



March 28, 2014

Russ Means, Senior Environmental Protection Specialist Division of Reclamation, Mining and Safety Grand Junction Field Office 101 South 3rd St., Suite 301 Grand Junction, CO 81501

RE: Camp Bird Mine, Permit M-1982-090, Data Submittal

Dear Mr. Means,

On behalf of Camp Bird Colorado, Inc. (CBCI), Reardon Steel LLC (RSL) is providing the Division of Reclamation, Mining and Safety (Division) with the following information:

- A summary spreadsheet of sampling events during 2012-2014 including a key to correlate sample identification in the analytical reports with sample locations.
- A site map identifying water and solids sampling locations.
- Water quality results from quarterly and bi-monthly sampling as required under TR-04, dating from 2012 to the present.
- Solids and leachate results of tailings and waste rock per the Divisions request of the same on December 18, 2013.

Please contact CBCI if you have any questions.

Sincerely;

Mike Thompson Principal/Reardon Steel LLC

Enclosures:

Summary of Sampling Events at the Camp Bird Mine (1 page)
Map of Sampling Locations at Camp Bird Mine (1 page)
ACZ Laboratories, Inc. Analytical Report, Project ID: L95717 (22 pages)
ACZ Laboratories, Inc. Analytical Report, Project ID: L97071 (22 pages)
ACZ Laboratories, Inc. Analytical Report, Project ID: L97415 (18 pages)
ACZ Laboratories, Inc. Analytical Report, Project ID: L98049 (40 pages)
ACZ Laboratories, Inc. Analytical Report, Project ID: L10356 (26 pages)
ACZ Laboratories, Inc. Analytical Report, Project ID: L11281 (18 pages)
ACZ Laboratories, Inc. Analytical Report, Project ID: L11281 (18 pages)
ACZ Laboratories, Inc. Analytical Report, Project ID: L11295 (18 pages)
ACZ Laboratories, Inc. Analytical Report, Project ID: L12162 (37 pages)
ACZ Laboratories, Inc. Analytical Report, Project ID: L13488 (44 pages)
ACZ Laboratories, Inc. Analytical Report, Project ID: L14633 (26 pages)
ACZ Laboratories, Inc. Analytical Report, Project ID: L14633 (26 pages)
ACZ Laboratories, Inc. Analytical Report, Project ID: L16679 (33 pages)
ACZ Laboratories, Inc. Analytical Report, Project ID: L16679 (33 pages)
ACZ Laboratories, Inc. Analytical Report, Project ID: L16884 (55 pages)

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ACZ Laboratories, Inc. Analytical Report, Project ID: L16885 (37 pages)

Ec: Scott Butters, President, Camp Bird Colorado, Inc. Tony Waldron, DRMS Minerals Supervisor, Denver Wally Erickson, DRMS Environmental Protection Specialist, Durango



Summary of Sampling Events at the Camp Bird Mine (M-1982-090)

Sampling Event	Date	Sample Name/Identifier	Description	Data Package
Quarterly & Bi-monthly WQ	7/17/2012	CB Level 3*	3-Level portal*	L95717
Quarterly & Bi-monthly wQ	//1//2012	CB Level 14	14-Level portal	L93717
Bi-monthly WQ	9/30/2012	CB-CDPS001-093012	14-Level portal	L97071
Quarterly WQ	10/15/2012	CB-Level-3-10152012*	3-Level portal*	L97415
		CB-01	Canyon Creek	
		CB-02	Sneffels Creek	
Quarterly & Bi-monthly WQ	11/27/2012	CB-03	14-Level portal	L98049
		CB-04	settling pond outflow	
		CB-05	Imogene Creek	
		CB-01	Canyon Creek	
Quarterly & Bi-monthly WQ	1/23/2013	CB-03	14-Level portal	L10356
		CB-04	settling pond outflow	
	3/25/2013	CB-03-032513	14-Level portal	L11281
Bi-monthly WQ	3/26/2013	CB-04-032613	settling pond outflow	L11295
		A-052013	Canyon Creek	
		B-052013	Sneffels Creek	
Quarterly & Bi-monthly WQ	5/20/2013	C-052013	Imogene Creek	L12162
		D-052013	settling pond outflow	
		E-052013	14-level portal	
		CB-A	Canyon Creek	
		CB-B	Sneffels Creek	
	- ((CB-C	Imogene Creek	
Quarterly & Bi-monthly WQ	7/24/2012	CB-D	settling pond outflow	L13488
		CB-E	14-Level portal	
		CB-F*	3-Level portal*	
		CB-D	settling pond outflow	
Bi-monthly WQ	9/24/2013	CB-E	14-Level portal	L14633
		CB-A	settling pond outflow	
		CB-B	14-Level portal	
Quarterly & Bi-monthly WQ	11/26/2013	CB-C	Sneffels Creek	L15777
, , ,		CB-D	Canyon Creek	
		CB-E	Imogene Creek	
		CB-A	settling pond outflow	
		СВ-В	14-Level portal	
Quarterly & Bi-monthly WQ	1/31/2014	CB-C	Sneffels Creek	L16679
		CB-D	Canyon Creek	
		Pond Fill #1	composite of pond fill material	
		Pond Fill #2	composite of pond fill material	
Solids and Leachate Analysis	- (- (Pond Fill #3	composite of pond fill material	
requested by DRMS on Dec.	2/9/2014	Pond Fill #4	composite of pond fill material	L16884
18, 2013		Shop 1	composite of fill excavated for shop	
		Shop 2	composite of fill excavated for shop	
Solids and Leachate Analysis	1	PDH-025	composite of tailings drill hole PDH-025	
requested by DRMS on Dec.	2/9/2014	PDH-038	composite of tailings drill hole PDH-038	L16885
18, 2013	2, 3, 2014	PDH-049	composite of tailings drill hole PDH-049	

* Sample location is outside of permit boundary



Sources

Aerial Photography: August 2011, USDA NAIP, 1m resolution; August 7, 2011, RSL Mosaic from Google Earth, 6" resolution Permit Boundary: February 2000, Camp Bird Permit Boundary and Current Site Conditions (Figure 5 of February 2000 Technical Revision) All Other Boundaries: Approximated based on aerial photography and visual observations of site conditions.

Map of Sampling Locations at Camp Bird Mine Enclosed with Data Submittal to Division of Reclamation Mining and Safety, March 28, 2014. Map Prepared For: Camp Bird Colorado, Inc. P.O. Box 806, Salt Lake City, UT 84110 Map Prepared By: Reardon Steel LLC 18050 Rd G, Cortez, CO 81321; (970) 565-0278 1:2000 600 400 100 200 ⊐ ft 1 in = 167 ft Canyon Creek sampling location LEGEND permit boundary settling pond buried discharge pipe suspended discharge pipe \otimes

water sampling location

solids sample location

 \otimes



Analytical Report

August 13, 2012

Report to: John Bryan Watley Group LLC 8439 Sunset Blvd. Suite 402 West Hollywood, CA 90069

cc: Mike Thompson

Bill to: John Bryan Watley Group LLC 8439 Sunset Blvd. Suite 402 West Hollywood, CA 90069

Project ID: ACZ Project ID: L95717

John Bryan:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on July 18, 2012. This project has been assigned to ACZ's project number, L95717. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L95717. 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 September 13, 2012. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/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 raw data reports for ten years.

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

Tony Antalek has reviewed and approved this report.







August 13, 2012

Project ID: ACZ Project ID: L95717

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 2 miscellaneous samples from Watley Group LLC on July 18, 2012. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L95717. 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 except those qualified with an ACZ 'H' flag were performed within EPA recommended holding times.

Sample Analysis

These samples were analyzed for inorganic, organic and radiochemistry parameters. The individual methods are referenced on both the ACZ invoice and the analytical reports.



Project ID: Sample ID:

CBLEVEL3-071712

Inorganic Analytical Results

ACZ Sample ID: **L95717-01** Date Sampled: 07/17/12 08:30 Date Received: 07/18/12 Sample Matrix: Surface Water

Inorganic Prep									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acidify and filter (Potentially Dissolved)	Colorado 5 CCR 1002-31.5.31 (2009)							07/19/12 14:36	mfm
Cyanide, total	M335.4 - Manual Distillation							07/30/12 11:44	las
Cyanide, WAD	SM4500-CN I- distillation							07/29/12 17:51	jlf
Nitrogen, total Kjeldahl	M351.2 - Block Digestor							07/27/12 11:49	tcd
Phenol	420.4, Manual Distillation							08/06/12 12:40	bsu/mp b
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion							07/26/12 13:43	lhb
Total Hot Plate Digestion	M200.2 ICP			*				07/27/12 9:34	mfm
Total Hot Plate Digestion	M200.2 ICP-MS							07/26/12 11:19	mfm
Total Recoverable Digestion	M200.2 ICP			*				07/27/12 10:08	mfm
Total Recoverable Digestion	M200.2 ICP-MS							07/20/12 16:56	mfm



Project ID: Sample ID:

CBLEVEL3-071712

Inorganic Analytical Results

ACZ Sample ID: **L95717-01** Date Sampled: 07/17/12 08:30 Date Received: 07/18/12 Sample Matrix: Surface Water

Metals Analysis								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.8 ICP-MS	0.004	В	mg/L	0.001	0.005	07/31/12 20:31	msh
Arsenic, total	M200.8 ICP-MS	0.0018		mg/L	0.0002	0.001	07/27/12 3:17	pmc
Boron, total	M200.7 ICP		U	mg/L	0.05	0.3	07/27/12 20:02	aeb
Cadmium, total recoverable	M200.8 ICP-MS	0.0001	В	mg/L	0.0001	0.0005	07/23/12 18:15	msh
Calcium, dissolved	M200.7 ICP	17.8		mg/L	0.2	1	07/24/12 1:38	aeb
Chromium, total	M200.8 ICP-MS		U	mg/L	0.0005	0.002	07/27/12 3:17	pmc
Chromium, total recoverable	M200.8 ICP-MS		U	mg/L	0.0005	0.002	07/23/12 18:15	msh
Chromium, Trivalent	Calculation (Total - Hexavalent)		U	mg/L	0.0005	0.002	08/13/12 0:00	calc
Cobalt, total	M200.8 ICP-MS	0.00005	В	mg/L	0.00005	0.0003	07/27/12 3:17	pmc
Copper, potentially dissolved	M200.8 ICP-MS	0.0017	В	mg/L	0.0005	0.003	07/25/12 1:46	pmc
Copper, total recoverable	M200.8 ICP-MS	0.0011	В	mg/L	0.0005	0.003	07/23/12 18:15	msh
Iron, dissolved	M200.7 ICP		U	mg/L	0.02	0.05	07/24/12 1:38	aeb
Iron, total recoverable	M200.7 ICP		U	mg/L	0.1	0.3	07/30/12 11:28	aeb
Lead, potentially dissolved	M200.8 ICP-MS	0.0012	*	mg/L	0.0001	0.0005	07/25/12 1:46	pmc
Lead, total recoverable	M200.8 ICP-MS	0.0018		mg/L	0.0001	0.0005	07/23/12 18:15	msh
Magnesium, dissolved	M200.7 ICP	0.6	В	mg/L	0.2	1	07/24/12 1:38	aeb
Manganese, dissolved	M200.7 ICP		U	mg/L	0.005	0.03	07/24/12 1:38	aeb
Manganese, total recoverable	M200.7 ICP		U	mg/L	0.03	0.1	07/27/12 18:12	aeb
Mercury, dissolved	M245.1 CVAA		U	mg/L	0.0002	0.001	08/03/12 17:08	erf
Mercury, total	M245.1 CVAA		U *	mg/L	0.0002	0.001	08/03/12 18:38	erf
Nickel, potentially dissolved	M200.7 ICP		U	mg/L	0.01	0.05	07/20/12 2:44	aeb
Nickel, total recoverable	M200.7 ICP		U	mg/L	0.05	0.3	07/27/12 18:12	aeb
Selenium, total recoverable	M200.8 ICP-MS	0.0002	В	mg/L	0.0001	0.0003	07/23/12 18:15	msh
Silver, potentially dissolved	M200.8 ICP-MS		U	mg/L	0.00005	0.0003	07/25/12 1:46	pmc
Silver, total recoverable	e M200.8 ICP-MS		U	mg/L	0.00005	0.0003	07/24/12 20:13	msh
Uranium, total recoverable	M200.8 ICP-MS	0.0003	В	mg/L	0.0001	0.0005	07/23/12 18:15	msh
Zinc, potentially dissolved	M200.7 ICP	0.04	В	mg/L	0.01	0.05	07/20/12 2:44	aeb
Zinc, total recoverable	M200.7 ICP		U	mg/L	0.05	0.3	07/27/12 18:12	aeb



Project ID:

Sample ID: CBLEVEL3-071712

Inorganic Analytical **Results**

ACZ Sample ID: L95717-01 Date Sampled: 07/17/12 08:30 Date Received: 07/18/12 Sample Matrix: Surface Water

Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3		27			mg/L	2	20	07/20/12 0:00	jad
Carbonate as CaCO3			U		mg/L	2	20	07/20/12 0:00	jad
Hydroxide as CaCO3			U		mg/L	2	20	07/20/12 0:00	jad
Total Alkalinity		27			mg/L	2	20	07/20/12 0:00	jad
Biochemical Oxygen Demand (5 day)	SM5210B		U	*	mg/L	2	2	07/18/12 12:54	jad
Chemical Oxygen Demand	M410.4		U	*	mg/L	10	20	07/20/12 11:42	abm
Chloride	SM4500CI-E		U	*	mg/L	1	5	08/01/12 12:17	' lhb
Coliforms, fecal	SM9222D - Membrane Filter	4	Н	*	#/100ml	1	1	07/18/12 12:23	abm
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	07/30/12 17:14	lhb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	07/30/12 16:40	lhb
Dissolved Chromium, Hexavalent	SM3500Cr-D		UH	*	mg/L	0.005	0.02	07/18/12 12:26	i las
Fluoride	SM4500F-C		U	*	mg/L	0.1	0.5	07/26/12 13:01	las
Hardness as CaCO3	SM2340B - Calculation	47			mg/L	1	7	08/13/12 0:00	calc
Lab Filtration (0.45um) & Acidification	M200.7/200.8							07/18/12 16:40	mfm
Lab Filtration (glass fiber filter)	SOPWC050							07/18/12 13:55	abm
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2	0.38			mg/L	0.02	0.1	08/13/12 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	0.38			mg/L	0.02	0.1	07/18/12 23:46	i pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U		mg/L	0.01	0.05	07/18/12 23:19) pjb
Nitrogen, ammonia	M350.1 - Automated Phenate		U	*	mg/L	0.05	0.5	08/03/12 15:49	tcd
Nitrogen, organic	M351.2 & M350.1 - TKN minus NH3		U		mg/L	0.1	0.5	08/13/12 0:00	calc
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester		U	*	mg/L	0.1	0.5	07/28/12 13:26	i pjb
Phenol	420.4, Manual Distillation		U	*	mg/L	0.003	0.02	08/07/12 10:00	tcd
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	0.01	В		mg/L	0.01	0.05	07/26/12 22:34	pjb
Residue, Filterable (TDS) @180C	SM2540C	50			mg/L	10	20	07/24/12 15:17	' ljr
Residue, Non- Filterable (TSS) @105C	SM2540D		U	*	mg/L	5	20	07/20/12 12:24	mla
Sulfate	D516-02 - Turbidimetric	21		*	mg/L	1	5	08/03/12 12:00	lhb
Sulfide as S	SM4500S2-D		U	*	mg/L	0.02	0.1	07/19/12 12:38	s mla



Project ID: Sample ID:

CBLEVEL14-071712

Inorganic Analytical Results

ACZ Sample ID: L95717-02 Date Sampled: 07/17/12 10:00 Date Received: 07/18/12 Sample Matrix: Surface Water

In	organic Prep									
Pa	arameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
	cidify and filter otentially Dissolved)	Colorado 5 CCR 1002-31.5.31 (2009)							07/19/12 14:45	mfm
C	/anide, total	M335.4 - Manual Distillation							07/30/12 11:52	las
C	yanide, WAD	SM4500-CN I- distillation							07/29/12 19:32	jlf
N	trogen, total Kjeldahl	M351.2 - Block Digestor							07/27/12 12:00	tcd
Pl	nenol	420.4, Manual Distillation							08/06/12 13:09	bsu/mp b
Pl	nosphorus, total	M365.1 - Auto Ascorbic Acid Digestion							07/26/12 13:50	lhb
	otal Hot Plate gestion	M200.2 ICP			*				07/27/12 9:45	mfm
	otal Hot Plate gestion	M200.2 ICP-MS							07/26/12 11:31	mfm
	otal Recoverable gestion	M200.2 ICP			*				07/27/12 10:23	mfm
	otal Recoverable gestion	M200.2 ICP-MS							07/20/12 17:39	mfm



Project ID: Sample ID:

CBLEVEL14-071712

Inorganic Analytical Results

ACZ Sample ID: **L95717-02** Date Sampled: 07/17/12 10:00 Date Received: 07/18/12 Sample Matrix: Surface Water

Metals Analysis								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.8 ICP-MS	0.011		mg/L	0.001	0.005	07/31/12 20:35	msh
Arsenic, total	M200.8 ICP-MS	0.0012		mg/L	0.0002	0.001	07/27/12 3:20	pmc
Boron, total	M200.7 ICP	0.03	В	mg/L	0.02	0.1	07/27/12 20:05	aeb
Cadmium, total recoverable	M200.8 ICP-MS	0.0015		mg/L	0.0001	0.0005	07/23/12 18:31	msh
Calcium, dissolved	M200.7 ICP	219		mg/L	0.2	1	07/25/12 22:04	aeb
Chromium, total	M200.8 ICP-MS		U	mg/L	0.0005	0.002	07/27/12 3:20	pmc
Chromium, total recoverable	M200.8 ICP-MS		U	mg/L	0.0005	0.002	07/23/12 18:31	msh
Chromium, Trivalent	Calculation (Total - Hexavalent)		U	mg/L	0.0005	0.002	08/13/12 0:00	calc
Cobalt, total	M200.8 ICP-MS	0.00071		mg/L	0.00005	0.0003	07/27/12 3:20	pmc
Copper, potentially dissolved	M200.8 ICP-MS	0.0212		mg/L	0.0005	0.003	07/25/12 1:49	pmc
Copper, total recoverable	M200.8 ICP-MS	0.0229		mg/L	0.0005	0.003	07/23/12 18:31	msh
Iron, dissolved	M200.7 ICP		U	mg/L	0.02	0.05	07/25/12 22:04	aeb
Iron, total recoverable	M200.7 ICP	0.30		mg/L	0.04	0.1	07/30/12 11:31	aeb
Lead, potentially dissolved	M200.8 ICP-MS	0.0034	*	mg/L	0.0001	0.0005	07/25/12 1:49	pmc
Lead, total recoverable	M200.8 ICP-MS	0.0038		mg/L	0.0001	0.0005	07/23/12 18:31	msh
Magnesium, dissolved	M200.7 ICP	3.2		mg/L	0.2	1	07/25/12 22:04	aeb
Manganese, dissolved	M200.7 ICP	0.117		mg/L	0.005	0.03	07/25/12 22:04	aeb
Manganese, total recoverable	M200.7 ICP	0.12		mg/L	0.01	0.05	07/27/12 18:15	aeb
Mercury, dissolved	M245.1 CVAA		U	mg/L	0.0002	0.001	08/03/12 17:11	erf
Mercury, total	M245.1 CVAA		U *	mg/L	0.0002	0.001	08/03/12 18:40	erf
Nickel, potentially dissolved	M200.7 ICP		U	mg/L	0.01	0.05	07/20/12 2:53	aeb
Nickel, total recoverable	M200.7 ICP		U	mg/L	0.02	0.1	07/27/12 18:15	aeb
Selenium, total recoverable	M200.8 ICP-MS	0.0006		mg/L	0.0001	0.0003	07/23/12 18:31	msh
Silver, potentially dissolved	M200.8 ICP-MS		U	mg/L	0.00005	0.0003	07/25/12 1:49	pmc
Silver, total recoverable	e M200.8 ICP-MS		U	mg/L	0.00005	0.0003	07/24/12 20:23	msh
Uranium, total recoverable	M200.8 ICP-MS	0.0006		mg/L	0.0001	0.0005	07/23/12 18:31	msh
Zinc, potentially dissolved	M200.7 ICP	0.39		mg/L	0.01	0.05	07/20/12 2:53	aeb
Zinc, total recoverable	M200.7 ICP	0.39		mg/L	0.02	0.1	07/27/12 18:15	aeb



Project ID: Sample ID:

D: D: CBLEVEL14-071712

Inorganic Analytical Results

ACZ Sample ID: **L95717-02** Date Sampled: 07/17/12 10:00 Date Received: 07/18/12 Sample Matrix: Surface Water

Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3		44			mg/L	2	20	07/20/12 0:00	jad
Carbonate as CaCO3			U		mg/L	2	20	07/20/12 0:00	jad
Hydroxide as CaCO3			U		mg/L	2	20	07/20/12 0:00	jad
Total Alkalinity		44			mg/L	2	20	07/20/12 0:00	jad
Biochemical Oxygen Demand (5 day)	SM5210B		U	*	mg/L	2	2	07/18/12 13:04	jad
Chemical Oxygen Demand	M410.4		U	*	mg/L	10	20	07/20/12 11:49	abm
Chloride	SM4500CI-E		U	*	mg/L	1	5	08/01/12 12:17	lhb
Coliforms, fecal	SM9222D - Membrane Filter	0	Н	*	#/100ml	1	1	07/18/12 12:27	abm
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	07/30/12 17:15	lhb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	07/30/12 16:41	lhb
Dissolved Chromium, Hexavalent	SM3500Cr-D		UH	*	mg/L	0.005	0.02	07/18/12 12:28	las
Fluoride	SM4500F-C	1.1		*	mg/L	0.1	0.5	07/26/12 13:05	las
Hardness as CaCO3	SM2340B - Calculation	561			mg/L	1	7	08/13/12 0:00	calc
Lab Filtration (0.45um) & Acidification	M200.7/200.8							07/18/12 16:40	mfm
Lab Filtration (glass fiber filter)	SOPWC050							07/18/12 13:56	abm
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2	0.08	В		mg/L	0.02	0.1	08/13/12 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	0.08	В		mg/L	0.02	0.1	07/18/12 23:22	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U		mg/L	0.01	0.05	07/18/12 23:22	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate		U	*	mg/L	0.05	0.5	08/03/12 15:52	tcd
Nitrogen, organic	M351.2 & M350.1 - TKN minus NH3		U		mg/L	0.1	0.5	08/13/12 0:00	calc
Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester		U	*	mg/L	0.1	0.5	07/28/12 13:27	pjb
Phenol	420.4, Manual Distillation		U	*	mg/L	0.003	0.02	08/07/12 10:01	tcd
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	0.01	В		mg/L	0.01	0.05	07/26/12 22:35	pjb
Residue, Filterable (TDS) @180C	SM2540C	810		*	mg/L	10	20	07/20/12 16:27	abm
Residue, Non- Filterable (TSS) @105C	SM2540D		U	*	mg/L	5	20	07/20/12 12:26	mla
Sulfate	D516-02 - Turbidimetric	490		*	mg/L	20	100	08/03/12 12:46	lhb
Sulfide as S	SM4500S2-D		U	*	mg/L	0.02	0.1	07/19/12 12:39	mla



2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Report Header Explanations

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

QC Sample Types

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

В	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
Н	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value.
	The associated value is either the sample quantitation limit or the sample detection limit.

Method Refe	rences
(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.
(4)	EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
(5)	Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995 & 20th edition (1998).
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.
(4)	An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier
	associated with the result.

For a complete list of ACZ's Extended Qualifiers, please click:

http://www.acz.com/public/extquallist.pdf

4C: **AGZ** Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487

(800) 334-5493

Watley Group LLC

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L95717-01	WG327150	Total Hot Plate Digestion	M200.2 ICP	DJ	Sample dilution required due to insufficient sample.
	WG327149	Total Recoverable Digestion	M200.2 ICP	DJ	Sample dilution required due to insufficient sample.
	WG326943	Lead, potentially dissolved	M200.8 ICP-MS	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG327591	Mercury, total	M245.1 CVAA	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG326456	Biochemical Oxygen Demand (5 day)	SM5210B	HF	BOD analysis performed outside of 24-hour hold time stated in the method but within 48-hour hold time stated in 40 CFR.
	WG326634	Chemical Oxygen Demand	M410.4	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M410.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG327464	Chloride	SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG327324	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG327318	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG326464	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG327082	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG327620	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG327248	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG327731	Phenol	420.4, Manual Distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG326667	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG327604	Sulfate	D516-02 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG326561	Sulfide as S	SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

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Watley Group LLC

(800) 334-5493

Inorganic Extended Qualifier Report

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L95717-02	WG327150	Total Hot Plate Digestion	M200.2 ICP	DJ	Sample dilution required due to insufficient sample.
	WG327149	Total Recoverable Digestion	M200.2 ICP	DJ	Sample dilution required due to insufficient sample.
	WG326943	Lead, potentially dissolved			Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG327591	Mercury, total	M245.1 CVAA	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG326456	Biochemical Oxygen Demand (5 day)	SM5210B	HF	BOD analysis performed outside of 24-hour hold time stated in the method but within 48-hour hold time stated in 40 CFR.
	WG326634	Chemical Oxygen Demand	M410.4	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M410.4	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG327464	Chloride	SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG327324	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG327318	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG326464	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG327082	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG327620	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG327248	Nitrogen, total Kjeldahl	M351.2 - TKN by Block Digester	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG327731	Phenol	420.4, Manual Distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG326715	Residue, Filterable (TDS) @180C	SM2540C	B7	Target analyte detected in prep / method blank at or above acceptance limit. Sample value is > 10X the concentration in the method blank.
	WG326667	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG327604	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG326561	Sulfide as S	SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< $10x \text{ MDL}$).



Project ID: Sample ID: CBLEVEL3-071712 ACZ Sample ID: **L95717-01** Date Sampled: 07/17/12 8:30 Date Received: 07/18/12 Sample Matrix: Surface Water

Oil & Grease, Total Recoverable

Analysis Method: **1664A - Gravimetric** Extract Method:

Workgroup:	WG327322								
Analyst:	dhc								
Extract Date:									
Analysis Date:	07/30/12 9:11								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.042		mg/L	2.084	10.42



Project ID: Sample ID: CBLEVEL14-071712

ACZ Sample ID:	L95717-02
Date Sampled:	07/17/12 10:00
Date Received:	07/18/12
Sample Matrix:	Surface Water

Oil & Grease, Total Recoverable

Analysis Method: **1664A - Gravimetric** Extract Method:

Workgroup:	WG327322								
Analyst:	dhc								
Extract Date: Analysis Date:	07/30/12 9:24								
Analysis Date.	07/30/12 9.24								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.042		mg/L	2.084	10.42



Organic Reference

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

QC Sample Types								
	SURR	Surrogate	LFM	Laboratory Fortified Matrix				
	INTS	Internal Standard	LFMD	Laboratory Fortified Matrix Duplicate				
	DUP	Sample Duplicate	LRB	Laboratory Reagent Blank				
	LCSS	Laboratory Control Sample - Soil	MS/MSD	Matrix Spike/Matrix Spike Duplicate				
	LCSW	Laboratory Control Sample - Water	PBS	Prep Blank - Soil				
	LFB	Laboratory Fortified Blank	PBW	Prep Blank - Water				

 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.

ACZ Qualifiers (Qual) В Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity. Е Analyte concentration is estimated due to result exceeding calibration range. Н Analysis exceeded method hold time. pH is a field test with an immediate hold time. Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity. J L Target analyte response was below the laboratory defined negative threshold. Μ Poor spike recovery is accepted because sample concentration is four times greater than spike concentration. Р Analyte concentration differs from second detector by more than 40%. R Poor spike recovery accepted because the other spike in the set fell within the given limits. High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL. Т U The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. V High blank data accepted because sample concentration is 10 times higher than blank concentration. Х Quality control sample is out of control. Ζ Poor spike recovery is accepted because sample concentration is four times greater than spike concentration. lethod References (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.

(2)	EPA 600/4-90/020. Methods for the Determination of Organic Compounds in Drinking Water (I), July 1990.
(3)	EPA 600/R-92/129. Methods for the Determination of Organic Compounds in Drinking Water (II), July 1990.
(4)	EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
(5)	Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995 & 20th edition (1998).

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)	An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier
	associated with the result.

For a complete list of ACZ's Extended Qualifiers, please click:

http://www.acz.com/public/extquallist.pdf



ACZ ID WORKNUM PARAMETER METHOD QUA

QUAL DESCRIPTION

ACZ Project ID: L95717

No extended qualifiers associated with this analysis

ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493				RadioChemistry Analytical Results						
Watley Group LL Project ID: Sample ID: Locator:	-C CBLEVEL3-071712			Date Re	ampled	: 07/17 : 07/18	7/12 8:3			
Gross Alpha, total M9310							Pre	p Method:		
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst		
Gross Alpha, total Radium 226 + Alpha I	07/30/12 11:34 Emitting Radium Isotopes		1.1	1.6	1.6	pCi/L	* Pre	mla p Method:		
M9315										
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst		
Radium 226 + Alpha	08/02/12 15:30		0.69	0.35	1.2	pCi/L	*	thf		
Radium 228, total M9320							Pre	p Method:		
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst		
Radium 228, total	08/09/12 12:14		3.7	0.61	0.64	pCi/L		thf		

ACZ 2773 Downhill Drive	Laboratories, Steamboat Springs, CO 8048	Inc. 37 (800) 334-54	93			adioC alytic		stry sults
Watley Group LL Project ID: Sample ID: Locator:	-C CBLEVEL14-071712			ACZ San Date Sa Date Re Sample	ampled: eceived:	07/17 07/18	17-02 7/12 10: 3/12 ce Wat	
Gross Alpha, total M9310							Pre	p Method:
Parameter Gross Alpha, total	Measure Date 07/30/12 11:35	Prep Date	Result -0.81	Error(+/-) 1.7	LLD 2.4	Units pCi/L	XQ *	Analyst mla
	Emitting Radium Isotopes		-0.01	1.7	2.4	pci/L		p Method:
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 + Alpha	08/02/12 15:32		0.75	0.38	1.3	pCi/L	*	thf
Radium 228, total M9320							Pre	p Method:
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	08/09/12 12:14		2.7	0.55	1.3	pCi/L		thf



2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Report Header Explanations

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

QC Sample Types

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

QC Sample Type Explanations Blanks Verifies that there is

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)

н	Analysis exceeded method hold time.
R	Poor spike recovery accepted because the other spike in the set fell within the given limits.
т	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
Х	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

М	EPA methodology, including those under SDWA, CWA, and RCRA
SM	Standard Methods for the Examination of Water and Wastewater, 19th edition (1995) & 20th edition (1998).
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. (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result. For a complete list of ACZ's Extended Qualifiers, please click: http://www.acz.com/public/extquallist.pdf



RadChem Extended Qualifier Report

Watley Group LLC

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L95717-01	WG327357	Gross Alpha, total	M9310	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG327594	Radium 226 + Alpha Emitting Radium Isotopes	M9315	DJ	Sample dilution required due to insufficient sample.
L95717-02	WG327357	Gross Alpha, total	M9310	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG327594	Radium 226 + Alpha Emitting Radium Isotopes	M9315	DJ	Sample dilution required due to insufficient sample.



ACZ Project ID: L95717

Wet Chemistry

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

Coliforms, fecal Sulfide as S SM9222D - Membrane Filter SM4500S2-D

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Watley Group LLC	ACZ Proje			L95717
	Date Rece		7/18/201	
	Receive	•	7/	gac
Receipt Verification	Date Pri	ntea:	[]	19/2012
		YES	NO	NA
1) Is a foreign soil permit included for applicable samples?				Х
2) Is the Chain of Custody or other directive shipping papers present?		Х		
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time ana	lyses?	Х		
6) Is the Chain of Custody complete and accurate?		Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the sample	es?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		Х		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time	?	Х		
11) For preserved bottle types, was the pH checked and within limits?		Х		
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?			Х	
Some parameters were received past hold time.				
Chain of Custody Related Remarks				

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Rad ($\mu R/Hr$)	Custody Seal Intact?
3068	5.4	15	Yes
3363	4.4	15	Yes

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

	Mike Thomas y: Reardon Ste			-	Addre	ss:	<u>8050</u>		<u>1. G</u> 0 813	7/
E-mail:	mta censula			1	Telept	none:	<u>Corte</u> 970	<u>+, c</u> 426		
Copy of	Report to:			_						
Name:	John Bry	an			E-mail	l:	ibrya	n Q	watley	
Compan	y: Wmfley (From L	LC]	Telept	none: `	310	-77	<u>wafley</u> 7 - 888	39
Invoice t	/	/								
Name:	John Bryan	1			Addre	ss: 81	139	Sunsit	Blud	Ste_
	1 1	~	LC]	Ú.	st He	lywoo	N. C	A 900	69
E-mail:	ibryan Qu	1.4	com		Telept				8889	
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	CEINFORMATION					- È			Folation tipate	
Quote #:	Camp Bin	d - 54	J		S					
Project/PC	*				Containers		1 200	c c .	he fre	-
Reporting	state for compliance tes	ting:			onta		plea	SCI		
Check box	if samples include NRC	licensed materia	al?		of C		V-11-	an	He	
	EIDENTIFICATION	DATE		Matrix	t;			K		
CBL	evel 3-07171	2 07/17/1	2 08 30	SU				_		
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	14-071712	<u> 07/7/12</u>	1000	SW						
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							·			
~	SW (Surface Water) - G	(Ground Water)	WW (Waste V	Vater) · DV	V (Drinki	ng Water)	SL (Sludge)	SO (Soil)	OL (Oil) · Oth	er (Specif
		(Ground Water)	WW (Waste V	Vater) · DV	N (Drinkı	ng Water)	SL (Sludge)	SO (Soil)) · OL (Oil) · Oth	er (Spec
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Matrix										
Matrix										
Matrix										
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FRMAD050.02.11.11



October 30, 2012

Report to: John Bryan Watley Group LLC 8439 Sunset Blvd. Suite 402 West Hollywood, CA 90069

cc: Mike Thompson

Bill to: John Bryan Watley Group LLC 8439 Sunset Blvd. Suite 402 West Hollywood, CA 90069

Project ID: ACZ Project ID: L97071

John Bryan:

Enclosed are revised analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on October 02, 2012 and originally reported on October 16, 2012. Refer to the case narrative for an explanation of the changes. This project was assigned to ACZ's project number, L97071. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L97071. 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 November 16, 2012. 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.

Tony Antalek has reviewed and approved this report.





October 29, 2012

Project ID: ACZ Project ID: L97071

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 1 miscellaneous sample from Watley Group LLC on October 2, 2012. 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 L97071. 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 except those qualified with an ACZ 'H' flag were performed within EPA recommended holding times.

Sample Analysis

These samples were analyzed for inorganic parameters. The individual methods are referenced on both the ACZ invoice and the analytical reports. The extended qualifier reports may contain footnotes qualifying specific elements due to QC failures. In addition the following has been noted with this specific project:

1. This is a revised report for correction of Electrical Conductivity (EC) results. Although the EC meter was calibrated prior to analysis, it was somehow reset causing incorrect readings biased low while producing passing QC results. It is unclear how this problem propagated but it was confirmed to be isolated to a single analytical batch. Corrective actions have been implemented to ensure this anomaly does not recur.



Project ID: Sample ID:

CB-CDPS001-093012

Inorganic Analytical Results

ACZ Sample ID:	L97071-01
Date Sampled:	09/30/12 11:00
Date Received:	10/02/12
Sample Matrix:	Surface Water

Inorganic Prep								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date A	Analyst
Cyanide, total	M335.4 - Manual Distillation						10/09/12 12:37	lhb
Cyanide, WAD	SM4500-CN I- distillation						10/08/12 16:25	mpb
Total Hot Plate Digestion	M200.2 ICP						10/09/12 18:06	jjc
Total Hot Plate Digestion	M200.2 ICP-MS						10/10/12 12:16	mfm
Total Recoverable Digestion	M200.2 ICP-MS						10/05/12 13:36	mfm
Metals Analysis								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date A	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	0.023		mg/L	0.001	0.005	10/05/12 20:19	pmc
Arsenic, dissolved	M200.8 ICP-MS	0.0002	В	mg/L	0.0002	0.001	10/12/12 3:50	msh
Barium, dissolved	M200.7 ICP	0.016	В	mg/L	0.003	0.02	10/08/12 23:11	jjc
Beryllium, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	10/08/12 23:11	jjc
Boron, dissolved	M200.7 ICP	0.03	В	mg/L	0.01	0.05	10/08/12 23:11	jjc
Cadmium, dissolved	M200.8 ICP-MS	0.0008		mg/L	0.0001	0.0005	10/12/12 3:50	msh
Cadmium, total	M200.8 ICP-MS	0.0010		mg/L	0.0001	0.0005	10/11/12 2:07	pmc
Calcium, dissolved	M200.7 ICP	189		mg/L	0.2	1	10/08/12 23:11	jjc
Chromium, dissolved	M200.8 ICP-MS		U	mg/L	0.0005	0.002	10/12/12 3:50	msh
Chromium, total	M200.8 ICP-MS		U	mg/L	0.0005	0.002	10/11/12 2:07	pmc
Chromium, Trivalent	Calculation (Total - Hexavalent)		U	mg/L	0.0005	0.002	10/29/12 0:00	calc
Copper, dissolved	M200.8 ICP-MS	0.0021	В	mg/L	0.0005	0.003	10/12/12 3:50	msh
Copper, total	M200.8 ICP-MS	0.0097		mg/L	0.0005	0.003	10/11/12 2:07	pmc
Iron, dissolved	M200.7 ICP		U	mg/L	0.02	0.05	10/08/12 23:11	jjc
Iron, total	M200.7 ICP	0.17		mg/L	0.02	0.05	10/10/12 14:08	jjc
Lead, dissolved	M200.8 ICP-MS		U	mg/L	0.0001	0.0005	10/12/12 3:50	msh
Lead, total	M200.8 ICP-MS	0.0020		mg/L	0.0001	0.0005	10/11/12 2:07	pmc
Magnesium, dissolved	M200.7 ICP	2.9		mg/L	0.2	1	10/08/12 23:11	jjc
Manganese, dissolved	M200.7 ICP	0.096		mg/L	0.005	0.03	10/08/12 23:11	jjc
Manganese, total	M200.7 ICP	0.106		mg/L	0.005	0.03	10/10/12 14:08	jjc
Mercury, total	M245.1 CVAA		U	mg/L	0.0002	0.001	10/09/12 21:39	erf
Nickel, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	10/08/12 23:11	jjc
Nickel, total	M200.7 ICP		U	mg/L	0.01	0.05	10/10/12 14:08	jjc
Selenium, dissolved	M200.8 ICP-MS	0.0004		mg/L	0.0001	0.0003	10/12/12 3:50	msh
Silver, dissolved	M200.8 ICP-MS		U *	mg/L	0.00005	0.0003	10/12/12 3:50	msh
Silver, total	M200.8 ICP-MS		U	mg/L	0.00005	0.0003	10/11/12 2:07	pmc
Uranium, dissolved	M200.8 ICP-MS	0.0005	В	mg/L	0.0001	0.0005	10/12/12 3:50	msh
Uranium, total	M200.8 ICP-MS	0.0005		mg/L	0.0001	0.0005	10/11/12 2:07	pmc
Zinc, dissolved	M200.7 ICP	0.15		mg/L	0.01	0.05	10/08/12 23:11	jjc
Zinc, total	M200.7 ICP	0.25		mg/L	0.01	0.05	10/10/12 14:08	jjc

* Please refer to Qualifier Reports for details.



