L70999-02LFM	LFM	08/20/08 14:29	II080811-3	.5	U	.531	mg/L	106.2	70	130			
L70999-02LFMD	LFMD	08/20/08 14:32	II080811-3	.5	U	.547	mg/L	109.4	70	130	2.97	20	

Copper, total M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG250069													
WG250069ICV	ICV	08/15/08 17:41	II080717-1	2		1.901	mg/L	95.1	95	105			
WG250069ICB	ICB	08/15/08 17:45				U	mg/L		-0.03	0.03			
WG249831LRB	LRB	08/15/08 17:59				U	mg/L		-0.022	0.022			
WG249831LFB	LFB	08/15/08 18:03	II080811-3	.5		.506	mg/L	101.2	85	115			
L70984-01LFM2	LFM	08/15/08 18:14	II080811-3	.5	U	.496	mg/L	99.2	70	130			
L70984-01LFMD2	LFMD	08/15/08 18:17	II080811-3	.5	U	.502	mg/L	100.4	70	130	1.2	20	
L70999-02LFM	LFM	08/15/08 19:01	II080811-3	.5	U	.499	mg/L	99.8	70	130			
L70999-02LFMD	LFMD	08/15/08 19:04	II080811-3	.5	U	.498	mg/L	99.6	70	130	0.2	20	

Fluoride SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG249958													
WG249958ICV	ICV	08/14/08 11:37	WC080725-1	2		1.98	mg/L	99	90	110			
WG249958ICB	ICB	08/14/08 11:43				U	mg/L		-0.3	0.3			
WG249958LFB1	LFB	08/14/08 11:49	WC080716-3	5		5.19	mg/L	103.8	90	110			
L70859-01AS	AS	08/14/08 11:53	WC080716-3	5	1.6	5.55	mg/L	79	90	110			M2
L70859-01DUP	DUP	08/14/08 11:56			1.6	1.57	mg/L				1.9	20	
WG249958LFB2	LFB	08/14/08 13:22	WC080716-3	5		5.17	mg/L	103.4	90	110			

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Iron, total M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG250289													
WG250289ICV	ICV	08/20/08 11:58	II080717-1	2		1.941	mg/L	97.1	95	105			
WG250289ICB	ICB	08/20/08 12:01				U	mg/L		-0.06	0.06			
WG250300													
WG249831LRB	LRB	08/20/08 13:59				U	mg/L		-0.044	0.044			
WG249831LFB	LFB	08/20/08 14:03	II080811-3	1		1.154	mg/L	115.4	85	115			
L70999-02LFM	LFM	08/20/08 14:29	II080811-3	1	.02	1.14	mg/L	112	70	130			
L70999-02LFMD	LFMD	08/20/08 14:32	II080811-3	1	.02	1.15	mg/L	113	70	130	0.87	20	

Lead, total M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG249417													
WG249417ICV	ICV	08/07/08 9:46	MS080722-4	.05		.0502	mg/L	100.4	90	110			
WG249417ICB	ICB	08/07/08 9:52				U	mg/L		-0.0003	0.0003			
WG249331LRB	LRB	08/07/08 9:58				U	mg/L		-0.00022	0.00022			
WG249331LFB	LFB	08/07/08 10:04	MS080714-1	.05		.04305	mg/L	86.1	85	115			
L70775-10LFM	LFM	08/07/08 11:38	MS080714-1	.05	.0014	.04493	mg/L	87.1	70	130			
L70775-10LFMD	LFMD	08/07/08 11:44	MS080714-1	.05	.0014	.04532	mg/L	87.8	70	130	0.86	20	

Magnesium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG250165													
WG250165ICV	ICV	08/19/08 1:40	II080717-3	100		97.33	mg/L	97.3	95	105			
WG250165ICB	ICB	08/19/08 1:43				U	mg/L		-0.6	0.6			
WG250165LFB	LFB	08/19/08 1:58	II080811-3	49.96908		48.27	mg/L	96.6	85	115			
L70855-01AS	AS	08/19/08 2:05	II080811-3	49.96908	11.3	61.31	mg/L	100.1	85	115			
L70855-01ASD	ASD	08/19/08 2:09	II080811-3	49.96908	11.3	59.03	mg/L	95.5	85	115	3.79	20	