Project ID:

Sample ID: CB-CDPS001-093012

Inorganic Analytical Results

ACZ Sample ID: **L97071-01** Date Sampled: 09/30/12 11:00 Date Received: 10/02/12 Sample Matrix: Surface Water

Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as		63			mg/L	2	20	10/06/12 0:00	jad
CaCO3									
Carbonate as CaCO3			U		mg/L	2	20	10/06/12 0:00	jad
Hydroxide as CaCO3			U		mg/L	2	20	10/06/12 0:00	jad
Total Alkalinity		63		*	mg/L	2	20	10/06/12 0:00	jad
Chloride	SM4500CI-E		U	*	mg/L	1	5	10/11/12 11:48	
Conductivity @25C	SM2510B	1130			umhos/cm	1	10	10/26/12 17:05	,
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	10/10/12 11:01	mpb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	10/09/12 16:49	tcd
Dissolved Chromium, Hexavalent	SM3500Cr-D		UH	*	mg/L	0.005	0.02	10/03/12 9:34	ljr
Hardness as CaCO3	SM2340B - Calculation	484			mg/L	1	7	10/29/12 0:00	calc
Lab Filtration (0.45um) & Acidification	M200.7/200.8							10/03/12 12:18	mfm
Lab Filtration (glass fiber filter)	SOPWC050							10/02/12 16:13	las
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2	0.05	BH		mg/L	0.02	0.1	10/29/12 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	0.05	HB	*	mg/L	0.02	0.1	10/02/12 19:47	jlf
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		HU	*	mg/L	0.01	0.05	10/02/12 19:47	jlf
Nitrogen, ammonia	M350.1 - Automated Phenate		U	*	mg/L	0.05	0.5	10/10/12 18:25	mpb
pH (lab)	SM4500H+ B								
рН		8.0	Н		units	0.1	0.1	10/06/12 0:00	jad
pH measured at		20.0			С	0.1	0.1	10/06/12 0:00	jad
Residue, Filterable (TDS) @180C	SM2540C	900			mg/L	10	20	10/03/12 15:40	las
Residue, Non- Filterable (TSS) @105C	SM2540D	11	В	*	mg/L	5	20	10/04/12 16:15	abm
Sulfate	D516-02 - Turbidimetric	550		*	mg/L	20	80	10/11/12 15:51	lhb
Sulfide as S	SM4500S2-D		U	*	mg/L	0.02	0.1	10/02/12 16:44	las



Inorganic Reference

Found Va	planations	e enclosed at a and -10 - time -		
	-	s analyzed at a specific time		
	alue of the QC Type of			
	pper limit for RPD, in			
	, i i i i i i i i i i i i i i i i i i i	in % (except for LCSS, mg/Kg)	All	
		. Same as Minimum Reporting Limit.		
	-	reagents/standards to trace to the man	nutacturer's certifica	ate of analysis
		imit, typically 5 times the MDL.	0.1	
		rol Sample or the amount added to the	•	
		he true value or spike added, in % (ex		(Kg)
		ence, calculation used for Duplicate Q	C Types	
	alue of the Sample of	in % (except for LCSS, mg/Kg) interest		
C Sample Types		Discotion)	1.0014/0	Laboratory Control Comple - Water Duplicat
	nalytical Spike (Post D		LCSWD	Laboratory Control Sample - Water Duplicate
	nalytical Spike (Post D		LFB	Laboratory Fortified Blank
	ontinuing Calibration I		LFM	Laboratory Fortified Matrix
	ontinuing Calibration	verification standard	LFMD	Laboratory Fortified Matrix Duplicate
	ample Duplicate		LRB	Laboratory Reagent Blank
	itial Calibration Blank		MS	Matrix Spike
	itial Calibration Verific		MSD	Matrix Spike Duplicate
		n Standard - A plus B solutions	PBS	Prep Blank - Soil
	aboratory Control San		PBW	Prep Blank - Water
	aboratory Control San aboratory Control San		PQV SDL	Practical Quantitation Verification standard Serial Dilution
Duplicates Spikes/Fortified	I Matrix	Verifies the precision of the instrume Determines sample matrix interferer		
Standard		Verifies the validity of the calibration		
CZ Qualifiers (Qเ	ual)			
B A	nalyte concentration c	letected at a value between MDL and	PQL. The associat	ed value is an estimated quantity.
H A	nalysis exceeded met	hod hold time. pH is a field test with a	n immediate hold t	ime.
L Ta	arget analyte respons	e was below the laboratory defined ne	gative threshold.	
U TI	ne material was analy	zed for, but was not detected above th	ne level of the asso	ciated value.
TI	ne associated value is	s either the sample quantitation limit or	the sample detect	ion limit.
thod Reference	s			
(1) E	PA 600/4-83-020. Me	ethods for Chemical Analysis of Water	and Wastes, Marc	h 1983.
(2) E	PA 600/R-93-100. M	ethods for the Determination of Inorga	nic Substances in I	Environmental Samples, August 1993.
. ,	PA 600/R-94-111. M	ethods for the Determination of Metals	in Environmental S	Samples - Supplement I, May 1994.
	PA SW-846. Test Me	thods for Evaluating Solid Waste.		
(3) E				
(3) El (4) El	tandard Methods for t	he Examination of Water and Wastew	ater.	
(3) El (4) El	tandard Methods for t	he Examination of Water and Wastew	ater.	
(3) El (4) El (5) Si omments		he Examination of Water and Wastew om raw data. Results may vary slight		lues are used in the calculations.
(3) E (4) E (5) S omments (1)	C results calculated fr		ly if the rounded va	
(3) Ei (4) Ei (5) Si omments (1) (2) Si	C results calculated fr oil, Sludge, and Plant	rom raw data. Results may vary slight	ly if the rounded va ported on a dry we	
(3) EI (4) EI (5) Si omments (1) (2) Si (3) Ai	C results calculated fr oil, Sludge, and Plant nimal matrices for Ino	rom raw data. Results may vary slight matrices for Inorganic analyses are re	ly if the rounded va ported on a dry we s received" basis.	ight basis.
(3) EI (4) EI (5) Si (1) Q (2) Si (3) Ai (4) Ai	C results calculated fr oil, Sludge, and Plant nimal matrices for Ino	rom raw data. Results may vary slight matrices for Inorganic analyses are re rganic analyses are reported on an "a column indicates there is an extended	ly if the rounded va ported on a dry we s received" basis.	ight basis.
(3) EI (4) EI (5) Si (1) Q (2) Si (3) Ai (4) Ai	C results calculated fr oil, Sludge, and Plant nimal matrices for Ino n asterisk in the "XQ" ssociated with the res	rom raw data. Results may vary slight matrices for Inorganic analyses are re rganic analyses are reported on an "a column indicates there is an extended	ly if the rounded va ported on a dry we s received" basis. I qualifier and/or ce	ight basis. rtification qualifier

REP001.09.12.01



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Alkalinity as CaC	03			- Titration									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331591													
WG331591PBW1	PBW	10/06/12 10:06				U	mg/L		-20	20			
WG331591LCSW2	LCSW	10/06/12 10:20	WC121001-	820.0001		768.5	mg/L	93.7	90	110			
L97092-01DUP	DUP	10/06/12 13:49			82	81.6	mg/L				0.5	20	
WG331591PBW2	PBW	10/06/12 13:54				U	mg/L		-20	20			
WG331591LCSW5	LCSW	10/06/12 14:07	WC121001-	820.0001		778.2	mg/L	94.9	90	110			
WG331591PBW3	PBW	10/06/12 16:58				3.2	mg/L		-20	20			
WG331591LCSW8	LCSW	10/06/12 17:11	WC121001-	820.0001		765.7	mg/L	93.4	90	110			
WG331591PBW4	PBW	10/06/12 20:39				U	mg/L		-20	20			
WG331591LCSW11	LCSW	10/06/12 20:52	WC121001-	820.0001		766.8	mg/L	93.5	90	110			
WG331591LCSW14	LCSW	10/06/12 23:35	WC121001-	820.0001		779	mg/L	95	90	110			
Aluminum, total r	ecover	able	M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331597													
WG331597ICV	ICV	10/05/12 18:41	MS121001-5	.1		.1	mg/L	100	90	110			
WG331597ICB	ICB	10/05/12 18:44				U	mg/L		-0.003	0.003			
WG331515LRB	LRB	10/05/12 18:48				U	mg/L		-0.0022	0.0022			
WG331515LFB	LFB	10/05/12 18:51	MS120906-3	.050055		.05	mg/L	99.9	85	115			
_97065-06LFM	LFM	10/05/12 19:50	MS120906-3	.050055	.182	.2322	mg/L	100.3	70	130			
_97065-06LFMD	LFMD	10/05/12 19:53	MS120906-3	.050055	.182	.2325	mg/L	100.9	70	130	0.13	20	
Arsenic, dissolve	d		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331933													
WG331933ICV	ICV	10/12/12 2:26	MS121001-5	.05		.05393	mg/L	107.9	90	110			
WG331933ICB	ICB	10/12/12 2:20	11101210010	.00		U	mg/L	107.0	-0.0006	0.0006			
WG331933LFB	LFB	10/12/12 2:33	MS121009-6	.05005		.05152	mg/L	102.9	85	115			
_97082-01AS	AS	10/12/12 3:57	MS121009-6	.05005	.0044	.0632	mg/L	117.5	70	130			
_97082-01ASD	ASD	10/12/12 4:00	MS121009-6	.05005	.0044	.06421	mg/L	119.5	70	130	1.59	20	
Barium, dissolve	d		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331640													
WG331640ICV	ICV	10/08/12 21:25	II120914-1	2		2.002	ma/l	100.1	95	105			
WG331640ICB	ICB	10/08/12 21:23	11120914-1	2		2.002 U	mg/L mg/L	100.1	-0.009	0.009			
WG331640LFB	LFB	10/08/12 21:31	II121001-3	.5		.504	mg/L	100.8	-0.009	115			
L97068-01AS	AS	10/08/12 21:44	II121001-3	.5	.009	.504	mg/L	100.5	85 85	115			
_97068-01AS	ASD	10/08/12 22:39	II121001-3 II121001-3	.5	.009	.5145	mg/L	100.5	85 85	115	0.62	20	
		10/00/12 22.42			.009	.5145	iiig/L	101.1	85	115	0.02	20	
Beryllium, dissol			M200.7 IC			_							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331640													
WG331640ICV	ICV	10/08/12 21:25	II120914-1	2		1.992	mg/L	99.6	95	105			
WG331640ICB	ICB	10/08/12 21:31				U	mg/L		-0.03	0.03			
WG331640LFB	LFB	10/08/12 21:44	II121001-3	.5		.515	mg/L	103	85	115			
L97068-01AS	AS	10/08/12 22:39	II121001-3	.5	U	.5	mg/L	100	85	115			
L97068-01ASD	ASD	10/08/12 22:42	II121001-3	.5	U	.506	mg/L	101.2	85	115	1.19	20	



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Boron, dissolve	d		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331640													
WG331640ICV	ICV	10/08/12 21:25	II120914-1	2		2.005	mg/L	100.3	95	105			
WG331640ICB	ICB	10/08/12 21:31				U	mg/L		-0.03	0.03			
WG331640LFB	LFB	10/08/12 21:44	II121001-3	.5005		.513	mg/L	102.5	85	115			
L97068-01AS	AS	10/08/12 22:39	II121001-3	.5005	.14	.633	mg/L	98.5	85	115			
L97068-01ASD	ASD	10/08/12 22:42	II121001-3	.5005	.14	.645	mg/L	100.9	85	115	1.88	20	
Cadmium, disso	lved		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331933													
WG331933ICV	ICV	10/12/12 2:26	MS121001-5	.05		.05065	mg/L	101.3	90	110			
WG331933ICB	ICB	10/12/12 2:30				U	mg/L		-0.0003	0.0003			
WG331933LFB	LFB	10/12/12 2:33	MS121009-6	.0501		.04825	mg/L	96.3	85	115			
L97082-01AS	AS	10/12/12 3:57	MS121009-6	.0501	U	.05105	mg/L	101.9	70	130			
L97082-01ASD	ASD	10/12/12 4:00	MS121009-6	.0501	U	.05078	mg/L	101.4	70	130	0.53	20	
Cadmium, total			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331878													
WG331878ICV	ICV	10/11/12 1:15	MS121001-5	.05		.05169	mg/L	103.4	90	110			
WG331878ICB	ICB	10/11/12 1:18				U	mg/L		-0.0003	0.0003			
WG331782LRB	LRB	10/11/12 1:21				U	mg/L		-0.00022	0.00022			
WG331782LFB	LFB	10/11/12 1:25	MS121009-6	.0501		.04963	mg/L	99.1	85	115			
L97069-03LFM	LFM	10/11/12 1:38	MS121009-6	.0501	U	.05043	mg/L	100.7	70	130			
L97069-03LFMD	LFMD	10/11/12 1:41	MS121009-6	.0501	U	.0497	mg/L	99.2	70	130	1.46	20	
Calcium, dissolv	ved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331640													
WG331640ICV	ICV	10/08/12 21:25	II120914-1	100		98.26	mg/L	98.3	95	105			
WG331640ICB	ICB	10/08/12 21:31				U	mg/L		-0.6	0.6			
WG331640LFB	LFB	10/08/12 21:44	II121001-3	67.97554		69.54	mg/L	102.3	85	115			
L97068-01AS	AS	10/08/12 22:39	II121001-3	67.97554	1.3	69.69	mg/L	100.6	85	115			
L97068-01ASD	ASD	10/08/12 22:42	II121001-3	67.97554	1.3	70.75	mg/L	102.2	85	115	1.51	20	
Chloride			SM45000	Я-Е									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331923													
WG331923ICB	ICB	10/11/12 9:29				U	mg/L		-3	3			
WG331923ICV	ICV	10/11/12 9:29	WI120904-1	54.945		56.9	mg/L	103.6	90	110			
WG331923LFB1	LFB	10/11/12 11:48	WI120716-1	30		32.7	mg/L	109	90	110			
L97071-01AS	AS	10/11/12 11:48	WI120716-1	30	U	33.3	mg/L	111	90	110			Ν
L97074-01DUP	DUP	10/11/12 11:48			16	16.4	mg/L				2.5	20	
							•						



Watley Group LLC

Chromium, diss	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331933													
WG331933ICV	ICV	10/12/12 2:26	MS121001-5	.05		.04985	mg/L	99.7	90	110			
WG331933ICB	ICB	10/12/12 2:30				U	mg/L		-0.0015	0.0015			
WG331933LFB	LFB	10/12/12 2:33	MS121009-6	.05005		.04715	mg/L	94.2	85	115			
L97082-01AS	AS	10/12/12 3:57	MS121009-6	.05005	U	.04935	mg/L	98.6	70	130			
L97082-01ASD	ASD	10/12/12 4:00	MS121009-6	.05005	U	.04931	mg/L	98.5	70	130	0.08	20	
Chromium, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331878													
WG331878ICV	ICV	10/11/12 1:15	MS121001-5	.05		.05405	mg/L	108.1	90	110			
WG331878ICB	ICB	10/11/12 1:18				U	mg/L		-0.0015	0.0015			
WG331782LRB	LRB	10/11/12 1:21				U	mg/L		-0.0011	0.0011			
WG331782LFB	LFB	10/11/12 1:25	MS121009-6	.05005		.04741	mg/L	94.7	85	115			
L97069-03LFM	LFM	10/11/12 1:38	MS121009-6	.05005	U	.04983	mg/L	99.6	70	130			
L97069-03LFMD	LFMD	10/11/12 1:41	MS121009-6	.05005	U	.0486	mg/L	97.1	70	130	2.5	20	
Conductivity @2	5C		SM2510B										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG333003													
WG333003LCSW1	LCSW	10/26/12 16:53	PCN40827	1408.8		1424.1	umhos/cm	101.1	90	110			
L97092-02DUP	DUP	10/26/12 17:09			185	183.2	umhos/cm				1	20	
WG333003LCSW2	LCSW	10/26/12 17:27	PCN40827	1408.8		1448.4	umhos/cm	102.8	90	110			
WG333003LCSW3	LCSW	10/26/12 18:01	PCN40827	1408.8		1333.2	umhos/cm	94.6	90	110			
WG333003LCSW4	LCSW	10/26/12 18:26	PCN40827	1408.8		1332.1	umhos/cm	94.6	90	110			
Copper, dissolve	əd		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331933													
WG331933ICV	ICV	10/12/12 2:26	MS121001-5	.05		.05003	mg/L	100.1	90	110			
			1001210010	.00		.00000 U	mg/L	100.1	-0.0015	0.0015			
WG331933ICB	IC:B								0.0010	0.0010			
WG331933ICB WG331933I FB	ICB L FB	10/12/12 2:30 10/12/12 2:33	MS121009-6	05005				914	85	115			
WG331933LFB	LFB	10/12/12 2:33	MS121009-6 MS121009-6	.05005	.0008	.04576	mg/L	91.4 94.2	85 70	115 130			
			MS121009-6 MS121009-6 MS121009-6	.05005 .05005 .05005	.0008 .0008			91.4 94.2 93.5	85 70 70	115 130 130	0.71	20	
WG331933LFB L97082-01AS L97082-01ASD	LFB AS	10/12/12 2:33 10/12/12 3:57	MS121009-6 MS121009-6	.05005 .05005		.04576 .04793	mg/L mg/L	94.2	70	130	0.71	20	
WG331933LFB L97082-01AS L97082-01ASD Copper, total	LFB AS	10/12/12 2:33 10/12/12 3:57	MS121009-6	.05005 .05005		.04576 .04793	mg/L mg/L mg/L	94.2	70	130	0.71 RPD	20 Limit	Qual
WG331933LFB L97082-01AS L97082-01ASD Copper, total ACZ ID	LFB AS ASD	10/12/12 2:33 10/12/12 3:57 10/12/12 4:00	MS121009-6 MS121009-6 M200.8 IC	.05005 .05005 P-MS	.0008	.04576 .04793 .04759	mg/L mg/L mg/L	94.2 93.5	70 70	130 130			Qual
WG331933LFB L97082-01AS L97082-01ASD Copper, total ACZ ID WG331878	LFB AS ASD Type	10/12/12 2:33 10/12/12 3:57 10/12/12 4:00 Analyzed	MS121009-6 MS121009-6 M200.8 IC PCN/SCN	.05005 .05005 P-MS QC	.0008	.04576 .04793 .04759 Found	mg/L mg/L mg/L	94.2 93.5 Rec	70 70 Lower	130 130 Upper			Qual
WG331933LFB L97082-01AS L97082-01ASD Copper, total ACZ ID WG331878 WG331878ICV	LFB AS ASD Type	10/12/12 2:33 10/12/12 3:57 10/12/12 4:00 Analyzed 10/11/12 1:15	MS121009-6 MS121009-6 M200.8 IC	.05005 .05005 P-MS	.0008	.04576 .04793 .04759 Found	mg/L mg/L Units mg/L	94.2 93.5	70 70 Lower 90	130 130 Upper 110			Qual
WG331933LFB L97082-01AS L97082-01ASD Copper, total ACZ ID WG331878 WG331878ICV WG331878ICB	LFB AS ASD Type ICV ICB	10/12/12 2:33 10/12/12 3:57 10/12/12 4:00 Analyzed 10/11/12 1:15 10/11/12 1:18	MS121009-6 MS121009-6 M200.8 IC PCN/SCN	.05005 .05005 P-MS QC	.0008	.04576 .04793 .04759 Found .05504 U	mg/L mg/L mg/L Units mg/L mg/L	94.2 93.5 Rec	70 70 Lower 90 -0.0015	130 130 Upper 110 0.0015			Qual
WG331933LFB L97082-01AS L97082-01ASD Copper, total ACZ ID WG331878 WG331878ICV WG331878ICB WG331782LRB	LFB AS ASD Type ICV ICB LRB	10/12/12 2:33 10/12/12 3:57 10/12/12 4:00 Analyzed 10/11/12 1:15 10/11/12 1:18 10/11/12 1:21	MS121009-6 MS121009-6 M200.8 IC PCN/SCN MS121001-5	.05005 .05005 P-MS QC .05	.0008	.04576 .04793 .04759 Found .05504 U U	mg/L mg/L mg/L Units mg/L mg/L mg/L	94.2 93.5 Rec 110.1	70 70 Lower 90 -0.0015 -0.0011	130 130 Upper 110 0.0015 0.0011			Qual
WG331933LFB L97082-01AS L97082-01ASD Copper, total ACZ ID WG331878 WG331878ICV	LFB AS ASD Type ICV ICB	10/12/12 2:33 10/12/12 3:57 10/12/12 4:00 Analyzed 10/11/12 1:15 10/11/12 1:18	MS121009-6 MS121009-6 M200.8 IC PCN/SCN	.05005 .05005 P-MS QC	.0008	.04576 .04793 .04759 Found .05504 U	mg/L mg/L Units mg/L mg/L	94.2 93.5 Rec	70 70 Lower 90 -0.0015	130 130 Upper 110 0.0015			Qual



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Cyanide, total			M335.4 - 0	Colorimet	ric w/ distil	lation							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331794													
WG331794ICV	ICV	10/10/12 10:58	WI121003-7	.3		.3178	mg/L	105.9	90	110			
WG331794ICB	ICB	10/10/12 10:59				U	mg/L		-0.009	0.009			
WG331730LRB	LRB	10/10/12 11:00				U	mg/L		-0.009	0.009			
WG331730LFB	LFB	10/10/12 11:00	WI121003-3	.2		.2186	mg/L	109.3	90	110			
L97071-01DUP	DUP	10/10/12 11:02			U	U	mg/L				0	20	RA
L97075-01LFM	LFM	10/10/12 11:04	WI121003-3	.2	.016	.235	mg/L	109.5	90	110			
Cyanide, WAD			SM4500-0	CN I-Colo	rimetric w/	distillati	on						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331756													
WG331756ICV	ICV	10/09/12 16:08	WI121003-7	.3		.3111	mg/L	103.7	90	110			
WG331756ICB	ICB	10/09/12 16:09				U	mg/L		-0.009	0.009			
WG331761							Ū						
WG331666LRB	LRB	10/09/12 16:46				U	mg/L		-0.009	0.009			
WG331666LFB	LFB	10/09/12 10:40	WI121003-5	.2		.2071	mg/L	103.6	-0.009 90	110			
L96991-01DUP	DUP	10/09/12 10:47	W1121003-5	.2	U	.2071 U	mg/L	105.0	90	110	0	20	RA
L97071-01LFM	LFM	10/09/12 16:50	WI121003-5	.2	U	.206	mg/L	103	90	110	Ū	20	101
Dissolved Chron	тит, н Туре	Analyzed	SM3500C PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
	Type	Analyzeu	I ON/SON	QU	Sample	i ounu	Units	Nec	Lower	Opper	Ri D	Linin	Quai
WG331331													
WG331331ICV	ICV	10/03/12 9:25	WC120504-	.05		.045	mg/L	90	90	110			
WG331331ICB	ICB	10/03/12 9:28				U	mg/L		-0.015	0.015			
WG331331LFB	LFB	10/03/12 9:31	WC120409-	.05		.0489	mg/L	97.8	90	110			•••
L97084-01AS L97084-01DUP	AS DUP	10/03/12 9:51 10/03/12 9:54	WC120409-	.05	U U	.0597 U	mg/L mg/L	119.4	90	110	0	20	M1 RA
L97084-01DOP	DUP	10/03/12 9.54			U	0	IIIg/L				0	20	KA
Iron, dissolved			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331640													
WG331640ICV	ICV	10/08/12 21:25	II120914-1	2		1.981	mg/L	99.1	95	105			
WG331640ICB	ICB	10/08/12 21:31				U	mg/L		-0.06	0.06			
WG331640LFB	LFB	10/08/12 21:44	II121001-3	1		1.021	mg/L	102.1	85	115			
L97068-01AS	AS	10/08/12 22:39	II121001-3	1	.05	1.047	mg/L	99.7	85	115			
L97068-01ASD	ASD	10/08/12 22:42	II121001-3	1	.05	1.06	mg/L	101	85	115	1.23	20	
Iron, total			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331791													
WG331791ICV	ICV	10/10/12 13:25	II120914-3	2		1.998	mg/L	99.9	95	105			
WG331791ICB	ICB	10/10/12 13:31				U	mg/L		-0.06	0.06			
WG331757LRB	LRB	10/10/12 13:43				U	mg/L		-0.044	0.044			
WG331757LFB	LFB	10/10/12 13:46	II121001-3	1		1.043	mg/L	104.3	85	115			
L97070-01LFM	LFM	10/10/12 13:52	II121001-3	1	U	1.04	mg/L	104	70	130			
L97070-01LFMD	LFMD	10/10/12 13:55	II121001-3	1	U	1.036	mg/L	103.6	70	130	0.39	20	



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Lead, dissolved			M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331933													
WG331933ICV	ICV	10/12/12 2:26	MS121001-5	.05		.05264	mg/L	105.3	90	110			
WG331933ICB	ICB	10/12/12 2:30				U	mg/L		-0.0003	0.0003			
WG331933LFB	LFB	10/12/12 2:33	MS121009-6	.05005		.04688	mg/L	93.7	85	115			
L97082-01AS	AS	10/12/12 3:57	MS121009-6	.05005	U	.05	mg/L	99.9	70	130			
L97082-01ASD	ASD	10/12/12 4:00	MS121009-6	.05005	U	.05011	mg/L	100.1	70	130	0.22	20	
Lead, total			M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331878													
WG331878ICV	ICV	10/11/12 1:15	MS121001-5	.05		.05215	mg/L	104.3	90	110			
WG331878ICB	ICB	10/11/12 1:18				U	mg/L		-0.0003	0.0003			
WG331782LRB	LRB	10/11/12 1:21				U	mg/L		-0.00022	0.00022			
WG331782LFB	LFB	10/11/12 1:25	MS121009-6	.05005		.0441	mg/L	88.1	85	115			
L97069-03LFM	LFM	10/11/12 1:38	MS121009-6	.05005	.0002	.04711	mg/L	93.7	70	130			
L97069-03LFMD	LFMD	10/11/12 1:41	MS121009-6	.05005	.0002	.04668	mg/L	92.9	70	130	0.92	20	
Magnesium, dis	solved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331640													
WG331640ICV	ICV	10/08/12 21:25	II120914-1	100		100.53	mg/L	100.5	95	105			
WG331640ICB	ICB	10/08/12 21:31				U	mg/L		-0.6	0.6			
WG331640LFB	LFB	10/08/12 21:44	II121001-3	50.00131		50.8	mg/L	101.6	85	115			
L97068-01AS	AS	10/08/12 22:39	II121001-3	50.00131	.6	50.85	mg/L	100.5	85	115			
L97068-01ASD	ASD	10/08/12 22:42	II121001-3	50.00131	.6	51.33	mg/L	101.5	85	115	0.94	20	
Manganese, dis	solved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331640													
WG331640ICV	ICV	10/08/12 21:25	II120914-1	2		1.964	mg/L	98.2	95	105			
WG331640ICB	ICB	10/08/12 21:31				U	mg/L		-0.015	0.015			
WG331640LFB	LFB	10/08/12 21:44	II121001-3	.5		.501	mg/L	100.2	85	115			
L97068-01AS	AS	10/08/12 22:39	II121001-3	.5	U	.4959	mg/L	99.2	85	115			
L97068-01ASD	ASD	10/08/12 22:42	II121001-3	.5	U	.4997	mg/L	99.9	85	115	0.76	20	
Vanganese, tota	al		M200.7 I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331791		10/10/12 13:25	II120914-3	2		1.9665	mg/L	98.3	95	105			
WG331791 WG331791ICV	ICV		-			U	mg/L		-0.015	0.015			
WG331791ICV		10/10/12 13:31					J						
WG331791ICV WG331791ICB	ICV ICB LRB	10/10/12 13:31 10/10/12 13:43				U	mg/L		-0.011	0.011			
WG331791ICV WG331791ICB WG331757LRB	ICB LRB		ll121001-3	.5			mg/L mg/L	101.8					
	ICB	10/10/12 13:43	II121001-3 II121001-3	.5 .5	U	U .5089 .5108	mg/L mg/L mg/L	101.8 102.2	-0.011 85 70	0.011 115 130			


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Mercury, total			M245.1 C	VAA									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331587													
WG331587ICV	ICV	10/09/12 18:32	II121005-1	.005025		.00504	mg/L	100.3	95	105			
WG331587ICB	ICB	10/09/12 18:34				U	mg/L		-0.0002	0.0002			
WG331599													
WG331599LRB	LRB	10/09/12 21:06				U	mg/L		-0.00044	0.00044			
WG331599LFB	LFB	10/09/12 21:08	II121001-5	.002002		.00176	mg/L	87.9	85	115			
L97069-03LFM	LFM	10/09/12 21:19	II121001-5	.002002	U	.00185	mg/L	92.4	85	115			
L97069-03LFMD	LFMD	10/09/12 21:21	II121001-5	.002002	U	.00184	mg/L	91.9	85	115	0.54	20	
Nickel, dissolve	d		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331640													
WG331640ICV	ICV	10/08/12 21:25	II120914-1	2.002		1.973	mg/L	98.6	95	105			
WG331640ICB	ICB	10/08/12 21:20		2.502		U	mg/L	00.0	-0.03	0.03			
WG331640LFB	LFB	10/08/12 21:44	II121001-3	.5		.488	mg/L	97.6	85	115			
L97068-01AS	AS	10/08/12 22:39	II121001-3	.5	U	.486	mg/L	97.2	85	115			
L97068-01ASD	ASD	10/08/12 22:42	II121001-3	.5	U	.483	mg/L	96.6	85	115	0.62	20	
							5						
Nickel, total	Туре	Analyzed	M200.7 10 PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
	туре	Analyzeu	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Opper	KPD	Linnit	Quai
WG331791													
WG331791ICV	ICV	10/10/12 13:25	II120914-3	2.002		1.982	mg/L	99	95	105			
WG331791ICB	ICB	10/10/12 13:31				U	mg/L		-0.03	0.03			
WG331757LRB	LRB	10/10/12 13:43				U	mg/L		-0.022	0.022			
WG331757LFB	LFB	10/10/12 13:46	ll121001-3	.5		.507	mg/L	101.4	85	115			
L97070-01LFM	LFM	10/10/12 13:52	ll121001-3	.5	U	.5	mg/L	100	70	130			
L97070-01LFMD	LFMD	10/10/12 13:55	II121001-3	.5	U	.512	mg/L	102.4	70	130	2.37	20	
Nitrate/Nitrite as	s N, diss	olved	M353.2 -	Automated	d Cadmiur	n Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331326													
WG331326ICV	ICV	10/02/12 19:08	WI120706-1	2.416		2.383	mg/L	98.6	90	110			
WG331326ICB	ICB	10/02/12 19:09				2.000 U	mg/L	00.0	-0.06	0.06			
WG331326LFB	LFB	10/02/12 19:30	WI120814-9	2		1.944	mg/L	97.2	90	110			
L97071-01AS	AS	10/02/12 19:48	WI120814-9	2	.05	1.953	mg/L	95.2	90	110			
L97072-01DUP	DUP	10/02/12 19:51		-	.09	.076	mg/L	00.2			16.9	20	RA
Nitrite as N, dis	solved		M353 2 -	Automated	l Cadmiur	n Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found		Rec	Lower	Upper	RPD	Limit	Qual
WG331326	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,								oppor			
WG331326ICV	ICV	10/02/12 10:00	WI120706-1	600		.629	ma/l	103.3	00	110			
WG331326ICV WG331326ICB	ICV	10/02/12 19:08	VVIIZU/U0-1	.609		.629 U	mg/L mg/l	103.3	90 -0.03	0.03			
WG331326ICB WG331326LFB		10/02/12 19:09	10/1120014 0	4		.971	mg/L	97.1	-0.03 90	0.03 110			
L97071-01AS	LFB AS	10/02/12 19:30 10/02/12 19:48	WI120814-9 WI120814-9	1 1		.971	mg/L	97.1 95.5	90 90	110			
L97071-01AS	AS DUP	10/02/12 19:46	VVIIZUO14-9	I		.955 U	mg/L mg/L	93.5	90	110	0	20	RA
LOTUTZ-UIDUF	DUF	10/02/12 19.31				0	ing/L				U	20	rt/



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Nitrogen, ammor	nia		M350.1 - /	Automated	d Phenate								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331827													
WG331827ICV	ICV	10/10/12 13:07	WI111117-1	1.002		.973	mg/L	97.1	90	110			
WG331827ICB	ICB	10/10/12 13:08				U	mg/L		-0.15	0.15			
WG331867													
WG331867LFB1	LFB	10/10/12 18:06	WI111101-3	1		1.038	mg/L	103.8	90	110			
L97069-04AS	AS	10/10/12 18:24	WI111101-3	1	U	1.06	mg/L	106	90	110			
L97071-01DUP	DUP	10/10/12 18:26			U	U	mg/L				0	20	R
WG331867LFB2	LFB	10/10/12 18:38	WI111101-3	1		1.091	mg/L	109.1	90	110			
pH (lab)			SM4500H	+ B									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331591													
WG331591LCSW3	LCSW	10/06/12 10:23	PCN39825	6		6.05	units	100.8	98	102			
L97092-01DUP	DUP	10/06/12 13:49			7.9	7.82	units				1	20	
WG331591LCSW6	LCSW	10/06/12 14:11	PCN39825	6		6.07	units	101.2	98	102			
WG331591LCSW9	LCSW	10/06/12 17:14	PCN39825	6		6.07	units	101.2	98	102			
WG331591LCSW12	LCSW	10/06/12 20:56	PCN39825	6		6.08	units	101.3	98	102			
WG331591LCSW15	LCSW	10/06/12 23:39	PCN39825	6		6.08	units	101.3	98	102			
Residue, Filterable (TDS) @180C			SM2540C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331365													
WG331365PBW	PBW	10/03/12 14:00				U	mg/L		-20	20			
WG331365LCSW	LCSW	10/03/12 14:09	PCN40246	260		258	mg/L	99.2	80	120			
L97071-01DUP	DUP	10/03/12 15:49			900	904	mg/L				0.4	20	
Residue, Non-Fil	terable	(TSS) @105C	SM2540D										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331498													
WG331498PBW	PBW	10/04/12 16:10				U	mg/L		-15	15			
WG331498LCSW	LCSW	10/04/12 16:10	PCN40246	160		151	mg/L	94.4	80	120			
L97152-03DUP	DUP	10/04/12 16:20			12	13	mg/L				8	20	R
Selenium, dissol	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331933													
WG331933ICV	ICV	10/12/12 2:26	MS121001-5	.05		.05137	mg/L	102.7	90	110			
WG331933ICB	ICB	10/12/12 2:20	MO121001-0	.00		.03137 U	mg/L	102.1	-0.0003	0.0003			
			M0404000 C	05005			-	95.9	-0.0003				
	I FR	10/12/12 2:33	WS171009-6	Upuun		()4802	[[[(1)]]						
WG331933LFB L97082-01AS	LFB AS	10/12/12 2:33 10/12/12 3:57	MS121009-6 MS121009-6	.05005 .05005	U	.04802 .05265	mg/L mg/L	95.9 105.2	70	115 130			



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Silver, dissolve	d		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331933													
WG331933ICV	ICV	10/12/12 2:26	MS121001-5	.02006		.02042	mg/L	101.8	90	110			
WG331933ICB	ICB	10/12/12 2:30				U	mg/L		-0.00015	0.00015			
WG331933LFB	LFB	10/12/12 2:33	MS121009-6	.01001		.009892	mg/L	98.8	85	115			
L97082-01AS	AS	10/12/12 3:57	MS121009-6	.01001	U	.005603	mg/L	56	70	130			M2 ZA
L97082-01ASD	ASD	10/12/12 4:00	MS121009-6	.01001	U	.006098	mg/L	60.9	70	130	8.46	20	M2 ZA
Silver, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331878													
WG331878ICV	ICV	10/11/12 1:15	MS121001-5	.02006		.0204	mg/L	101.7	90	110			
WG331878ICB	ICB	10/11/12 1:18				U	mg/L		-0.00015	0.00015			
WG331782LRB	LRB	10/11/12 1:21				U	mg/L		-0.00011	0.00011			
WG331782LFB	LFB	10/11/12 1:25	MS121009-6	.01001		.009707	mg/L	97	85	115			
L97069-03LFM	LFM	10/11/12 1:38	MS121009-6	.01001	U	.009789	mg/L	97.8	70	130			
L97069-03LFMD	LFMD	10/11/12 1:41	MS121009-6	.01001	U	.009758	mg/L	97.5	70	130	0.32	20	
Sulfate			D516-02 -	Turbidime	tric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331951													
WG331951ICB	ICB	10/11/12 14:41				U	mg/L		-3	3			
WG331951ICV	ICV	10/11/12 14:41	WI120928-8	20		19.4	mg/L	97	90	110			
WG331951LFB	LFB	10/11/12 15:37	WI120508-1	10		10.1	mg/L	101	90	110			
L97070-04DUP	DUP	10/11/12 15:40			27	26.4	mg/L				2.2	20	
L97071-01AS	AS	10/11/12 15:51	SO4TURB15	10.0000005	550	558	mg/L	80	90	110			M3
Sulfide as S			SM4500S	2-D									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331315													
WG331315ICV	ICV	10/02/12 16:35	WC121001-	.32534		.341	mg/L	104.8	90	110			
WG331315ICB	ICB	10/02/12 16:38		.02001		U	mg/L		-0.06	0.06			
WG331315LFB	LFB	10/02/12 16:41	WC121001-	.22044		.248	mg/L	112.5	80	120			
L97084-01AS	AS	10/02/12 16:59	WC121001-	.22044	U	.243	mg/L	110.2	75	125			
L97084-01DUP	DUP	10/02/12 17:02			U	U	mg/L				0	20	RA
Uranium, dissol	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331933													
	ICV	10/12/12 2:26	MS121001-5	.05		.05339	mg/L	106.8	90	110			
							•						
WG331933ICV		10/12/12 2:30				11	ma/l		-0.0003	0.0003			
WG331933ICV WG331933ICB	ICB	10/12/12 2:30 10/12/12 2:33	MS121009-6	.05		U .05	mg/L ma/L	100	-0.0003 85	0.0003 115			
WG331933ICV		10/12/12 2:30 10/12/12 2:33 10/12/12 3:57	MS121009-6 MS121009-6	.05 .05	U	U .05 .05438	mg/L mg/L mg/L	100 108.8	-0.0003 85 70	0.0003 115 130			



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Uranium, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG331878													
WG331878ICV	ICV	10/11/12 1:15	MS121001-5	.05		.05419	mg/L	108.4	90	110			
WG331878ICB	ICB	10/11/12 1:18				U	mg/L		-0.0003	0.0003			
WG331782LRB	LRB	10/11/12 1:21				U	mg/L		-0.00022	0.00022			
WG331782LFB	LFB	10/11/12 1:25	MS121009-6	.05		.04949	mg/L	99	85	115			
L97069-03LFM	LFM	10/11/12 1:38	MS121009-6	.05	.0011	.05523	mg/L	108.3	70	130			
L97069-03LFMD	LFMD	10/11/12 1:41	MS121009-6	.05	.0011	.05449	mg/L	106.8	70	130	1.35	20	
Zinc, dissolved			M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qua
WG331640													
WG331640ICV	ICV	10/08/12 21:25	II120914-1	2		1.94	mg/L	97	95	105			
WG331640ICB	ICB	10/08/12 21:31				U	mg/L		-0.03	0.03			
WG331640LFB	LFB	10/08/12 21:44	II121001-3	.5		.499	mg/L	99.8	85	115			
L97068-01AS	AS	10/08/12 22:39	II121001-3	.5	U	.496	mg/L	99.2	85	115			
L97068-01ASD	ASD	10/08/12 22:42	II121001-3	.5	U	.5	mg/L	100	85	115	0.8	20	
Zinc, total			M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qua
WG331791													
WG331791ICV	ICV	10/10/12 13:25	II120914-3	2		1.966	mg/L	98.3	95	105			
WG331791ICB	ICB	10/10/12 13:31				U	mg/L		-0.03	0.03			
WG331757LRB	LRB	10/10/12 13:43				U	mg/L		-0.022	0.022			
WG331757LFB	LFB	10/10/12 13:46	II121001-3	.5		.524	mg/L	104.8	85	115			
L97070-01LFM	LFM	10/10/12 13:52	II121001-3	.5	.02	.526	mg/L	101.2	70	130			
L97070-01LFMD	LFMD	10/10/12 13:55	II121001-3	.5	.02	.526	mg/L	101.2	70	130	0	20	

ACZ 2773 Downhill Drive Laboratories, Inc. Steamboat Springs, CO 80487

(800) 334-5493

Inorganic Extended Qualifier Report

Watley Group LLC

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L97071-01	WG331933	Silver, dissolved	M200.8 ICP-MS	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M200.8 ICP-MS	ZA	Poor recovery for Silver quality control is accepted due to low Silver solubility in samples, digestates, or extracts that do not contain sufficient Hydrochloric acid.
	WG331923	Chloride	SM4500CI-E	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG331794	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG331761	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG331331	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG331326	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG331867	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG331498	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG331951	Sulfate	D516-02 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG331315	Sulfide as S	SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).



Project ID: Sample ID: CB-CDPS001-093012

ACZ Sample ID:	L97071-01
Date Sampled:	09/30/12 11:00
Date Received:	10/02/12
Sample Matrix:	Surface Water

Oil & Grease, Total Recoverable

Analysis Method: **1664A - Gravimetric** Extract Method:

Workgroup:	WG331514								
Analyst:	dhc								
Extract Date: Analysis Date:	10/05/12 10:06								
Compound	10/00/12 10:00	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.042		mg/L	2.084	10.42



Organic Reference

Report Heade	r Explanations									
Batch		les analyzed at a specific time								
Found	Value of the QC Type									
Limit	Upper limit for RPD, in									
Lower		, in % (except for LCSS, mg/Kg)								
LCL	Lower Control Limit									
MDL		it. Same as Minimum Reporting	Limit Allows for instrum	pent and annual fluctuations						
PCN/SCN		reagents/standards to trace to th								
PQL	6	Limit, typically 5 times the MDL.								
QC			l to the Spike							
Rec		trol Sample or the amount added	·	(Ka)						
RPD		lue or spike added recovered, in '		rkg)						
	Upper Upper Recovery Limit, in % (except for LCSS, mg/Kg)									
UCL	Upper Control Limit	finterest								
Sample	Value of the Sample of	n merest								
QC Sample Ty										
SURR	Surrogate		LFM	Laboratory Fortified Matrix						
INTS	Internal Standard		LFMD	Laboratory Fortified Matrix Duplicate						
DUP	Sample Duplicate		LRB	Laboratory Reagent Blank						
LCSS	Laboratory Control Sa	mple - Soil	MS/MSD	Matrix Spike/Matrix Spike Duplicate						
LCSW	Laboratory Control Sa	mple - Water	PBS	Prep Blank - Soil						
LFB	Laboratory Fortified B	lank	PBW	Prep Blank - Water						
QC Sample Ty	ype Explanations									
Blanks		Verifies that there is no or min	imal contamination in th	e prep method or calibration procedure.						
Control Sa	amples	Verifies the accuracy of the me	ethod, including the prep	procedure.						
Duplicates	3	Verifies the precision of the ins	strument and/or method.							
Spikes/Fo	rtified Matrix	Determines sample matrix inte	erferences, if any.							
ACZ Qualifiar										
ACZ Qualifier		detected at a value between MD	and DOL. The eccesio	ted value is an estimated quantity						
B O	-			ted value is an estimated quantity.						
	-	is estimated due to result exceed		time						
н	-	ethod hold time. pH is a field test								
J	-			ted value is an estimated quantity.						
L		se was below the laboratory defin	-							
U		lyzed for, but was not detected at								
	The associated value	is either the sample quantitation	infinit of the sample detec							
Method Refer	rences									
(1)	EPA 600/4-83-020. N	lethods for Chemical Analysis of	Water and Wastes, Mare	ch 1983.						
(2)	EPA 600/4-90/020. N	lethods for the Determination of C	Organic Compounds in D	rinking Water (I), July 1990.						
(3)	EPA 600/R-92/129.	Nethods for the Determination of C	Organic Compounds in E	Drinking Water (II), July 1990.						
(4)	EPA SW-846. Test N	lethods for Evaluating Solid Wast	e.							
(5)	Standard Methods for	the Examination of Water and W	astewater.							
Comments										
(1)	QC results calculated	from raw data Results may yary	slightly if the rounded y	alues are used in the calculations.						
(1)		it matrices for Inorganic analyses								
(2)	-	" column indicates there is an ext		-						
(0)	associated with the re		chieu quainer anu/or c	ด แกงสนุขา ๆ นุ่มแกะก						
(4)		PQL or the MDL column is omitte	ad the POL is the report	ing limit						
(4)	I UIE MIDE Equais (IIE			ing innit.						

For a complete list of ACZ's Extended Qualifiers, please click:

http://www.acz.com/public/extquallist.pdf



ACZ Project ID: L97071

1664A - Gravimetric

Oil & Grease, Total Recoverable

WG331514

MS	Sample ID:	L96928-01MS		PCN/SCN: OP120830-1					/zed:	10/0	5/12 9:49
Compound		QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE		40	U	37.3	mg/L	93.3	78	114			
LCSW	Sample ID:	WG331514LCSW	,	PCN/S	CN: OP12	20830-1		Analy	/zed:	10/05	/12 10:07
Compound		QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE		40		38.8	mg/L	97.0	78	114			
LCSWD	Sample ID:	WG331514LCSW	D	PCN/S	CN: OP12	20830-1		Analy	/zed:	10/05	/12 10:08
Compound		QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE		40		39.2	mg/L	98.0	78	114	1	18	
PBW	Sample ID:	WG331514PBW						Analy	/zed:	10/0	5/12 9:45

PBW	Sample ID: WG331514PBW						Analy	/zed:	10/0	5/12 9:45
Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE			U	mg/L		-5	5			



WORKNUM PARAMETER ACZ ID METHOD

QUAL DESCRIPTION

ACZ Project ID: L97071

No extended qualifiers associated with this analysis



ACZ Project ID: L97071

Wet Chemistry

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

Sulfide as S

SM4500S2-D

Laboratories, Inc. Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Watley Group LLC ACZ Proj	ect ID:		L97071
Date Rec	eived:	0/02/201	12 09:56
Receiv	•		ksj
Date P	rinted:	10)/2/2012
Receipt Verification	VEO	NO	NIA
1) Is a foreign soil permit included for applicable samples?	YES	NO	NA X
2) Is the Chain of Custody or other directive shipping papers present?	X		~
			X
3) Does this project require special handling procedures such as CLP protocol?			
4) Are any samples NRC licensable material?			Х
5) If samples are received past hold time, proceed with requested short hold time analyses?	Х		
6) Is the Chain of Custody complete and accurate?	Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the samples?		Х	
Samples/Containers			
	YES	NO	NA
8) Are all containers intact and with no leaks?	Х		
9) Are all labels on containers and are they intact and legible?	Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time?	Х		
11) For preserved bottle types, was the pH checked and within limits?	Х		
12) Is there sufficient sample volume to perform all requested work?	Х		
13) Is the custody seal intact on all containers?			Х
14) Are samples that require zero headspace acceptable?			Х
15) Are all sample containers appropriate for analytical requirements?	Х		
16) Is there an Hg-1631 trip blank present?			Х
17) Is there a VOA trip blank present?			Х
18) Were all samples received within hold time?		Х	
Some parameters were received past hold time.			
Chain of Custody Related Remarks			

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Rad ($\mu R/Hr$)	Custody Seal Intact?
3418	1.6	14	Yes

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

Report to		493 -	TL)+			IAIN				:
Name: Mike Thomps	1010		Addres	ss:	180	32	Ro	46			
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Company: Culdern Min	· · · · · · · · · · · · · · · · · · ·									1012	
E-mail: Laurens Oi			Teleph				77				
f sample(s) received past holding tim			<u> </u>						YES	2	
nalysis before expiration, shall ACZ	proceed with requested								NO		
"10 then ACZ will contact client for further instruction. I suid cated: ACZ will proceed with the requested analyses.		qua fied									
Are samples for SDWA Compliance M	fonitoring?		Yes			No	V	[
f yes, please include state forms. Re	sults will be reported to	PQLfi	r Color								
	ampler's site Information	-	State	$C \nu$	Zip ci	ode	8(43	t ≯im e Z	one	W.5	1
PROJECT INFORMATION				·· ·		· · ·					
Quote #: Bottle Dircler BL	1028450		lors	ۍ ک			-		0		1
Project/PO #:			of Containers	HNDS	10	1 J	\$ 2	a.Szm.	37	2 = [4 4
Reporting state for compliance testing:			Š	1 1	i 3 17 C	0 1	4 C	25	VACIN	352.00	90 ° . 7 C
Check box if samples include NRC licer		Matrix		2.5 F.J	201	Sais Nr D	5	ų –	$ $ \leq	^	
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97071 Chain of Custody

FRMAD050.02.11.11



Analytical Report

October 30, 2012

Report to: John Bryan Watley Group LLC 8439 Sunset Blvd. Suite 402 West Hollywood, CA 90069

cc: Mike Thompson

Bill to: John Bryan Watley Group LLC 8439 Sunset Blvd. Suite 402 West Hollywood, CA 90069

Project ID: ACZ Project ID: L97415

John Bryan:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on October 18, 2012. This project has been assigned to ACZ's project number, L97415. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L97415. 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 November 30, 2012. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/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 raw data reports for ten years.

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

Tony Antalek has reviewed and approved this report.







October 30, 2012

Project ID: ACZ Project ID: L97415

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 1 miscellaneous sample from Watley Group LLC on October 18, 2012. 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 L97415. 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 except those qualified with an ACZ 'H' flag were performed within EPA recommended holding times.

Sample Analysis

This sample was analyzed for inorganic parameters. The individual methods are referenced on both the ACZ invoice and the analytical reports.



Project ID: Sample ID:

CB-LEVEL 3-10152012

Inorganic Analytical Results

ACZ Sample ID:	L97415-01
Date Sampled:	10/15/12 00:00
Date Received:	10/18/12
Sample Matrix:	Surface Water

Inorganic Prep								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date A	Analyst
Cyanide, total	M335.4 - Manual Distillation						10/22/12 17:38	bsu
Cyanide, WAD	SM4500-CN I- distillation						10/24/12 11:40	bsu
Total Hot Plate Digestion	M200.2 ICP						10/24/12 14:08	aeb
Total Hot Plate Digestion	M200.2 ICP-MS						10/23/12 16:06	las
Total Recoverable Digestion	M200.2 ICP-MS						10/24/12 12:32	las
Metals Analysis								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date A	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	0.021		mg/L	0.001	0.005	10/25/12 0:54	pmc
Arsenic, dissolved	M200.8 ICP-MS	0.0007	В	mg/L	0.0002	0.001	10/26/12 0:43	msh
Barium, dissolved	M200.7 ICP	0.023		mg/L	0.003	0.02	10/22/12 17:33	aeb
Beryllium, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	10/22/12 17:33	aeb
Boron, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	10/22/12 17:33	aeb
Cadmium, dissolved	M200.8 ICP-MS		U	mg/L	0.0001	0.0005	10/26/12 0:43	msh
Cadmium, total	M200.8 ICP-MS		U	mg/L	0.0001	0.0005	10/25/12 21:37	pmc
Calcium, dissolved	M200.7 ICP	20.0		mg/L	0.2	1	10/22/12 17:33	aeb
Chromium, dissolved	M200.8 ICP-MS		U	mg/L	0.0005	0.002	10/26/12 0:43	msh
Chromium, total	M200.8 ICP-MS		U	mg/L	0.0005	0.002	10/25/12 21:37	pmc
Chromium, Trivalent	Calculation (Total - Hexavalent)		U	mg/L	0.0005	0.002	10/30/12 13:58	calc
Copper, dissolved	M200.8 ICP-MS	0.0013	В *	mg/L	0.0005	0.003	10/26/12 0:43	msh
Copper, total	M200.8 ICP-MS		U	mg/L	0.0005	0.003	10/25/12 21:37	pmc
Iron, dissolved	M200.7 ICP		U	mg/L	0.02	0.05	10/22/12 17:33	aeb
Iron, total	M200.7 ICP		U	mg/L	0.02	0.05	10/24/12 19:38	aeb
Lead, dissolved	M200.8 ICP-MS	0.0001	В	mg/L	0.0001	0.0005	10/26/12 0:43	msh
Lead, total	M200.8 ICP-MS	0.0003	В	mg/L	0.0001	0.0005	10/25/12 21:37	pmc
Magnesium, dissolved		0.7	В	mg/L	0.2	1	10/22/12 17:33	aeb
Manganese, dissolved	M200.7 ICP		U	mg/L	0.005	0.03	10/22/12 17:33	aeb
Manganese, total	M200.7 ICP		U	mg/L	0.005	0.03	10/24/12 19:38	aeb
Mercury, total	M245.1 CVAA		U	mg/L	0.0002	0.001	10/29/12 12:16	mfm
Nickel, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	10/22/12 17:33	aeb
Nickel, total	M200.7 ICP		U	mg/L	0.01	0.05	10/24/12 19:38	aeb
Selenium, dissolved	M200.8 ICP-MS	0.0002	В	mg/L	0.0001	0.0003	10/26/12 0:43	msh
Silver, dissolved	M200.8 ICP-MS		U	mg/L	0.00005	0.0003	10/26/12 0:43	msh
Silver, total	M200.8 ICP-MS		U	mg/L	0.00005	0.0003	10/25/12 21:37	pmc
Uranium, dissolved	M200.8 ICP-MS	0.0002	В	mg/L	0.0001	0.0005	10/26/12 0:43	msh
Uranium, total	M200.8 ICP-MS	0.0004	В	mg/L	0.0001	0.0005	10/25/12 21:37	pmc
Zinc, dissolved	M200.7 ICP	0.02	В	mg/L	0.01	0.05	10/22/12 17:33	aeb
Zinc, total	M200.7 ICP	0.02	В	mg/L	0.01	0.05	10/24/12 19:38	aeb
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* Please refer to Qualifier Reports for details.



Project ID:

Sample ID: CB-LEVEL 3-10152012

Inorganic Analytical Results

ACZ Sample ID: **L97415-01** Date Sampled: 10/15/12 00:00 Date Received: 10/18/12 Sample Matrix: Surface Water

Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3		30			mg/L	2	20	10/19/12 0:00	las
Carbonate as CaCO3			U		mg/L	2	20	10/19/12 0:00	las
Hydroxide as CaCO3			U		mg/L	2	20	10/19/12 0:00	las
Total Alkalinity		30			mg/L	2	20	10/19/12 0:00	las
Chloride	SM4500CI-E		U	*	mg/L	1	5	10/24/12 14:05	lhb
Conductivity @25C	SM2510B	126			umhos/cm	1	10	10/19/12 3:23	las
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	10/22/12 18:47	mpb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	10/24/12 23:25	pjb
Dissolved Chromium, Hexavalent	SM3500Cr-D		UH	*	mg/L	0.005	0.02	10/19/12 11:52	las
Hardness as CaCO3	SM2340B - Calculation	53			mg/L	1	7	10/30/12 13:58	calc
Lab Filtration (0.45um) & Acidification	M200.7/200.8							10/19/12 12:19	mfm
Lab Filtration (glass fiber filter)	SOPWC050							10/18/12 17:51	las
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2	0.39	н		mg/L	0.02	0.1	10/30/12 13:58	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	0.39	Н	*	mg/L	0.02	0.1	10/18/12 19:23	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		UH	*	mg/L	0.01	0.05	10/18/12 19:23	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate		U	*	mg/L	0.05	0.5	10/25/12 13:52	tcd
pH (lab)	SM4500H+ B								
рН		7.9	Н		units	0.1	0.1	10/19/12 0:00	las
pH measured at		22.0			С	0.1	0.1	10/19/12 0:00	las
Residue, Filterable (TDS) @180C	SM2540C	70			mg/L	10	20	10/19/12 14:44	abm
Residue, Non- Filterable (TSS) @105C	SM2540D		U	*	mg/L	5	20	10/18/12 13:27	las
Sulfate	D516-02 - Turbidimetric	28			mg/L	1	5	10/26/12 11:26	mpb
Sulfide as S	SM4500S2-D		U	*	mg/L	0.02	0.1	10/22/12 14:08	abm



Inorganic Reference

	A distinct act of complex and word of a sub-site time.		
Batch	A distinct set of samples analyzed at a specific time		
Found	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)	A II 6	
MDL	Method Detection Limit. Same as Minimum Reporting Limit.		
PCN/SCN	A number assigned to reagents/standards to trace to the man	utacturer's certific	ate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.	0.1	
QC	True Value of the Control Sample or the amount added to the	•	
Rec	Recovered amount of the true value or spike added, in % (exc		(Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC	, Types	
Upper Some	Upper Recovery Limit, in % (except for LCSS, mg/Kg)		
Sample	Value of the Sample of interest		
Sample Typ	pes		
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
ССВ	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard
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Blanks Control San	Laboratory Control Sample - Water pe Explanations Verifies that there is no or minimal comples Verifies the accuracy of the method,	SDL ontamination in the including the prep	Serial Dilution prep method or calibration procedure. procedure.
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Sample Typ Blanks Control San Duplicates	Laboratory Control Sample - Water pe Explanations where the end of the state of the stat	SDL ontamination in the including the prep nt and/or method. ces, if any.	e prep method or calibration procedure.
Sample Typ Blanks Control San Duplicates Spikes/Fort	Laboratory Control Sample - Water pe Explanations where the explanations	SDL ontamination in the including the prep nt and/or method. ces, if any.	e prep method or calibration procedure.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard	Laboratory Control Sample - Water pe Explanations where the explanations	SDL ontamination in the including the prep nt and/or method. ces, if any.	prep method or calibration procedure.
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Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal comples verifies the accuracy of the method, Verifies the precision of the instrume ified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with an analysis	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold.	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal control of the instrume ified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined negotiation.	SDL ontamination in the including the prep nt and/or method. cces, if any. PQL. The associat h immediate hold t gative threshold. e level of the assoc	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value.
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Sample Typ Blanks Control San Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal comples werifies the accuracy of the method, Verifies the precision of the instrume ified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water and EPA 600/R-93-100. Methods for the Determination of Inorgan	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc ic Substances in	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993.
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Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments (1) (2)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal comples verifies the accuracy of the method, Verifies the precision of the instrume iffed Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and ff Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgant EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slightly Soil, Sludge, and Plant matrices for Inorganic analyses are reported.	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Environmental s ater. y if the rounded va ported on a dry we received" basis.	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments (1) (2) (3)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal comples verifies the accuracy of the method, Verifies the precision of the instrume ified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are reported on an "as	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Environmental s ater. y if the rounded va ported on a dry we received" basis.	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments (1) (2) (3)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal comples verifies the accuracy of the method, Verifies the precision of the instrume ified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or RCS EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Environmental s ater. y if the rounded va ported on a dry we received" basis. qualifier and/or ce	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments (1) (2) (3) (4) (3) (4)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal control mples Verifies the accuracy of the method, Verifies the precision of the instrume officed Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or RCes EPA 600/R-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended associated with the result.	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Environmental s ater. y if the rounded va ported on a dry we received" basis. qualifier and/or ce	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.

REP001.09.12.01



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Alkalinity as CaC				- Titration				_					
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332442													
WG332442PBW1	PBW	10/18/12 16:56				3.1	mg/L		-20	20			
WG332442LCSW2	LCSW	10/18/12 17:09	WC121011-	820.0001		756.7	mg/L	92.3	90	110			
WG332442LCSW5	LCSW	10/18/12 20:14	WC121011-	820.0001		782.7	mg/L	95.5	90	110			
VG332442PBW2	PBW	10/18/12 20:22				U	mg/L		-20	20			
NG332442LCSW8	LCSW	10/18/12 23:30	WC121011-	820.0001		785.2	mg/L	95.8	90	110			
VG332442PBW3	PBW	10/18/12 23:39				U	mg/L		-20	20			
VG332442LCSW11	LCSW	10/19/12 2:41	WC121011-	820.0001		786.8	mg/L	96	90	110			
VG332442PBW4	PBW	10/19/12 2:50				U	mg/L		-20	20			
.97416-06DUP	DUP	10/19/12 4:29			545	564.7	mg/L				3.6	20	
VG332442LCSW14	LCSW	10/19/12 5:55	WC121011-	820.0001		790.7	mg/L	96.4	90	110			
Aluminum, total r	ecover	able	M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
NG332849													
VG332849ICV	ICV	10/25/12 0:41	MS121001-5	.1		.1013	mg/L	101.3	90	110			
VG332849ICB	ICB	10/25/12 0:44				U	mg/L		-0.003	0.003			
VG332763LRB	LRB	10/25/12 0:47				U	mg/L		-0.0022	0.0022			
VG332763LFB	LFB	10/25/12 0:49	MS121009-6	.050055		.0489	mg/L	97.7	85	115			
.97445-03LFM	LFM	10/25/12 1:07	MS121009-6	.050055	.156	.2153	mg/L	118.5	70	130			
.97445-03LFMD	LFMD	10/25/12 1:15	MS121009-6	.050055	.156	.2127	mg/L	113.3	70	130	1.21	20	
Arsenic, dissolve	d		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332928	51												
	1014												
WG332928ICV	ICV	10/25/12 23:49	MS121001-5	.05		.05387	mg/L	107.7	90	110			
VG332928ICB	ICB	10/25/12 23:52		05005		U	mg/L	400.4	-0.0006	0.0006			
VG332928LFB	LFB	10/25/12 23:56	MS121009-6	.05005		.05126	mg/L	102.4	85	115			
.97265-03AS	AS	10/26/12 0:09	MS121009-6	.25025	.005	.2722	mg/L	106.8	70	130	4.07	00	
.97265-03ASD	ASD	10/26/12 0:12	MS121009-6	.25025	.005	.2693	mg/L	105.6	70	130	1.07	20	
Barium, dissolve	d		M200.7 IC	CP									
	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
NG332612													
VG332612ICV	ICV	10/22/12 16:47	II120914-1	2		1.9912	mg/L	99.6	95	105			
VG332612ICB	ICB	10/22/12 16:53				U	mg/L		-0.009	0.009			
VG332612LFB	LFB	10/22/12 17:05	II121001-3	.5		.5023	mg/L	100.5	85	115			
.97411-01AS	AS	10/22/12 17:23	II121001-3	.5	.056	.5603	mg/L	100.9	85	115			
.97411-01ASD	ASD	10/22/12 17:27	II121001-3	.5	.056	.5589	mg/L	100.6	85	115	0.25	20	
Beryllium, dissol	ved		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
NG332612		10/22/12 16:47	II120914-1	2		1.991	mg/L	99.6	95	105			
	ICV	10122112 10.41	1120314-1	2			-	33.0					
WG332612 WG332612ICV WG332612ICB	ICV	10/22/12 16.52				11	ma/l			0 0.2			
VG332612ICV VG332612ICB	ICB	10/22/12 16:53	1121001 2	F		U 517	mg/L	102 4	-0.03 85	0.03 115			
		10/22/12 16:53 10/22/12 17:05 10/22/12 17:23	ll121001-3 ll121001-3	.5 .5	U	U .517 .51	mg/L mg/L mg/L	103.4 102	-0.03 85 85	0.03 115 115			



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Boron, dissolve	d		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332612													
WG332612ICV	ICV	10/22/12 16:47	II120914-1	2		1.994	mg/L	99.7	95	105			
WG332612ICB	ICB	10/22/12 16:53				U	mg/L		-0.03	0.03			
WG332612LFB	LFB	10/22/12 17:05	II121001-3	.5005		.524	mg/L	104.7	85	115			
L97411-01AS	AS	10/22/12 17:23	II121001-3	.5005	.03	.548	mg/L	103.5	85	115			
L97411-01ASD	ASD	10/22/12 17:27	II121001-3	.5005	.03	.531	mg/L	100.1	85	115	3.15	20	
Cadmium, disso	lved		M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332928													
WG332928ICV	ICV	10/25/12 23:49	MS121001-5	.05		.05025	mg/L	100.5	90	110			
WG332928ICB	ICB	10/25/12 23:52				U	mg/L		-0.0003	0.0003			
WG332928LFB	LFB	10/25/12 23:56	MS121009-6	.0501		.04933	mg/L	98.5	85	115			
L97265-03AS	AS	10/26/12 0:09	MS121009-6	.2505	.1008	.3439	mg/L	97	70	130			
L97265-03ASD	ASD	10/26/12 0:12	MS121009-6	.2505	.1008	.3497	mg/L	99.4	70	130	1.67	20	
Cadmium, total			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332838													
WG332838ICV	ICV	10/25/12 20:40	MS121001-5	.05		.05245	mg/L	104.9	90	110			
WG332838ICB	ICB	10/25/12 20:43				U	mg/L		-0.0003	0.0003			
WG332665LRB	LRB	10/25/12 20:48				U	mg/L		-0.00022	0.00022			
WG332665LFB	LFB	10/25/12 20:51	MS121009-6	.0501		.0496	mg/L	99	85	115			
L97398-02LFM	LFM	10/25/12 21:13	MS121009-6	.0501	U	.04744	mg/L	94.7	70	130			
L97398-02LFMD	LFMD	10/25/12 21:22	MS121009-6	.0501	U	.04848	mg/L	96.8	70	130	2.17	20	
Calcium, dissolv	ved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332612													
WG332612ICV	ICV	10/22/12 16:47	II120914-1	100		98.53	mg/L	98.5	95	105			
WG332612ICB	ICB	10/22/12 16:53				U	mg/L		-0.6	0.6			
WG332612LFB	LFB	10/22/12 17:05	II121001-3	67.97554		69.91	mg/L	102.8	85	115			
L97411-01AS	AS	10/22/12 17:23	II121001-3	67.97554	84.4	150.9	mg/L	97.8	85	115			
L97411-01ASD	ASD	10/22/12 17:27	II121001-3	67.97554	84.4	150.8	mg/L	97.7	85	115	0.07	20	
Chloride			SM45000	CI-E									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332816													
WG332816ICB	ICB	10/24/12 11:13				U	mg/L		-3	3			
WG332816ICV	ICV	10/24/12 11:13	WI120904-1	54.945		56.6	mg/L	103	90	110			
WG332816LFB1	LFB	10/24/12 13:55	WI120716-1	30		32.1	mg/L	107	90	110			
WG332816LFB2	LFB	10/24/12 13:59	WI120716-1	30		32.4	mg/L	108	90	110			
L97405-01AS	AS	10/24/12 13:59	WI120716-1	150	U	163.3	mg/L	108.9	90	110			
L97405-02DUP	DUP	10/24/12 13:59			U	U	mg/L				0	20	R



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Chromium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332928													
WG332928ICV	ICV	10/25/12 23:49	MS121001-5	.05		.05031	mg/L	100.6	90	110			
WG332928ICB	ICB	10/25/12 23:52				U	mg/L		-0.0015	0.0015			
WG332928LFB	LFB	10/25/12 23:56	MS121009-6	.05005		.04987	mg/L	99.6	85	115			
L97265-03AS	AS	10/26/12 0:09	MS121009-6	.25025	.012	.2592	mg/L	98.8	70	130			
L97265-03ASD	ASD	10/26/12 0:12	MS121009-6	.25025	.012	.2564	mg/L	97.7	70	130	1.09	20	
Chromium, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332838													
WG332838ICV	ICV	10/25/12 20:40	MS121001-5	.05		.04944	mg/L	98.9	90	110			
WG332838ICB	ICB	10/25/12 20:43				U	mg/L		-0.0015	0.0015			
WG332665LRB	LRB	10/25/12 20:48				U	mg/L		-0.0011	0.0011			
WG332665LFB	LFB	10/25/12 20:51	MS121009-6	.05005		.04944	mg/L	98.8	85	115			
L97398-02LFM	LFM	10/25/12 21:13	MS121009-6	.05005	U	.0483	mg/L	96.5	70	130			
L97398-02LFMD	LFMD	10/25/12 21:22	MS121009-6	.05005	U	.0524	mg/L	104.7	70	130	8.14	20	
Conductivity @2	5C		SM2510B										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332442													
WG332442LCSW1	LCSW	10/18/12 16:58	PCN40621	1408.8		1470.2	umhos/cm	104.4	90	110			
WG332442LCSW4	LCSW	10/18/12 20:02	PCN40621	1408.8			umhos/cm	103.1	90	110			
WG332442LCSW4	LCSW	10/18/12 23:18	PCN40621	1408.8			umhos/cm	103.1	90 90	110			
WG332442LCSW7		10/19/12 2:28	PCN40621	1408.8		1401.8		99.5	90 90	110			
L97416-06DUP	DUP	10/19/12 2:20	F CIN4002 I	1400.0	2690	2690	umhos/cm	33.5	90	110	0	20	
WG332442LCSW13		10/19/12 4.29	PCN40621	1408.8	2090		umhos/cm	97.3	90	110	U	20	
		10,10,120.10	M200.8 IC					01.0					
Copper, dissolve	u Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
	1360	- Andry 200		40	Gampio	round	onno	noo	Lonor	oppor		2	quui
WG332928													
WG332928ICV	ICV	10/25/12 23:49	MS121001-5	.05		.05069	mg/L	101.4	90	110			
WG332928ICB	ICB	10/25/12 23:52				U	mg/L	~~~~	-0.0015	0.0015			
WG332928LFB	LFB	10/25/12 23:56	MS121009-6	.05005		.04849	mg/L	96.9	85	115			
L97265-03AS L97265-03ASD	AS ASD	10/26/12 0:09 10/26/12 0:12	MS121009-6 MS121009-6	.25025 .25025	40.8 40.8	41.79 41.25	mg/L mg/L	395.6 179.8	70 70	130 130	1.3	20	M
	NOD	10/20/12 0.12			40.0	41.20	ing/L	170.0	10	100	1.0	20	
Copper, total	Туре	Analyzed	M200.8 IC PCN/SCN	QC	Sample	Found	Unite	Rec	Lower	Upper	PPD	Limit	Qual
	Type	Anaryzou		40	oumpie	1 ound	onits	Rec	Lower	opper		Linit	Quui
WG332838	1017	10/05/10 00 15	NOIOCOCCE	<u> </u>		0500-		100 -	66	4.40			
WG332838ICV	ICV	10/25/12 20:40	MS121001-5	.05		.05035	mg/L	100.7	90	110			
WG332838ICB	ICB	10/25/12 20:43				U	mg/L		-0.0015	0.0015			
WG332665LRB	LRB	10/25/12 20:48				U	mg/L		-0.0011	0.0011			
WG332665LFB	LFB	10/25/12 20:51	MS121009-6	.05005		.04912	mg/L	98.1	85	115			
L97398-02LFM	LFM	10/25/12 21:13	MS121009-6	.05005	U	.0463	mg/L	92.5	70	130			
L97398-02LFMD	LFMD	10/25/12 21:22	MS121009-6	.05005	U	.049	mg/L	97.9	70	130	5.67	20	



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Cyanide, total			M335.4 - 0	Colorimet	ric w/ distil	lation							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332622													
WG332622ICV	ICV	10/22/12 15:14	WI121018-7	.3		.3183	mg/L	106.1	90	110			
WG332622ICB	ICB	10/22/12 15:15				U	mg/L		-0.009	0.009			
WG332689													
WG332621LRB	LRB	10/22/12 18:24				U	mg/L		-0.009	0.009			
WG332621LFB	LFB	10/22/12 18:25	WI121018-3	.2		.203	mg/L	101.5	90	110			
L97401-06DUP	DUP	10/22/12 18:39			U	U	mg/L				0	20	RA
L97401-07LFM	LFM	10/22/12 18:41	WI121018-3	.2	U	.192	mg/L	96	90	110			
Cyanide, WAD			SM4500-C	N I-Colo	rimetric w/	distillatio	on						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332847													
WG332847ICV	ICV	10/24/12 23:11	WI121018-7	.3		.3156	mg/L	105.2	90	110			
WG332847ICB	ICB	10/24/12 23:12				U	mg/L		-0.009	0.009			
WG332754LRB	LRB	10/24/12 23:13				U	mg/L		-0.009	0.009			
WG332754LFB	LFB	10/24/12 23:13	WI121018-5	.2		.2134	mg/L	106.7	90	110			
L97387-01DUP	DUP	10/24/12 23:15			U	U	mg/L				0	20	RA
L97387-02LFM	LFM	10/24/12 23:17	WI121018-5	.2	U	.2063	mg/L	103.2	90	110			
Dissolved Chror	nium, H	exavalent	SM3500C	D									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332516													
WG332516ICV	ICV	10/19/12 11:30	WC120504-	.05		.0513	mg/L	102.6	90	110			
WG332516ICB	ICB	10/19/12 11:34				U	mg/L		-0.015	0.015			
WG332516LFB	LFB	10/19/12 11:39	WC121009-	.05		.0484	mg/L	96.8	90	110			
L97415-01AS	AS	10/19/12 11:57	WC121009-	.05	U	.0472	mg/L	94.4	90	110			
L97415-01DUP	DUP	10/19/12 12:01			U	U	mg/L				0	20	RA
Iron, dissolved			M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332612													
WG332612ICV	ICV	10/22/12 16:47	II120914-1	2		1.988	mg/L	99.4	95	105			
WG332612ICB	ICB	10/22/12 16:53				U	mg/L		-0.06	0.06			
WG332612LFB	LFB	10/22/12 17:05	II121001-3	1		1.034	mg/L	103.4	85	115			
L97411-01AS	AS	10/22/12 17:23	II121001-3	1	U	1.05	mg/L	105	85	115			
L97411-01ASD	ASD	10/22/12 17:27	II121001-3	1	U	1.045	mg/L	104.5	85	115	0.48	20	
Iron, total			M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332824													
WG332824ICV	ICV	10/24/12 17:53	II120914-3	2		2.003	mg/L	100.2	95	105			
WG332824ICB	ICB	10/24/12 17:59				U	mg/L		-0.06	0.06			
WG332744LRB	LRB	10/24/12 18:11				U	mg/L		-0.044	0.044			
WG332744LFB	LFB	10/24/12 18:15	II121001-3	1		1.024	mg/L	102.4	85	115			
L97412-01LFM	LFM	10/24/12 19:29	II121001-3	1	.21	1.233	mg/L	102.3	70	130			
L97412-01LFMD	LFMD	10/24/12 19:32	II121001-3	1	.21	1.252	mg/L	104.2	70	130	1.53	20	



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Lead, dissolved			M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332928													
WG332928ICV	ICV	10/25/12 23:49	MS121001-5	.05		.05379	mg/L	107.6	90	110			
WG332928ICB	ICB	10/25/12 23:52				U	mg/L		-0.0003	0.0003			
WG332928LFB	LFB	10/25/12 23:56	MS121009-6	.05005		.04957	mg/L	99	85	115			
L97265-03AS	AS	10/26/12 0:09	MS121009-6	.25025	.0135	.26645	mg/L	101.1	70	130			
L97265-03ASD	ASD	10/26/12 0:12	MS121009-6	.25025	.0135	.26755	mg/L	101.5	70	130	0.41	20	
Lead, total			M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332838													
WG332838ICV	ICV	10/25/12 20:40	MS121001-5	.05		.05278	mg/L	105.6	90	110			
WG332838ICB	ICB	10/25/12 20:43				U	mg/L		-0.0003	0.0003			
WG332665LRB	LRB	10/25/12 20:48				U	mg/L		-0.00022	0.00022			
WG332665LFB	LFB	10/25/12 20:51	MS121009-6	.05005		.04769	mg/L	95.3	85	115			
L97398-02LFM	LFM	10/25/12 21:13	MS121009-6	.05005	U	.04706	mg/L	94	70	130			
L97398-02LFMD	LFMD	10/25/12 21:22	MS121009-6	.05005	U	.04854	mg/L	97	70	130	3.1	20	
Magnesium, dis	solved		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332612													
WG332612ICV	ICV	10/22/12 16:47	II120914-1	100		100.33	mg/L	100.3	95	105			
WG332612ICB	ICB	10/22/12 16:53				U	mg/L		-0.6	0.6			
WG332612LFB	LFB	10/22/12 17:05	II121001-3	50.00131		50.79	mg/L	101.6	85	115			
L97411-01AS	AS	10/22/12 17:23	II121001-3	50.00131	14.9	65.54	mg/L	101.3	85	115			
L97411-01ASD	ASD	10/22/12 17:27	II121001-3	50.00131	14.9	65.44	mg/L	101.1	85	115	0.15	20	
Manganese, dis	solved		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332612													
WG332612ICV	ICV	10/22/12 16:47	II120914-1	2		1.9622	mg/L	98.1	95	105			
WG332612ICB	ICB	10/22/12 16:53				U	mg/L		-0.015	0.015			
WG332612LFB	LFB	10/22/12 17:05	II121001-3	.5		.5026	mg/L	100.5	85	115			
L97411-01AS	AS	10/22/12 17:23	II121001-3	.5	U	.5091	mg/L	101.8	85	115			
L97411-01ASD	ASD	10/22/12 17:27	II121001-3	.5	U	.5077	mg/L	101.5	85	115	0.28	20	
Manganese, tota	al		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332824													
WG332824ICV	ICV	10/24/12 17:53	II120914-3	2		1.9788	mg/L	98.9	95	105			
WG332824ICB	ICB	10/24/12 17:59		-		U	mg/L		-0.015	0.015			
	LRB	10/24/12 18:11				U	mg/L		-0.011	0.011			
WG332744LRB			II121001-3	.5		.5028	mg/L	100.6	85	115			
WG332744LRB WG332744LFB	LFB	10/24/12 18:15	11121001-3	.0									
WG332744LRB WG332744LFB L97412-01LFM	LFB LFM	10/24/12 18:15 10/24/12 19:29	II121001-3 II121001-3	.5	.026	.5307	mg/L	100.9	70	130			



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Mercury, total			M245.1 C	VAA									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332868													
WG332868ICV	ICV	10/29/12 11:43	II121022-2	.005025		.00497	mg/L	98.9	95	105			
WG332868ICB	ICB	10/29/12 11:45				U	mg/L		-0.0002	0.0002			
WG332868LRB	LRB	10/29/12 11:47				U	mg/L		-0.00044	0.00044			
WG332868LFB	LFB	10/29/12 11:50	II121001-5	.002002		.00185	mg/L	92.4	85	115			
L97400-02LFM	LFM	10/29/12 11:58	II121001-5	.002002	U	.00192	mg/L	95.9	85	115			
L97400-02LFMD	LFMD	10/29/12 12:00	II121001-5	.002002	U	.00185	mg/L	92.4	85	115	3.71	20	
Nickel, dissolve	d		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332612													
WG332612ICV	ICV	10/22/12 16:47	II120914-1	2.002		1.946	mg/L	97.2	95	105			
WG332612ICB	ICB	10/22/12 16:53				U	mg/L		-0.03	0.03			
WG332612LFB	LFB	10/22/12 17:05	II121001-3	.5		.492	mg/L	98.4	85	115			
L97411-01AS	AS	10/22/12 17:23	II121001-3	.5	U	.484	mg/L	96.8	85	115			
L97411-01ASD	ASD	10/22/12 17:27	II121001-3	.5	U	.485	mg/L	97	85	115	0.21	20	
Nickel, total			M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332824													
WG332824ICV	ICV	10/24/12 17:53	II120914-3	2.002		2.009	mg/L	100.3	95	105			
WG332824ICB	ICB	10/24/12 17:59				U	mg/L		-0.03	0.03			
WG332744LRB	LRB	10/24/12 18:11				U	mg/L		-0.022	0.022			
WG332744LFB	LFB	10/24/12 18:15	II121001-3	.5		.516	mg/L	103.2	85	115			
L97412-01LFM	LFM	10/24/12 19:29	II121001-3	.5	U	.499	mg/L	99.8	70	130			
L97412-01LFMD	LFMD	10/24/12 19:32	II121001-3	.5	U	.493	mg/L	98.6	70	130	1.21	20	
Nitrate/Nitrite as	s N, diss	olved	M353.2 -	Automated	d Cadmiur	n Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332464													
WG332464ICV	ICV	10/18/12 19:06	WI121009-1	2.416		2.441	mg/L	101	90	110			
WG332464ICB	ICB	10/18/12 19:07				U	mg/L		-0.06	0.06			
WG332464LFB	LFB	10/18/12 19:11	WI120814-9	2		2.059	mg/L	103	90	110			
L97411-01AS	AS	10/18/12 19:16	WI120814-9	2	.14	2.138	mg/L	99.9	90	110			
L97411-02DUP	DUP	10/18/12 19:18			.13	.137	mg/L				5.2	20	RA
Nitrite as N, dis	solved		M353.2 -	Automated	d Cadmiur	n Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332464													
WG332464ICV	ICV	10/18/12 19:06	WI121009-1	.609		.625	mg/L	102.6	90	110			
WG332464ICB	ICB	10/18/12 19:07				U	mg/L		-0.03	0.03			
WG332464LFB	LFB	10/18/12 19:11	WI120814-9	1		1.046	mg/L	104.6	90	110			
L97411-01AS	AS	10/18/12 19:16	WI120814-9	1	U	1.038	mg/L	103.8	90	110			
L97411-02DUP	DUP	10/18/12 19:18			U	U	mg/L				0	20	RA



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Nitrogen, ammor	nia		M350.1 - A	Automated	d Phenate								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332881													
WG332881ICV	ICV	10/25/12 11:20	WI111117-1	1.002		.989	mg/L	98.7	90	110			
WG332881ICB	ICB	10/25/12 11:21				U	mg/L		-0.15	0.15			
WG332895													
WG332895LFB1	LFB	10/25/12 12:57	WI111101-3	1		.987	mg/L	98.7	90	110			
L97317-03AS	AS	10/25/12 13:15	WI111101-3	1	U	.932	mg/L	93.2	90	110			
L97317-04DUP	DUP	10/25/12 13:17			U	U	mg/L				0	20	RA
WG332895LFB2	LFB	10/25/12 13:30	WI111101-3	1		.977	mg/L	97.7	90	110			
pH (lab)			SM4500H	+ B									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332537													
WG332537LCSW3	LCSW	10/19/12 17:23	PCN39825	6		6.03	units	100.5	98	102			
L97426-04DUP	DUP	10/19/12 19:47			8.3	8.32	units				0.2	20	
WG332537LCSW6	LCSW	10/19/12 20:03	PCN39825	6		6.04	units	100.7	98	102			
WG332537LCSW9	LCSW	10/19/12 23:44	PCN39825	6		6.05	units	100.8	98	102			
Residue, Filterab	ole (TDS) @180C	SM2540C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332528													
WG332528PBW	PBW	10/19/12 14:40				U	mg/L		-20	20			
WG332528LCSW	LCSW	10/19/12 14:40	PCN41152	260		254	mg/L	97.7	80	120			
L97431-07DUP	DUP	10/19/12 14:50			3790	3744	mg/L				1.2	20	
Residue, Non-Fil	terable	(TSS) @105C	SM2540D										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332429													
WG332429PBW	PBW	10/18/12 12:45				U	mg/L		-15	15			
WG332429LCSW	LCSW	10/18/12 12:46	PCN41152	160		161	mg/L	100.6	80	120			
L97415-01DUP	DUP	10/18/12 13:29			U	U	mg/L				0	20	RA
Selenium, dissol	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332928													
WG332928ICV	ICV	10/25/12 23:49	MS121001-5	.05		.05274	mg/L	105.5	90	110			
WG332928ICB	ICB	10/25/12 23:52				.00274 U	mg/L		-0.0003	0.0003			
WG332928LFB	LFB	10/25/12 23:56	MS121009-6	.05005		.04924	mg/L	98.4	85	115			
L97265-03AS	AS	10/26/12 0:09	MS121009-6	.25025	.0034	.26455	mg/L	104.4	70	130			
L97265-03ASD	ASD	10/26/12 0:12	MS121009-6	.25025	.0034	.2596	mg/L	102.4	70	130	1.89	20	



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Silver, dissolve	d		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332928													
WG332928ICV	ICV	10/25/12 23:49	MS121001-5	.02006		.02037	mg/L	101.5	90	110			
WG332928ICB	ICB	10/25/12 23:52				U	mg/L		-0.00015	0.00015			
WG332928LFB	LFB	10/25/12 23:56	MS121009-6	.01001		.00944	mg/L	94.3	85	115			
L97265-03AS	AS	10/26/12 0:09	MS121009-6	.05005	.0003	.04838	mg/L	96.1	70	130			
L97265-03ASD	ASD	10/26/12 0:12	MS121009-6	.05005	.0003	.04829	mg/L	95.9	70	130	0.19	20	
Silver, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332838													
WG332838ICV	ICV	10/25/12 20:40	MS121001-5	.02006		.02129	mg/L	106.1	90	110			
WG332838ICB	ICB	10/25/12 20:43				U	mg/L		-0.00015	0.00015			
WG332665LRB	LRB	10/25/12 20:48				U	mg/L		-0.00011	0.00011			
WG332665LFB	LFB	10/25/12 20:51	MS121009-6	.01001		.01004	mg/L	100.3	85	115			
L97398-02LFM	LFM	10/25/12 21:13	MS121009-6	.01001	U	.00916	mg/L	91.5	70	130			
L97398-02LFMD	LFMD	10/25/12 21:22	MS121009-6	.01001	U	.00927	mg/L	92.6	70	130	1.19	20	
Sulfate			D516-02 -	Turbidim	etric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332977													
WG332977ICB	ICB	10/26/12 10:14				U	mg/L		-3	3			
WG332977ICV	ICV	10/26/12 10:14	WI121025-5	20		20	mg/L	100	90	110			
WG332977LFB	LFB	10/26/12 11:26	WI121025-3	10		9.9	mg/L	99	90	110			
L97266-01DUP	DUP	10/26/12 11:43			6000	6270	mg/L				4.4	20	
L97266-02AS	AS	10/26/12 11:47	SO4TURB10	10	1000	1010	mg/L	100	90	110			
Sulfide as S			SM4500S	2-D									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332594													
WG332594ICV	ICV	10/22/12 14:00	WC121022-	.35466		.387	mg/L	109.1	90	110			
WG332594ICB	ICB	10/22/12 14:02	WOIL IOLL	.00100		U	mg/L	100.1	-0.06	0.06			
WG332594LFB	LFB	10/22/12 14:04	WC121022-	.232		.275	mg/L	118.5	80	120			
L97459-04AS	AS	10/22/12 14:18	WC121022-	.232	U	.248	mg/L	106.9	75	125			
L97459-04DUP	DUP	10/22/12 14:20		0_	U	U	mg/L			0	0	20	R
Uranium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332928													
WG332928ICV	ICV	10/25/12 23:49	MS121001-5	.05		.05453	mg/L	109.1	90	110			
WG332928ICV WG332928ICB	ICB	10/25/12 23:49	1013121001-3	.05		.05455 U	•	109.1	90 -0.0003	0.0003			
WG332928ICB WG332928LFB	LFB	10/25/12 23:52	MS121009-6	.05		.05272	mg/L	105.4	-0.0003 85				
L97265-03AS	AS	10/25/12 23.56	MS121009-6 MS121009-6	.05	.4988	.05272	mg/L	105.4	85 70	115 130			
L97265-03AS	AS ASD	10/26/12 0:09	MS121009-6 MS121009-6	.25 .25	.4988	.7545	mg/L mg/L	105.1	70 70	130	0.92	20	
L91203-03A3D	730	10/20/12 0.12	1413121009-0	.20	.4900	.1345	mg/L	102.3	70	130	0.92	20	



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Uranium, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332838													
WG332838ICV	ICV	10/25/12 20:40	MS121001-5	.05		.05376	mg/L	107.5	90	110			
WG332838ICB	ICB	10/25/12 20:43				U	mg/L		-0.0003	0.0003			
WG332665LRB	LRB	10/25/12 20:48				U	mg/L		-0.00022	0.00022			
WG332665LFB	LFB	10/25/12 20:51	MS121009-6	.05		.05098	mg/L	102	85	115			
L97398-02LFM	LFM	10/25/12 21:13	MS121009-6	.05	U	.0528	mg/L	105.6	70	130			
L97398-02LFMD	LFMD	10/25/12 21:22	MS121009-6	.05	U	.0543	mg/L	108.6	70	130	2.8	20	
Zinc, dissolved			M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332612													
WG332612ICV	ICV	10/22/12 16:47	II120914-1	2		1.985	mg/L	99.3	95	105			
WG332612ICB	ICB	10/22/12 16:53				U	mg/L		-0.03	0.03			
WG332612LFB	LFB	10/22/12 17:05	II121001-3	.5		.512	mg/L	102.4	85	115			
L97411-01AS	AS	10/22/12 17:23	II121001-3	.5	.02	.534	mg/L	102.8	85	115			
L97411-01ASD	ASD	10/22/12 17:27	II121001-3	.5	.02	.536	mg/L	103.2	85	115	0.37	20	
Zinc, total			M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG332824													
WG332824ICV	ICV	10/24/12 17:53	II120914-3	2		1.994	mg/L	99.7	95	105			
WG332824ICB	ICB	10/24/12 17:59				U	mg/L		-0.03	0.03			
WG332744LRB	LRB	10/24/12 18:11				U	mg/L		-0.022	0.022			
WG332744LFB	LFB	10/24/12 18:15	II121001-3	.5		.519	mg/L	103.8	85	115			
L97412-01LFM	LFM	10/24/12 19:29	II121001-3	.5	U	.5	mg/L	100	70	130			
L97412-01LFMD	LFMD	10/24/12 19:32	II121001-3	.5	U	.503	mg/L	100.6	70	130	0.6	20	

ACZ 2773 Downhill Drive Steamboat Springs, CO 80487

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L97415-01	WG332928	Copper, dissolved	M200.8 ICP-MS	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG332816	Chloride	SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG332689	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG332847	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG332516	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG332464	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG332895	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG332429	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG332594	Sulfide as S	SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).