Manganese, total M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG250069													
WG250069ICV	ICV	08/15/08 17:41	II080717-1	2		1.9463	mg/L	97.3	95	105			
WG250069ICB	ICB	08/15/08 17:45				U	mg/L		-0.015	0.015			
WG249831LRB	LRB	08/15/08 17:59				U	mg/L		-0.011	0.011			
WG249831LFB	LFB	08/15/08 18:03	II080811-3	.5		.5299	mg/L	106	85	115			
L70984-01LFM2	LFM	08/15/08 18:14	II080811-3	.5	U	.5264	mg/L	105.3	70	130			
L70984-01LFMD2	LFMD	08/15/08 18:17	II080811-3	.5	U	.5263	mg/L	105.3	70	130	0.02	20	
L70999-02LFM	LFM	08/15/08 19:01	II080811-3	.5	U	.5193	mg/L	103.9	70	130			
L70999-02LFMD	LFMD	08/15/08 19:04	II080811-3	.5	U	.5193	mg/L	103.9	70	130	0	20	

Lisbon Valley Mining Company, LLC
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Mercury, total

M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG249436													
WG249436ICV	ICV	08/06/08 12:31	II080723-2	.00501		.00513	mg/L	102.4	95	105			
WG249436ICB	ICB	08/06/08 12:33				U	mg/L		-0.0002	0.0002			
WG249437													
WG249437LRB	LRB	08/06/08 14:23				U	mg/L		-0.00044	0.00044			
WG249437LFB	LFB	08/06/08 14:25	II080711-8	.002		.00186	mg/L	93	85	115			
L70867-01LFM	LFM	08/06/08 15:03	II080711-8	.002	U	.00179	mg/L	89.5	85	115			
L70867-01LFMD	LFMD	08/06/08 15:05	II080711-8	.002	U	.00189	mg/L	94.5	85	115	5.43	20	

Nickel, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG250235													
WG250235ICV	ICV	08/19/08 21:20	II080717-1	2		1.981	mg/L	99.1	95	105			
WG250235ICB	ICB	08/19/08 21:24				U	mg/L		-0.03	0.03			
WG249831LRB	LRB	08/19/08 21:38				U	mg/L		-0.022	0.022			
WG249831LFB	LFB	08/19/08 21:41	II080811-3	.4985		.521	mg/L	104.5	85	115			
L70984-01LFM	LFM	08/19/08 21:51	II080811-3	.4985	U	.535	mg/L	107.3	70	130			
L70984-01LFMD	LFMD	08/19/08 21:55	II080811-3	.4985	U	.527	mg/L	105.7	70	130	1.51	20	
L70999-02LFM	LFM	08/19/08 22:36	II080811-3	.4985	U	.531	mg/L	106.5	70	130			
L70999-02LFMD	LFMD	08/19/08 22:40	II080811-3	.4985	U	.521	mg/L	104.5	70	130	1.9	20	

pH (lab)

M150.1 - Electrometric

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG249346													
WG249346LCSW3	LCSW	08/04/08 15:24	PCN29627	6		6.07	units	101.2	90	110			
WG249346LCSW6	LCSW	08/04/08 18:21	PCN29627	6		6.11	units	101.8	90	110			
L70878-06DUP	DUP	08/04/08 19:44			9.1	9.06	units				0.4	20	
WG249346LCSW9	LCSW	08/04/08 21:29	PCN29627	6		6.11	units	101.8	90	110			
WG249346LCSW12	LCSW	08/05/08 1:50	PCN29627	6		6.12	units	102	90	110			
WG249346LCSW15	LCSW	08/05/08 4:23	PCN29627	6		6.15	units	102.5	90	110			

Residue, Filterable (TDS) @180C

SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG249600													
WG249600PBW	PBW	08/07/08 13:15				U	mg/L		-20	20			
WG249600LCSW	LCSW	08/07/08 13:15	PCN30201	260		268	mg/L	103.1	80	120			
L70935-01DUP	DUP	08/07/08 13:25			1110	1082	mg/L				2.6	20	

Selenium, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG249417													
WG249417ICV	ICV	08/07/08 9:46	MS080722-4	.05		.05169	mg/L	103.4	90	110			
WG249417ICB	ICB	08/07/08 9:52				U	mg/L		-0.0003	0.0003			
WG249331LRB	LRB	08/07/08 9:58				U	mg/L		-0.00022	0.00022			
WG249331LFB	LFB	08/07/08 10:04	MS080714-1	.05		.04488	mg/L	89.8	85	115			
L70775-10LFM	LFM	08/07/08 11:38	MS080714-1	.05	U	.04783	mg/L	95.7	70	130			
L70775-10LFMD	LFMD	08/07/08 11:44	MS080714-1	.05	U	.04809	mg/L	96.2	70	130	0.54	20	

Lisbon Valley Mining Company, LLC
 Project ID:

ACZ Project ID: **L70867**

Silver, total M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG250069													
WG250069ICV	ICV	08/15/08 17:41	II080717-1	.999		.956	mg/L	95.7	95	105			
WG250069ICB	ICB	08/15/08 17:45				U	mg/L		-0.03	0.03			
WG249831LRB	LRB	08/15/08 17:59				U	mg/L		-0.022	0.022			
WG249831LFB	LFB	08/15/08 18:03	II080811-3	.5		.5	mg/L	100	85	115			
L70984-01LFM2	LFM	08/15/08 18:14	II080811-3	.5	U	.494	mg/L	98.8	70	130			
L70984-01LFMD2	LFMD	08/15/08 18:17	II080811-3	.5	U	.495	mg/L	99	70	130	0.2	20	
L70999-02LFM	LFM	08/15/08 19:01	II080811-3	.5	U	.492	mg/L	98.4	70	130			
L70999-02LFMD	LFMD	08/15/08 19:04	II080811-3	.5	U	.492	mg/L	98.4	70	130	0	20	

Sodium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG250165													
WG250165ICV	ICV	08/19/08 1:40	II080717-3	100		101.3	mg/L	101.3	95	105			
WG250165ICV	ICV	08/19/08 1:40	II080717-3	100		102.21	mg/L	102.2	95	105			
WG250165ICB	ICB	08/19/08 1:43				U	mg/L		-6	6			
WG250165ICB	ICB	08/19/08 1:43				U	mg/L		-0.9	0.9			
WG250165LFB	LFB	08/19/08 1:58	II080811-3	98.21624		98.4	mg/L	100.2	85	115			
WG250165LFB	LFB	08/19/08 1:58	II080811-3	98.21624		99.93	mg/L	101.7	85	115			
L70855-01AS	AS	08/19/08 2:05	II080811-3	98.21624	46.9	149.25	mg/L	104.2	85	115			
L70855-01ASD	ASD	08/19/08 2:09	II080811-3	98.21624	46.9	141.53	mg/L	96.3	85	115	5.31	20	

Sulfate SM4500 SO4-D

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG249816													
WG249816PBW	PBW	08/12/08 9:38				U	mg/L		-30	30			
WG249816LCSW	LCSW	08/12/08 9:40	WC080514-1	100		95	mg/L	95	80	120			
L70945-01DUP	DUP	08/12/08 10:07			110	97	mg/L				12.6	20	

Uranium, total M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG249617													
WG249617ICV	ICV	08/10/08 23:03	MS080722-4	.05		.04798	mg/L	96	90	110			
WG249617ICB	ICB	08/10/08 23:10				U	mg/L		-0.0003	0.0003			
WG249330LRB	LRB	08/10/08 23:16				U	mg/L		-0.00022	0.00022			
WG249330LFB	LFB	08/10/08 23:22	MS080714-1	.05		.04564	mg/L	91.3	85	115			
L70889-04LFM	LFM	08/10/08 23:34	MS080714-1	.05	.0044	.05544	mg/L	102.1	70	130			
L70889-04LFMD	LFMD	08/10/08 23:41	MS080714-1	.05	.0044	.05592	mg/L	103	70	130	0.86	20	
WG249331LRB	LRB	08/11/08 0:05				U	mg/L		-0.00022	0.00022			
WG249331LFB	LFB	08/11/08 0:23	MS080714-1	.05		.04479	mg/L	89.6	85	115			

Lisbon Valley Mining Company, LLC
 Project ID:

ACZ Project ID: **L70867**

Vanadium, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG250289													
WG250289ICV	ICV	08/20/08 11:58	II080717-1	2		1.9429	mg/L	97.1	95	105			
WG250289ICB	ICB	08/20/08 12:01				U	mg/L		-0.015	0.015			
WG250300													
WG249831LRB	LRB	08/20/08 13:59				U	mg/L		-0.011	0.011			
WG249831LFB	LFB	08/20/08 14:03	II080811-3	.501		.5547	mg/L	110.7	85	115			
L70999-02LFM	LFM	08/20/08 14:29	II080811-3	.501	U	.5438	mg/L	108.5	70	130			
L70999-02LFMD	LFMD	08/20/08 14:32	II080811-3	.501	U	.5468	mg/L	109.1	70	130	0.55	20	