ACZ Project ID: L97415

Wet Chemistry

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

Sulfide as S

SM4500S2-D

ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493	Sample Receipt			
Watley Group LLC	ACZ Pr	oject ID:		L97415
	Date R	eceived:	10/18/20	12 09:56
	Rece	eived By:		ksj
	Date	Printed:	10	/18/2012
Receipt Verification				
		YES	NO	NA

1) Is a foreign soil permit included for applicable samples?

4) Are any samples NRC licensable material?

S

2) Is the Chain of Custody or other directive shipping papers present?

associated analysis could not be run.

Some parameters were received past hold time.

Temp (°C)

_ _ _ _

3.2

16) Is there an Hg-1631 trip blank present?

18) Were all samples received within hold time?

Cooler Id

_ _ _ _ _ _ _ _ _ _

NA16417

17) Is there a VOA trip blank present?

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

3) Does this project require special handling procedures such as CLP protocol?

5) If samples are received past hold time, proceed with requested short hold time analyses?

	~		
6) Is the Chain of Custody complete and accurate?	Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the samples?		Х	
Samples/Containers			
	YES	NO	NA
8) Are all containers intact and with no leaks?	Х		
9) Are all labels on containers and are they intact and legible?	Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time?	Х		
11) For preserved bottle types, was the pH checked and within limits?	Х		
12) Is there sufficient sample volume to perform all requested work?	Х		
13) Is the custody seal intact on all containers?			Х
14) Are samples that require zero headspace acceptable?			Х
15) Are all sample containers appropriate for analytical requirements?		Х	
L97415-01 : A orange container was not received and the			

Rad $(\mu R/Hr)$

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

13

	Х
	Х
Х	

Custody Seal Intact?

Yes

Х

Х

Х

Х

Х

ACZ Laborator	ries, Inc. $\setminus C$	71115				
2773 Downhill Drive Steamboat Spring		4-5493	\supset	CHAIN	of CUST	UU
Report to:						
Name: Mike Thompso		Address:	18032	Rd G		
Company: Reardon Steel			Cortez			
E-mail: mt@ reardonste	el.US	Telephone:	970 -	426-2	1924	
Copy of Report to:					· · · · ·	
Name: John Bryan	`	E-mail:	ibryan	ne wa	fley, ce	om
Name: John Bryan Company: Watley Group	LLC	Telephone:	<u>Jbryan</u> 310 -	777 -8	3889	
Invoice to:						
Name: Laurens Nuye	NS	Address:	8439	5unset	Blud Su	1e41
Company: Caldera Miner	ral Resources	West	Hollywoo	O CA	90069	
E-mail: Laurens@ Wath		Telephone:	0	777 - 81		
If sample(s) received past holding time		remains to c	omplete		YES	1
analysis before expiration, shall ACZ pro	•	•			NO	
If "NO" then ACZ will contact client for the indicated, ACZ will proceed with the re-				il be qualified.		
PROJECT INFORMATION			S REQUESTED			mber,
Quote #: 130+46 Drder BOO	28450					
Project/PO #:		of Containers				
Reporting state for compliance test	ing:	itai				
Sampler's Name: CP3		l S	-/// 5	o rofe	r	
Are any samples NRC licensable ma	terial? NO	t of	PQ43	e rele Bottle	QUOH	7.
	DATE:TIME Matrix	< **	70 '			
CB-Level 3-10152012	10/15/2012 SW	7				
					<u> </u>	
					ļ	ļ
±0						
o c						Í
S atrix SW (Surface Water) · GW (Grou	nd Water) • WW (Waste Wa	ter) + DW (Drin	king Water) • Sl	(Sludge) SO	(Soil) · OL (Oil)	∣ ∙ Ot
ARKS/ SAMPLE DISCLOSURES						
6						
						PA
						of
Diasse refer to AC7	's terms & conditions	located on t	he reveree ei	de of this CC)C	
RELINQUISHED BY:	DATE:TIME		RECEIVED BY		DATE:TI	IME
CACIE	10/14/12		Fr-		10.18.00	
		<u> </u>			<u>, , , , , , , , , , , , , , , , , , , </u>	<u></u>)
		1	· · · · ·			
	L	1			Page 18	

FRMAD050.03.05.02

Yellow - Retain for your records.

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Analytical Report

December 10, 2012

Report to: John Bryan Watley Group LLC 8439 Sunset Blvd. Suite 402 West Hollywood, CA 90069

cc: Mike Thompson

Bill to: John Bryan Watley Group LLC 8439 Sunset Blvd. Suite 402 West Hollywood, CA 90069

Project ID: ACZ Project ID: L98049

John Bryan:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on November 28, 2012. This project has been assigned to ACZ's project number, L98049. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L98049. 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 January 10, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/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 raw data reports for ten years.

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

Tony Antalek has reviewed and approved this report.





December 10, 2012

Project ID: ACZ Project ID: L98049

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 6 miscellaneous samples from Watley Group LLC on November 28, 2012. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L98049. 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 except those qualified with an ACZ `H? flag were performed within EPA recommended holding times.

Sample Analysis

These samples were analyzed for inorganic and organic parameters. The individual methods are referenced on both the ACZ invoice and the analytical reports.



Project ID: Sample ID: CB-01

Inorganic Analytical Results

ACZ Sample ID:	L98049-01
Date Sampled:	11/27/12 00:00
Date Received:	11/28/12
Sample Matrix:	Surface Water

Inorganic Prep								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation						12/05/12 15:21	bsu
Cyanide, WAD	SM4500-CN I- distillation						12/05/12 10:48	bsu
Total Hot Plate	M200.2 ICP-MS						12/03/12 11:57	scp
Digestion	M200.2 ICD		*				10/05/10 0.00	aab
Total Hot Plate Digestion	M200.2 ICP						12/05/12 9:23	aeb
Total Recoverable	M200.2 ICP-MS						12/04/12 13:21	las
Digestion								
Metals Analysis								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Aluminum, total	M200.8 ICP-MS	0.058		mg/L	0.001	0.005	12/05/12 23:30	pmc
recoverable								
Arsenic, dissolved	M200.8 ICP-MS	0.0005	В	mg/L	0.0002	0.001	12/05/12 2:43	pmc
Barium, dissolved	M200.7 ICP	0.035		mg/L	0.003	0.02	12/03/12 21:23	aeb
Beryllium, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	12/03/12 21:23	aeb
Boron, dissolved	M200.7 ICP	0.02	В	mg/L	0.01	0.05	12/03/12 21:23	aeb
Cadmium, dissolved	M200.8 ICP-MS	0.0008		mg/L	0.0001	0.0005	12/05/12 2:43	pmc
Cadmium, total	M200.8 ICP-MS	0.0010		mg/L	0.0001	0.0005	12/05/12 19:32	pmc
Calcium, dissolved	M200.7 ICP	182		mg/L	0.2	1	12/03/12 21:23	aeb
Chromium, dissolved	M200.8 ICP-MS		U	mg/L	0.0005	0.002	12/05/12 2:43	pmc
Chromium, total	M200.8 ICP-MS		U	mg/L	0.0005	0.002	12/05/12 19:32	pmc
Chromium, Trivalent	Calculation (Total - Hexavalent)		U	mg/L	0.0005	0.002	12/10/12 15:51	calc
Copper, dissolved	M200.8 ICP-MS	0.0011	В	mg/L	0.0005	0.003	12/05/12 2:43	pmc
Copper, total	M200.8 ICP-MS	0.0085		mg/L	0.0005	0.003	12/05/12 19:32	pmc
Iron, dissolved	M200.7 ICP		U	mg/L	0.02	0.05	12/03/12 21:23	aeb
Iron, total	M200.7 ICP	0.35		mg/L	0.04	0.1	12/05/12 19:02	aeb
Lead, dissolved	M200.8 ICP-MS	0.0025		mg/L	0.0001	0.0005	12/05/12 2:43	pmc
Lead, total	M200.8 ICP-MS	0.0407		mg/L	0.0001	0.0005	12/05/12 19:32	pmc
Magnesium, dissolved	M200.7 ICP	3.3		mg/L	0.2	1	12/03/12 21:23	aeb
Manganese, dissolved	M200.7 ICP	0.151		mg/L	0.005	0.03	12/03/12 21:23	aeb
Manganese, total	M200.7 ICP	0.22		mg/L	0.01	0.05	12/05/12 19:02	aeb
Mercury, total	M245.1 CVAA		U *	mg/L	0.0002	0.001	12/06/12 10:05	mfm
Nickel, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	12/03/12 21:23	aeb
Nickel, total	M200.7 ICP		U	mg/L	0.02	0.1	12/06/12 12:02	aeb
Selenium, dissolved	M200.8 ICP-MS	0.0004		mg/L	0.0001	0.0003	12/05/12 2:43	pmc
Silver, dissolved	M200.8 ICP-MS		U	mg/L	0.00005	0.0003	12/05/12 2:43	pmc
Silver, total	M200.8 ICP-MS	0.00008	В	mg/L	0.00005	0.0003	12/05/12 19:32	pmc
Uranium, dissolved	M200.8 ICP-MS	0.0004	В	mg/L	0.0001	0.0005	12/05/12 2:43	pmc
Uranium, total	M200.8 ICP-MS	0.0003	В	mg/L	0.0001	0.0005	12/05/12 19:32	, pmc
Z ing all a short	M000 7 10D	0.04			0.04	0.05	10/00/10 01 00	

0.24

0.32

Zinc, dissolved

Zinc, total

M200.7 ICP

M200.7 ICP

* Please refer to Qualifier Reports for details.

12/03/12 21:23

12/05/12 19:02

0.01

0.02

mg/L

mg/L

0.05

0.1

aeb

aeb



Project ID: Sample ID: CB-01

Inorganic Analytical Results

ACZ Sample ID:	L98049-01
Date Sampled:	11/27/12 00:00
Date Received:	11/28/12
Sample Matrix:	Surface Water

Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as		44			mg/L	2	20	11/29/12 0:00	abm
CaCO3									
Carbonate as CaCO3			U		mg/L	2	20	11/29/12 0:00	
Hydroxide as CaCO3			U		mg/L	2	20	11/29/12 0:00	abm
Total Alkalinity		44		*	mg/L	2	20	11/29/12 0:00	
Chloride	SM4500CI-E	0.45	U	*	mg/L	1	5	12/06/12 12:51	
Conductivity @25C	SM2510B	845			umhos/cm	1	10	11/29/12 21:15	
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	12/07/12 11:45	i lhb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	12/05/12 14:49	lhb
Dissolved Chromium, Hexavalent	SM3500Cr-D		UH	*	mg/L	0.005	0.02	11/29/12 10:37	, ljr
Hardness as CaCO3	SM2340B - Calculation	469			mg/L	1	7	12/10/12 15:51	calc
Lab Filtration (0.45um) & Acidification	M200.7/200.8							11/28/12 15:47	, ljr
Lab Filtration (glass fiber filter)	SOPWC050							11/28/12 15:15	las
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2	0.12			mg/L	0.02	0.1	12/10/12 15:51	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	0.12		*	mg/L	0.02	0.1	11/28/12 19:54	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U	*	mg/L	0.01	0.05	11/28/12 19:54	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate		U	*	mg/L	0.05	0.5	12/03/12 17:13	lhb
pH (lab)	SM4500H+ B								
рН		8.1	н		units	0.1	0.1	11/29/12 0:00	abm
pH measured at		19.0			С	0.1	0.1	11/29/12 0:00	abm
Residue, Filterable (TDS) @180C	SM2540C	680			mg/L	10	20	11/30/12 12:01	ljr
Residue, Non- Filterable (TSS) @105C	SM2540D	7	В	*	mg/L	5	20	11/28/12 16:12	! ljr
Sulfate	D516-02 - Turbidimetric	450		*	mg/L	20	100	12/07/12 17:02	mpb
Sulfide as S	SM4500S2-D		U	*	mg/L	0.02	0.1	11/28/12 14:33	abm



Project ID:

Sample ID: CB-02

Inorganic Analytical Results

ACZ Sample ID:	L98049-02
Date Sampled:	11/27/12 00:00
Date Received:	11/28/12
Sample Matrix:	Surface Water

Parameter	EPA Method	Result	Qual X	Q Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation						12/05/12 15:29	bsı
Cyanide, WAD	SM4500-CN I- distillation						12/05/12 10:55	bsı
Total Hot Plate Digestion	M200.2 ICP		*	e			12/05/12 9:34	aet
Total Hot Plate Digestion	M200.2 ICP-MS						12/03/12 12:09	sc
Total Recoverable Digestion	M200.2 ICP-MS						12/04/12 13:57	la
Metals Analysis								
Parameter	EPA Method	Result	Qual X	Q Units	MDL	PQL	Date	Analys
Aluminum, total recoverable	M200.8 ICP-MS	0.019		mg/L	0.001	0.005	12/05/12 23:45	pmo
Arsenic, dissolved	M200.8 ICP-MS	0.0007	В	mg/L	0.0002	0.001	12/05/12 2:47	pm
Barium, dissolved	M200.7 ICP	0.049		mg/L	0.003	0.02	12/03/12 21:26	ael
Beryllium, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	12/03/12 21:26	ael
Boron, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	12/03/12 21:26	ae
Cadmium, dissolved	M200.8 ICP-MS	0.0002	В	mg/L	0.0001	0.0005	12/05/12 2:47	pm
Cadmium, total	M200.8 ICP-MS	0.0002	В	mg/L	0.0001	0.0005	12/05/12 19:41	pm
Calcium, dissolved	M200.7 ICP	38.2		mg/L	0.2	1	12/03/12 21:26	ae
Chromium, dissolved	M200.8 ICP-MS		U	mg/L	0.0005	0.002	12/05/12 2:47	pm
Chromium, total	M200.8 ICP-MS		U	mg/L	0.0005	0.002	12/05/12 19:41	pm
Chromium, Trivalent	Calculation (Total - Hexavalent)		U	mg/L	0.0005	0.002	12/10/12 15:51	cal
Copper, dissolved	M200.8 ICP-MS	0.0007	В	mg/L	0.0005	0.003	12/05/12 2:47	pm
Copper, total	M200.8 ICP-MS	0.0007	В	mg/L	0.0005	0.003	12/05/12 19:41	pm
Iron, dissolved	M200.7 ICP		U	mg/L	0.02	0.05	12/03/12 21:26	ae
Iron, total	M200.7 ICP		U	mg/L	0.04	0.1	12/05/12 19:05	ae
Lead, dissolved	M200.8 ICP-MS	0.0001	В	mg/L	0.0001	0.0005	12/05/12 2:47	pm
Lead, total	M200.8 ICP-MS	0.0008		mg/L	0.0001	0.0005	12/05/12 19:41	pm
Magnesium, dissolved	M200.7 ICP	2.7		mg/L	0.2	1	12/03/12 21:26	ae
Manganese, dissolved	M200.7 ICP	0.044		mg/L	0.005	0.03	12/03/12 21:26	ael
Manganese, total	M200.7 ICP	0.06		mg/L	0.01	0.05	12/05/12 19:05	ae
Mercury, total	M245.1 CVAA		U *	' mg/L	0.0002	0.001	12/06/12 10:07	mfn
Nickel, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	12/03/12 21:26	ae
Nickel, total	M200.7 ICP		U	mg/L	0.02	0.1	12/06/12 12:05	ae
Selenium, dissolved	M200.8 ICP-MS	0.0004		mg/L	0.0001	0.0003	12/05/12 2:47	pm
Silver, dissolved	M200.8 ICP-MS		U	mg/L	0.00005	0.0003	12/05/12 2:47	pm
Silver, total	M200.8 ICP-MS		U	mg/L	0.00005	0.0003	12/05/12 19:41	pm
Uranium, dissolved	M200.8 ICP-MS		U	mg/L	0.0001	0.0005	12/05/12 2:47	pm
Uranium, total	M200.8 ICP-MS	0.0001	В	mg/L	0.0001	0.0005	12/05/12 19:41	pm
Zine disselved		0.0001	_		0.0001	0.0000	12/00/12 10:41	P111

0.11

0.13

Zinc, dissolved

Zinc, total

M200.7 ICP

M200.7 ICP

* Please refer to Qualifier Reports for details.

12/03/12 21:26

12/05/12 19:05

0.05

0.1

0.01

0.02

mg/L

mg/L

aeb

aeb



Project ID: Sample ID: CB-02

Inorganic Analytical Results

ACZ Sample ID:	L98049-02
Date Sampled:	11/27/12 00:00
Date Received:	11/28/12
Sample Matrix:	Surface Water

Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as		43			mg/L	2	20	11/29/12 0:00	abm
CaCO3									
Carbonate as CaCO3			U		mg/L	2	20	11/29/12 0:00	abm
Hydroxide as CaCO3			U		mg/L	2	20	11/29/12 0:00	abm
Total Alkalinity		43			mg/L	2	20	11/29/12 0:00	abm
Chloride	SM4500CI-E		U	*	mg/L	1	5	12/06/12 12:51	
Conductivity @25C	SM2510B	241			umhos/cm	1	10	11/29/12 21:23	
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	12/07/12 11:46	lhb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	12/05/12 14:50	lhb
Dissolved Chromium, Hexavalent	SM3500Cr-D		UH	*	mg/L	0.005	0.02	11/29/12 10:38	ljr
Hardness as CaCO3	SM2340B - Calculation	107			mg/L	1	7	12/10/12 15:51	calc
Lab Filtration (0.45um) & Acidification	M200.7/200.8							11/28/12 15:52	ljr
Lab Filtration (glass fiber filter)	SOPWC050							11/28/12 15:20	las
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2	0.22			mg/L	0.02	0.1	12/10/12 15:51	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	0.22		*	mg/L	0.02	0.1	11/28/12 19:55	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U	*	mg/L	0.01	0.05	11/28/12 19:55	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate		U	*	mg/L	0.05	0.5	12/03/12 17:14	lhb
pH (lab)	SM4500H+ B								
рН		8.1	н		units	0.1	0.1	11/29/12 0:00	abm
pH measured at		19.0			С	0.1	0.1	11/29/12 0:00	abm
Residue, Filterable (TDS) @180C	SM2540C	140			mg/L	10	20	11/30/12 12:02	ljr
Residue, Non- Filterable (TSS) @105C	SM2540D		U	*	mg/L	5	20	11/28/12 16:13	ljr
Sulfate	D516-02 - Turbidimetric	72		*	mg/L	5	30	12/07/12 16:59	mpb
Sulfide as S	SM4500S2-D		U	*	mg/L	0.02	0.1	11/28/12 14:35	abm


Project ID: Sample ID: CB-03

Inorganic Analytical Results

ACZ Sample ID:	L98049-03
Date Sampled:	11/27/12 00:00
Date Received:	11/28/12
Sample Matrix:	Surface Water

Inorganic Prep								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation						12/05/12 15:36	bsu
Cyanide, WAD	SM4500-CN I- distillation						12/05/12 11:03	bsu
Total Hot Plate Digestion	M200.2 ICP-MS						12/03/12 12:21	scp
Total Hot Plate	M200.2 ICP						12/05/12 10:09	aeb
Total Recoverable Digestion	M200.2 ICP-MS						12/04/12 14:09	las
Metals Analysis								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date /	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	0.023		mg/L	0.001	0.005	12/05/12 23:48	pmc
Arsenic, dissolved	M200.8 ICP-MS	0.0004	В	mg/L	0.0002	0.001	12/07/12 4:43	pmc
Barium, dissolved	M200.7 ICP	0.017	В	mg/L	0.003	0.02	12/03/12 21:29	aeb
Beryllium, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	12/03/12 21:29	aeb
Boron, dissolved	M200.7 ICP	0.03	В	mg/L	0.01	0.05	12/03/12 21:29	aeb
Cadmium, dissolved	M200.8 ICP-MS	0.0007		mg/L	0.0001	0.0005	12/05/12 2:56	pmc
Cadmium, total	M200.8 ICP-MS	0.0008		mg/L	0.0001	0.0005	12/05/12 19:44	pmc
Calcium, dissolved	M200.7 ICP	287		mg/L	0.2	1	12/03/12 21:29	aeb
Chromium, dissolved	M200.8 ICP-MS		U	mg/L	0.0005	0.002	12/05/12 2:56	pmc
Chromium, total	M200.8 ICP-MS		U	mg/L	0.0005	0.002	12/05/12 19:44	pmc
Chromium, Trivalent	Calculation (Total - Hexavalent)		U	mg/L	0.0005	0.002	12/10/12 15:51	calc
Copper, dissolved	M200.8 ICP-MS	0.0005	В	mg/L	0.0005	0.003	12/05/12 2:56	pmc
Copper, total	M200.8 ICP-MS	0.0080		mg/L	0.0005	0.003	12/05/12 19:44	pmc
Iron, dissolved	M200.7 ICP		U	mg/L	0.02	0.05	12/03/12 21:29	aeb
Iron, total	M200.7 ICP	0.21		mg/L	0.02	0.05	12/05/12 19:15	aeb
Lead, dissolved	M200.8 ICP-MS		U	mg/L	0.0001	0.0005	12/05/12 2:56	pmc
Lead, total	M200.8 ICP-MS	0.0029		mg/L	0.0001	0.0005	12/05/12 19:44	pmc
Magnesium, dissolved	M200.7 ICP	3.5		mg/L	0.2	1	12/03/12 21:29	aeb
Manganese, dissolved	M200.7 ICP	0.131		mg/L	0.005	0.03	12/03/12 21:29	aeb
Manganese, total	M200.7 ICP	0.153		mg/L	0.005	0.03	12/05/12 19:15	aeb
Mercury, total	M245.1 CVAA		U *	mg/L	0.0002	0.001	12/06/12 10:09	mfm
Nickel, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	12/03/12 21:29	aeb
Nickel, total	M200.7 ICP		U	mg/L	0.01	0.05	12/06/12 12:15	aeb
Selenium, dissolved	M200.8 ICP-MS	0.0004		mg/L	0.0001	0.0003	12/05/12 2:56	pmc
Silver, dissolved	M200.8 ICP-MS		U	mg/L	0.00005	0.0003	12/05/12 2:56	pmc
Silver, total	M200.8 ICP-MS		U	mg/L	0.00005	0.0003	12/05/12 19:44	, pmc
Uranium, dissolved	M200.8 ICP-MS	0.0005		mg/L	0.0001	0.0005	12/05/12 2:56	, pmc
Uranium, total	M200.8 ICP-MS	0.0005		mg/L	0.0001	0.0005	12/05/12 19:44	, pmc
Zinc, dissolved	M200.7 ICP	0.17		mg/L	0.01	0.05	12/03/12 21:29	aeb
Zinc, total	M200.7 ICP	0.20		mg/L	0.01	0.05	12/05/12 19:15	aeb
-				5				

* Please refer to Qualifier Reports for details.



Project ID: Sample ID: CB-03

Inorganic Analytical Results

ACZ Sample ID:	L98049-03
Date Sampled:	11/27/12 00:00
Date Received:	11/28/12
Sample Matrix:	Surface Water

Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3		44			mg/L	2	20	11/29/12 0:00	abm
Carbonate as CaCO3			U		mg/L	2	20	11/29/12 0:00	abm
Hydroxide as CaCO3			U		mg/L	2	20	11/29/12 0:00	abm
Total Alkalinity		44			mg/L	2	20	11/29/12 0:00	abm
Chloride	SM4500CI-E	1	В	*	mg/L	1	5	12/06/12 12:51	lhb
Conductivity @25C	SM2510B	1200			umhos/cm	1	10	11/29/12 21:30) abm
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	12/07/12 11:47	' lhb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	12/05/12 14:51	lhb
Dissolved Chromium, Hexavalent	SM3500Cr-D		UH	*	mg/L	0.005	0.02	11/29/12 10:39) ljr
Hardness as CaCO3	SM2340B - Calculation	732			mg/L	1	7	12/10/12 15:51	calc
Lab Filtration (0.45um) & Acidification	M200.7/200.8							11/28/12 15:57	' ljr
Lab Filtration (glass fiber filter)	SOPWC050							11/28/12 15:25	ias
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		U		mg/L	0.02	0.1	12/10/12 15:51	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U	*	mg/L	0.02	0.1	11/28/12 19:59) pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U	*	mg/L	0.01	0.05	11/28/12 19:59) pjb
Nitrogen, ammonia	M350.1 - Automated Phenate		U	*	mg/L	0.05	0.5	12/03/12 17:15	5 lhb
pH (lab)	SM4500H+ B								
рН		8.1	н		units	0.1	0.1	11/29/12 0:00	abm
pH measured at		19.0			С	0.1	0.1	11/29/12 0:00	abm
Residue, Filterable (TDS) @180C	SM2540C	1080			mg/L	10	20	11/30/12 12:03	B ljr
Residue, Non- Filterable (TSS) @105C	SM2540D		U	*	mg/L	5	20	11/28/12 16:14	ljr
Sulfate	D516-02 - Turbidimetric	700		*	mg/L	20	100	12/07/12 17:02	2 mpb
Sulfide as S	SM4500S2-D		U	*	mg/L	0.02	0.1	11/28/12 14:36	abm



Inorganic Prep

Project ID:

Sample ID: CB-04

Inorganic Analytical Results

ACZ Sample ID:	L98049-04
Date Sampled:	11/27/12 00:00
Date Received:	11/28/12
Sample Matrix:	Surface Water

morganic Prep								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date /	Analyst
Cyanide, total	M335.4 - Manual Distillation						12/05/12 15:44	bsu
Cyanide, WAD	SM4500-CN I- distillation						12/05/12 11:11	bsu
Total Hot Plate Digestion	M200.2 ICP-MS						12/03/12 12:33	scp
Total Hot Plate	M200.2 ICP						12/05/12 10:21	aeb
Digestion Total Recoverable Digestion	M200.2 ICP-MS						12/04/12 14:21	las
Metals Analysis								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	0.067		mg/L	0.001	0.005	12/05/12 23:52	pmc
Arsenic, dissolved	M200.8 ICP-MS	0.0005	В	mg/L	0.0002	0.001	12/07/12 4:52	pmc
Barium, dissolved	M200.7 ICP	0.018	В	mg/L	0.003	0.02	12/03/12 21:32	aeb
Beryllium, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	12/03/12 21:32	aeb
Boron, dissolved	M200.7 ICP	0.03	В	mg/L	0.01	0.05	12/03/12 21:32	aeb
Cadmium, dissolved	M200.8 ICP-MS	0.0007		mg/L	0.0001	0.0005	12/05/12 2:59	pmc
Cadmium, total	M200.8 ICP-MS	0.0009		mg/L	0.0001	0.0005	12/05/12 19:48	pmc
Calcium, dissolved	M200.7 ICP	291		mg/L	0.2	1	12/03/12 21:32	aeb
Chromium, dissolved	M200.8 ICP-MS		U	mg/L	0.0005	0.002	12/05/12 2:59	pmc
Chromium, total	M200.8 ICP-MS		U	mg/L	0.0005	0.002	12/05/12 19:48	pmc
Chromium, Trivalent	Calculation (Total - Hexavalent)		U	mg/L	0.0005	0.002	12/10/12 15:51	calc
Copper, dissolved	M200.8 ICP-MS		U	mg/L	0.0005	0.003	12/07/12 4:52	pmc
Copper, total	M200.8 ICP-MS	0.0099		mg/L	0.0005	0.003	12/05/12 19:48	pmc
Iron, dissolved	M200.7 ICP		U	mg/L	0.02	0.05	12/03/12 21:32	aeb
Iron, total	M200.7 ICP	0.38		mg/L	0.02	0.05	12/05/12 19:18	aeb
Lead, dissolved	M200.8 ICP-MS	0.0019		mg/L	0.0001	0.0005	12/05/12 2:59	pmc
Lead, total	M200.8 ICP-MS	0.0542		mg/L	0.0001	0.0005	12/05/12 19:48	pmc
Magnesium, dissolved	M200.7 ICP	3.5		mg/L	0.2	1	12/03/12 21:32	aeb
Manganese, dissolved	M200.7 ICP	0.125		mg/L	0.005	0.03	12/03/12 21:32	aeb
Manganese, total	M200.7 ICP	0.177		mg/L	0.005	0.03	12/05/12 19:18	aeb
Mercury, total	M245.1 CVAA		U *	mg/L	0.0002	0.001	12/06/12 10:15	mfm
Nickel, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	12/03/12 21:32	aeb
Nickel, total	M200.7 ICP		U	mg/L	0.01	0.05	12/06/12 12:18	aeb
Selenium, dissolved	M200.8 ICP-MS	0.0004		mg/L	0.0001	0.0003	12/05/12 2:59	pmc
Silver, dissolved	M200.8 ICP-MS		U	mg/L	0.00005	0.0003	12/05/12 2:59	pmc
Silver, total	M200.8 ICP-MS	0.00007	В	mg/L	0.00005	0.0003	12/05/12 19:48	, pmc
Uranium, dissolved	M200.8 ICP-MS	0.0006		mg/L	0.0001	0.0005	12/05/12 2:59	, pmc
Uranium, total	M200.8 ICP-MS	0.0006		mg/L	0.0001	0.0005	12/05/12 19:48	, pmc
Zinc, dissolved	M200.7 ICP	0.15		mg/L	0.01	0.05	12/03/12 21:32	aeb
				U				

0.22

M200.7 ICP

Zinc, total

* Please refer to Qualifier Reports for details.

12/05/12 19:18

0.05

0.01

mg/L

aeb



Project ID: Sample ID: CB-04

Inorganic Analytical Results

ACZ Sample ID:	L98049-04
Date Sampled:	11/27/12 00:00
Date Received:	11/28/12
Sample Matrix:	Surface Water

Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3		45			mg/L	2	20	11/29/12 0:00	abm
Carbonate as CaCO3			U		mg/L	2	20	11/29/12 0:00	abm
Hydroxide as CaCO3			U		mg/L	2	20	11/29/12 0:00	abm
Total Alkalinity		45			mg/L	2	20	11/29/12 0:00	abm
Chloride	SM4500CI-E	1	В	*	mg/L	1	5	12/06/12 12:51	lhb
Conductivity @25C	SM2510B	1200			umhos/cm	1	10	11/29/12 21:37	' abm
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	12/07/12 11:49) lhb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	12/05/12 14:52	2 lhb
Dissolved Chromium, Hexavalent	SM3500Cr-D		UH	*	mg/L	0.005	0.02	11/29/12 10:41	ljr
Hardness as CaCO3	SM2340B - Calculation	742			mg/L	1	7	12/10/12 15:51	calc
Lab Filtration (0.45um) & Acidification	M200.7/200.8							11/28/12 16:01	ljr
Lab Filtration (glass fiber filter)	SOPWC050							11/28/12 15:30) las
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		U		mg/L	0.02	0.1	12/10/12 15:51	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U	*	mg/L	0.02	0.1	11/28/12 20:00) pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U	*	mg/L	0.01	0.05	11/28/12 20:00) pjb
Nitrogen, ammonia	M350.1 - Automated Phenate		U	*	mg/L	0.05	0.5	12/03/12 17:16	6 lhb
pH (lab)	SM4500H+ B								
рН		8.1	Н		units	0.1	0.1	11/29/12 0:00	abm
pH measured at		19.0			С	0.1	0.1	11/29/12 0:00	abm
Residue, Filterable (TDS) @180C	SM2540C	1080			mg/L	10	20	11/30/12 12:04	l ljr
Residue, Non- Filterable (TSS) @105C	SM2540D		U	*	mg/L	5	20	11/28/12 16:17	' ljr
Sulfate	D516-02 - Turbidimetric	720		*	mg/L	20	100	12/07/12 17:02	2 mpb
Sulfide as S	SM4500S2-D		U	*	mg/L	0.02	0.1	11/28/12 14:37	' abm



Project ID:

Sample ID: CB-05

Inorganic Analytical Results

ACZ Sample ID:	L98049-05
Date Sampled:	11/27/12 00:00
Date Received:	11/28/12
Sample Matrix:	Surface Water

Parameter EPA Method Result Qual XQ Units MDL PQL Date Analyst Cyanide, VAD SM4800-CNI - distillation 12/05/12 15:51 bsu 12/05/12 15:55 bsu 12/05/12 10:32 aeb Total Hot Plate M200.2 ICP M200.2 ICP-MS 12/05/12 10:32 aeb 12/05/12 12:45 scp Digestion M200.2 ICP-MS 12/04/12 14:33 las las Digestion 12/04/12 12:45 scp Metals Analysis Parameter EPA Method Result Qual XQ Units MDL PQL Date Analysis Parameter EPA Method Result Qual XQ Units MDL PQL Date Analysis Asamic, dissolved M200.7 ICP 0.010 ·* mgL 0.001 0.005 12/03/12 21:35 aeb Barum, dissolved M200.7 ICP U mgL 0.01 0.05 12/03/12 21:35 aeb Cardinium, dissolved M200.8 ICP-MS 0	Inorganic Prep								
Cyanide, WAD SM4500-CN I- distillation 12/05/12 11:19 bsu Total Hot Plate M200.2 ICP 12/05/12 10:32 aeb Digestion M200.2 ICP-MS 12/05/12 10:32 scp Total Hot Plate M200.2 ICP-MS 12/05/12 10:32 scp Digestion M200.2 ICP-MS 12/05/12 10:32 scp Metals Analysis mate Scewerable M200.8 ICP-MS 0.01 0.001 0.005 12/05/12 30:2 pmc Aluminum, total M200.8 ICP-MS U mgl. 0.001 0.005 12/05/12 30:2 pmc Barlum, dissolved M200.7 ICP 0.39 mgl. 0.011 0.05 12/03/12 21:35 aeb Boron, dissolved M200.7 ICP U mgl. 0.001 0.005 12/03/12 21:35 aeb Cadmium, dissolved M200.8 ICP-MS 0.001 mgl. 0.001 12/03/12 21:35 aeb Cadmium, dissolved M200.8 ICP-MS 0.001 mgl. 0.001 12/05/12 10:2 pmc Cadmium, dissolved <	Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Total Hot Plate Digestion M200.2 ICP 12/05/12 10.32 aeb Digestion M200.2 ICP-MS 12/03/12 12.45 scp Digestion M200.2 ICP-MS 12/04/12 14.33 iss Metals Analysis M200.2 ICP-MS 12/05/12 0.32 scp Metals Analysis Metals Analysis mg/L 0.001 0.005 12/05/12 3.02 pmc Aluminum, total M200.8 ICP-MS 0.010 * mg/L 0.0002 0.011 12/05/12 3.02 pmc Aluminum, dissolved M200.7 ICP 0.039 mg/L 0.001 0.005 12/03/12 21:35 aeb Beryllium, dissolved M200.7 ICP 0.010 mg/L 0.001 0.005 12/03/12 21:35 aeb Cadmium, dissolved M200.8 ICP-MS 0.0010 mg/L 0.001 0.005 12/03/12 21:35 aeb Cadmium, dissolved M200.8 ICP-MS 0.0010 mg/L 0.0001 0.0002 12/05/12 3.02 pmc Cadmium, dissolved M200.8 ICP-MS 0.0017 mg/L 0	Cyanide, total	M335.4 - Manual Distillation						12/05/12 15:51	bsu
Digestion 12/03/12 12:45 scp Digestion M200.2 ICP-MS 12/03/12 12:45 scp Digestion M200.2 ICP-MS 12/04/12 14:33 las Digestion Scp 12/04/12 14:34 las Metals Analysis Parameter PPA Method Result Qualt 0.010 Not PQL Dots Parameter Parameter PPA Method Result Qualt 0.001 0.010 Not PQL Dots Parameter Parameter PPA Method Result Qualt Qualt 0.001 Not PPA Parameter Parameter PPA M20.8 ICP-MS Qualt Qualt 0.001 0.005 12/05/12 3:02 pmc Barrium, dissolved M20.7 ICP U mgL 0.001 0.005 12/05/12 3:02 pmc Cadmium, dissolved M20.8 ICP-MS 0.0010 mgL 0.001 0.005 12/05/12 3:02 pmc Cadmium, dissolved M20.8 ICP-MS 0.0017 MgL mgL 0.002	Cyanide, WAD	SM4500-CN I- distillation						12/05/12 11:19	bsu
Digestion Total Recoverable Digestion M202.1 CP-MS 12/04/12 14.33 las Metals Analysis Parameter EPA Method Result Qual XQ Units MDD Pot Date Analysis Metals Analysis M20.8 ICP-MS 0.010 * mg/L 0.000 0.001 12/05/12 3.02 pmc Arsenic, dissolved M20.8 ICP-MS U mg/L 0.002 0.001 12/05/12 3.02 pmc Barlum, dissolved M20.0.7 ICP U mg/L 0.003 0.011 0.05 12/05/12 3.02 pmc Cadmium, dissolved M20.7 ICP U mg/L 0.010 0.05 12/05/12 3.02 pmc Cadmium, dissolved M20.8 ICP-MS 0.001 U mg/L 0.001 0.005 12/05/12 13.02 pmc Cadmium, dissolved M20.8 ICP-MS 0.0010 mg/L 0.0001 0.002 12/05/12 3.02 pmc Chromium, total M20.8 ICP-MS 0.0017 mg/L 0.0005 0.002 12/05/12 19.51		M200.2 ICP						12/05/12 10:32	aeb
Digestion Metals Parameter EPA Method Result Qual XQ Units MDL PQL Date Analyst Parameter EPA Method Result Qual XQ Units MDL PQL Date Analyst Atminum, total recoverable M200.8 ICP-MS U mg/L 0.0001 0.005 12/05/12 20:3 aeb Barium, dissolved M200.7 ICP 0.039 mg/L 0.010 0.055 12/03/12 21:35 aeb Cadmium, dissolved M200.7 ICP U mg/L 0.001 0.005 12/05/12 3:02 pmc Cadmium, dissolved M200.8 ICP-MS 0.0010 mg/L 0.0001 0.005 12/05/12 19:51 pmc Cadmium, dissolved M200.8 ICP-MS U mg/L 0.0005 0.002 12/05/12 19:51 pmc Chromium, dissolved M20.8 ICP-MS U mg/L 0.0005 0.002 12/05/12 19:51 pmc Chromium, fixial M20.8 ICP-MS 0.0017		M200.2 ICP-MS						12/03/12 12:45	scp
Parameter EPA Method Result Qual XQ Units MDL PQL Date Analyst Aluminum, total recoverable M200.8 ICP-MS 0.010 * mg/L 0.001 0.005 12/05/12 23:55 pmc Barium, dissolved M200.8 ICP-MS U mg/L 0.002 0.001 12/05/12 3:02 pmc Barium, dissolved M200.7 ICP 0.039 mg/L 0.01 0.05 12/03/12 21:35 aeb Boron, dissolved M200.7 ICP U mg/L 0.001 0.005 12/03/12 21:35 aeb Cadmium, dissolved M200.8 ICP-MS 0.0010 mg/L 0.001 12/05/12 3:02 pmc Cadium, dissolved M200.8 ICP-MS 0.0009 mg/L 0.002 12/05/12 21:35 pmc Chromium, fusiolved M200.8 ICP-MS U mg/L 0.0005 0.002 12/05/12 3:02 pmc Chromium, fusiolved M200.8 ICP-MS 0.0017 B mg/L 0.0005 0.002 12/05/12 3:02		M200.2 ICP-MS						12/04/12 14:33	las
Aluminum, total recoverable M200.8 ICP-MS 0.010 * mg/L 0.001 0.005 12/05/12 23:55 pmc Arsenic, dissolved M200.7 ICP 0.039 mg/L 0.002 0.001 12/05/12 3:02 pmc Barium, dissolved M200.7 ICP 0.039 mg/L 0.003 0.02 12/03/12 21:35 aeb Boron, dissolved M200.7 ICP U mg/L 0.001 0.005 12/03/12 21:35 aeb Cadmium, dissolved M200.8 ICP-MS 0.0010 mg/L 0.0005 12/05/12 3:02 pmc Cadmium, dissolved M200.8 ICP-MS 0.0010 mg/L 0.0005 12/05/12 19:51 pmc Cadmium, total M200.8 ICP-MS 0.0009 mg/L 0.0005 0.0005 12/05/12 19:51 pmc Chromium, total M200.8 ICP-MS U mg/L 0.0005 0.002 12/05/12 19:21 pmc Chromium, total M200.8 ICP-MS 0.0017 B mg/L 0.0005 0.002 12/05/12 19:21 pmc </td <td>Metals Analysis</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Metals Analysis								
National relation Index of the description mg/L 0.001 0.003 1200/12 12:03 pm/r Arsenic, dissolved M200.8 ICP-MS U mg/L 0.003 0.02 12/03/12 21:35 aeb Barium, dissolved M200.7 ICP U mg/L 0.01 0.05 12/03/12 21:35 aeb Boron, dissolved M200.7 ICP U mg/L 0.01 0.05 12/03/12 21:35 aeb Cadmium, dissolved M200.8 ICP-MS 0.0010 mg/L 0.001 0.0005 12/05/12 3:02 pmc Cadmium, dissolved M200.8 ICP-MS 0.0009 mg/L 0.0001 0.0005 12/05/12 3:02 pmc Chromium, dissolved M200.8 ICP-MS U mg/L 0.0005 0.002 12/05/12 3:02 pmc Chromium, Tivalent Calculation (Total - Hexavalent) U mg/L 0.0005 0.002 12/05/12 3:02 pmc Copper, total M200.8 ICP-MS 0.0017 B mg/L 0.0005 0.002 12/05/12 3:02 pm	Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Barium, dissolved M200.7 ICP 0.039 mg/L 0.003 0.02 12/03/12 21:35 aeb Beryllium, dissolved M200.7 ICP U mg/L 0.01 0.05 12/03/12 21:35 aeb Boron, dissolved M200.7 ICP U mg/L 0.001 0.055 12/03/12 21:35 aeb Cadmium, dissolved M200.8 ICP-MS 0.0010 mg/L 0.0001 0.0055 12/05/12 30.2 pmc Cadmium, dissolved M200.8 ICP-MS 0.0019 mg/L 0.0005 0.002 12/05/12 30.2 pmc Cadmium, dissolved M200.8 ICP-MS U mg/L 0.0005 0.002 12/05/12 30.2 pmc Chromium, Tivalent Calculation (Total - Hexavalent) U mg/L 0.0005 0.002 12/05/12 30.2 pmc Copper, dissolved M200.8 ICP-MS 0.0017 B mg/L 0.0005 0.003 12/05/12 30.2 pmc Copper, dissolved M200.7 ICP U mg/L 0.0005 0.003 12/05/12 30.2		M200.8 ICP-MS	0.010	*	mg/L	0.001	0.005	12/05/12 23:55	pmc
Beryllium, dissolved M200.7 ICP U mg/L 0.01 0.05 12/03/12 21:35 aeb Boron, dissolved M200.7 ICP U mg/L 0.001 0.005 12/03/12 21:35 aeb Cadmium, dissolved M200.8 ICP-MS 0.0010 mg/L 0.0005 12/05/12 3:02 pmc Calcium, dissolved M200.7 ICP 28.0 mg/L 0.0005 0.002 12/05/12 3:02 pmc Chromium, total M200.8 ICP-MS U mg/L 0.0005 0.002 12/05/12 3:02 pmc Chromium, total M200.8 ICP-MS U mg/L 0.0005 0.002 12/05/12 19:51 pmc Copper, dissolved M200.8 ICP-MS 0.0017 B mg/L 0.0005 0.002 12/05/12 19:51 pmc Copper, dissolved M200.8 ICP-MS 0.0017 B mg/L 0.0005 0.003 12/05/12 19:51 pmc Iron, dissolved M200.7 ICP U mg/L 0.0005 12/05/12 19:51 pmc	Arsenic, dissolved	M200.8 ICP-MS		U	mg/L	0.0002	0.001	12/05/12 3:02	pmc
Born, dissolved M200.7 ICP U mg/L 0.01 0.05 12/03/12 21:35 aeb Cadmium, dissolved M200.8 ICP-MS 0.0010 mg/L 0.0005 12/05/12 19:51 pmc Cadmium, dissolved M200.7 ICP 28.0 mg/L 0.0005 0.002 12/05/12 19:51 pmc Chromium, dissolved M200.8 ICP-MS U mg/L 0.0005 0.002 12/05/12 19:51 pmc Chromium, total M200.8 ICP-MS U mg/L 0.0005 0.002 12/05/12 19:51 pmc Chromium, total M20.8 ICP-MS U mg/L 0.0005 0.002 12/05/12 19:51 pmc Chromium, Trivalent Calculation (Total - Hexavalent) U mg/L 0.0005 0.002 12/05/12 19:51 pmc Copper, dissolved M200.8 ICP-MS 0.0017 B mg/L 0.0005 12/05/12 19:51 pmc Icon, dissolved M200.7 ICP U mg/L 0.0005 12/05/12 19:21 aeb Icon, dissolved	Barium, dissolved	M200.7 ICP	0.039		mg/L	0.003	0.02	12/03/12 21:35	aeb
Cadmium, dissolved M200.8 ICP-MS 0.0010 mg/L 0.0001 0.0005 12/05/12 3.02 pmc Cadmium, total M200.8 ICP-MS 0.0009 mg/L 0.0001 0.0005 12/05/12 19:51 pmc Calcium, dissolved M200.7 ICP 28.0 mg/L 0.0005 0.002 12/05/12 3:02 pmc Chromium, dissolved M200.8 ICP-MS U mg/L 0.0005 0.002 12/05/12 3:02 pmc Chromium, Tivalent Calculation (Total - Hexavalent) U mg/L 0.0005 0.002 12/05/12 3:02 pmc Copper, dissolved M200.8 ICP-MS 0.0017 B mg/L 0.0005 0.002 12/05/12 19:51 pmc Copper, dissolved M200.7 ICP U mg/L 0.0005 0.003 12/05/12 19:21 aeb Iron, total M200.7 ICP U mg/L 0.02 12/05/12 19:21 aeb Iron, total M200.7 ICP U mg/L 0.005 12/05/12 19:21 aeb Iron,	Beryllium, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	12/03/12 21:35	aeb
Cadmium, total M200.8 ICP-MS 0.0009 mg/L 0.0001 0.0005 12/05/12 19:51 pmc Calcium, dissolved M200.7 ICP 28.0 mg/L 0.2 1 12/03/12 21:35 aeb Chromium, dissolved M200.8 ICP-MS U mg/L 0.0005 0.002 12/05/12 3:02 pmc Chromium, total M200.8 ICP-MS U mg/L 0.0005 0.002 12/10/12 15:52 calc Copper, dissolved M200.8 ICP-MS 0.0017 B mg/L 0.0005 0.002 12/05/12 19:51 pmc Copper, dissolved M200.8 ICP-MS 0.0017 B mg/L 0.0005 0.003 12/05/12 19:51 pmc Iron, dissolved M200.7 ICP U mg/L 0.022 0.05 12/05/12 19:21 aeb Iron, dissolved M200.7 ICP U mg/L 0.001 0.005 12/05/12 19:21 aeb Magnaese, dissolved M200.7 ICP U mg/L 0.001 0.0005 12/05/12 19:21 <t< td=""><td>Boron, dissolved</td><td>M200.7 ICP</td><td></td><td>U</td><td>mg/L</td><td>0.01</td><td>0.05</td><td>12/03/12 21:35</td><td>aeb</td></t<>	Boron, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	12/03/12 21:35	aeb
Calcium, dissolved M200.7 ICP 28.0 mg/L 0.2 1 1/2/03/12 21:35 aeb Chromium, dissolved M200.8 ICP-MS U mg/L 0.0005 0.002 12/05/12 3:02 pmc Chromium, total M200.8 ICP-MS U mg/L 0.0005 0.002 12/05/12 19:51 pmc Chromium, Trivalent Calculation (Total - Hexavalent) U mg/L 0.0005 0.002 12/05/12 19:51 pmc Copper, dissolved M200.8 ICP-MS 0.0017 B mg/L 0.0005 0.003 12/05/12 19:21 pmc Iron, dissolved M200.7 ICP U mg/L 0.002 0.05 12/05/12 19:21 pmc Iron, dissolved M200.7 ICP U mg/L 0.001 0.0005 12/05/12 19:21 aeb Lead, dissolved M200.8 ICP-MS 0.0002 B mg/L 0.0001 0.0005 12/05/12 19:21 aeb Maganese, dissolved M200.7 ICP 1.7 mg/L 0.0001 0.0005 12/05/12	Cadmium, dissolved	M200.8 ICP-MS	0.0010		mg/L	0.0001	0.0005	12/05/12 3:02	pmc
Chromium, dissolved M200.8 ICP-MS U mg/L 0.0005 0.002 12/05/12 3:02 pmc Chromium, total M200.8 ICP-MS U mg/L 0.0005 0.002 12/05/12 19:51 pmc Chromium, Trivalent Calculation (Total - Hexavalent) U mg/L 0.0005 0.002 12/05/12 19:51 pmc Copper, dissolved M200.8 ICP-MS 0.0017 B mg/L 0.0005 0.003 12/05/12 19:51 pmc Copper, total M200.8 ICP-MS 0.0030 mg/L 0.0005 0.003 12/05/12 19:51 pmc Iron, dissolved M200.7 ICP U mg/L 0.002 0.05 12/05/12 19:21 aeb Lead, dissolved M200.8 ICP-MS 0.0002 B mg/L 0.0001 0.005 12/05/12 19:21 aeb Lead, dissolved M200.7 ICP U mg/L 0.0005 12/05/12 19:51 pmc Magnese, dissolved M200.7 ICP U mg/L 0.005 0.03 12/05/12 19:51 p	Cadmium, total	M200.8 ICP-MS	0.0009		mg/L	0.0001	0.0005	12/05/12 19:51	pmc
Chromium, total M200.8 ICP-MS U mg/L 0.0005 0.002 12/05/12 19:51 pmc Chromium, Trivalent Calculation (Total - Hexavalent) U mg/L 0.0005 0.002 12/10/12 15:52 calc Copper, dissolved M200.8 ICP-MS 0.0017 B mg/L 0.0005 0.003 12/05/12 3:02 pmc Copper, total M200.8 ICP-MS 0.0030 mg/L 0.005 0.003 12/05/12 19:51 pmc Iron, dissolved M200.7 ICP U mg/L 0.02 0.05 12/05/12 19:21 aeb Lead, dissolved M200.8 ICP-MS 0.0002 B mg/L 0.001 0.005 12/05/12 19:21 aeb Lead, dissolved M200.7 ICP 1.7 mg/L 0.001 0.0005 12/05/12 19:21 aeb Magnesum, dissolved M200.7 ICP U mg/L 0.005 0.03 12/05/12 19:21 aeb Manganese, total M200.7 ICP U mg/L 0.005 0.03 12/05/12 19:21 <td>Calcium, dissolved</td> <td>M200.7 ICP</td> <td>28.0</td> <td></td> <td>mg/L</td> <td>0.2</td> <td>1</td> <td>12/03/12 21:35</td> <td>aeb</td>	Calcium, dissolved	M200.7 ICP	28.0		mg/L	0.2	1	12/03/12 21:35	aeb
Chromium, Trivalent Calculation (Total - Hexavalent) U mg/L 0.0005 0.002 12/10/12 15:52 calc Copper, dissolved M200.8 ICP-MS 0.0017 B mg/L 0.0005 0.003 12/05/12 3:02 pmc Copper, total M200.8 ICP-MS 0.0030 mg/L 0.0005 0.003 12/05/12 19:51 pmc Iron, dissolved M200.7 ICP U mg/L 0.02 0.05 12/05/12 19:21 aeb Lead, dissolved M200.8 ICP-MS 0.0002 B mg/L 0.001 0.0005 12/05/12 19:21 aeb Lead, dissolved M200.8 ICP-MS 0.0002 B mg/L 0.001 0.0005 12/05/12 19:21 aeb Lead, total M200.8 ICP-MS 0.0005 mg/L 0.001 0.0005 12/05/12 19:21 aeb Magnesium, dissolved M200.7 ICP 1.7 mg/L 0.02 1 12/03/12 21:35 aeb Manganese, dissolved M200.7 ICP U mg/L 0.005 0.03 12/05/12 19:21 aeb Mareury, total M245.1 CVAA <td< td=""><td>Chromium, dissolved</td><td>M200.8 ICP-MS</td><td></td><td>U</td><td>mg/L</td><td>0.0005</td><td>0.002</td><td>12/05/12 3:02</td><td>pmc</td></td<>	Chromium, dissolved	M200.8 ICP-MS		U	mg/L	0.0005	0.002	12/05/12 3:02	pmc
Copper, dissolved M20.8 ICP-MS 0.0017 B mg/L 0.0005 0.003 12/05/12 3:02 pmc Copper, total M20.8 ICP-MS 0.0030 mg/L 0.0005 0.003 12/05/12 19:51 pmc Iron, dissolved M200.7 ICP U mg/L 0.02 0.05 12/05/12 19:21 aeb Lead, dissolved M200.8 ICP-MS 0.0002 B mg/L 0.001 0.005 12/05/12 19:21 aeb Lead, total M200.8 ICP-MS 0.0002 B mg/L 0.001 0.005 12/05/12 19:21 aeb Magnesium, dissolved M200.7 ICP U mg/L 0.001 0.005 12/05/12 19:21 aeb Magnaese, dissolved M200.7 ICP 1.7 mg/L 0.02 1 12/05/12 19:21 aeb Marganese, total M200.7 ICP U mg/L 0.005 0.03 12/05/12 19:21 aeb Marganese, total M20.7 ICP U mg/L 0.005 0.03 12/05/12 19:21	Chromium, total	M200.8 ICP-MS		U	mg/L	0.0005	0.002	12/05/12 19:51	pmc
Copper, total M200.8 ICP-MS 0.0030 mg/L 0.0005 0.003 12/05/12 19:51 pmc Iron, dissolved M200.7 ICP U mg/L 0.02 0.05 12/03/12 21:35 aeb Iron, total M200.7 ICP U mg/L 0.02 0.05 12/05/12 19:21 aeb Lead, dissolved M200.8 ICP-MS 0.0002 B mg/L 0.001 0.005 12/05/12 19:21 aeb Lead, total M200.8 ICP-MS 0.0005 mg/L 0.001 0.005 12/05/12 19:51 pmc Magnesium, dissolved M200.7 ICP 1.7 mg/L 0.22 1 12/03/12 21:35 aeb Manganese, dissolved M200.7 ICP U mg/L 0.005 0.03 12/05/12 19:21 aeb Mercury, total M205.7 ICP U mg/L 0.005 0.03 12/05/12 19:21 aeb Nickel, dissolved M200.7 ICP U mg/L 0.001 0.05 12/06/12 10:17 mfm Nickel,	Chromium, Trivalent	Calculation (Total - Hexavalent)		U	mg/L	0.0005	0.002	12/10/12 15:52	calc
Inn, dissolvedM200.7 ICPUmg/L0.020.0512/03/12 21:35aebIron, totalM200.7 ICPUmg/L0.020.0512/05/12 19:21aebLead, dissolvedM200.8 ICP-MS0.0002Bmg/L0.00010.000512/05/12 3:02pmcLead, totalM200.7 ICP0.0005mg/L0.00010.000512/05/12 19:51pmcMagnesium, dissolvedM200.7 ICP1.7mg/L0.22112/03/12 21:35aebManganese, dissolvedM200.7 ICPUmg/L0.0050.0312/05/12 19:21aebMarganese, totalM200.7 ICPUmg/L0.0050.0312/05/12 19:21aebMercury, totalM245.1 CVAAU* mg/L0.00020.00112/06/12 10:17mfmNickel, dissolvedM200.7 ICPUmg/L0.0110.0512/03/12 21:35aebNickel, dissolvedM200.7 ICPUmg/L0.0110.0512/05/12 19:21aebNickel, dissolvedM200.7 ICPUmg/L0.0110.0512/05/12 3:02pmcSilver, dissolvedM200.8 ICP-MSUmg/L0.0010.00312/05/12 3:02pmcSilver, totalM200.8 ICP-MSUmg/L0.00010.00312/05/12 3:02pmcUranium, dissolvedM200.8 ICP-MSUmg/L0.0010.00312/05/12 3:02pmcUranium, totalM200.8 ICP-MSUmg/L	Copper, dissolved	M200.8 ICP-MS	0.0017	В	mg/L	0.0005	0.003	12/05/12 3:02	pmc
Iron, totalM200.7 ICPUmg/L0.020.0512/05/12 19:21aebLead, dissolvedM200.8 ICP-MS0.0002Bmg/L0.00010.000512/05/12 3:02pmcLead, totalM200.8 ICP-MS0.0005mg/L0.00010.000512/05/12 19:51pmcMagnesium, dissolvedM200.7 ICP1.7mg/L0.2112/03/12 21:35aebManganese, dissolvedM200.7 ICPUmg/L0.0050.0312/05/12 19:21aebManganese, totalM200.7 ICPUmg/L0.0050.0312/05/12 19:21aebMercury, totalM245.1 CVAAU* mg/L0.0020.00112/06/12 10:17mfmNickel, dissolvedM200.7 ICPUmg/L0.010.0512/05/12 19:21aebMickel, dissolvedM200.7 ICPUmg/L0.0010.00512/05/12 19:21aebNickel, dissolvedM200.7 ICPUmg/L0.010.0512/06/12 10:17mfmNickel, dissolvedM200.7 ICPUmg/L0.010.0512/05/12 3:02pmcSelenium, dissolvedM200.8 ICP-MSUmg/L0.0010.00312/05/12 3:02pmcSilver, dissolvedM200.8 ICP-MSUmg/L0.00010.00312/05/12 3:02pmcSilver, totalM200.8 ICP-MSUmg/L0.00010.00512/05/12 19:51pmcUranium, dissolvedM200.8 ICP-MSU <td< td=""><td>Copper, total</td><td>M200.8 ICP-MS</td><td>0.0030</td><td></td><td>mg/L</td><td>0.0005</td><td>0.003</td><td>12/05/12 19:51</td><td>pmc</td></td<>	Copper, total	M200.8 ICP-MS	0.0030		mg/L	0.0005	0.003	12/05/12 19:51	pmc
Iron, totalM200.7 ICPUmg/L0.020.0512/05/12 19:21aebLead, dissolvedM200.8 ICP-MS0.0002Bmg/L0.00010.000512/05/12 3:02pmcLead, totalM200.8 ICP-MS0.0005mg/L0.00010.000512/05/12 19:51pmcMagnesium, dissolvedM200.7 ICP1.7mg/L0.2112/03/12 21:35aebManganese, dissolvedM200.7 ICPUmg/L0.0050.0312/05/12 19:21aebManganese, totalM200.7 ICPUmg/L0.0050.0312/05/12 19:21aebMercury, totalM245.1 CVAAU* mg/L0.0020.00112/06/12 10:17mfmNickel, dissolvedM200.7 ICPUmg/L0.010.0512/05/12 19:21aebNickel, dissolvedM200.7 ICPUmg/L0.0010.00512/05/12 19:21aebNickel, dissolvedM200.7 ICPUmg/L0.010.0512/06/12 10:17mfmNickel, dissolvedM200.7 ICPUmg/L0.010.0512/05/12 3:02pmcSilver, dissolvedM200.8 ICP-MS0.0004mg/L0.0010.00312/05/12 3:02pmcSilver, totalM200.8 ICP-MSUmg/L0.00010.00512/05/12 19:51pmcUranium, dissolvedM200.8 ICP-MSUmg/L0.00010.00512/05/12 19:51pmcUranium, totalM200.8 ICP-MSU <t< td=""><td>Iron, dissolved</td><td>M200.7 ICP</td><td></td><td>U</td><td>mg/L</td><td>0.02</td><td>0.05</td><td>12/03/12 21:35</td><td>aeb</td></t<>	Iron, dissolved	M200.7 ICP		U	mg/L	0.02	0.05	12/03/12 21:35	aeb
Lead, totalM200.8 ICP-MS0.0005mg/L0.00010.000512/05/12 19:51pmcMagnesium, dissolvedM200.7 ICP1.7mg/L0.2112/03/12 21:35aebManganese, dissolvedM200.7 ICPUmg/L0.0050.0312/03/12 21:35aebManganese, totalM200.7 ICPUmg/L0.0050.0312/05/12 19:21aebMercury, totalM245.1 CVAAU*mg/L0.00020.00112/06/12 10:17mfmNickel, dissolvedM200.7 ICPUmg/L0.010.0512/03/12 21:35aebNickel, totalM200.7 ICPUmg/L0.010.0512/05/12 10:17mfmNickel, totalM200.7 ICPUmg/L0.010.0512/05/12 10:21aebSelenium, dissolvedM200.8 ICP-MS0.0004mg/L0.0010.00312/05/12 3:02pmcSilver, totalM200.8 ICP-MSUmg/L0.00050.00312/05/12 3:02pmcUranium, dissolvedM200.8 ICP-MSUmg/L0.00010.000512/05/12 3:02pmcUranium, dissolvedM200.8 ICP-MSUmg/L0.0010.000512/05/12 3:02pmcUranium, totalM200.8 ICP-MSUmg/L0.0010.000512/05/12 3:02pmcUranium, totalM200.8 ICP-MSUmg/L0.0010.00512/05/12 19:51pmcUranium, totalM200.8 ICP-MSU	Iron, total	M200.7 ICP		U	mg/L	0.02	0.05	12/05/12 19:21	aeb
Magnesium, dissolvedM200.7 ICP1.7mg/L0.2112/03/12 21:35aebManganese, dissolvedM200.7 ICPUmg/L0.0050.0312/03/12 21:35aebManganese, totalM200.7 ICPUmg/L0.0050.0312/05/12 19:21aebMercury, totalM245.1 CVAAU*mg/L0.00020.00112/06/12 10:17mfmNickel, dissolvedM200.7 ICPUmg/L0.010.0512/03/12 21:35aebNickel, totalM200.7 ICPUmg/L0.010.0512/03/12 21:35aebNickel, totalM200.7 ICPUmg/L0.010.0512/06/12 10:17mfmNickel, totalM200.7 ICPUmg/L0.010.0512/05/12 3:02pmcSilver, dissolvedM200.8 ICP-MS0.0004mg/L0.00010.00312/05/12 3:02pmcSilver, totalM200.8 ICP-MSUmg/L0.00050.00312/05/12 3:02pmcUranium, dissolvedM200.8 ICP-MSUmg/L0.00010.00512/05/12 3:02pmcUranium, dissolvedM200.8 ICP-MSUmg/L0.0010.00512/05/12 3:02pmcUranium, dissolvedM200.8 ICP-MSUmg/L0.0010.00512/05/12 3:02pmcUranium, dissolvedM200.8 ICP-MSUmg/L0.0010.00512/05/12 19:51pmcUranium, totalM200.8 ICP-MS0.23mg/L	Lead, dissolved	M200.8 ICP-MS	0.0002	В	-	0.0001	0.0005	12/05/12 3:02	pmc
Manganese, dissolvedM200.7 ICPUmg/L0.0050.0312/03/12 21:35aebManganese, totalM200.7 ICPUmg/L0.0050.0312/05/12 19:21aebMercury, totalM245.1 CVAAU*mg/L0.00020.00112/06/12 10:17mfmNickel, dissolvedM200.7 ICPUmg/L0.010.0512/03/12 21:35aebNickel, totalM200.7 ICPUmg/L0.010.0512/03/12 21:35aebSelenium, dissolvedM200.8 ICP-MS0.0004mg/L0.010.0512/05/12 3:02pmcSilver, totalM200.8 ICP-MSUmg/L0.00050.00312/05/12 3:02pmcSilver, totalM200.8 ICP-MSUmg/L0.00010.000512/05/12 3:02pmcUranium, dissolvedM200.8 ICP-MSUmg/L0.00010.000512/05/12 3:02pmcUranium, totalM200.8 ICP-MSUmg/L0.00010.000512/05/12 3:02pmcUranium, totalM200.8 ICP-MSUmg/L0.00010.000512/05/12 19:51pmcUranium, totalM200.8 ICP-MSUmg/L0.00110.00512/05/12 19:51pmcUranium, totalM200.8 ICP-MSUmg/L0.00010.00512/05/12 19:51pmcUranium, totalM200.7 ICP0.23mg/L0.010.0512/03/12 21:35aeb	Lead, total	M200.8 ICP-MS	0.0005		mg/L	0.0001	0.0005	12/05/12 19:51	pmc
Manganese, dissolvedM200.7 ICPUmg/L0.0050.0312/03/12 21:35aebManganese, totalM200.7 ICPUmg/L0.0050.0312/05/12 19:21aebMercury, totalM245.1 CVAAU*mg/L0.00020.00112/06/12 10:17mfmNickel, dissolvedM200.7 ICPUmg/L0.010.0512/03/12 21:35aebNickel, totalM200.7 ICPUmg/L0.010.0512/03/12 21:35aebSelenium, dissolvedM200.8 ICP-MS0.0004mg/L0.010.0512/05/12 3:02pmcSilver, totalM200.8 ICP-MSUmg/L0.00050.00312/05/12 3:02pmcSilver, totalM200.8 ICP-MSUmg/L0.00010.000512/05/12 3:02pmcUranium, dissolvedM200.8 ICP-MSUmg/L0.00010.000512/05/12 3:02pmcUranium, dissolvedM200.8 ICP-MSUmg/L0.00010.000512/05/12 3:02pmcUranium, dissolvedM200.8 ICP-MSUmg/L0.00010.000512/05/12 19:51pmcUranium, totalM200.8 ICP-MSUmg/L0.00110.00512/05/12 19:51pmcUranium, totalM200.8 ICP-MSUmg/L0.00110.00512/05/12 19:51pmcUranium, totalM200.7 ICP0.23mg/L0.0110.0512/05/12 19:51pmcZinc, dissolvedM200.7 ICP0.2	Magnesium, dissolved	M200.7 ICP	1.7		mg/L	0.2	1	12/03/12 21:35	aeb
Mercury, total M245.1 CVAA U * mg/L 0.0002 0.001 12/06/12 10:17 mfm Nickel, dissolved M200.7 ICP U mg/L 0.01 0.05 12/03/12 21:35 aeb Nickel, total M200.7 ICP U mg/L 0.01 0.05 12/06/12 12:21 aeb Selenium, dissolved M200.8 ICP-MS 0.0004 mg/L 0.001 0.003 12/05/12 3:02 pmc Silver, dissolved M200.8 ICP-MS U mg/L 0.00005 0.0003 12/05/12 3:02 pmc Silver, total M200.8 ICP-MS U mg/L 0.0001 0.0005 12/05/12 3:02 pmc Uranium, dissolved M200.8 ICP-MS U mg/L 0.0001 0.0005 12/05/12 19:51 pmc Uranium, total M200.8 ICP-MS U mg/L 0.0001 0.0005 12/05/12 3:02 pmc Uranium, total M200.8 ICP-MS U mg/L 0.0001 0.0005 12/05/12 19:51 pmc	Manganese, dissolved	M200.7 ICP		U	mg/L	0.005	0.03	12/03/12 21:35	aeb
Mercury, total M245.1 CVAA U * mg/L 0.0002 0.001 12/06/12 10:17 mfm Nickel, dissolved M200.7 ICP U mg/L 0.01 0.05 12/03/12 21:35 aeb Nickel, total M200.7 ICP U mg/L 0.01 0.05 12/06/12 12:21 aeb Selenium, dissolved M200.8 ICP-MS 0.0004 mg/L 0.001 0.003 12/05/12 3:02 pmc Silver, dissolved M200.8 ICP-MS U mg/L 0.0005 0.003 12/05/12 3:02 pmc Silver, total M200.8 ICP-MS U mg/L 0.0005 0.003 12/05/12 3:02 pmc Uranium, dissolved M200.8 ICP-MS U mg/L 0.0001 0.005 12/05/12 19:51 pmc Uranium, total M200.8 ICP-MS U mg/L 0.001 0.005 12/05/12 19:51 pmc Uranium, total M200.8 ICP-MS U mg/L 0.001 0.005 12/05/12 19:51 pmc <td< td=""><td>•</td><td></td><td></td><td></td><td>-</td><td>0.005</td><td>0.03</td><td>12/05/12 19:21</td><td>aeb</td></td<>	•				-	0.005	0.03	12/05/12 19:21	aeb
Nickel, total M200.7 ICP U mg/L 0.01 0.05 12/06/12 12:21 aeb Selenium, dissolved M200.8 ICP-MS 0.0004 mg/L 0.0001 0.0003 12/05/12 3:02 pmc Silver, dissolved M200.8 ICP-MS U mg/L 0.00005 0.0003 12/05/12 3:02 pmc Silver, total M200.8 ICP-MS U mg/L 0.00005 0.0003 12/05/12 3:02 pmc Uranium, dissolved M200.8 ICP-MS U mg/L 0.00005 0.0003 12/05/12 19:51 pmc Uranium, dissolved M200.8 ICP-MS U mg/L 0.0001 0.0005 12/05/12 3:02 pmc Uranium, total M200.8 ICP-MS U mg/L 0.0001 0.0005 12/05/12 3:02 pmc Zinc, dissolved M200.7 ICP 0.23 mg/L 0.001 0.005 12/05/12 19:51 pmc	Mercury, total	M245.1 CVAA		U *		0.0002	0.001	12/06/12 10:17	mfm
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Silver, dissolved M200.8 ICP-MS U mg/L 0.00005 0.0003 12/05/12 3:02 pmc Silver, total M200.8 ICP-MS U mg/L 0.00005 0.0003 12/05/12 19:51 pmc Uranium, dissolved M200.8 ICP-MS U mg/L 0.0001 0.0005 12/05/12 3:02 pmc Uranium, dissolved M200.8 ICP-MS U mg/L 0.0001 0.0005 12/05/12 3:02 pmc Uranium, total M200.8 ICP-MS U mg/L 0.0001 0.0005 12/05/12 19:51 pmc Zinc, dissolved M200.7 ICP 0.23 mg/L 0.01 0.05 12/03/12 21:35 aeb	Nickel, total	M200.7 ICP		U	mg/L	0.01	0.05	12/06/12 12:21	aeb
Silver, dissolved M200.8 ICP-MS U mg/L 0.00005 0.0003 12/05/12 3:02 pmc Silver, total M200.8 ICP-MS U mg/L 0.00005 0.0003 12/05/12 19:51 pmc Uranium, dissolved M200.8 ICP-MS U mg/L 0.0001 0.0005 12/05/12 3:02 pmc Uranium, dissolved M200.8 ICP-MS U mg/L 0.0001 0.0005 12/05/12 3:02 pmc Uranium, total M200.8 ICP-MS U mg/L 0.0001 0.0005 12/05/12 19:51 pmc Zinc, dissolved M200.7 ICP 0.23 mg/L 0.01 0.05 12/03/12 21:35 aeb	Selenium, dissolved	M200.8 ICP-MS	0.0004		mg/L	0.0001	0.0003	12/05/12 3:02	pmc
Silver, total M200.8 ICP-MS U mg/L 0.00005 0.0003 12/05/12 19:51 pmc Uranium, dissolved M200.8 ICP-MS U mg/L 0.0001 0.0005 12/05/12 3:02 pmc Uranium, total M200.8 ICP-MS U mg/L 0.0001 0.0005 12/05/12 19:51 pmc Zinc, dissolved M200.7 ICP 0.23 mg/L 0.01 0.05 12/05/12 19:51 aeb	Silver, dissolved	M200.8 ICP-MS		U	-	0.00005	0.0003	12/05/12 3:02	, pmc
Uranium, dissolved M200.8 ICP-MS U mg/L 0.0001 0.0005 12/05/12 3:02 pmc Uranium, total M200.8 ICP-MS U mg/L 0.0001 0.0005 12/05/12 19:51 pmc Zinc, dissolved M200.7 ICP 0.23 mg/L 0.01 0.05 12/03/12 21:35 aeb					•				•
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Zinc, dissolved M200.7 ICP 0.23 mg/L 0.01 0.05 12/03/12 21:35 aeb	,			U	0				•
			0.23		-	0.01			
	Zinc, total		0.26		mg/L				

* Please refer to Qualifier Reports for details.



Project ID: Sample ID: CB-05

Inorganic Analytical Results

ACZ Sample ID: **L98049-05** Date Sampled: 11/27/12 00:00 Date Received: 11/28/12 Sample Matrix: Surface Water

Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as		49			mg/L	2	20	11/29/12 0:00	abm
CaCO3			U		ma/l	2	20	11/29/12 0:00	ahm
Carbonate as CaCO3			U		mg/L	2 2	20 20	11/29/12 0:00	abm abm
Hydroxide as CaCO3 Total Alkalinity		49	0		mg/L	2	20 20	11/29/12 0:00	
Chloride	SM4500CI-E	49	U	*	mg/L mg/L	2	20 5	12/06/12 12:51	
Conductivity @25C	SM2510B	178	0		umhos/cm	1	5 10	11/29/12 21:45	
Cyanide, total	M335.4 - Colorimetric w/	170	U	*	mg/L	ı 0.003	0.01	12/07/12 11:50	
Cyanide, lotai	distillation		U		mg/L	0.003	0.01	12/07/12 11.50	
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	12/05/12 14:53	lhb
Dissolved Chromium, Hexavalent	SM3500Cr-D		UH	*	mg/L	0.005	0.02	11/29/12 10:42	ljr
Hardness as CaCO3	SM2340B - Calculation	77			mg/L	1	7	12/10/12 15:52	calc
Lab Filtration (0.45um) & Acidification	M200.7/200.8							11/28/12 16:06	i ljr
Lab Filtration (glass fiber filter)	SOPWC050							11/28/12 15:35	i las
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2	0.33			mg/L	0.02	0.1	12/10/12 15:52	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	0.33		*	mg/L	0.02	0.1	11/28/12 20:01	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U	*	mg/L	0.01	0.05	11/28/12 20:01	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate		U	*	mg/L	0.05	0.5	12/03/12 17:17	' lhb
pH (lab)	SM4500H+ B								
рН		8.1	н		units	0.1	0.1	11/29/12 0:00	abm
pH measured at		19.0			С	0.1	0.1	11/29/12 0:00	abm
Residue, Filterable (TDS) @180C	SM2540C	100			mg/L	10	20	11/30/12 12:05	i ljr
Residue, Non- Filterable (TSS) @105C	SM2540D		U	*	mg/L	5	20	11/28/12 16:18	i ljr
Sulfate	D516-02 - Turbidimetric	43			mg/L	2	10	12/07/12 17:18	1
Sulfide as S	SM4500S2-D		U	*	mg/L	0.02	0.1	11/28/12 14:38	abm



Watley Group LLC Project ID:

ACZ Sample ID:	L98049-06
Date Sampled:	11/27/12 00:00
Date Received:	11/28/12
Sample Matrix:	Surface Water

,	
Sample ID:	TB092512-1

Inorganic Prep									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation							12/05/12 15:58	bsu
Cyanide, WAD	SM4500-CN I- distillation							12/05/12 11:34	bsu
Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	12/07/12 11:51	lhb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	12/05/12 14:54	lhb



Inorganic Reference

Batch Found	Explanations		
rouna	A distinct set of samples analyzed at a specific time		
	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)		
MDL	Method Detection Limit. Same as Minimum Reporting Limit.		
PCN/SCN	A number assigned to reagents/standards to trace to the man	iufacturer's certific	ate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.		
QC	True Value of the Control Sample or the amount added to the	•	
Rec	Recovered amount of the true value or spike added, in % (exc		/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC	Types	
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)		
Sample	Value of the Sample of interest		
Sample Typ	bes		
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
ССВ	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	SDL	Serial Dilution
Duplicates Spikes/Forti	ified Matrix Determines sample matrix interferen		
Standard	Verifies the validity of the calibration.		
Z Qualifiers	(Qual)		
В	Analyte concentration detected at a value between MDL and F	PQL. The associat	ed value is an estimated quantity.
н	Analysis exceeded method hold time. pH is a field test with an	n immediate hold t	
			ime.
L	Target analyte response was below the laboratory defined neg		ime.
	Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the	gative threshold.	
L		gative threshold. e level of the asso	ciated value.
L U	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or	gative threshold. e level of the asso	ciated value.
L U ethod Referen	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces	gative threshold. e level of the asso the sample detect	iciated value. ion limit.
L U ethod Referen (1)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a	gative threshold. e level of the asso the sample detect and Wastes, Marc	iciated value. ion limit. h 1983.
L U ethod Referen (1) (2)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan	gative threshold. e level of the asso the sample detect and Wastes, Marc hic Substances in l	iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals	gative threshold. e level of the asso the sample detect and Wastes, Marc hic Substances in l	iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U thod Referen (1) (2) (3) (4)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	gative threshold. e level of the asso the sample detect and Wastes, Marc hic Substances in l in Environmental s	iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3) (4) (5)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals	gative threshold. e level of the asso the sample detect and Wastes, Marc hic Substances in l in Environmental s	iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U thod Referen (1) (2) (3) (4) (5) mments	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewa	gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental s ater.	iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
L U thod Referen (1) (2) (3) (4) (5) mments (1)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slightly	gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental s ater. y if the rounded va	ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
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L U thod Referent (1) (2) (3) (4) (5) (1) (2) (1) (2) (3)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or inces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slightly Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as	gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental s ater. y if the rounded va ported on a dry we s received" basis.	ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
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L U thod Referent (1) (2) (3) (4) (5) (1) (2) (1) (2) (3)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or inces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slightly Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended	gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental s ater. y if the rounded va ported on a dry we s received" basis. qualifier and/or ce	ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. Hues are used in the calculations. right basis.