Zinc, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG250235													
WG250235ICV	ICV	08/19/08 21:20	II080717-1	2		2.067	mg/L	103.4	95	105			
WG250235ICB	ICB	08/19/08 21:24				U	mg/L		-0.03	0.03			
WG249831LRB	LRB	08/19/08 21:38				U	mg/L		-0.022	0.022			
WG249831LFB	LFB	08/19/08 21:41	II080811-3	.5		.531	mg/L	106.2	85	115			
L70984-01LFM	LFM	08/19/08 21:51	II080811-3	.5	U	.549	mg/L	109.8	70	130			
L70984-01LFMD	LFMD	08/19/08 21:55	II080811-3	.5	U	.537	mg/L	107.4	70	130	2.21	20	
L70999-02LFM	LFM	08/19/08 22:36	II080811-3	.5	U	.547	mg/L	109.4	70	130			
L70999-02LFMD	LFMD	08/19/08 22:40	II080811-3	.5	U	.545	mg/L	109	70	130	0.37	20	

Lisbon Valley Mining Company, LLC

ACZ Project ID: **L70867**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION	
L70867-01	WG249958	Fluoride	SM4500F-C	D1	Sample required dilution due to matrix.	
			SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.	
	WG249346	pH	SM4500H+ B	EB	A pH value outside the range of the probe standardization is estimated.	
				QA	Sample container with preservation type specified by the method was not available for analysis. Alternate sample container was used.	
			SM4500H+ B	EB	A pH value outside the range of the probe standardization is estimated.	
				QA	Sample container with preservation type specified by the method was not available for analysis. Alternate sample container was used.	
			pH measured at	SM4500H+ B	EB	A pH value outside the range of the probe standardization is estimated.
				SM4500H+ B	QA	Sample container with preservation type specified by the method was not available for analysis. Alternate sample container was used.
	WG249600	Residue, Filterable (TDS) @180C	SM2540C	H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.	
			SM2540C	ZO	TDS concentration is based on a final residue greater than 200 mg.	

Lisbon Valley Mining Company, LLC

Project ID:

Sample ID: LEACH SOLUTION

Locator:

ACZ Sample ID: **L70867-01**

Date Sampled: 07/30/08 14:08

Date Received: 07/31/08

Sample Matrix: *Leachate*

Gross Alpha & Beta, total

Prep Method:

M9310

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	08/26/08 15:24		1800	230	58	pCi/L		ckt
Gross Beta	08/26/08 15:24		1800	150	110	pCi/L		ckt

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Error(+/-)</i>	Calculated sample specific uncertainty
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>LCL</i>	Lower Control Limit, in % (except for LCSS, mg/Kg)
<i>LLD</i>	Calculated sample specific Lower Limit of Detection
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
<i>RER</i>	Relative Error Ratio, calculation used for Dup. QC taking into account the error factor.
<i>UCL</i>	Upper Control Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>DUP</i>	Sample Duplicate	<i>MS/MSD</i>	Matrix Spike/Matrix Spike Duplicate
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBS</i>	Prep Blank - Soil
<i>LCSW</i>	Laboratory Control Sample - Water	<i>PBW</i>	Prep Blank - Water

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Matrix Spikes	Determines sample matrix interferences, if any.

ACZ Qualifiers (Qual)

H	Analysis exceeded method hold time.
R	Poor spike recovery accepted because the other spike in the set fell within the given limits.
T	High Replicate Error Ratio (RER) accepted because sample concentrations are less than 10x the MDL.
U	No nuclides detected above the Lower Limit of Detection (LLD)
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
X	QC is out of control. See Case Narrative.
Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.

Method Prefix Reference

M	EPA methodology, including those under SDWA, CWA, and RCRA
SM	Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.
D	ASTM
RP	DOE
ESM	DOE/ESM

Comments

- (1) Solid matrices are reported on a dry weight basis.
- (2) Preparation method: "Method" indicates preparation defined in analytical method.
- (3) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.

Lisbon Valley Mining Company, LLC
 Project ID:

ACZ Project ID: **L70867**

Alpha		M9310										pCi/L				
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
WG250613																
WG250280PBW	PBW	08/26/08						0	0.64	0.82			1.64			
WG250280LCSW	LCSW	08/26/08	RC071024-1	81.06				77	7.2	1.3	95	53	143			
L71097-03DUP	DUP-RER	08/26/08			7.1	3.4	2.4	17	4.8	2.4				1.68	2	
L71178-05DUP	DUP-RER	08/26/08			11	4.8	3.1	21	6.4	3.3				1.25	2	
L71097-06MS	MS	08/26/08	RC071024-1	81.06	3.5	2.5	2	96	9.7	1.9	114.1	53	143			