REP001.09.12.01



Watley Group LLC

Alkalinity as CaC	:03		SM2320E	8 - Titration									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG334928													
WG334928PBW1	PBW	11/29/12 13:08				U	mg/L		-20	20			
WG334928LCSW2	LCSW	11/29/12 13:20	WC121114-	820.0001		761.9	mg/L	92.9	90	110			
WG334928LCSW5	LCSW	11/29/12 15:58	WC121114-	820.0001		791.4	mg/L	96.5	90	110			
WG334928PBW2	PBW	11/29/12 16:06				U	mg/L		-20	20			
WG334928LCSW8	LCSW	11/29/12 19:22	WC121114-	820.0001		773.8	mg/L	94.4	90	110			
WG334928PBW3	PBW	11/29/12 19:30				U	mg/L		-20	20			
L98051-02DUP	DUP	11/29/12 22:36			140	140.3	mg/L				0.2	20	
WG334928LCSW11	LCSW	11/29/12 22:49	WC121114-	820.0001		799.7	mg/L	97.5	90	110			
WG334928PBW4	PBW	11/29/12 22:57				U	mg/L		-20	20			
WG334928LCSW14	LCSW	11/30/12 2:12	WC121114-	820.0001		795.7	mg/L	97	90	110			
Aluminum, total	recover	able	M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335347													
WG335347ICV	ICV	12/05/12 22:58	MS121001-5	.1		.0999	mg/L	99.9	90	110			
WG335347ICB	ICB	12/05/12 23:01				U	mg/L		-0.003	0.003			
WG335198LRB	LRB	12/05/12 23:04				U	mg/L		-0.0022	0.0022			
WG335198LFB	LFB	12/05/12 23:08	MS121130-3	.050055		.0484	mg/L	96.7	85	115			
L98049-01LFM	LFM	12/05/12 23:39	MS121130-3	.050055	.058	.1021	mg/L	88.1	70	130			
L98049-01LFMD	LFMD	12/05/12 23:42	MS121130-3	.050055	.058	.1003	mg/L	84.5	70	130	1.78	20	
L98054-05LFM	LFM	12/06/12 0:29	MS2XW	.10017	.463	.535	mg/L	71.9	70	130			
L98054-05LFMD	LFMD	12/06/12 0:33	MS2XW	.10017	.463	.5266	mg/L	63.5	70	130	1.58	20	M3
Arsenic, dissolve	ed		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335258													
WG335258ICV	ICV	12/05/12 2:15	MS121001-5	.05		.05066	mg/L	101.3	90	110			
WG335258ICB	ICB	12/05/12 2:18				U	mg/L		-0.0006	0.0006			
WG335258LFB	LFB	12/05/12 2:22	MS121130-3	.05005		.04845	mg/L	96.8	85	115			
L98036-02AS	AS	12/05/12 2:37	MS121130-3	.05005	.0016	.05567	mg/L	108	70	130			
L98036-02ASD	ASD	12/05/12 2:40	MS121130-3	.05005	.0016	.05845	mg/L	113.6	70	130	4.87	20	
L98049-05AS	AS	12/05/12 3:05	MS121130-3	.05005	U	.05228	mg/L	104.5	70	130			
L98049-05ASD	ASD	12/05/12 3:09	MS121130-3	.05005	U	.05269	mg/L	105.3	70	130	0.78	20	
WG335358													
WG335358ICV	ICV	12/07/12 4:27	MS121001-5	.05		.05388	mg/L	107.8	90	110			
WG335358ICB	ICB	12/07/12 4:30				U	mg/L		-0.0006	0.0006			
WG335358LFB	LFB	12/07/12 4:34	MS121130-3	.05005		.04908	mg/L	98.1	85	115			
L98049-03AS	AS	12/07/12 4:46	MS121130-3	.05005	.0004	.05902	mg/L	117.1	70	130			
L98049-03ASD	ASD	12/07/12 4:49	MS121130-3	.05005	.0004	.06024	mg/L	119.6	70	130	2.05	20	



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Barium, dissolv	ed		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335118													
WG335118ICV	ICV	12/03/12 19:50	II121126-1	2		1.9818	mg/L	99.1	95	105			
WG335118ICB	ICB	12/03/12 19:56				U	mg/L		-0.009	0.009			
WG335118LFB	LFB	12/03/12 20:08	II121129-6	.5		.4828	mg/L	96.6	85	115			
L98016-02AS	AS	12/03/12 20:58	II121129-6	.5	.063	.5523	mg/L	97.9	85	115			
L98016-02ASD	ASD	12/03/12 21:01	ll121129-6	.5	.063	.5525	mg/L	97.9	85	115	0.04	20	
Beryllium, disso	lved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335118													
WG335118ICV	ICV	12/03/12 19:50	II121126-1	2		1.971	mg/L	98.6	95	105			
WG335118ICB	ICB	12/03/12 19:56				U	mg/L		-0.03	0.03			
WG335118LFB	LFB	12/03/12 20:08	II121129-6	.5		.495	mg/L	99	85	115			
L98016-02AS	AS	12/03/12 20:58	II121129-6	.5	U	.481	mg/L	96.2	85	115			
L98016-02ASD	ASD	12/03/12 21:01	ll121129-6	.5	U	.482	mg/L	96.4	85	115	0.21	20	
Boron, dissolve	d		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335118													
WG335118ICV	ICV	12/03/12 19:50	II121126-1	2		2.019	mg/L	101	95	105			
WG335118ICB	ICB	12/03/12 19:56		-		U.010	mg/L	101	-0.03	0.03			
WG335118LFB	LFB	12/03/12 20:08	II121129-6	.5005		.514	mg/L	102.7	85	115			
L98016-02AS	AS	12/03/12 20:58	1121129-6	.5005	.06	.565	mg/L	100.9	85	115			
L98016-02ASD	ASD	12/03/12 21:01	II121129-6	.5005	.06	.568	mg/L	101.5	85	115	0.53	20	
Cadmium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335258													
WG335258ICV	ICV	12/05/12 2:15	MS121001-5	.05		.04836	mg/L	96.7	90	110			
WG335258ICB	ICB	12/05/12 2:18	1001210010	.00		U	mg/L	00.1	-0.0003	0.0003			
WG335258LFB	LFB	12/05/12 2:22	MS121130-3	.0501		.04793	mg/L	95.7	85	115			
L98036-02AS	AS	12/05/12 2:37	MS121130-3	.0501	.0002	.04924	mg/L	97.9	70	130			
L98036-02ASD	ASD	12/05/12 2:40	MS121130-3	.0501	.0002	.04957	mg/L	98.5	70	130	0.67	20	
L98049-05AS	AS	12/05/12 3:05	MS121130-3	.0501	.001	.04992	mg/L	97.6	70	130			
L98049-05ASD	ASD	12/05/12 3:09	MS121130-3	.0501	.001	.05	mg/L	97.8	70	130	0.16	20	
Cadmium, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335256													
WG335256ICV	ICV	12/05/12 19:00	MS121001-5	.05		.05202	mg/L	104	90	110			
WG335256ICB	ICB	12/05/12 19:00				.00202 U	mg/L		-0.0003	0.0003			
WG335113LRB	LRB	12/05/12 19:07				U	mg/L		-0.00022	0.00022			
WG335113LFB	LFB	12/05/12 19:10	MS121130-3	.0501		.04785	mg/L	95.5	85	115			
L98016-01LFM	LFM	12/05/12 19:16	MS121130-3	.0501	U	.0492	mg/L	98.2	70	130			
L98016-01LFMD	LFMD	12/05/12 19:19	MS121130-3	.0501	U	.04923	mg/L	98.3	70	130	0.06	20	
					-		5		-				



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Calcium, dissolve	əd		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335118													
WG335118ICV	ICV	12/03/12 19:50	II121126-1	100		100.13	mg/L	100.1	95	105			
WG335118ICB	ICB	12/03/12 19:56				U	mg/L		-0.6	0.6			
WG335118LFB	LFB	12/03/12 20:08	II121129-6	67.97554		69.48	mg/L	102.2	85	115			
L98016-02AS	AS	12/03/12 20:58	II121129-6	67.97554	72.6	140	mg/L	99.2	85	115			
L98016-02ASD	ASD	12/03/12 21:01	II121129-6	67.97554	72.6	140	mg/L	99.2	85	115	0	20	
Chloride			SM4500C	Я-Е									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335390													
WG335390ICB	ICB	12/06/12 10:57				U	mg/L		-3	3			
WG335390ICV	ICV	12/06/12 10:57	WI120904-1	54.945		57.9	mg/L	105.4	90	110			
WG335390LFB1	LFB	12/06/12 12:41	WI120716-1	30		32.4	mg/L	108	90	110			
WG335390LFB2	LFB	12/06/12 12:45	WI120716-1	30		32.4	mg/L	108	90	110			
L98043-10AS	AS	12/06/12 12:45	WI120716-1	30	U	33.6	mg/L	112	90	110			M
L98043-11DUP	DUP	12/06/12 12:45			U	U	mg/L				0	20	RA
Chromium, disso	lved		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335258													
WG335258ICV	ICV	12/05/12 2:15	MS121001-5	.05		.0471	mg/L	94.2	90	110			
WG335258ICB	ICB	12/05/12 2:18				U	mg/L		-0.0015	0.0015			
WG335258LFB	LFB	12/05/12 2:22	MS121130-3	.05005		.04882	mg/L	97.5	85	115			
L98036-02AS	AS	12/05/12 2:37	MS121130-3	.05005	U	.04496	mg/L	89.8	70	130			
L98036-02ASD	ASD	12/05/12 2:40	MS121130-3	.05005	U	.04917	mg/L	98.2	70	130	8.95	20	
L98049-05AS	AS	12/05/12 3:05	MS121130-3	.05005	U	.0467	mg/L	93.3	70	130			
L98049-05ASD	ASD	12/05/12 3:09	MS121130-3	.05005	U	.04705	mg/L	94	70	130	0.75	20	
Chromium, total			M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335256													
WG335256ICV	ICV	12/05/12 19:00	MS121001-5	.05		.04981	mg/L	99.6	90	110			
WG335256ICB	ICB	12/05/12 19:04				U	mg/L		-0.0015	0.0015			
WG335113LRB	LRB	12/05/12 19:07				U	mg/L		-0.0011	0.0011			
WG335113LFB	LFB	12/05/12 19:10	MS121130-3	.05005		.04569	mg/L	91.3	85	115			
L98016-01LFM	LFM	12/05/12 19:16	MS121130-3	.05005	U	.05024	mg/L	100.4	70	130			
L98016-01LFMD	LFMD	12/05/12 19:19	MS121130-3	.05005	U	.04674	mg/L	93.4	70	130	7.22	20	
Conductivity @25	5C		SM2510E	3									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG334928													
WG334928LCSW1	LCSW	11/29/12 13:09	PCN40827	1408.8		1474.4	umhos/cm	104.7	90	110			
WG334928LCSW4	LCSW	11/29/12 15:46	PCN40827	1408.8		1403.8	umhos/cm	99.6	90	110			
WG334928LCSW7	LCSW	11/29/12 19:11	PCN40827	1408.8		1380.2	umhos/cm	98	90	110			
L98051-02DUP	DUP	11/29/12 22:36			550	548	umhos/cm				0.4	20	
WG334928LCSW10	LCSW	11/29/12 22:37	PCN40827	1408.8		1348.5	umhos/cm	95.7	90	110			
WG334928LCSW13		11/30/12 2:00	PCN40827	1408.8		1316.9	umhos/cm	93.5	90	110			



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Copper, dissolv	ed		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335258													
WG335258ICV	ICV	12/05/12 2:15	MS121001-5	.05		.0492	mg/L	98.4	90	110			
WG335258ICB	ICB	12/05/12 2:18				U	mg/L		-0.0015	0.0015			
WG335258LFB	LFB	12/05/12 2:22	MS121130-3	.05005		.04847	mg/L	96.8	85	115			
L98036-02AS	AS	12/05/12 2:37	MS121130-3	.05005	.0237	.06539	mg/L	83.3	70	130			
L98036-02ASD	ASD	12/05/12 2:40	MS121130-3	.05005	.0237	.06869	mg/L	89.9	70	130	4.92	20	
L98049-05AS	AS	12/05/12 3:05	MS121130-3	.05005	.0017	.0453	mg/L	87.1	70	130			
L98049-05ASD	ASD	12/05/12 3:09	MS121130-3	.05005	.0017	.04595	mg/L	88.4	70	130	1.42	20	
WG335358													
WG335358ICV	ICV	12/07/12 4:27	MS121001-5	.05		.05037	mg/L	100.7	90	110			
WG335358ICB	ICB	12/07/12 4:30				U	mg/L		-0.0015	0.0015			
WG335358LFB	LFB	12/07/12 4:34	MS121130-3	.05005		.04644	mg/L	92.8	85	115			
L98049-03AS	AS	12/07/12 4:46	MS121130-3	.05005	.0006	.04562	mg/L	90	70	130			
L98049-03ASD	ASD	12/07/12 4:49	MS121130-3	.05005	.0006	.04719	mg/L	93.1	70	130	3.38	20	
Copper, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335256													
WG335256ICV	ICV	12/05/12 19:00	MS121001-5	.05		.05044	mg/L	100.9	90	110			
WG335256ICB	ICB	12/05/12 19:04				U	mg/L		-0.0015	0.0015			
WG335113LRB	LRB	12/05/12 19:07				U	mg/L		-0.0011	0.0011			
WG335113LFB	LFB	12/05/12 19:10	MS121130-3	.05005		.04718	mg/L	94.3	85	115			
L98016-01LFM	LFM	12/05/12 19:16	MS121130-3	.05005	.0009	.05118	mg/L	100.5	70	130			
L98016-01LFMD	LFMD	12/05/12 19:19	MS121130-3	.05005	.0009	.048	mg/L	94.1	70	130	6.41	20	
Cyanide, total			M335.4 - (Colorimetr	ic w/ distil	lation							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335479													
WG335479ICV	ICV	12/07/12 11:37	WI121130-1	.3		.3204	mg/L	106.8	90	110			
			WI121130-1	.5			-	100.0					
WG335479ICB	ICB	12/07/12 11:38 12/07/12 11:39				U	mg/L		-0.009	0.009			
WG335317LRB L98008-01DUP	LRB DUP	12/07/12 11:39			U	U U	mg/L		-0.009	0.009	0	20	RA
L98008-01D0P	LFM	12/07/12 11:41	WI121130-5	.2	U	.2112	mg/L	105.6	90	110	0	20	RA RA
WG335317LFB		12/07/12 11:43	WI121130-5 WI121130-5	.2	0	.2112	mg/L mg/L	112.4	90 90	110			LA
Cyanide, WAD			SM4500-0		imotrio w/		-						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found		Rec	Lower	Upper	RPD	Limit	Qual
	туре	Analyzeu	I ON/SON	QU	Sample	round	Units	Nec	Lower	opper		Linin	Quai
WG335288													
WG335288ICV	ICV	12/05/12 12:04	WI121130-1	.3		.3152	mg/L	105.1	90	110			
WG335288ICB	ICB	12/05/12 12:05				U	mg/L		-0.009	0.009			
WG335319													
WG335271LRB	LRB	12/05/12 14:39				U	mg/L		-0.009	0.009			
WG335271LFB	LFB	12/05/12 14:40	WI121130-7	.2		.2099	mg/L	105	90	110			
L98038-08DUP	DUP	12/05/12 14:41			U	U	mg/L				0	20	RA
	LFM	12/05/12 14:43	WI121130-7	.2	U	.213	mg/L	106.5	90	110			
L98038-09LFM					•								
L98038-09LFM L98049-05DUP	DUP	12/05/12 14:54			U	U	mg/L				0	20	RA



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Dissolved Chron	nium, H	exavalent	SM3500C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG334911													
WG334911ICV	ICV	11/29/12 10:34	WC121108-	.05		.045	mg/L	90	90	110			
WG334911ICB	ICB	11/29/12 10:35				U	mg/L		-0.015	0.015			
WG334911LFB	LFB	11/29/12 10:36	WC121009-	.05		.0475	mg/L	95	90	110			
L98056-04AS	AS	11/29/12 10:51	WC121009-	.05	U	.049	mg/L	98	90	110			
L98056-04DUP	DUP	11/29/12 10:52			U	U	mg/L				0	20	R
Iron, dissolved			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335118													
WG335118ICV	ICV	12/03/12 19:50	II121126-1	2		1.999	mg/L	100	95	105			
WG335118ICB	ICB	12/03/12 19:56		-		U	mg/L	100	-0.06	0.06			
WG335118LFB	LFB	12/03/12 20:08	II121129-6	1		1.004	mg/L	100.4	85	115			
L98016-02AS	AS	12/03/12 20:58	II121129-0	1	U	.989	mg/L	98.9	85	115			
L98016-02ASD	ASD	12/03/12 20:00	II121129-6	1	U	.992	mg/L	99.2	85	115	0.3	20	
Iron, total			M200.7 IC	P			0						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335328	31.5												
WG335328ICV	ICV	12/05/12 18:38	11101107.0	2		2.054		102.7	05	105			
	ICB		II121127-3	2		2.054 U	mg/L	102.7	95				
WG335328ICB	LRB	12/05/12 18:44				U	mg/L		-0.06	0.06 0.044			
WG335259LRB WG335259LFB	LFB	12/05/12 18:56 12/05/12 18:59	II121129-6	1		1.046	mg/L mg/L	104.6	-0.044 85	115			
L98049-02LFM	LFM	12/05/12 10:09	II2XWATER	2	U	2.02	mg/L	104.0	70	130			
L98049-02LFMD	LFMD	12/05/12 19:03	II2XWATER	2	U	1.978	mg/L	98.9	70	130	2.1	20	
Lead, dissolved			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
	31.5												
WG335258	1014		N0404004 5	05		0.4000		~~~~	00	440			
WG335258ICV	ICV	12/05/12 2:15	MS121001-5	.05		.04908	mg/L	98.2	90	110			
WG335258ICB	ICB	12/05/12 2:18	MC404400 0	05005		U	mg/L	00 5	-0.0003	0.0003			
WG335258LFB	LFB	12/05/12 2:22	MS121130-3	.05005	004	.04829	mg/L	96.5	85	115			
L98036-02AS	AS	12/05/12 2:37	MS121130-3	.05005	.004	.05325	mg/L	98.4	70	130	0.0	20	
L98036-02ASD L98049-05AS	ASD	12/05/12 2:40	MS121130-3	.05005	.004	.05309	mg/L	98.1 06.1	70 70	130	0.3	20	
L98049-05ASD	AS ASD	12/05/12 3:05 12/05/12 3:09	MS121130-3 MS121130-3	.05005 .05005	.0002 .0002	.04832 .04816	mg/L mg/L	96.1 95.8	70 70	130 130	0.33	20	
Lead, total	-		M200.8 IC				5		-				
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335256											_	_	
WG335256ICV	ICV	12/05/12 19:00	MS121001-5	.05		.05209	mg/L	104.2	90	110			
WG335256ICV WG335256ICB		12/05/12 19:00	100121001-0	.05		.05209 U	-	104.2		0.0003			
						U	mg/L		-0.0003 -0.00022	0.0003			
WG335113LRB		12/05/12 19:07	MQ121120 2	05005			mg/L	86.2					
WG335113LFB		12/05/12 19:10	MS121130-3	.05005		.04419	mg/L	88.3 02.1	85 70	115 130			
L98016-01LFM		12/05/12 19:16	MS121130-3	.05005	U	.04608	mg/L	92.1	70 70	130 120	0.44	20	
L98016-01LFMD	LFMD	12/05/12 19:19	MS121130-3	.05005	U	.04627	mg/L	92.4	70	130	0.41	20	



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Magnesium, dis	solved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335118													
WG335118ICV	ICV	12/03/12 19:50	II121126-1	100		101.95	mg/L	102	95	105			
WG335118ICB	ICB	12/03/12 19:56				U	mg/L		-0.6	0.6			
WG335118LFB	LFB	12/03/12 20:08	II121129-6	50.00131		50.09	mg/L	100.2	85	115			
L98016-02AS	AS	12/03/12 20:58	II121129-6	50.00131	12.8	63.09	mg/L	100.6	85	115			
L98016-02ASD	ASD	12/03/12 21:01	II121129-6	50.00131	12.8	63.08	mg/L	100.6	85	115	0.02	20	
Manganese, dis	solved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335118													
WG335118ICV	ICV	12/03/12 19:50	II121126-1	2		1.9392	mg/L	97	95	105			
WG335118ICB	ICB	12/03/12 19:56				U	mg/L		-0.015	0.015			
WG335118LFB	LFB	12/03/12 20:08	II121129-6	.5		.4887	mg/L	97.7	85	115			
L98016-02AS	AS	12/03/12 20:58	II121129-6	.5	.012	.4987	mg/L	97.3	85	115			
L98016-02ASD	ASD	12/03/12 21:01	II121129-6	.5	.012	.5003	mg/L	97.7	85	115	0.32	20	
Manganese, tota	al		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335328													
WG335328ICV	ICV	12/05/12 18:38	II121127-3	2		2.0198	mg/L	101	95	105			
WG335328ICB	ICB	12/05/12 18:44				U	mg/L		-0.015	0.015			
WG335259LRB	LRB	12/05/12 18:56				U	mg/L		-0.011	0.011			
WG335259LFB	LFB	12/05/12 18:59	II121129-6	.5		.5098	mg/L	102	85	115			
L98049-02LFM	LFM	12/05/12 19:09	II2XWATER	1	.06	1.036	mg/L	97.6	70	130			
L98049-02LFMD	LFMD	12/05/12 19:12	II2XWATER	1	.06	1.032	mg/L	97.2	70	130	0.39	20	
Mercury, total			M245.1 C	VAA									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335265													
WG335265ICV	ICV	12/06/12 9:05	II121127-2	.005025		.00487	mg/L	96.9	95	105			
WG335265ICB	ICB	12/06/12 9:07				U	mg/L		-0.0002	0.0002			
WG335265LRB	LRB	12/06/12 9:12				U	mg/L		-0.00044	0.00044			
WG335265LFB	LFB	12/06/12 9:14	II121119-3	.002002		.00184	mg/L	91.9	85	115			
L98049-03LFM	LFM	12/06/12 10:11	II121119-3	.002002	U	.00167	mg/L	83.4	85	115			M
L98049-03LFMD	LFMD	12/06/12 10:13	II121119-3	.002002	U	.00186	mg/L	92.9	85	115	10.76	20	
Nickel, dissolve	d		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335118													
WG335118ICV	ICV	12/03/12 19:50	II121126-1	2.002		2.066	mg/L	103.2	95	105			
WG335118ICB	ICB	12/03/12 19:56				U	mg/L		-0.03	0.03			
WG335118LFB	LFB	12/03/12 20:08	II121129-6	.5		.506	mg/L	101.2	85	115			
L98016-02AS	AS	12/03/12 20:58	II121129-6	.5	.01	.487	mg/L	95.4	85	115			
L98016-02ASD	ASD	12/03/12 21:01	II121129-6	.5	.01	.497	mg/L	97.4	85	115	2.03	20	



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			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335367													
WG335367ICV	ICV	12/06/12 11:40	II121127-3	2.002		2.076	mg/L	103.7	95	105			
WG335367ICB	ICB	12/06/12 11:44				U	mg/L		-0.03	0.03			
WG335259LRB	LRB	12/06/12 11:56				U	mg/L		-0.022	0.022			
WG335259LFB	LFB	12/06/12 11:59	II121129-6	.5		.497	mg/L	99.4	85	115			
L98049-02LFM	LFM	12/06/12 12:08	II2XWATER	1	U	1.017	mg/L	101.7	70	130			
L98049-02LFMD	LFMD	12/06/12 12:11	II2XWATER	1	U	1.02	mg/L	102	70	130	0.29	20	
Nitrate/Nitrite as	N, diss	olved	M353.2 - A	Automated	d Cadmiun	n Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG334871													
WG334871ICV	ICV	11/28/12 19:42	WI121009-1	2.416		2.462	mg/L	101.9	90	110			
WG334871ICB	ICB	11/28/12 19:44		2.110		U	mg/L	101.0	-0.06	0.06			
WG334871LFB1	LFB	11/28/12 19:47	WI120814-9	2		2.032	mg/L	101.6	90	110			
L98039-01AS	AS	11/28/12 19:49	WI120814-9	2	.05	2.021	mg/L	98.6	90	110			
L98039-02DUP	DUP	11/28/12 19:52		-	U	U	mg/L	00.0			0	20	RA
WG334871LFB2	LFB	11/28/12 20:21	WI120814-9	2	-	2.004	mg/L	100.2	90	110	-		
Nitrite as N, diss	olved		M353.2 - /	Automater	d Cadmiun	n Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found		Rec	Lower	Upper	RPD	Limit	Qual
	21.5												
WG334871													
WG334871ICV	ICV	11/28/12 19:42	WI121009-1	.609		.637	mg/L	104.6	90	110			
WG334871ICB	ICB	11/28/12 19:44				U	mg/L		-0.03	0.03			
WG334871LFB1	LFB	11/28/12 19:47	WI120814-9	1		1.05	mg/L	105	90	110			
L98039-01AS	AS	11/28/12 19:49	WI120814-9	1	U	1.023	mg/L	102.3	90	110			
L98039-02DUP	DUP	11/28/12 19:52			U	U	mg/L				0	20	RA
WG334871LFB2	LFB	11/28/12 20:21	WI120814-9	1		1.029	mg/L	102.9	90	110			
Nitrogen, ammor	nia		M350.1 - A	Automated	d Phenate								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335043													
WG335043ICV	ICV	12/03/12 15:25	WI121105-5	1.003		.96	mg/L	95.7	90	110			
WG335043ICB	ICB	12/03/12 15:26				U	mg/L		-0.3	0.3			
WG335149													
WG335149LFB1	LFB	12/03/12 16:11	WI111101-3	1		.978	mg/L	97.8	90	110			
	LFB	12/03/12 17:01	WI111101-3	1		1.032	mg/L	103.2	90	110			
WG335149LFB2	LFD												
WG335149LFB2 L98042-01AS	AS	12/03/12 17:01	WI111101-3	1	U	1.075	mg/L	107.5	90	110			



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pH (lab)			SM4500H	+ B									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG334928													
WG334928LCSW3	LCSW	11/29/12 13:24	PCN39825	6		6.03	units	100.5	98	102			
WG334928LCSW6	LCSW	11/29/12 16:01	PCN39825	6		6.05	units	100.8	98	102			
WG334928LCSW9	LCSW	11/29/12 19:25	PCN39825	6		6.07	units	101.2	98	102			
L98051-02DUP	DUP	11/29/12 22:36			8.5	8.56	units				0.7	20	
WG334928LCSW12	LCSW	11/29/12 22:52	PCN39825	6		6.07	units	101.2	98	102			
WG334928LCSW15	LCSW	11/30/12 2:15	PCN39825	6		6.07	units	101.2	98	102			
Residue, Filterab	le (TDS) @180C	SM2540C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335024													
WG335024PBW	PBW	11/30/12 12:00				U	mg/L		-20	20			
WG335024LCSW	LCSW	11/30/12 12:00	PCN41156	260		250	mg/L	96.2	80	120			
L98052-03DUP	DUP	11/30/12 12:10			240	242	mg/L				0.8	20	
Residue, Non-Filt	erable	(TSS) @105C	SM2540D										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG334846													
WG334846PBW	PBW	11/28/12 16:01				U	mg/L		-15	15			
WG334846LCSW	LCSW	11/28/12 16:02	PCN41156	160		148	mg/L	92.5	80	120			
L98049-03DUP	DUP	11/28/12 16:16			U	U	mg/L				0	20	RA
L98063-08DUP	DUP	11/28/12 16:30			42	47	mg/L				11.2	20	RA
Selenium, dissolv	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335258													
WG335258ICV	ICV	12/05/12 2:15	MS121001-5	.05		.05254	mg/L	105.1	90	110			
WG335258ICB	ICB	12/05/12 2:18				U	mg/L		-0.0003	0.0003			
WG335258LFB	LFB	12/05/12 2:22	MS121130-3	.05005		.05152	mg/L	102.9	85	115			
L98036-02AS	AS	12/05/12 2:37	MS121130-3	.05005	.0004	.05795	mg/L	115	70	130			
L98036-02ASD	ASD	12/05/12 2:40	MS121130-3	.05005	.0004	.05805	mg/L	115.2	70	130	0.17	20	
L98049-05AS	AS	12/05/12 3:05	MS121130-3	.05005	.0004	.05515	mg/L	109.4	70	130			
L98049-05ASD	ASD	12/05/12 3:09	MS121130-3	.05005	.0004	.05508	mg/L	109.3	70	130	0.13	20	
Silver, dissolved			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335258													
WG335258ICV	ICV	12/05/12 2:15	MS121001-5	.02006		.01955	mg/L	97.5	90	110			
WG335258ICB	ICB	12/05/12 2:18				U	mg/L		-0.00015	0.00015			
WG335258LFB	LFB	12/05/12 2:22	MS121130-3	.01001		.009497	mg/L	94.9	85	115			
L98036-02AS	AS	12/05/12 2:37	MS121130-3	.01001	U	.00943	mg/L	94.2	70	130			
L98036-02ASD	ASD	12/05/12 2:40	MS121130-3	.01001	U	.009405	mg/L	94	70	130	0.27	20	
L98049-05AS	AS	12/05/12 3:05	MS121130-3	.01001	U	.009716	mg/L	97.1	70	130			
L98049-05ASD	ASD	12/05/12 3:09	MS121130-3	.01001	U	.009861	mg/L	98.5	70	130	1.48	20	



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Silver, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335256													
WG335256ICV	ICV	12/05/12 19:00	MS121001-5	.02006		.02093	mg/L	104.3	90	110			
WG335256ICB	ICB	12/05/12 19:04				U	mg/L		-0.00015	0.00015			
WG335113LRB	LRB	12/05/12 19:07				U	mg/L		-0.00011	0.00011			
WG335113LFB	LFB	12/05/12 19:10	MS121130-3	.01001		.009439	mg/L	94.3	85	115			
L98016-01LFM	LFM	12/05/12 19:16	MS121130-3	.01001	U	.009363	mg/L	93.5	70	130			
L98016-01LFMD	LFMD	12/05/12 19:19	MS121130-3	.01001	U	.009325	mg/L	93.2	70	130	0.41	20	
Sulfate			D516-02 -	Turbidim	etric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335499													
WG335499ICB	ICB	12/07/12 9:18				U	mg/L		-3	3			
WG335499ICV	ICV	12/07/12 9:18	WI121126-2	20		19.8	mg/L	99	90	110			
WG335499LFB	LFB	12/07/12 16:49	WI121025-3	10		10.5	mg/L	105	90	110			
L98043-09DUP	DUP	12/07/12 16:49			U	U	mg/L				0	20	RA
L98043-10AS	AS	12/07/12 16:49	WI121025-3	10	U	10.7	mg/L	107	90	110			
L98052-01AS	AS	12/07/12 16:59	SO4TURB5	10	66	75.4	mg/L	94	90	110			
L98049-05DUP	DUP	12/07/12 17:18			43	43.1	mg/L				0.2	20	
Sulfide as S			SM4500S	2-D									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG334812													
WG334812ICV	ICV	11/28/12 13:05	WC121128-	.364		.394	mg/L	108.2	90	110			
WG334812ICB	ICB	11/28/12 13:07				U	mg/L		-0.06	0.06			
WG334840													
WG334840ICV	ICV	11/28/12 14:25	WC121128-	.364		.382	mg/L	104.9	90	110			
WG334840ICB	ICB	11/28/12 14:26				U	mg/L		-0.06	0.06			
WG334840LFB1	LFB	11/28/12 14:27	WC121128-	.248		.283	mg/L	114.1	80	120			
L98050-01AS	AS	11/28/12 14:43	WC121128-	.93	1.61	2.261	mg/L	70	75	125			M2
L98050-01DUP	DUP	11/28/12 14:45			1.61	1.605	mg/L				0.3	20	
WG334840LFB2	LFB	11/28/12 15:03	WC121128-	.248		.279	mg/L	112.5	80	120			
Uranium, dissol	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
W00005050													
WG335258													
WG335258 WG335258ICV	ICV	12/05/12 2:15	MS121001-5	.05		.0505	mg/L	101	90	110			
WG335258ICV			MS121001-5	.05			mg/L mg/L	101	90 -0.0003				
	ICV ICB LFB	12/05/12 2:15 12/05/12 2:18 12/05/12 2:22	MS121001-5 MS121130-3	.05		.0505 U .05012	mg/L	101 100.2		110 0.0003 115			
WG335258ICV WG335258ICB	ICB	12/05/12 2:18			.0003	U	-		-0.0003	0.0003			
WG335258ICV WG335258ICB WG335258LFB	ICB LFB	12/05/12 2:18 12/05/12 2:22	MS121130-3	.05	.0003 .0003	U .05012	mg/L mg/L	100.2	-0.0003 85	0.0003 115	1.07	20	
WG335258ICV WG335258ICB WG335258LFB L98036-02AS	ICB LFB AS	12/05/12 2:18 12/05/12 2:22 12/05/12 2:37	MS121130-3 MS121130-3	.05 .05		U .05012 .05312	mg/L mg/L mg/L	100.2 105.6	-0.0003 85 70	0.0003 115 130	1.07	20	
WG335258ICV WG335258ICB WG335258LFB L98036-02AS L98036-02ASD	ICB LFB AS ASD	12/05/12 2:18 12/05/12 2:22 12/05/12 2:37 12/05/12 2:40	MS121130-3 MS121130-3 MS121130-3	.05 .05 .05	.0003	U .05012 .05312 .05369	mg/L mg/L mg/L mg/L	100.2 105.6 106.8	-0.0003 85 70 70	0.0003 115 130 130	1.07 0.34	20 20	



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Uranium, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG335256													
WG335256ICV	ICV	12/05/12 19:00	MS121001-5	.05		.05369	mg/L	107.4	90	110			
WG335256ICB	ICB	12/05/12 19:04				U	mg/L		-0.0003	0.0003			
WG335113LRB	LRB	12/05/12 19:07				U	mg/L		-0.00022	0.00022			
WG335113LFB	LFB	12/05/12 19:10	MS121130-3	.05		.04506	mg/L	90.1	85	115			
L98016-01LFM	LFM	12/05/12 19:16	MS121130-3	.05	.0003	.04887	mg/L	97.1	70	130			
L98016-01LFMD	LFMD	12/05/12 19:19	MS121130-3	.05	.0003	.04886	mg/L	97.1	70	130	0.02	20	
Zinc, dissolved			M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qua
WG335118													
WG335118ICV	ICV	12/03/12 19:50	II121126-1	2		1.984	mg/L	99.2	95	105			
WG335118ICB	ICB	12/03/12 19:56				U	mg/L		-0.03	0.03			
WG335118LFB	LFB	12/03/12 20:08	II121129-6	.5		.499	mg/L	99.8	85	115			
L98016-02AS	AS	12/03/12 20:58	II121129-6	.5	U	.503	mg/L	100.6	85	115			
L98016-02ASD	ASD	12/03/12 21:01	II121129-6	.5	U	.503	mg/L	100.6	85	115	0	20	
Zinc, total			M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qua
WG335328													
WG335328ICV	ICV	12/05/12 18:38	II121127-3	2		2.032	mg/L	101.6	95	105			
WG335328ICB	ICB	12/05/12 18:44				U	mg/L		-0.03	0.03			
WG335259LRB	LRB	12/05/12 18:56				U	mg/L		-0.022	0.022			
WG335259LFB	LFB	12/05/12 18:59	II121129-6	.5		.53	mg/L	106	85	115			
L98049-02LFM	LFM	12/05/12 19:09	II2XWATER	1	.14	1.152	mg/L	102.2	70	130			
L98049-02LFMD	LFMD	12/05/12 19:12	II2XWATER	1	.14	1.124	mg/L	99.4	70	130	2.46	20	



ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L98049-01	WG335259	Total Hot Plate Digestion	M200.2 ICP	DJ	Sample dilution required due to insufficient sample.
	WG335265	Mercury, total	M245.1 CVAA	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG335390	Chloride	SM4500CI-E	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG335479	Cyanide, total	M335.4 - Colorimetric w/ distillation	LA	Recovery for target analyte in the control sample (LCS or LFB) exceeded the acceptance criteria. Target analyte was not detected in the sample [< MDL].
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG335319	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG334911	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG334871	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG335149	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG334846	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG335499	Sulfate	D516-02 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG334840	Sulfide as S	SM4500S2-D	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.



ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L98049-02	WG335259	Total Hot Plate Digestion	M200.2 ICP	DJ	Sample dilution required due to insufficient sample.
	WG335265	Mercury, total	M245.1 CVAA	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG335390	Chloride	SM4500CI-E	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG335479	Cyanide, total	M335.4 - Colorimetric w/ distillation	LA	Recovery for target analyte in the control sample (LCS or LFB) exceeded the acceptance criteria. Target analyte was not detected in the sample [< MDL].
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG335319	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG334911	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG334871	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG335149	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG334846	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG335499	Sulfate	D516-02 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG334840	Sulfide as S	SM4500S2-D	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L98049-03	WG335265	Mercury, total	M245.1 CVAA	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG335390	Chloride	SM4500CI-E	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG335479	Cyanide, total	M335.4 - Colorimetric w/ distillation	LA	Recovery for target analyte in the control sample (LCS or LFB) exceeded the acceptance criteria. Target analyte was not detected in the sample [< MDL].
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG335319	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG334911	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG334871	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG335149	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG334846	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG335499	Sulfate	D516-02 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG334840	Sulfide as S	SM4500S2-D	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.

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Inorganic Extended Qualifier Report

Watley Group LLC

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L98049-04	WG335265	Mercury, total	M245.1 CVAA	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG335390	Chloride	SM4500CI-E	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG335479	Cyanide, total	M335.4 - Colorimetric w/ distillation	LA	Recovery for target analyte in the control sample (LCS or LFB) exceeded the acceptance criteria. Target analyte was not detected in the sample [< MDL].
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG335319	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG334911	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG334871	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG335149	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG334846	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG335499	Sulfate	D516-02 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG334840	Sulfide as S	SM4500S2-D	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L98049-05	WG335347	Aluminum, total recoverable	M200.8 ICP-MS	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG335265	Mercury, total	M245.1 CVAA	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG335390	Chloride	SM4500CI-E	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG335479	Cyanide, total	M335.4 - Colorimetric w/ distillation	LA	Recovery for target analyte in the control sample (LCS or LFB) exceeded the acceptance criteria. Target analyte was not detected in the sample [< MDL].
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG335319	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG334911	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG334871	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG335149	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG334846	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG334840	Sulfide as S	SM4500S2-D	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
L98049-06	WG335479	Cyanide, total	M335.4 - Colorimetric w/ distillation	LA	Recovery for target analyte in the control sample (LCS or LFB) exceeded the acceptance criteria. Target analyte was not detected in the sample [< MDL].
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG335319	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).



Project ID: Sample ID: CB-01

ACZ Sample ID:	L98049-01
Date Sampled:	11/27/12 0:00
Date Received:	11/28/12
Sample Matrix:	Surface Water

Oil & Grease, Total Recoverable

Workgroup:	WG335209								
Analyst:	dhc								
Extract Date:									
Analysis Date:	12/04/12 11:59								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.031	*	mg/L	2.062	10.31



ACZ Sample ID: **L98049-02** Date Sampled: 11/27/12 0:00 Date Received: 11/28/12 Sample Matrix: Surface Water

Oil & Grease, Total Recoverable

Workgroup:	WG335209								
Analyst:	dhc								
Extract Date:									
Analysis Date:	12/04/12 12:00								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.042	*	mg/L	2.084	10.42



ACZ Sample ID: L98049-03 Date Sampled: 11/27/12 0:00 Date Received: 11/28/12 Sample Matrix: Surface Water

Oil & Grease, Total Recoverable

Workgroup:	WG335209								
Analyst:	dhc								
Extract Date:									
Analysis Date:	12/04/12 12:01								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.042	*	mg/L	2.084	10.42



ACZ Sample ID: L98049-04 Date Sampled: 11/27/12 0:00 Date Received: 11/28/12 Sample Matrix: Surface Water

Oil & Grease, Total Recoverable

Workgroup:	WG335209								
Analyst:	dhc								
Extract Date:									
Analysis Date:	12/04/12 12:02								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.042	*	mg/L	2.084	10.42



ACZ Sample ID:	L98049-05
Date Sampled:	11/27/12 0:00
Date Received:	11/28/12
Sample Matrix:	Surface Water

Oil & Grease, Total Recoverable

Workgroup:	WG335209								
Analyst:	dhc								
Extract Date:									
Analysis Date:	12/04/12 12:03								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.031	*	mg/L	2.062	10.31



Organic Reference

Report Heade	r Explanations								
Batch	A distinct set of samples analyzed at a specific time	<u></u>							
Found	Value of the QC Type of interest	•							
Limit	Upper limit for RPD, in %.								
Lower	Lower Recovery Limit, in % (except for LCSS, mg/	Ka)							
LCL	Lower Control Limit	Ng)							
MDL		ting Limit Allows for instrum	nent and annual fluctuations						
PCN/SCN	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations. A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis								
PQL	Practical Quantitation Limit, typically 5 times the MDL.								
QC	True Value of the Control Sample or the amount added to the Spike								
Rec									
	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg) Relative Percent Difference, calculation used for Duplicate QC Types								
RPD									
Upper	Upper Recovery Limit, in % (except for LCSS, mg/	kg)							
UCL	Upper Control Limit								
Sample	Value of the Sample of interest								
QC Sample Ty									
SURR	Surrogate	LFM	Laboratory Fortified Matrix						
INTS	Internal Standard	LFMD	Laboratory Fortified Matrix Duplicate						
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank						
LCSS	Laboratory Control Sample - Soil	MS/MSD	Matrix Spike/Matrix Spike Duplicate						
LCSW	Laboratory Control Sample - Water	PBS	Prep Blank - Soil						
LFB	Laboratory Fortified Blank	PBW	Prep Blank - Water						
QC Sample Ty	vpe Explanations								
Blanks	Verifies that there is no or								
		minimal contamination in th	e prep method or calibration procedure.						
Control Sa		minimal contamination in the pre							
Control Sa Duplicates	mples Verifies the accuracy of th		p procedure.						
Duplicates	mples Verifies the accuracy of th	e method, including the pre e instrument and/or method	p procedure.						
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Duplicates Spikes/For ACZ Qualifiers B O H J L U Wethod Reference (1) (2)	mples Verifies the accuracy of the Verifies the precision of the Verifies the precision of the Determines sample matrix tified Matrix Determines sample matrix s (Qual) Analyte concentration detected at a value between Analyte concentration is estimated due to result exit. Analysis exceeded method hold time. pH is a field Analyte concentration detected at a value between Target analyte response was below the laboratory of The material was analyzed for, but was not detected the associated value is either the sample quantitatemeter ences EPA 600/4-83-020. Methods for Chemical Analysis EPA 600/4-90/020.	e method, including the prep e instrument and/or method a interferences, if any. MDL and PQL. The associat ceeding calibration range. test with an immediate hold MDL and PQL. The associat defined negative threshold. d above the level of the ass ion limit or the sample deter s of Water and Wastes, Mar of Organic Compounds in I	ted value is an estimated quantity. time. ted value is an estimated quantity. ociated value. ction limit. ch 1983. Drinking Water (I), July 1990.						
Duplicates Spikes/For ACZ Qualifiers B O H J L U Wethod Reference (1) (2) (3)	mples Verifies the accuracy of the Verifies the precision of the Verifies the precision of the Verifies the precision of the Determines sample matrix s (Qual) Analyte concentration detected at a value between Analyte concentration is estimated due to result exit. Analysis exceeded method hold time. pH is a field Analyte concentration detected at a value between Target analyte response was below the laboratory of The material was analyzed for, but was not detected The associated value is either the sample quantitatemces EPA 600/4-83-020. Methods for Chemical Analysis EPA 600/R-92/129. Methods for the Determination EPA 600/R-92/129. Methods for the Determination	e method, including the prep e instrument and/or method a interferences, if any. MDL and PQL. The associa ceeding calibration range. test with an immediate hold MDL and PQL. The associa defined negative threshold. d above the level of the ass ion limit or the sample deter s of Water and Wastes, Mar of Organic Compounds in I of Organic Compounds in I Vaste.	ted value is an estimated quantity. time. ted value is an estimated quantity. ociated value. ction limit. ch 1983. Drinking Water (I), July 1990.						
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Duplicates Spikes/For ACZ Qualifiers B O H J L U V Method Reference (1) (2) (3) (4) (5) Comments (1)	mples Verifies the accuracy of the Verifies the precision of the Determines sample matrix s (Qual) Analyte concentration detected at a value between Analyte concentration is estimated due to result exit. Analytic concentration detected at a value between Target analyte response was below the laboratory of The material was analyzed for, but was not detected The associated value is either the sample quantitate ences EPA 600/4-83-020. Methods for Chemical Analysis EPA 600/R-92/129. Methods for the Determination EPA SW-846. Test Methods for Evaluating Solid V Standard Methods for the Examination of Water and QC results calculated from raw data. Results may	e method, including the prep e instrument and/or method a interferences, if any. MDL and PQL. The associa ceeding calibration range. test with an immediate hold MDL and PQL. The associa defined negative threshold. d above the level of the ass ion limit or the sample deter s of Water and Wastes, Mar of Organic Compounds in D of Organic Compounds in D vaste. d Wastewater.	ated value is an estimated quantity. time. time is an estimated quantity. cociated value is an estimated quantity. cociated value. ction limit. ch 1983. Drinking Water (I), July 1990. Drinking Water (II), July 1990.						
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Duplicates Spikes/For ACZ Qualifiers B O H J L U V Method Reference (1) (2) (3) (4) (5) Comments (1)	mples Verifies the accuracy of the Verifies the precision of the Verifies the precision of the Verifies the precision of the Determines sample matrix s (Qual) Analyte concentration detected at a value between Analyte concentration is estimated due to result exit. Analysis exceeded method hold time. pH is a field Analyte concentration detected at a value between Target analyte response was below the laboratory of The material was analyzed for, but was not detected The associated value is either the sample quantitate ences EPA 600/4-83-020. Methods for Chemical Analysis EPA 600/4-90/202. Methods for the Determination EPA 600/R-92/129. Methods for Evaluating Solid V Standard Methods for the Examination of Water and Standard Methods for the Examination of Water and Soli, Sludge, and Plant matrices for Inorganic analy An asterisk in the "XQ" column indicates there is anot examined to the set of the set o	e method, including the prep e instrument and/or method a interferences, if any. MDL and PQL. The associa ceeding calibration range. test with an immediate hold MDL and PQL. The associa defined negative threshold. d above the level of the ass ion limit or the sample deter s of Water and Wastes, Mar of Organic Compounds in D vaste. d Wastewater.	ated value is an estimated quantity. time. time. ted value is an estimated quantity. ociated value. ction limit. ch 1983. Drinking Water (I), July 1990. Drinking Water (II), July 1990. Prinking Water (II), July 1990.						
Duplicates Spikes/For ACZ Qualifiers B O H J L U V Method Reference (1) (2) (3) (4) (5) Comments (1) (2)	mples Verifies the accuracy of the Verifies the precision of the Verifies the precision of the Verifies the precision of the Determines sample matrix s (Qual) Analyte concentration detected at a value between Analyte concentration is estimated due to result exit. Analyte concentration detected at a value between Target analyte response was below the laboratory of The material was analyzed for, but was not detected The associated value is either the sample quantitate ences EPA 600/4-83-020. Methods for Chemical Analysis EPA 600/4-90/020. Methods for the Determination EPA 600/R-92/129. Methods for Evaluating Solid V Standard Methods for the Examination of Water and Standard Methods for the Examination of Water and Soli, Sludge, and Plant matrices for Inorganic analysis	e method, including the preje e instrument and/or method a interferences, if any. MDL and PQL. The associa ceeding calibration range. test with an immediate hold MDL and PQL. The associa defined negative threshold. d above the level of the ass ion limit or the sample deter s of Water and Wastes, Mar of Organic Compounds in I vaste. d Wastewater. wary slightly if the rounded w rese are reported on a dry w in extended qualifier and/or of	a procedure. Atted value is an estimated quantity. time. time value is an estimated quantity. ociated value. ction limit. ch 1983. Drinking Water (I), July 1990. Drinking Water (II), July 1990. Prinking Water (II), July 1990. Prinking Water (II), July 1990. Prinking Water (II), July 1990. Prinking Water (II), July 1990.						

For a complete list of ACZ's Extended Qualifiers, please click:

http://www.acz.com/public/extquallist.pdf



ACZ Project ID: L98049

1664A - Gravimetric

Oil & Grease, Total Recoverable

WG335209

LCSW	Sample ID:	WG335209LCSW	I	PCN/S	CN: OP12	21112-2		Anal	zed:	12/04	/12 12:04
Compound		QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE		40		37.5	mg/L	93.8	78	114			
LCSWD	Sample ID:	WG335209LCSW	/D	PCN/S	CN: OP12	21112-2		Analy	/zed:	12/04	/12 12:05
Compound		QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE		40		37.6	mg/L	94.0	78	114	0.3	18	
PBW	Sample ID:	WG335209PBW						Analy	/zed:	12/04	/12 11:45
Compound		QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE				U	mg/L		-5	5			

ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Organic Extended Qualifier Report

Watley Group LLC

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L98049-01	WG335209	Oil and Grease	1664A - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.
L98049-02	WG335209	Oil and Grease	1664A - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.
L98049-03	WG335209	Oil and Grease	1664A - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.
L98049-04	WG335209	Oil and Grease	1664A - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.
L98049-05	WG335209	Oil and Grease	1664A - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.



ACZ Project ID: L98049

Wet Chemistry

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

Sulfide as S

SM4500S2-D

ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493	s? X YES NO NA X X X			
Watley Group LLC ACZ	Projec	ct ID:		L98049
	Rece	ived: 11	1/28/201	2 11:02
			ksj	
	ate Pri	nted:	11/29/2012	
Receipt Verification			NO	
1) Is a foreign soil permit included for applicable samples?	Γ	YES	NO	
	Ĺ	v		~
2) Is the Chain of Custody or other directive shipping papers present?		^		
3) Does this project require special handling procedures such as CLP protocol?				
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time analyses	?	Х		
6) Is the Chain of Custody complete and accurate?			Х	
The 'sampled by' field on the Chain of Custody was not completed.				
7) Were any changes made to the Chain of Custody prior to ACZ receiving the samples?			Х	
Samples/Containers				
	-	YES	NO	NA
8) Are all containers intact and with no leaks?		Х		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time?		Х		
11) For preserved bottle types, was the pH checked and within limits?		Х		
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х

18) Were all samples received within hold time?

Some parameters were received past hold time.

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Rad (µR/Hr)	Custody Seal Intact?
3473	2.1	14	Yes
NA16645	3.2	16	Yes

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

Х

ACZ 2773 Downhill Drive Steamb	aboratories, Inc poat Springs, CO 80487 (800) 3.	34-5493	80	F9	 ↓ /\ - ∪	[]* [()	
Name: Mike The	MIDSON		Address:	18032	RS G		
Company: Reardon					Z CO 81	321	
E-mail: mt@ rec			Telephone:	970-	-426-3	1924	
Name: John Company: Wate	n Bryan y Group LLC		E-mail: Telephone:	jbry0 310-	178 Wa	1 ky . (0	27
	ns Nuyens ra Minfral Resou	- rtes	Address: West		<u>) sunse</u> oood, CF		
E-mail: Lovrey If sample(s) received past I analysis before expiration, If "NO" then ACZ will contact client for furt	se watey, com nolding time (HT), or if insuffici shall ACZ proceed with reques	ent HT rem sted short		310'-	777-8		
Are samples for SDWA Co	mpliance Monitoring?		Yes	No			
If yes, please include state Sampler's Name:	forms. Results will be reported Sampler's site Informatic		State CD	Zip code	8(37 Time	Zone MS	₹
Quote #: Camp Project/PO #:	Bird SW Shor	+	Containers			les	
Reporting state for compliant	ce testing:		onta	1 PL	aso re		
Check box if samples include			of C	-ta (21			
	ll i ser i li ser i li ser i ser		#	·+			
CB-01	11/27/12	500	8			+ +	+
63-67	11/27/12	SW	4				+
CB-03	11/27/12	SW	8				+
CB-04	11/27/12	SW	8				
CB-05	11/27/12	SW	8				
Matrix BW (Surface Wate	er) · GW (Ground Water) · WW (Wast	e Water) · D'	W (Drinking Wa	ter) · SL (Sludge	s) · SO (Soil) · OL	(Oil) · Other (Spec	ity)
	2 [00	⇒lor	2				
Ple	ase refer to ACZ's terms & co	onditions l	ocated on th			•	
<u> </u>							



February 07, 2013

Report to: Mike Thompson Caldera Mineral Resources PO Box 297 Silverton, CO 81433

cc: John Bryan

Project ID: ACZ Project ID: L10356

Mike Thompson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on January 24, 2013. This project has been assigned to ACZ's project number, L10356. Please reference this number in all future inquiries.

Bill to:

Lauren Nuvens

Caldera Mineral Resources 8439 Sunset Blvd. Suite 402

West Hollywood, CA 90069

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L10356. 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 March 07, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/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 raw data reports for ten years.

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

Tony Antalek has reviewed and approved this report.





REPAD.01.06.05.02

Caldera Mineral Resources

February 07, 2013

Project ID: ACZ Project ID: L10356

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 3 miscellaneous samples from Caldera Mineral Resources on January 24, 2013. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L10356. 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 except those qualified with an ACZ 'H' flag were performed within EPA recommended holding times.

Sample Analysis

These samples were analyzed for inorganic parameters. The individual methods are referenced on both the ACZ invoice and the analytical reports.


Project ID:

Sample ID: CB-01

Inorganic Analytical Results

ACZ Sample ID:	L10356-01
Date Sampled:	01/23/13 00:00
Date Received:	01/24/13
Sample Matrix:	Surface Water

Inorganic Prep								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation						02/01/13 9:28	mpl
Cyanide, WAD	SM4500-CN I- distillation						02/01/13 11:30	lht
Total Hot Plate	M200.2 ICP						01/31/13 11:54	jjo
Digestion Total Hot Plate	M200.2 ICP-MS						02/04/13 11:31	las
Digestion Total Recoverable Digestion	M200.2 ICP-MS						02/04/13 9:20	las
Metals Analysis								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	0.010	*	mg/L	0.001	0.005	02/05/13 15:45	msh
Arsenic, dissolved	M200.8 ICP-MS	0.0007	В	mg/L	0.0002	0.001	02/01/13 0:39	msł
Arsenic, total recoverable	M200.8 ICP-MS	0.0008	В	mg/L	0.0002	0.001	02/05/13 15:45	msh
Barium, dissolved	M200.7 ICP	0.060		mg/L	0.003	0.02	01/31/13 10:13	aet
Beryllium, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	01/31/13 10:13	aet
Boron, dissolved	M200.7 ICP	0.02	В	mg/L	0.01	0.05	01/31/13 10:13	aet
Cadmium, dissolved	M200.8 ICP-MS	0.0005		mg/L	0.0001	0.0005	02/01/13 0:39	msh
Cadmium, total	M200.8 ICP-MS	0.0005	В	mg/L	0.0001	0.0005	02/05/13 19:51	msh
Calcium, dissolved	M200.7 ICP	137		mg/L	0.2	1	01/31/13 10:13	aet
Chromium, dissolved	M200.8 ICP-MS		U	mg/L	0.0005	0.002	02/01/13 0:39	msh
Chromium, total	M200.8 ICP-MS		U	mg/L	0.0005	0.002	02/05/13 19:51	msh
Chromium, Trivalent	Calculation (Total - Hexavalent)		U	mg/L	0.0005	0.002	02/07/13 9:20	calo
Copper, dissolved	M200.8 ICP-MS		U	mg/L	0.0005	0.003	02/01/13 0:39	msh
Copper, total	M200.8 ICP-MS	0.0012	В	mg/L	0.0005	0.003	02/05/13 19:51	msh
Iron, dissolved	M200.7 ICP	0.0012	U	mg/L	0.02	0.05	01/31/13 10:13	aet
Iron, total	M200.7 ICP		U	mg/L	0.02	0.05	02/01/13 0:37	jjo
Lead, dissolved	M200.8 ICP-MS	0.0005	В	mg/L	0.0001	0.0005	02/01/13 0:39	msh
Lead, total	M200.8 ICP-MS	0.0011	D	mg/L	0.0001	0.0005	02/05/13 19:51	msh
Magnesium, dissolved	M200.7 ICP	3.4		mg/L	0.2	1	01/31/13 10:13	aeb
Manganese, dissolved		0.033		mg/L	0.005	0.03	01/31/13 10:13	aeb
Manganese, total	M200.7 ICP	0.033		mg/L	0.005	0.03	02/01/13 0:37	jjo
Mercury, total	M245.1 CVAA	0.000	U	mg/L	0.0002	0.001	01/31/13 12:47	mfm
Nickel, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	01/31/13 10:13	aeb
Nickel, total	M200.7 ICP		U	mg/L	0.01	0.05	02/01/13 0:37	jjo
Selenium, dissolved	M200.8 ICP-MS	0.0005	0	mg/L	0.0001	0.0003	02/01/13 0:39	msh
Silver, dissolved	M200.8 ICP-MS	0.0000	U	mg/L	0.00001	0.0003	02/01/13 0:39	msh
Silver, total	M200.8 ICP-MS		U	mg/L	0.00005	0.0003	02/05/13 19:51	msh
Uranium, dissolved	M200.8 ICP-MS	0.0004	В	mg/L	0.0001	0.0005	02/01/13 0:39	msh
Uranium, total	M200.8 ICP-MS	0.0004	B	mg/L	0.0001	0.0005	02/05/13 19:51	msh
Zinc, dissolved	M200.7 ICP	0.0004	D	mg/L	0.001	0.0005	01/31/13 10:13	aeb
Zinc, total	M200.7 ICP	0.17		mg/L	0.01	0.05	02/01/13 0:37	jjo
		0.17		iiig/L	0.01	0.05	02/01/10 0.07	lle

* Please refer to Qualifier Reports for details.



Project ID: Sample ID: CB-01

Inorganic Analytical Results

ACZ Sample ID: L10356-01 Date Sampled: 01/23/13 00:00 Date Received: 01/24/13 Sample Matrix: Surface Water

Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as		58			mg/L	2	20	01/25/13 0:00	las
CaCO3						_			
Carbonate as CaCO3			U		mg/L	2	20	01/25/13 0:00	las
Hydroxide as CaCO3			U		mg/L	2	20	01/25/13 0:00	las
Total Alkalinity		58	_		mg/L	2	20	01/25/13 0:00	las
Chloride	SM4500CI-E	1	В	*	mg/L	1	5	01/31/13 19:00	-
Conductivity @25C	SM2510B	708			umhos/cm	1	10	01/25/13 16:17	
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	02/01/13 16:35	tcd
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	02/01/13 17:30	tcd
Dissolved Chromium, Hexavalent	SM3500Cr-D		UH	*	mg/L	0.005	0.02	01/25/13 11:11	las
Hardness as CaCO3	SM2340B - Calculation	356			mg/L	1	7	02/07/13 9:20	calc
Lab Filtration (0.45um) & Acidification	M200.7/200.8							01/28/13 14:13	las
Lab Filtration (glass fiber filter)	SOPWC050							01/24/13 14:13	ljr
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2	0.18			mg/L	0.02	0.1	02/07/13 9:20	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	0.18		*	mg/L	0.02	0.1	01/24/13 22:58	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U	*	mg/L	0.01	0.05	01/24/13 22:58	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate		U	*	mg/L	0.05	0.5	02/04/13 17:47	bsu
pH (lab)	SM4500H+ B								
рН		8.1			units	0.1	0.1	01/25/13 0:00	las
pH measured at		22.0			С	0.1	0.1	01/25/13 0:00	las
Residue, Filterable (TDS) @180C	SM2540C	540			mg/L	10	20	01/25/13 16:31	ljr
Residue, Non- Filterable (TSS) @105C	SM2540D		U	*	mg/L	5	20	01/28/13 14:30	las
Sulfate	D516-02 - Turbidimetric	320		*	mg/L	20	100	02/04/13 14:46	mpb
Sulfide as S	SM4500S2-D		U	*	mg/L	0.02	0.1	01/28/13 14:09	jad



Project ID:

Sample ID: CB-03

Inorganic Analytical Results

ACZ Sample ID:	L10356-02
Date Sampled:	01/23/13 00:00
Date Received:	01/24/13
Sample Matrix:	Surface Water

Inorganic Prep								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation						02/01/13 9:41	mpb
Cyanide, WAD	SM4500-CN I- distillation						02/01/13 11:46	Ihb
Total Hot Plate	M200.2 ICP-MS		*				02/04/13 11:43	las
Digestion								
Total Hot Plate	M200.2 ICP						01/31/13 12:06	jjc
Digestion Total Recoverable			*				00/04/10 0:00	laa
Digestion	M200.2 ICP-MS		-				02/04/13 9:32	las
Metals Analysis								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Aluminum, total	M200.8 ICP-MS	0.030	*	mg/L	0.002	0.01	02/05/13 15:48	msh
recoverable		0.000		<u>g</u> / =	0.001	0.01	02,00,10 101.0	
Arsenic, dissolved	M200.8 ICP-MS	0.0009	В	mg/L	0.0002	0.001	02/01/13 0:43	msh
Arsenic, total	M200.8 ICP-MS	0.0013	В	mg/L	0.0004	0.002	02/05/13 15:48	msh
recoverable								
Barium, dissolved	M200.7 ICP	0.030		mg/L	0.003	0.02	01/31/13 10:22	aeb
Beryllium, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	01/31/13 10:22	aeb
Boron, dissolved	M200.7 ICP	0.06		mg/L	0.01	0.05	01/31/13 10:22	aeb
Cadmium, dissolved	M200.8 ICP-MS	0.0014		mg/L	0.0001	0.0005	02/01/13 0:43	msh
Cadmium, total	M200.8 ICP-MS	0.0014		mg/L	0.0002	0.001	02/05/13 19:55	msh
Calcium, dissolved	M200.7 ICP	427		mg/L	0.2	1	01/31/13 10:22	aeb
Chromium, dissolved	M200.8 ICP-MS		U	mg/L	0.0005	0.002	02/01/13 0:43	msh
Chromium, total	M200.8 ICP-MS		U	mg/L	0.001	0.004	02/05/13 19:55	msh
Chromium, Trivalent	Calculation (Total - Hexavalent)		U	mg/L	0.001	0.004	02/07/13 9:21	calc
Copper, dissolved	M200.8 ICP-MS		U	mg/L	0.0005	0.003	02/01/13 0:43	msh
Copper, total	M200.8 ICP-MS	0.008		mg/L	0.001	0.005	02/05/13 19:55	msh
Iron, dissolved	M200.7 ICP		U	mg/L	0.02	0.05	01/31/13 10:22	aeb
Iron, total	M200.7 ICP	0.19		mg/L	0.02	0.05	02/01/13 0:40	jjc
Lead, dissolved	M200.8 ICP-MS	0.0004	В	mg/L	0.0001	0.0005	02/01/13 0:43	msh
Lead, total	M200.8 ICP-MS	0.0104		mg/L	0.0002	0.001	02/05/13 19:55	msh
Magnesium, dissolved	M200.7 ICP	5.4		mg/L	0.2	1	01/31/13 10:22	aeb
Manganese, dissolved	M200.7 ICP	0.206		mg/L	0.005	0.03	01/31/13 10:22	aeb
Manganese, total	M200.7 ICP	0.245		mg/L	0.005	0.03	02/01/13 0:40	jjc
Mercury, total	M245.1 CVAA		U	mg/L	0.0002	0.001	01/31/13 12:49	mfm
Nickel, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	01/31/13 10:22	aeb
Nickel, total	M200.7 ICP		U	mg/L	0.01	0.05	02/01/13 0:40	jjc
Selenium, dissolved	M200.8 ICP-MS	0.0006		mg/L	0.0001	0.0003	02/01/13 0:43	msh
Silver, dissolved	M200.8 ICP-MS		U	mg/L	0.00005	0.0003	02/01/13 0:43	msh
Silver, total	M200.8 ICP-MS		U	mg/L	0.0001	0.0005	02/05/13 19:55	msh
Uranium, dissolved	M200.8 ICP-MS	0.0010		mg/L	0.0001	0.0005	02/01/13 0:43	msh
Uranium, total	M200.8 ICP-MS	0.0007	В	mg/L	0.0002	0.001	02/05/13 19:55	msh
Zinc, dissolved	M200.7 ICP	0.34		mg/L	0.01	0.05	01/31/13 10:22	aeb
Zinc, total	M200.7 ICP	0.32		mg/L	0.01	0.05	02/01/13 0:40	jjc

* Please refer to Qualifier Reports for details.



Project ID: Sample ID: CB-03

Inorganic Analytical Results

ACZ Sample ID: L10356-02 Date Sampled: 01/23/13 00:00 Date Received: 01/24/13 Sample Matrix: Surface Water

Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as		59			mg/L	2	20	01/25/13 0:00	las
CaCO3									
Carbonate as CaCO3			U		mg/L	2	20	01/25/13 0:00	las
Hydroxide as CaCO3			U		mg/L	2	20	01/25/13 0:00	las
Total Alkalinity		59	_		mg/L	2	20	01/25/13 0:00	las
Chloride	SM4500CI-E	2	В	*	mg/L	1	5	01/31/13 19:00	-
Conductivity @25C	SM2510B	1650			umhos/cm	1	10	01/25/13 16:25	
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	02/01/13 16:37	tcd
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	02/01/13 17:32	tcd
Dissolved Chromium, Hexavalent	SM3500Cr-D		UH	*	mg/L	0.005	0.02	01/25/13 11:18	las
Hardness as CaCO3	SM2340B - Calculation	1090			mg/L	1	7	02/07/13 9:21	calc
Lab Filtration (0.45um) & Acidification	M200.7/200.8							01/28/13 14:20	las
Lab Filtration (glass fiber filter)	SOPWC050							01/24/13 14:14	ljr
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		U		mg/L	0.02	0.1	02/07/13 9:21	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U	*	mg/L	0.02	0.1	01/24/13 23:00	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U	*	mg/L	0.01	0.05	01/24/13 23:00	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate		U	*	mg/L	0.05	0.5	02/04/13 17:49	bsu
pH (lab)	SM4500H+ B								
рН		8.0			units	0.1	0.1	01/25/13 0:00	las
pH measured at		21.0			С	0.1	0.1	01/25/13 0:00	las
Residue, Filterable (TDS) @180C	SM2540C	1630			mg/L	10	20	01/25/13 16:32	ljr
Residue, Non- Filterable (TSS) @105C	SM2540D		U	*	mg/L	5	20	01/28/13 14:31	las
Sulfate	D516-02 - Turbidimetric	1070		*	mg/L	50	300	02/04/13 14:49	mpb
Sulfide as S	SM4500S2-D		U	*	mg/L	0.02	0.1	01/28/13 14:15	jad

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:

Sample ID: CB-04

Inorganic Analytical Results

ACZ Sample ID:	L10356-03
Date Sampled:	01/23/13 00:00
Date Received:	01/24/13
Sample Matrix:	Surface Water

Inorganic Prep								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation						02/01/13 9:54	mpb
Cyanide, WAD	SM4500-CN I- distillation						02/01/13 12:01	lhb
Total Hot Plate	M200.2 ICP-MS						02/04/13 11:55	las
Digestion Total Hot Plate	M200.2 ICP						01/31/13 12:40	jjc
Digestion Total Recoverable	M200.2 ICP-MS						02/04/13 9:45	loo
Digestion	W200.2 ICF-W3						02/04/13 9.43	las
Metals Analysis								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	0.017	*	mg/L	0.001	0.005	02/05/13 15:52	msh
Arsenic, dissolved	M200.8 ICP-MS	0.0006	В	mg/L	0.0002	0.001	02/01/13 0:46	msh
Arsenic, total recoverable	M200.8 ICP-MS	0.0010	В	mg/L	0.0002	0.001	02/05/13 15:52	msh
Barium, dissolved	M200.7 ICP	0.022		mg/L	0.003	0.02	01/31/13 10:26	aeb
Beryllium, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	01/31/13 10:26	aeb
Boron, dissolved	M200.7 ICP	0.05	В	mg/L	0.01	0.05	01/31/13 10:26	aeb
Cadmium, dissolved	M200.8 ICP-MS	0.0010		mg/L	0.0001	0.0005	02/01/13 0:46	msh
Cadmium, total	M200.8 ICP-MS	0.0010		mg/L	0.0001	0.0005	02/05/13 19:58	msh
Calcium, dissolved	M200.7 ICP	300		mg/L	0.2	1	01/31/13 10:26	aeb
Chromium, dissolved	M200.8 ICP-MS		U	mg/L	0.0005	0.002	02/01/13 0:46	msh
Chromium, total	M200.8 ICP-MS		U	mg/L	0.0005	0.002	02/05/13 19:58	msh
Chromium, Trivalent	Calculation (Total - Hexavalent)		U	mg/L	0.0005	0.002	02/07/13 9:21	calc
Copper, dissolved	M200.8 ICP-MS		U	mg/L	0.0005	0.003	02/01/13 0:46	msh
Copper, total	M200.8 ICP-MS	0.0044		mg/L	0.0005	0.003	02/05/13 19:58	msh
Iron, dissolved	M200.7 ICP		U	mg/L	0.02	0.05	01/31/13 10:26	aeb
Iron, total	M200.7 ICP	0.16		mg/L	0.02	0.05	02/01/13 0:49	jjc
Lead, dissolved	M200.8 ICP-MS	0.0004	В	mg/L	0.0001	0.0005	02/01/13 0:46	msh
Lead, total	M200.8 ICP-MS	0.0069		mg/L	0.0001	0.0005	02/05/13 19:58	msh
Magnesium, dissolved	M200.7 ICP	3.6		mg/L	0.2	1	01/31/13 10:26	aeb
Manganese, dissolved	M200.7 ICP	0.140		mg/L	0.005	0.03	01/31/13 10:26	aeb
Manganese, total	M200.7 ICP	0.142		mg/L	0.005	0.03	02/01/13 0:49	jjc
Mercury, total	M245.1 CVAA		U	mg/L	0.0002	0.001	01/31/13 12:55	mfm
Nickel, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	01/31/13 10:26	aeb
Nickel, total	M200.7 ICP		U	mg/L	0.01	0.05	02/01/13 0:49	jjc
Selenium, dissolved	M200.8 ICP-MS	0.0003		mg/L	0.0001	0.0003	02/01/13 0:46	, msh
Silver, dissolved	M200.8 ICP-MS		U	mg/L	0.00005	0.0003	02/01/13 0:46	msh
Silver, total	M200.8 ICP-MS		U	mg/L	0.00005	0.0003	02/05/13 19:58	msh
Uranium, dissolved	M200.8 ICP-MS	0.0005		mg/L	0.0001	0.0005	02/01/13 0:46	msh
Uranium, total	M200.8 ICP-MS	0.0005		mg/L	0.0001	0.0005	02/05/13 19:58	msh
Zinc, dissolved	M200.7 ICP	0.26		mg/L	0.01	0.05	01/31/13 10:26	aeb
Zinc, total	M200.7 ICP	0.26		mg/L	0.01	0.05	02/01/13 0:49	jjc

* Please refer to Qualifier Reports for details.



Project ID: Sample ID: CB-04

Inorganic Analytical Results

ACZ Sample ID: L10356-03 Date Sampled: 01/23/13 00:00 Date Received: 01/24/13 Sample Matrix: Surface Water

Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as		44			mg/L	2	20	01/25/13 0:00	las
CaCO3						-			
Carbonate as CaCO3			U		mg/L	2	20	01/25/13 0:00	las
Hydroxide as CaCO3			U		mg/L	2	20	01/25/13 0:00	las
Total Alkalinity		44	-		mg/L	2	20	01/25/13 0:00	las
Chloride	SM4500CI-E	2	В	*	mg/L	1	5	01/31/13 19:00	-
Conductivity @25C	SM2510B	1270			umhos/cm	1	10	01/25/13 16:32	
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	02/01/13 16:38	tcd
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	02/01/13 17:34	tcd
Dissolved Chromium, Hexavalent	SM3500Cr-D		UH	*	mg/L	0.005	0.02	01/25/13 11:20	las
Hardness as CaCO3	SM2340B - Calculation	765			mg/L	1	7	02/07/13 9:21	calc
Lab Filtration (0.45um) & Acidification	M200.7/200.8							01/28/13 14:27	las
Lab Filtration (glass fiber filter)	SOPWC050							01/24/13 14:15	ljr
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		U		mg/L	0.02	0.1	02/07/13 9:21	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U	*	mg/L	0.02	0.1	01/24/13 23:03	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U	*	mg/L	0.01	0.05	01/24/13 23:03	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate		U	*	mg/L	0.05	0.5	02/04/13 17:50	bsu
pH (lab)	SM4500H+ B								
рН		8.0			units	0.1	0.1	01/25/13 0:00	las
pH measured at		21.0			С	0.1	0.1	01/25/13 0:00	las
Residue, Filterable (TDS) @180C	SM2540C	1160			mg/L	10	20	01/25/13 16:33	ljr
Residue, Non- Filterable (TSS) @105C	SM2540D		U	*	mg/L	5	20	01/28/13 14:33	las
Sulfate	D516-02 - Turbidimetric	710		*	mg/L	20	100	02/04/13 14:17	mpb
Sulfide as S	SM4500S2-D		U	*	mg/L	0.02	0.1	01/28/13 14:21	jad



Inorganic Reference

FoundValue of the QCLimitUpper limit for RLowerLower RecoveryMDLMethod DetectionPCN/SCNA number assigPQLPractical QuantitiQCTrue Value of theRecRecovered amoreRPDRelative PercentUpperUpper RecoverySampleValue of the SampleCSample TypesASAnalytical Spike	V Limit, in % (except for LCSS, mg/Kg) on Limit. Same as Minimum Reporting Limit ned to reagents/standards to trace to the man tation Limit, typically 5 times the MDL. e Control Sample or the amount added to the unt of the true value or spike added, in % (exc t Difference, calculation used for Duplicate QC V Limit, in % (except for LCSS, mg/Kg)	nufacturer's certific Spike cept for LCSS, mg										
LimitUpper limit for RLowerLower RecoveryMDLMethod DetectionPCN/SCNA number assigPQLPractical QuantiQCTrue Value of theRecRecovered amoreRPDRelative PercentUpperUpper RecoverySampleValue of the SampleCSample TypesASAnalytical Spike	AD, in %. / Limit, in % (except for LCSS, mg/Kg) on Limit. Same as Minimum Reporting Limit ned to reagents/standards to trace to the man tation Limit, typically 5 times the MDL. e Control Sample or the amount added to the ount of the true value or spike added, in % (exc t Difference, calculation used for Duplicate QC / Limit, in % (except for LCSS, mg/Kg)	nufacturer's certific Spike cept for LCSS, mg										
Lower Lower Recovery MDL Method Detector PCN/SCN A number assig PQL Practical Quanti QC True Value of th Rec Recovered amor RPD Relative Percent Upper Upper Recovery Sample Value of the Sam Sample Types AS Analytical Spike	V Limit, in % (except for LCSS, mg/Kg) on Limit. Same as Minimum Reporting Limit ned to reagents/standards to trace to the man tation Limit, typically 5 times the MDL. e Control Sample or the amount added to the unt of the true value or spike added, in % (exc t Difference, calculation used for Duplicate QC V Limit, in % (except for LCSS, mg/Kg)	nufacturer's certific Spike cept for LCSS, mg										
MDL Method Detection PCN/SCN A number assig PQL Practical Quanti QC True Value of the Rec Recovered amore RPD Relative Percent Upper Upper Recovered Sample Value of the Same C Sample Types AS Analytical Spike	on Limit. Same as Minimum Reporting Limit. ned to reagents/standards to trace to the man tation Limit, typically 5 times the MDL. e Control Sample or the amount added to the unt of the true value or spike added, in % (exc t Difference, calculation used for Duplicate QC / Limit, in % (except for LCSS, mg/Kg)	nufacturer's certific Spike cept for LCSS, mg										
PCN/SCN A number assig PQL Practical Quanti QC True Value of the Rec Recovered amore RPD Relative Percent Upper Upper Recovered Sample Value of the Same C Sample Types AS Analytical Spike	ned to reagents/standards to trace to the man tation Limit, typically 5 times the MDL. e Control Sample or the amount added to the unt of the true value or spike added, in % (exc t Difference, calculation used for Duplicate QC / Limit, in % (except for LCSS, mg/Kg)	nufacturer's certific Spike cept for LCSS, mg										
PQL Practical Quanti QC True Value of th Rec Recovered amo RPD Relative Percen Upper Upper Recovery Sample Value of the Same C Sample Types AS Analytical Spike	tation Limit, typically 5 times the MDL. e Control Sample or the amount added to the unt of the true value or spike added, in % (exc t Difference, calculation used for Duplicate QC / Limit, in % (except for LCSS, mg/Kg)	Spike cept for LCSS, mg	ate of analysis									
QC True Value of th Rec Recovered amore RPD Relative Percent Upper Upper Recovery Sample Value of the Same C Sample Types AS	e Control Sample or the amount added to the ount of the true value or spike added, in % (exc t Difference, calculation used for Duplicate QC / Limit, in % (except for LCSS, mg/Kg)	cept for LCSS, mg										
Rec Recovered amore RPD Relative Percent Upper Upper Recovery Sample Value of the Same C Sample Types AS	unt of the true value or spike added, in % (ex t Difference, calculation used for Duplicate QC / Limit, in % (except for LCSS, mg/Kg)	cept for LCSS, mg										
RPD Relative Percent Upper Upper Recovery Sample Value of the Sample C Sample Types AS	t Difference, calculation used for Duplicate QC / Limit, in % (except for LCSS, mg/Kg)											
Upper Upper Recovery Sample Value of the Sai Sample Types AS Analytical Spike	/ Limit, in % (except for LCSS, mg/Kg)		Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)									
Sample Value of the Sample Sample Types AS Analytical Spike		o i shee										
Sample Types AS Analytical Spike												
AS Analytical Spike												
, ,	(Post Digestion)		Laboratory Control Sample - Water Durlingto									
ACD Analytical Oritic		LCSWD	Laboratory Control Sample - Water Duplicate									
	(Post Digestion) Duplicate	LFB	Laboratory Fortified Blank									
CCB Continuing Calib		LFM	Laboratory Fortified Matrix									
-	oration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate									
DUP Sample Duplica		LRB	Laboratory Reagent Blank									
ICB Initial Calibration		MSD	Matrix Spike									
	Verification standard	MSD	Matrix Spike Duplicate									
	prrection Standard - A plus B solutions	PBS	Prep Blank - Soil									
-	trol Sample - Soil	PBW	Prep Blank - Water									
-	trol Sample - Soil Duplicate trol Sample - Water	PQV SDL	Practical Quantitation Verification standard Serial Dilution									
Duplicates Spikes/Fortified Matrix	Verifies the precision of the instrume Determines sample matrix interferen											
Standard	Verifies the validity of the calibration.											
Z Qualifiers (Qual)												
B Analyte concent	ration detected at a value between MDL and	PQL. The associat	ed value is an estimated quantity.									
H Analysis exceed	led method hold time. pH is a field test with a	n immediate hold t	ime.									
L Target analyte r	esponse was below the laboratory defined neg	gative threshold.										
U The material wa	s analyzed for, but was not detected above th	e level of the asso	ciated value.									
The associated	value is either the sample quantitation limit or	the sample detect	ion limit.									
ethod References												
(1) EPA 600/4-83-0	20. Methods for Chemical Analysis of Water	and Wastes, Marc	h 1983.									
(2) EPA 600/R-93-7	100. Methods for the Determination of Inorgan	nic Substances in I	Environmental Samples, August 1993.									
(3) EPA 600/R-94-7	111. Methods for the Determination of Metals	in Environmental	Samples - Supplement I, May 1994.									
(4) EPA SW-846.	Fest Methods for Evaluating Solid Waste.											
(5) Standard Metho	ds for the Examination of Water and Wastewa	ater.										
omments												
(1) QC results calcu	lated from raw data. Results may vary slight	ly if the rounded va	lues are used in the calculations.									
	d Plant matrices for Inorganic analyses are re		<i>i</i> ght basis.									
(3) Animal matrices	for Inorganic analyses are reported on an "as	s received" basis.										
	e "XQ" column indicates there is an extended	qualifier and/or ce	rtification qualifier									
(4) An asterisk in th	the result											
(4) An asterisk in th associated with	une result.											
associated with	Is the PQL or the MDL column is omitted, the	PQL is the reporting	ng limit.									