Beta		M9310										pCi/L				
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
WG250613																
WG250280PBW	PBW	08/26/08						.62	1.7	2.5			5			
WG250280LCSW	LCSW	08/26/08	PCN28739	100				86	6	3.8	86	65	113			
L71097-03DUP	DUP-RER	08/26/08			5.2	3.1	4.2	13	3.9	4.2				1.57	2	
L71178-05DUP	DUP-RER	08/26/08			29	6.3	6.4	53	7.1	6.5				2.53	2	N1
L71212-01MS	MS	08/26/08	PCN28739	100	35	5	4.5	120	7.7	4.4	85	65	113			

Lisbon Valley Mining Company, LLC

ACZ Project ID: **L70867**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
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No extended qualifiers associated with this analysis

Lisbon Valley Mining Company, LLC

ACZ Project ID: **L70867****Metals Analysis****The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.**

Aluminum, total	M200.7 ICP
Arsenic, total	M200.8 ICP-MS
Barium, total	M200.7 ICP
Cadmium, total	M200.8 ICP-MS
Calcium, dissolved	M200.7 ICP
Chromium, total	M200.7 ICP
Copper, total	M200.7 ICP
Iron, total	M200.7 ICP
Lead, total	M200.8 ICP-MS
Magnesium, dissolved	M200.7 ICP
Manganese, total	M200.7 ICP
Mercury, total	M245.1 CVAA
Nickel, total	M200.7 ICP
Selenium, total	M200.8 ICP-MS
Silver, total	M200.7 ICP
Sodium, dissolved	M200.7 ICP
Uranium, total	M200.8 ICP-MS
Vanadium, total	M200.7 ICP
Zinc, total	M200.7 ICP

Wet Chemistry**The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.**

Fluoride	SM4500F-C
Lab Filtration	SM 3030 B
Lab Filtration & Acidification	SM 3030 B
pH (lab)	SM4500H+ B
Residue, Filterable (TDS) @180C	SM2540C
Sulfate	SM4500 SO4-D

Lisbon Valley Mining Company, LLC

ACZ Project ID: L70867
 Date Received: 7/31/2008
 Received By:
 Date Printed: 7/31/2008

Receipt Verification

	YES	NO	NA	
1) Does this project require special handling procedures such as CLP protocol?			X	
2) Are the custody seals on the cooler intact?			X	
3) Are the custody seals on the sample containers intact?			X	
4) Is there a Chain of Custody or other directive shipping papers present?	X			
5) Is the Chain of Custody complete?	X			
6) Is the Chain of Custody in agreement with the samples received?	X			
7) Is there enough sample for all requested analyses?		X		
8) Are all samples within holding times for requested analyses?	X			
9) Were all sample containers received intact?	X			
10) Are the temperature blanks present?				X
11) Are the trip blanks (VOA and/or Cyanide) present?				X
12) Are samples requiring no headspace, headspace free?				X
13) Do the samples that require a Foreign Soils Permit have one?				X

Exceptions: If you answered no to any of the above questions, please describe

RA226 and RA228 could not be run due to not enough sample volume.

Contact (For any discrepancies, the client must be contacted)

The client was not contacted.

Shipping Containers

Cooler Id	Temp (°C)	Rad (µR/hr)
2252	2.4	15

Client must contact ACZ Project Manager if analysis should not proceed for samples received outside of thermal preservation acceptance criteria.

Notes

Lisbon Valley Mining Company, LLC

ACZ Project ID: L70867
 Date Received: 7/31/2008
 Received By:

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y < 2	YG < 2	B < 2	O < 2	T > 12	N/A	RAD	ID
L70867-01	LEACH SOLUTION	Y			Y							<input type="checkbox"/>

Sample Container Preservation Legend

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
B	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
O	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Y	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 µR/hr

* pH check performed by analyst prior to sample preparation

Sample IDs Reviewed By: _____

L70867

Lisbon Valley Mining Co. P.O. Box 248 920 S. County Rd. 313 La Sal, Utah 84530 Phone: (435) 686-9950				Chain of Custody Record Send report with laboratory QA to: 920 S County Rd 313 La Sal, Utah 84530			
Lisbon Valley Copper Project			ANALYSES (M200)			ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO (970) 879-6590	
SAMPLE NUMBER	DATE	TIME					Number of Containers 4
LEACH SOLUTION 7-30-08 2:48						Remarks / Comments 4 BOTTLES IN BAG LABELED LEACH SOLUTION	
Sampled By:			Total Number of Containers			4	
Sampler's Signature			Contact Person: Lantz M Indergard Phone: (435) 686-9950 ext. 226 Fax: (435) 686-2223				
Relinquished By: Lantz Indergard		Date / Time: 7-30-08 2:00		Received By:		Date / Time: 7-31-08 10:58	
Method of Shipment: UPS			Comments: ANALYZE GENERAL M200 SEE EMAIL TO SEE				