REP001.09.12.01



Caldera Mineral Resources

MC337980 VC337980	Alkalinity as CaC	O3		SM2320B	- Titration									
WG337980PBW1 PBW 01/25/13 15.42 WG337980CSW2 LCSW 01/25/13 15.40 WG337980CSW3 LSW 01/25/13 17.52 WG337980CSW3 U 01/10 0.2 20 WG337980CSW3 LCSW 01/25/13 17.52 WG337980CSW3 LCSW 01/25/13 17.52 WG337980CSW3 U 01/10 0.2 20 WG337980CSW3 LCSW 01/25/13 17.52 WC130111-7 820.0001 756.1 mgL 93.1 90 110 V<	ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG337980LCSW2 LGSW 0125/13 1540 WG130111-7 820.001 752.4 mg1L 91.8 90 110	WG337980													
L10356-03DUP DUP 0125/13 16:40 44.4 44.1 mg1 92.2 90 110 92.2 20 WG337980LCSW1 DVS 0125/13 17.52 820.0001 756.1 mg1 92.2 90 110 100 100 WG337980LCSW1 DCSW 0125/13 21:04 WC130111-7 820.0001 768.6 mg1 93.1 90 110 100	WG337980PBW1	PBW	01/25/13 15:27				4.3	mg/L		-20	20			
WG337980LCSW5 LCSW 01/25/13 17:44 WG130111-7 820.0001 756.1 mg/L 92.2 90 110 WG337980DEW2 PBW 01/25/13 17:42 WG130111-7 820.0001 763.6 mg/L 92.2 90 110 WG337980DEW3 PEW 01/25/13 17:42 WG130111-7 820.0001 784. mg/L 92.0 20 20 WG337980LCSW1 LCSW 01/26/13 2:45 WG130111-7 820.0001 784. mg/L 95.6 90 110 - - 110 - - 96.3 90 110 - - 110 - - 110 - - 110 - 110 - - 110 - - 110 - - 110 - - 110 - - 110 - - 110 - - 110 - - 110 - 110 - - - 110 - - - - 110 - - - - 110 - <t< td=""><td>WG337980LCSW2</td><td>LCSW</td><td>01/25/13 15:40</td><td>WC130111-7</td><td>820.0001</td><td></td><td>752.4</td><td>mg/L</td><td>91.8</td><td>90</td><td>110</td><td></td><td></td><td></td></t<>	WG337980LCSW2	LCSW	01/25/13 15:40	WC130111-7	820.0001		752.4	mg/L	91.8	90	110			
WG337980PBW2 PBW 01/25/13 17:52 3.4 mg/L -20 20 20 WG337980LCSW4 LCSW 01/25/13 17:52 WC130111.7 820.0001 763.6 mg/L 90 110 WG337980DCSW11 LCSW 01/26/13 0:18 WC130111.7 820.0001 764 mg/L 95.6 90 110 WG337980DCSW11 LCSW 01/26/13 0:18 WC130111.7 820.0001 764 mg/L 90 110 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20	L10356-03DUP	DUP	01/25/13 16:40			44	44.1	mg/L				0.2	20	
WG337980LGSW8 LCSW 01/25/13 20:50 WG130111-7 820.0001 763.6 mg/L 93.1 90 110 WG337980DFW3 PBW 01/25/13 20:50 WC130111-7 820.0001 784 mg/L 95.6 90 110 WG337980DFW4 LOSW 01/26/13 0:26 WC130111-7 820.0001 784 mg/L 95.3 90 110 20 20 20 20 20 20 20 20 20 20 20 20 20 90 110 20 2	WG337980LCSW5	LCSW	01/25/13 17:44	WC130111-7	820.0001		756.1	mg/L	92.2	90	110			
WG337980PEW3 PBW 01/25/13 21:04 WC1301117 820.0001 744 mg/L -20 20 20 WG337980LCSW14 LCSW 01/26/13 01:8 WC1301117 820.0001 784 mg/L 96.3 90 110 Aluminum, total Tecovers/28/13 2:45 WC1301117 820.0001 799.7 mg/L 96.3 90 110 Cover LPP LInit Qual Aluminum, total Tecovers/28/13 15.32 WC130110-7 820.0001 OC Sample Found Units Rec Lower Upper RPD LInit Qual WG3384511CW ICV 0205/513 15.32 MS130102-2 .1 .1029 mg/L 102.9 90 110 WG3384511CW ICV 0205/513 15.32 MS130108-1	WG337980PBW2	PBW	01/25/13 17:52				3.4	mg/L		-20	20			
WG337980LGSW11 LGSW 01/28/13 0:128/13 0:28/13	WG337980LCSW8	LCSW	01/25/13 20:56	WC130111-7	820.0001		763.6	mg/L	93.1	90	110			
WG3337980PBW4 PBW 01/26/13 0:26 WC130111-7 820.001 789.7 mg/L 96.3 90 110 Aluminum, total recoverable M200.8 ICP-MS M200.8 ICP-MS M200.8 ICP-MS No.000 100 110 Qual WG33384511CV ICV 0205/13 15.32 MS130102-2 .1 .1029 mg/L 102.9 90 110 Out Qual WG3384511CS ICV 0205/13 15.32 MS130102-2 .1 .1029 mg/L 102.9 90 110	WG337980PBW3	PBW	01/25/13 21:04				U	mg/L		-20	20			
WG3337980LGSW14 LGS 01/26/13 2:45 WC130111-7 820.0001 789.7 mg/L 96.3 90 110 Image: constrained in the constrained in	WG337980LCSW11	LCSW	01/26/13 0:18	WC130111-7	820.0001		784	mg/L	95.6	90	110			
Aluminum, total recoverable M200.8 ICP-MS Aluminum, total recoverable M200.8 ICP-MS AC2 ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG338451 WG3384511CV ICV 02/05/13 15:32 MS130102-2 .1 .1029 mg/L 102.9 90 110 WG3384511CB ICB 02/05/13 15:32 MS130108-1 .050055 .0014 mg/L -0.003 0.003	WG337980PBW4	PBW	01/26/13 0:26				U	mg/L		-20	20			
AC2 ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG338451 WG338451 WG338451 U 102.9 90 110 - - - - - - 0.003 0.003 0.003 - - - 0.0022 0.0024 0.003 0.003 115 1036 0.1036 0.0055 0.056 0.056 0.056 0.056 0.056 0.056 0.056 0.056 0.0006 0.0006 0.0006 0.0006 0.0006 0.0006 0.0006 0.0006 0.0006 0.0006 0.	WG337980LCSW14	LCSW	01/26/13 2:45	WC130111-7	820.0001		789.7	mg/L	96.3	90	110			
WG338451 WG338451ICV ICV 0/205/13 15:32 MS130102-2 .1 .1029 mg/L 102.9 90 110 WG338451ICV ICV 0/205/13 15:35 U mg/L -0.003 0.003 WG338451ICB ICB 0/205/13 15:35 U mg/L -0.0022 0.0022 0.0022 WG33886LFB LFB 0/205/13 15:42 MS130108-1 .050055 .036 .0972 mg/L 104.9 85 115 L10386-02LFM LFM 0/205/13 16:25 MS130108-1 .050055 .036 .0137 mg/L 135.3 70 130 Limit Quad MC338270 MS130108-1 .05005 .05282 mg/L 105.6 90 110 MS130 WG338270ICB ICV 0/13/1/3 23:55 MS130108-1 .50505 .04875 mg/L 90.000 0.0006 .0006 WG338270LFB LFB 0/13/1/3 23:59 MS130108-1 .25025 U .2435 mg/L	Aluminum, total	recover	able	M200.8 IC	P-MS									
WG338451ICV ICV 02/05/13 15:32 MS130102-2 .1 .1029 mg/L 102.9 90 110 WG338451ICB ICB 02/05/13 15:35 .014 mg/L -0.0022 0.0022 WG338366LRB LRB 02/05/13 15:32 MS130108-1 .050055	ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG3384511CB ICB 02/05/13 15:35 U mg/L -0.003 0.003 WG3384561CB LRB 02/05/13 15:38 .0014 mg/L -0.0022 0.0022 0.0022 WG338366LFB LFB 02/05/13 15:32 MS130108-1 .050055 .036 .0972 mg/L 102.3 70 130 .477 20 MA L10386-02LFM LFM 02/05/13 16:25 MS130108-1 .050055 .036 .0972 mg/L 122.3 70 130 .477 20 MA Arsenic, dissolver M200.8 ICP-MS M200.8 ICP-MS MS330108-1 .050055 .036 .0137 mg/L 135.3 70 130 6.47 20 MA WG338270ICV ICV 01/31/13 23:52 MS130108-1 .05005 .05282 mg/L 105.6 90 110 .5 .5 .05282 mg/L 105.6 90 110 .5 .5 .5 .05282 mg/L 105.6 90 110 .5 .5 .5 .05282 mg/L 97.3 70 130	WG338451													
WG3384511CB ICB 0205/13 15:35 U mg/L -0.003 0.003 U U mg/L -0.0032 0.0022 U U U mg/L -0.0032 0.0022 U U U mg/L -0.0032 0.0022 0.0022 U U U mg/L 10.0022 0.0023 0.0023 0.0023 0.0023 0.0023 0.0023 0.0023 0.0023 0.0024 0.0024 0.0024 0.0024 0.0024 0.0024 0.0023 0.001311313 0.0131113 233	WG338451ICV	ICV	02/05/13 15:32	MS130102-2	.1		.1029	mg/L	102.9	90	110			
WG338366LRB LRB 02/05/13 15:38 .0014 mg/L -0.0022 0.0022 0.0022 WG338366LBB LFB 02/05/13 15:42 MS130108-1 .050055 .036 .0972 mg/L 104.9 85 115 L10386-02LFM LFM 02/05/13 16:22 MS130108-1 .050055 .036 .0972 mg/L 122.3 70 130 .6.47 20 MA Arsenic, dissolver MS130108-1 .050055 .036 .0972 mg/L 123.3 70 130 6.47 20 MA Arsenic, dissolver M20.8 ICP-MS MS130108-1 .050055 .036 .0972 mg/L 105.6 90 110 100 <th< td=""><td>WG338451ICB</td><td>ICB</td><td>02/05/13 15:35</td><td></td><td></td><td></td><td>U</td><td>•</td><td></td><td>-0.003</td><td>0.003</td><td></td><td></td><td></td></th<>	WG338451ICB	ICB	02/05/13 15:35				U	•		-0.003	0.003			
WG338366LFB LFB 02/05/13 15:42 MS130108-1 .050055 .036 .0972 mg/L 104.9 85 115 L10386-02LFM LFM 02/05/13 16:22 MS130108-1 .050055 .036 .0972 mg/L 122.3 70 130 6.47 20 MA Arsenic, dissolve M200.8 ICP-MS MS10018-1 .050055 .036 .0972 mg/L 135.3 70 130 6.47 20 MA Arsenic, dissolve M200.8 ICP-MS MS10018-1 .050055 .036 .0972 mg/L 105.6 90 110 MS10 Qual WG338270 Kitz MS130102-2 .05 .05282 mg/L 105.6 90 110 MS10 MS100066 MS00066 MS00066 MS00066 MS00066 MS00066 MS00167 MS10108-1 .25025 U mg/L 97.4 85 115 MS100 MS100108-1 .25025 U .2435 mg/L 97.3 70 130 2.55 20 M301047-02ASD ASD 02/01/13 0:16 MS130108-1	WG338366LRB		02/05/13 15:38					•						
L10386-02LFM LFM 02/05/13 16:22 MS130108-1 .050055 .036 .0972 mg/L 122.3 70 130 .0130 MAR Arsenic, dissolvet M200.8 ICP-MS	WG338366LFB	LFB		MS130108-1	.050055			0	104.9					
L10386-02LFMD LFMD 02/05/13 16:25 MS130108-1 .050055 .036 .1037 mg/L 135.3 70 130 6.47 20 MA Arsenic, dissolvet M200.8 ICP-MS M200.8 ICP-MS Rec Lower Upper RPD Limit Qual WG338270 WG338270ICV ICV 01/31/13 23:52 MS130102-2 .05 .05282 mg/L 105.6 90 110 Limit Qual WG338270ICV ICV 01/31/13 23:55 MS130102-2 .05 .05282 mg/L 105.6 90 110	L10386-02LFM	LFM	02/05/13 16:22	MS130108-1	.050055	.036		0	122.3	70	130			
AC2 ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG338270 WG338270ICV ICV 01/31/13 23:52 MS130102-2 .05 .05282 mg/L 105.6 90 110	L10386-02LFMD	LFMD	02/05/13 16:25	MS130108-1	.050055	.036	.1037	-	135.3	70	130	6.47	20	MA
WG338270 WG338270ICV ICV 01/31/13 23:52 MS130102-2 .05 .05282 mg/L 105.6 90 110 WG338270ICV ICB 01/31/13 23:56 U mg/L -0.0006 0.0006 WG338270ICB ICB 01/31/13 23:56 MS130108-1 .05005 .04875 mg/L 97.4 85 115 L10347-02AS AS 02/01/13 0:16 MS130108-1 .25025 U .2435 mg/L 97.3 70 130 .55 20 Arsenic, total recoverable M200.8 ICP-MS M200.8 ICP-MS MS130102-2 .05 .05155 mg/L 103.1 90 110 .55 20 WG338451 WG338451 ICP MS130102-2 .05 .05155 mg/L 103.1 90 110 .5006 .55 U mg/L -0.0006 0.0006 .55 .55 15 .55 .55 20 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 <td>Arsenic, dissolve</td> <td>ed</td> <td></td> <td>M200.8 IC</td> <td>P-MS</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Arsenic, dissolve	ed		M200.8 IC	P-MS									
WG338270ICV ICV 01/31/13 23:52 MS130102-2 .05 .05282 mg/L 105.6 90 110 WG338270ICB ICB 01/31/13 23:56 U mg/L -0.0006 0.0006 0.0006 WG338270LFB LFB 01/31/13 23:59 MS130108-1 .05005 .04875 mg/L 97.4 85 115 L10347-02AS AS 02/01/13 0:16 MS130108-1 .25025 U .2435 mg/L 97.3 70 130 2.55 20 L10347-02AS ASD 02/01/13 0:19 MS130108-1 .25025 U .2435 mg/L 97.3 70 130 2.55 2.55 2.	ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG3382701CB ICB 01/31/13 23:56 U mg/L -0.0006 0.0006 WG3382701CFB LFB 01/31/13 23:59 MS130108-1 .05005 .04875 mg/L 97.4 85 115 L10347-02AS AS 02/01/13 0:16 MS130108-1 .25025 U .2435 mg/L 97.3 70 130 2.55 20 201 Arsenic, total recverable M200.8 ICP-MS M200.8 ICP-MS M200.8 ICP-MS Event V Main Qual WG338451ICV Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG338451ICV ICV 02/05/13 15:32 MS130102-2 .05 .05155 mg/L 103.1 90 110 V V VG338451ICB ICB 02/05/13 15:35 U mg/L -0.0006 0.0006 0.0004 V V V V V V V 0.0004 0.00044 V V V V V V V V V	WG338270													
WG3382701CB ICB 01/31/13 23:56 U mg/L -0.0006 0.0006 WG3382701CFB LFB 01/31/13 23:59 MS130108-1 .05005 .04875 mg/L 97.4 85 115 L10347-02AS AS 02/01/13 0:16 MS130108-1 .25025 U .2435 mg/L 97.3 70 130 2.55 20 201 Arsenic, total recverable M200.8 ICP-MS M200.8 ICP-MS M200.8 ICP-MS Event V Main Qual WG338451ICV Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG338451ICV ICV 02/05/13 15:32 MS130102-2 .05 .05155 mg/L 103.1 90 110 V V VG338451ICB ICB 02/05/13 15:35 U mg/L -0.0006 0.0006 0.0004 V V V V V V V 0.0004 0.00044 V V V V V V V V V	WG338270ICV	ICV	01/31/13 23:52	MS130102-2	.05		.05282	ma/L	105.6	90	110			
WG338270LFB LFB 01/31/13 23:59 MS130108-1 .05005 .04875 mg/L 97.4 85 115 L10347-02AS AS 02/01/13 0:16 MS130108-1 .25025 U .2435 mg/L 97.3 70 130 2.55 20 Assenic, total recverable M200.8 ICP-MS M200.8 ICP-MS <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								0						
L10347-02AS L10347-02ASD AS ASD 02/01/13 0:16 MS130108-1 .25025 U .2435 mg/L 97.3 70 130 130 2.55 20 ASD 02/01/13 0:19 MS130108-1 .25025 U .2435 mg/L 97.3 70 130 2.55 20 Arsenic, total recverable M200.8 ICP-MS M200.8 ICP-MS V				MS130108-1	.05005			•	97.4					
L10347-02ASD ASD 02/01/13 0:19 MS130108-1 .25025 U .2498 mg/L 99.8 70 130 2.55 20 Arsenic, total recoverable M200.8 ICP-MS ACZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG338451 UV 02/05/13 15:32 MS130102-2 .05 .05155 mg/L 103.1 90 110 V V V V V 02/05/13 15:35 UV mg/L .05155 mg/L 103.1 90 110 V <t< td=""><td></td><td></td><td></td><td></td><td></td><td>U</td><td></td><td>0</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>						U		0						
ACZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG338451 WG338451ICV ICV 02/05/13 15:32 MS130102-2 .05 .05155 mg/L 103.1 90 110 0.0006 0.0006	L10347-02ASD							0				2.55	20	
WG338451 ICV 02/05/13 15:32 MS130102-2 .05 .05155 mg/L 103.1 90 110 WG338451ICV ICV 02/05/13 15:32 MS130102-2 .05 .05155 mg/L 103.1 90 110 WG338451ICB ICB 02/05/13 15:35 U mg/L -0.0006 0.0006 WG338366LRB LRB 02/05/13 15:38 U mg/L -0.00044 0.00044 WG338366LFB LFB 02/05/13 15:42 MS130108-1 .05005 .05326 mg/L 106.4 85 115 L10386-02LFM LFM 02/05/13 16:22 MS130108-1 .05005 U .05588 mg/L 111.6 70 130	Arsenic, total rec	overab	le	M200.8 IC	P-MS									
WG338451ICV ICV 02/05/13 15:32 MS130102-2 .05 .05155 mg/L 103.1 90 110 WG338451ICB ICB 02/05/13 15:35 U mg/L -0.0006 0.0006 WG338366LRB LRB 02/05/13 15:38 U mg/L -0.00044 0.00044 WG338366LFB LFB 02/05/13 15:42 MS130108-1 .05005 .05326 mg/L 106.4 85 115 L10386-02LFM LFM 02/05/13 16:22 MS130108-1 .05005 U .05588 mg/L 111.6 70 130	ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338451ICV ICV 02/05/13 15:32 MS130102-2 .05 .05155 mg/L 103.1 90 110 WG338451ICB ICB 02/05/13 15:35 U mg/L -0.0006 0.0006 WG338366LRB LRB 02/05/13 15:38 U mg/L -0.00044 0.00044 WG338366LFB LFB 02/05/13 15:42 MS130108-1 .05005 .05326 mg/L 106.4 85 115 L10386-02LFM LFM 02/05/13 16:22 MS130108-1 .05005 U .05588 mg/L 111.6 70 130	WG338451													
WG338451ICB ICB 02/05/13 15:35 U mg/L -0.0006 0.0006 WG338366LRB LRB 02/05/13 15:38 U mg/L -0.00044 0.00044 WG338366LFB LFB 02/05/13 15:42 MS130108-1 .05005 .05326 mg/L 106.4 85 115 L10386-02LFM LFM 02/05/13 16:22 MS130108-1 .05005 U .05588 mg/L 111.6 70 130	WG338451ICV	ICV	02/05/13 15:32	MS130102-2	.05		.05155	ma/L	103.1	90	110			
WG338366LRB LRB 02/05/13 15:38 U mg/L -0.00044 0.00044 WG338366LFB LFB 02/05/13 15:42 MS130108-1 .05005 .05326 mg/L 106.4 85 115 L10386-02LFM LFM 02/05/13 16:22 MS130108-1 .05005 U .05588 mg/L 111.6 70 130								-						
WG338366LFB LFB 02/05/13 15:42 MS130108-1 .05005 .05326 mg/L 106.4 85 115 L10386-02LFM LFM 02/05/13 16:22 MS130108-1 .05005 U .05588 mg/L 111.6 70 130								0						
L10386-02LFM LFM 02/05/13 16:22 MS130108-1 .05005 U .05588 mg/L 111.6 70 130				MS130108-1	.05005			-	106.4					
						11		-						
	L10386-02LFMD	LFMD	02/05/13 16:25	MS130108-1	.05005	U	.05748	mg/L	114.8	70	130	2.82	20	



Barium, dissolv	ed		M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338145													
WG338145ICV	ICV	01/31/13 9:52	ll130114-3	2		1.9878	mg/L	99.4	95	105			
WG338145ICB	ICB	01/31/13 9:58				U	mg/L		-0.009	0.009			
WG338145LFB	LFB	01/31/13 10:10	ll121231-2	.5		.5169	mg/L	103.4	85	115			
L10356-01AS	AS	01/31/13 10:16	ll121231-2	.5	.06	.5841	mg/L	104.8	85	115			
L10356-01ASD	ASD	01/31/13 10:19	ll121231-2	.5	.06	.5824	mg/L	104.5	85	115	0.29	20	
Beryllium, disso	lved		M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338145													
WG338145ICV	ICV	01/31/13 9:52	II130114-3	2		1.945	mg/L	97.3	95	105			
WG338145ICB	ICB	01/31/13 9:58				U	mg/L		-0.03	0.03			
WG338145LFB	LFB	01/31/13 10:10	ll121231-2	.5		.505	mg/L	101	85	115			
L10356-01AS	AS	01/31/13 10:16	II121231-2	.5	U	.503	mg/L	100.6	85	115			
L10356-01ASD	ASD	01/31/13 10:19	ll121231-2	.5	U	.499	mg/L	99.8	85	115	0.8	20	
Boron, dissolve	d		M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338145													
WG338145ICV	ICV	01/31/13 9:52	II130114-3	2		1.998	mg/L	99.9	95	105			
WG338145ICB	ICB	01/31/13 9:58				U	mg/L		-0.03	0.03			
WG338145LFB	LFB	01/31/13 10:10	II121231-2	.5005		.53	mg/L	105.9	85	115			
L10356-01AS	AS	01/31/13 10:16	II121231-2	.5005	.02	.558	mg/L	107.5	85	115			
L10356-01ASD	ASD	01/31/13 10:19	ll121231-2	.5005	.02	.544	mg/L	104.7	85	115	2.54	20	
Cadmium, disso	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338270													
WG338270ICV	ICV	01/31/13 23:52	MS130102-2	.05		.05169	mg/L	103.4	90	110			
WG338270ICB	ICB	01/31/13 23:56				U	mg/L		-0.0003	0.0003			
WG338270LFB	LFB	01/31/13 23:59	MS130108-1	.0501		.04795	mg/L	95.7	85	115			
L10347-02AS	AS	02/01/13 0:16	MS130108-1	.2505	U	.2387	mg/L	95.3	70	130			
L10347-02ASD	ASD	02/01/13 0:19	MS130108-1	.2505	U	.24295	mg/L	97	70	130	1.76	20	
Cadmium, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338469													
WG338469ICV	ICV	02/05/13 18:54	MS130102-2	.05		.05161	mg/L	103.2	90	110			
WG338469ICB	ICB	02/05/13 18:57				U	mg/L		-0.0003	0.0003			
WG338365LRB	LRB	02/05/13 19:01				U	mg/L		-0.00022	0.00022			
WG338365LFB	LFB	02/05/13 19:04	MS130108-1	.0501		.04931	mg/L	98.4	85	115			
L10262-04LFM	LFM	02/05/13 19:45	MS130108-1	.0501	U	.04646	mg/L	92.7	70	130			
L10262-04LFMD	LFMD	02/05/13 19:48	MS130108-1	.0501	U	.04602	mg/L	91.9	70	130	0.95	20	
L10425-02LFM	LFM	02/05/13 20:35	MS130108-1	.0501	U	.04626	mg/L	92.3	70	130			
L10425-02LFMD	LFMD	02/05/13 20:39	MS130108-1	.0501	U	.04593	mg/L	91.7	70	130	0.72	20	



Calcium, dissolv	ed		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338145													
WG338145ICV	ICV	01/31/13 9:52	ll130114-3	100		98.26	mg/L	98.3	95	105			
WG338145ICB	ICB	01/31/13 9:58				U	mg/L		-0.6	0.6			
WG338145LFB	LFB	01/31/13 10:10	ll121231-2	67.97554		69.42	mg/L	102.1	85	115			
L10356-01AS	AS	01/31/13 10:16	ll121231-2	67.97554	137	202	mg/L	95.6	85	115			
L10356-01ASD	ASD	01/31/13 10:19	ll121231-2	67.97554	137	201.3	mg/L	94.6	85	115	0.35	20	
Chloride			SM4500C	Я-Е									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338281													
WG338281ICB	ICB	01/31/13 15:49				U	mg/L		-3	3			
WG338281ICV	ICV	01/31/13 15:49	WI130131-1	54.945		57.6	mg/L	104.8	90	110			
WG338281LFB1	LFB	01/31/13 18:58	WI130201-8	30		31.3	mg/L	104.3	90	110			
L10356-01DUP	DUP	01/31/13 19:00			1	1.4	mg/L				33.3	20	R
WG338281LFB2	LFB	01/31/13 19:02	WI130201-8	30		31.6	mg/L	105.3	90	110			
L10244-04AS	AS	01/31/13 19:10	10XCL	30	430	446	mg/L	53.3	90	110			M
Chromium, disso	olved		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338270													
WG338270ICV	ICV	01/31/13 23:52	MS130102-2	.05		.05073	mg/L	101.5	90	110			
WG338270ICB	ICB	01/31/13 23:56				U	mg/L		-0.0015	0.0015			
WG338270LFB	LFB	01/31/13 23:59	MS130108-1	.05005		.04849	mg/L	96.9	85	115			
L10347-02AS	AS	02/01/13 0:16	MS130108-1	.25025	U	.238	mg/L	95.1	70	130			
L10347-02ASD	ASD	02/01/13 0:19	MS130108-1	.25025	U	.2458	mg/L	98.2	70	130	3.22	20	
Chromium, total			M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338469													
WG338469ICV	ICV	02/05/13 18:54	MS130102-2	.05		.05249	mg/L	105	90	110			
WG338469ICB	ICB	02/05/13 18:57				U	mg/L		-0.0015	0.0015			
WG338365LRB	LRB	02/05/13 19:01				U	mg/L		-0.0011	0.0011			
WG338365LFB	LFB	02/05/13 19:04	MS130108-1	.05005		.04788	mg/L	95.7	85	115			
L10262-04LFM	LFM	02/05/13 19:45	MS130108-1	.05005	.004	.057	mg/L	105.9	70	130			
L10262-04LFMD	LFMD	02/05/13 19:48	MS130108-1	.05005	.004	.0554	mg/L	102.7	70	130	2.85	20	
L10425-02LFM	LFM	02/05/13 20:35	MS130108-1	.05005	.0005	.05168	mg/L	102.3	70	130			
L10425-02LFMD	LFMD	02/05/13 20:39	MS130108-1	.05005	.0005	.05357	mg/L	106	70	130	3.59	20	
Conductivity @2	5C		SM2510E	}									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG337980													
		01/25/13 15:29	DCNI40000	1400 0		1407.0	umbee /em	101.2	00	110			
WG337980LCSW1			PCN40828	1408.8	1070		umhos/cm	101.3	90	110	0.0	00	
L10356-03DUP	DUP	01/25/13 16:40	DONADOO	1400.0	1270	1268	umhos/cm	01.0	00	110	0.2	20	
WG337980LCSW4	LCSW	01/25/13 17:33	PCN40828	1408.8		1293.7	umhos/cm	91.8	90	110			



Copper, dissolv	ed		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338270													
WG338270ICV	ICV	01/31/13 23:52	MS130102-2	.05		.05083	mg/L	101.7	90	110			
WG338270ICB	ICB	01/31/13 23:56				U	mg/L		-0.0015	0.0015			
WG338270LFB	LFB	01/31/13 23:59	MS130108-1	.05005		.0474	mg/L	94.7	85	115			
L10347-02AS	AS	02/01/13 0:16	MS130108-1	.25025	.004	.2403	mg/L	94.4	70	130			
L10347-02ASD	ASD	02/01/13 0:19	MS130108-1	.25025	.004	.2485	mg/L	97.7	70	130	3.36	20	
Copper, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338469													
WG338469ICV	ICV	02/05/13 18:54	MS130102-2	.05		.0537	mg/L	107.4	90	110			
WG338469ICB	ICB	02/05/13 18:57				U	mg/L		-0.0015	0.0015			
WG338365LRB	LRB	02/05/13 19:01				U	mg/L		-0.0011	0.0011			
WG338365LFB	LFB	02/05/13 19:04	MS130108-1	.05005		.04903	mg/L	98	85	115			
L10262-04LFM	LFM	02/05/13 19:45	MS130108-1	.05005	.03	.0802	mg/L	100.3	70	130			
L10262-04LFMD	LFMD	02/05/13 19:48	MS130108-1	.05005	.03	.0785	mg/L	96.9	70	130	2.14	20	
L10425-02LFM	LFM	02/05/13 20:35	MS130108-1	.05005	.003	.05168	mg/L	97.3	70	130			
L10425-02LFMD	LFMD	02/05/13 20:39	MS130108-1	.05005	.003	.0533	mg/L	100.5	70	130	3.09	20	
Cyanide, total			M335.4 - C	Colorimetr	ric w/ distill	lation							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338352													
WG338352ICV	ICV	02/01/13 16:31	WI130201-7	.3		.2987	mg/L	99.6	90	110			
WG338352ICB	ICB	02/01/13 16:32		.0		U.	mg/L	00.0	-0.009	0.009			
WG338296LRB	LRB	02/01/13 16:33				U	mg/L		-0.009	0.009			
WG338296LFB	LFB	02/01/13 16:34	WI130201-2	.2		.1897	mg/L	94.9	90	110			
L10356-01DUP	DUP	02/01/13 16:36			U	U	mg/L	••			0	20	R
L10356-02LFM	LFM	02/01/13 16:38	WI130201-2	.2	U	.1876	mg/L	93.8	90	110	-		
Cyanide, WAD			SM4500-C	N I-Color	imetric w/	distillatio	on						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338354													
WG338354ICV	ICV	02/01/13 17:27	WI130201-7	.3		.2972	mg/L	99.1	90	110			
WG338354ICB	ICB	02/01/13 17:28				U	mg/L		-0.009	0.009			
WG338324LRB	LRB	02/01/13 17:29				U	mg/L		-0.009	0.009			
WG338324LFB	LFB	02/01/13 17:29	WI130201-4	.2		.1946	mg/L	97.3	90	110			
L10356-01DUP	DUP	02/01/13 17:31			U	U	mg/L				0	20	R
L10356-02LFM	LFM	02/01/13 17:33	WI130201-4	.2	U	.1901	mg/L	95.1	90	110			
Dissolved Chro	mium, H	exavalent	SM3500Ci	-D									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG337965													
WG337965ICV	ICV	01/25/13 11:05	WC121108-2	.05		.0456	mg/L	91.2	90	110			
WG337965ICB	ICB	01/25/13 11:07				U	mg/L		-0.015	0.015			
WG337965LFB	LFB	01/25/13 11:09	WC121009-4	.05		.0484	mg/L	96.8	90	110			
L10356-01AS	AS	01/25/13 11:14	WC121009-4	.05	U	.0463	mg/L	92.6	90	110			
	DUP	01/25/13 11:16			U	U	mg/L				0	20	R



Iron, dissolved			M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338145													
WG338145ICV	ICV	01/31/13 9:52	ll130114-3	2		1.957	mg/L	97.9	95	105			
WG338145ICB	ICB	01/31/13 9:58				U	mg/L		-0.06	0.06			
WG338145LFB	LFB	01/31/13 10:10	ll121231-2	1		1.02	mg/L	102	85	115			
L10356-01AS	AS	01/31/13 10:16	ll121231-2	1	U	1.047	mg/L	104.7	85	115			
L10356-01ASD	ASD	01/31/13 10:19	ll121231-2	1	U	1.031	mg/L	103.1	85	115	1.54	20	
Iron, total			M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338260													
WG338260ICV	ICV	01/31/13 23:32	ll130114-4	2		2.022	mg/L	101.1	95	105			
WG338260ICB	ICB	01/31/13 23:38				U	mg/L		-0.06	0.06			
WG338226LRB	LRB	01/31/13 23:50				U	mg/L		-0.044	0.044			
WG338226LFB	LFB	01/31/13 23:53	ll121231-2	1		1.047	mg/L	104.7	85	115			
L10261-01LFM	LFM	01/31/13 23:59	ll121231-2	1	23.3	24.06	mg/L	76	70	130			
L10261-01LFMD	LFMD	02/01/13 0:02	ll121231-2	1	23.3	24.34	mg/L	104	70	130	1.16	20	
L10356-02LFM	LFM	02/01/13 0:43	ll121231-2	1	.19	1.204	mg/L	101.4	70	130			
L10356-02LFMD	LFMD	02/01/13 0:46	ll121231-2	1	.19	1.229	mg/L	103.9	70	130	2.06	20	
Lead, dissolved			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338270													
WG338270ICV	ICV	01/31/13 23:52	MS130102-2	.05		.05383	mg/L	107.7	90	110			
WG338270ICB	ICB	01/31/13 23:56				U	mg/L		-0.0003	0.0003			
WG338270LFB	LFB	01/31/13 23:59	MS130108-1	.05005		.05047	mg/L	100.8	85	115			
L10347-02AS	AS	02/01/13 0:16	MS130108-1	.25025	U	.24985	mg/L	99.8	70	130			
L10347-02ASD	ASD	02/01/13 0:19	MS130108-1	.25025	U	.2577	mg/L	103	70	130	3.09	20	
Lead, total			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338469													
WG338469ICV	ICV	02/05/13 18:54	MS130102-2	.05		.05119	mg/L	102.4	90	110			
WG338469ICB	ICB	02/05/13 18:57				U	mg/L		-0.0003	0.0003			
WG338365LRB	LRB	02/05/13 19:01				U	mg/L		-0.00022	0.00022			
WG338365LFB	LFB	02/05/13 19:04	MS130108-1	.05005		.04651	mg/L	92.9	85	115			
L10262-04LFM	LFM	02/05/13 19:45	MS130108-1	.05005	.0002	.04886	mg/L	97.2	70	130			
L10262-04LFMD	LFMD	02/05/13 19:48	MS130108-1	.05005	.0002	.04904	mg/L	97.6	70	130	0.37	20	
	LFM	02/05/13 20:35	MS130108-1	.05005	.001	.04814	mg/L	94.2	70	130			
L10425-02LFM			MC100100 1	.05005	.001	.04809	mg/L	94.1	70	130	0.1	20	
	LFMD	02/05/13 20:39	MS130108-1	.05005									
L10425-02LFMD		02/05/13 20:39	MS130108-1 M200.7 I										
L10425-02LFMD Magnesium, dise		02/05/13 20:39 Analyzed			Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
L10425-02LFM L10425-02LFMD Magnesium, diss ACZ ID WG338145	solved		M200.7 I	CP	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
L10425-02LFMD Magnesium, diss ACZ ID	solved		M200.7 I	CP	Sample	Found	Units mg/L	Rec 100.8	Lower 95	Upper 105	RPD	Limit	Qual
L10425-02LFMD Magnesium, diss ACZ ID WG338145 WG338145ICV	solved Type	Analyzed	M200.7 IC PCN/SCN	CP QC	Sample		mg/L				RPD	Limit	Qual
L10425-02LFMD Magnesium, diss ACZ ID WG338145	Type ICV	Analyzed 01/31/13 9:52 01/31/13 9:58	M200.7 IC PCN/SCN	CP QC	Sample	100.8 U	mg/L mg/L		95 -0.6	105	RPD	Limit	Qual
L10425-02LFMD Magnesium, diss ACZ ID WG338145 WG338145ICV WG338145ICB	Type ICV ICB	Analyzed 01/31/13 9:52	M200.7 K PCN/SCN	CP QC 100	Sample	100.8	mg/L	100.8	95	105 0.6	RPD	Limit	Qual



Manganese, dis	solved		M200.7 I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338145													
WG338145ICV	ICV	01/31/13 9:52	ll130114-3	2		1.9735	mg/L	98.7	95	105			
WG338145ICB	ICB	01/31/13 9:58				U	mg/L		-0.015	0.015			
WG338145LFB	LFB	01/31/13 10:10	ll121231-2	.5		.5183	mg/L	103.7	85	115			
L10356-01AS	AS	01/31/13 10:16	ll121231-2	.5	.033	.554	mg/L	104.2	85	115			
L10356-01ASD	ASD	01/31/13 10:19	ll121231-2	.5	.033	.5551	mg/L	104.4	85	115	0.2	20	
Manganese, tot	al		M200.7 I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338260													
WG338260ICV	ICV	01/31/13 23:32	ll130114-4	2		1.9555	mg/L	97.8	95	105			
WG338260ICB	ICB	01/31/13 23:38				U	mg/L		-0.015	0.015			
WG338226LRB	LRB	01/31/13 23:50				U	mg/L		-0.011	0.011			
WG338226LFB	LFB	01/31/13 23:53	ll121231-2	.5		.5046	mg/L	100.9	85	115			
L10261-01LFM	LFM	01/31/13 23:59	II121231-2	.5	3.36	3.858	mg/L	99.6	70	130			
L10261-01LFMD	LFMD	02/01/13 0:02	II121231-2	.5	3.36	3.914	mg/L	110.8	70	130	1.44	20	
L10356-02LFM	LFM	02/01/13 0:43	II121231-2	.5	.245	.7331	mg/L	97.6	70	130			
L10356-02LFMD	LFMD	02/01/13 0:46	ll121231-2	.5	.245	.7541	mg/L	101.8	70	130	2.82	20	
Mercury, total			M245.1 (CVAA									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338123													
WG338123ICV	ICV	01/31/13 12:25	ll130117-1	.005025		.00476	mg/L	94.7	95	105			
WG338123ICB	ICB	01/31/13 12:27				U	mg/L		-0.0002	0.0002			
WG338123LRB	LRB	01/31/13 12:29				U	mg/L		-0.00044	0.00044			
WG338123LFB	LFB	01/31/13 12:31	ll130109-7	.002002		.00186	mg/L	92.9	85	115			
L10241-03LFM	LFM	01/31/13 12:41	II130109-7	.002002	U	.00178	mg/L	88.9	85	115			
L10241-03LFMD	LFMD	01/31/13 12:43	II130109-7	.002002	U	.00182	mg/L	90.9	85	115	2.22	20	
Nickel, dissolve	ed		M200.7 I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338145													
WG338145ICV	ICV	01/31/13 9:52	ll130114-3	2		1.96	mg/L	98	95	105			
WG338145ICB	ICB	01/31/13 9:58	-			U	mg/L		-0.03	0.03			
WG338145LFB	LFB	01/31/13 10:10	ll121231-2	.5		.49	mg/L	98	85	115			
L10356-01AS	AS	01/31/13 10:16	ll121231-2	.5	U	.491	mg/L	98.2	85	115			
	ASD	01/31/13 10:19	ll121231-2	.5	U	.505	mg/L	101	85	115	2.81	20	



Nickel, total			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338260													
WG338260ICV	ICV	01/31/13 23:32	ll130114-4	2		2.004	mg/L	100.2	95	105			
WG338260ICB	ICB	01/31/13 23:38				U	mg/L		-0.03	0.03			
WG338226LRB	LRB	01/31/13 23:50				U	mg/L		-0.022	0.022			
WG338226LFB	LFB	01/31/13 23:53	ll121231-2	.5		.509	mg/L	101.8	85	115			
L10261-01LFM	LFM	01/31/13 23:59	ll121231-2	.5	.02	.51	mg/L	98	70	130			
L10261-01LFMD	LFMD	02/01/13 0:02	ll121231-2	.5	.02	.498	mg/L	95.6	70	130	2.38	20	
L10356-02LFM	LFM	02/01/13 0:43	ll121231-2	.5	U	.485	mg/L	97	70	130			
L10356-02LFMD	LFMD	02/01/13 0:46	ll121231-2	.5	U	.501	mg/L	100.2	70	130	3.25	20	
Nitrate/Nitrite as	s N, disse	olved	M353.2 - /	Automated	d Cadmiun	n Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG337921													
WG337921ICV	ICV	01/24/13 22:51	WI130110-1	2.416		2.414	mg/L	99.9	90	110			
WG337921ICB	ICB	01/24/13 22:52				U	mg/L		-0.06	0.06			
WG337921LFB	LFB	01/24/13 22:56	WI120814-9	2		2.025	mg/L	101.3	90	110			
L10356-01AS	AS	01/24/13 22:59	WI120814-9	2	.18	2.228	mg/L	102.4	90	110			
L10356-02DUP	DUP	01/24/13 23:01			U	.03	mg/L				200	20	RA
Nitrite as N, dise	solved		M353.2 - /	Automated	d Cadmiun	n Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG337921													
WG337921ICV													
	ICV	01/24/13 22:51	WI130110-1	.609		.606	mg/L	99.5	90	110			
WG337921ICB	ICV ICB	01/24/13 22:51 01/24/13 22:52	WI130110-1	.609		.606 U	mg/L mg/L	99.5	90 -0.03	110 0.03			
WG337921ICB WG337921LFB			WI130110-1 WI120814-9	.609 1			-	99.5 100.6					
	ICB	01/24/13 22:52			U	U	mg/L		-0.03	0.03			
WG337921LFB	ICB LFB	01/24/13 22:52 01/24/13 22:56	WI120814-9	1	U U	U 1.006	mg/L mg/L	100.6	-0.03 90	0.03 110	0	20	RA
WG337921LFB L10356-01AS	ICB LFB AS DUP	01/24/13 22:52 01/24/13 22:56 01/24/13 22:59	WI120814-9	1 1	U	U 1.006 1.012	mg/L mg/L mg/L	100.6	-0.03 90	0.03 110	0	20	RA
WG337921LFB L10356-01AS L10356-02DUP	ICB LFB AS DUP	01/24/13 22:52 01/24/13 22:56 01/24/13 22:59	WI120814-9 WI120814-9	1 1	U	U 1.006 1.012	mg/L mg/L mg/L mg/L	100.6	-0.03 90	0.03 110	0 RPD	20 Limit	RA Qual
WG337921LFB L10356-01AS L10356-02DUP Nitrogen, ammo	ICB LFB AS DUP	01/24/13 22:52 01/24/13 22:56 01/24/13 22:59 01/24/13 23:01	WI120814-9 WI120814-9 M350.1 - /	1 1 Automateo	U d Phenate	U 1.006 1.012 U	mg/L mg/L mg/L mg/L	100.6 101.2	-0.03 90 90	0.03 110 110			
WG337921LFB L10356-01AS L10356-02DUP Nitrogen, ammo ACZ ID	ICB LFB AS DUP	01/24/13 22:52 01/24/13 22:56 01/24/13 22:59 01/24/13 23:01	WI120814-9 WI120814-9 M350.1 - /	1 1 Automateo	U d Phenate	U 1.006 1.012 U	mg/L mg/L mg/L mg/L	100.6 101.2	-0.03 90 90	0.03 110 110			
WG337921LFB L10356-01AS L10356-02DUP Nitrogen, ammo ACZ ID WG338410	ICB LFB AS DUP mia	01/24/13 22:52 01/24/13 22:56 01/24/13 22:59 01/24/13 23:01 Analyzed	WI120814-9 WI120814-9 M350.1 - / PCN/SCN	1 1 Automated QC	U d Phenate	U 1.006 1.012 U	mg/L mg/L mg/L mg/L	100.6 101.2 Rec	-0.03 90 90	0.03 110 110 Upper			
WG337921LFB L10356-01AS L10356-02DUP Nitrogen, ammo ACZ ID WG338410 WG338410ICV	ICB LFB AS DUP ICV	01/24/13 22:52 01/24/13 22:56 01/24/13 22:59 01/24/13 23:01 Analyzed 02/04/13 17:31	WI120814-9 WI120814-9 M350.1 - / PCN/SCN	1 1 Automated QC	U d Phenate	U 1.006 1.012 U Found	mg/L mg/L mg/L mg/L	100.6 101.2 Rec	-0.03 90 90 Lower	0.03 110 110 Upper			
WG337921LFB L10356-01AS L10356-02DUP Nitrogen, ammo ACZ ID WG338410 WG338410ICV WG338410ICB	ICB LFB AS DUP mia Type ICV ICB	01/24/13 22:52 01/24/13 22:56 01/24/13 22:59 01/24/13 23:01 Analyzed 02/04/13 17:31 02/04/13 17:32	WI120814-9 WI120814-9 M350.1 - <i>J</i> PCN/SCN WI121105-5	1 1 Automated QC 1.003	U d Phenate	U 1.006 1.012 U Found	mg/L mg/L mg/L mg/L Units mg/L mg/L	100.6 101.2 Rec 98.4	-0.03 90 90 Lower 90 -0.15	0.03 110 110 Upper 110 0.15			
WG337921LFB L10356-01AS L10356-02DUP Nitrogen, ammo ACZ ID WG338410 WG338410ICV WG338410ICB WG338410LFB1	ICB LFB AS DUP mia Type ICV ICB LFB	01/24/13 22:52 01/24/13 22:59 01/24/13 22:59 01/24/13 23:01 Analyzed 02/04/13 17:31 02/04/13 17:32 02/04/13 17:33	WI120814-9 WI120814-9 M350.1 - <i>J</i> PCN/SCN WI121105-5 WI121218-3	1 1 Automated QC 1.003 1	U d Phenate Sample	U 1.006 1.012 U Found	mg/L mg/L mg/L mg/L Units mg/L mg/L mg/L	100.6 101.2 Rec 98.4 102.3	-0.03 90 90 Lower 90 -0.15 90	0.03 110 110 Upper 110 0.15 110			
WG337921LFB L10356-01AS L10356-02DUP Nitrogen, ammo ACZ ID WG338410 WG338410ICV WG338410ICB WG338410LFB1 L10241-01AS	ICB LFB AS DUP mia Type ICV ICB LFB AS	01/24/13 22:52 01/24/13 22:59 01/24/13 22:59 01/24/13 23:01 Analyzed 02/04/13 17:31 02/04/13 17:32 02/04/13 17:33 02/04/13 17:35	WI120814-9 WI120814-9 M350.1 - <i>J</i> PCN/SCN WI121105-5 WI121218-3	1 1 Automated QC 1.003 1	U d Phenate Sample U	U 1.006 1.012 U Found .987 U 1.023 .997	mg/L mg/L mg/L mg/L Units mg/L mg/L mg/L mg/L	100.6 101.2 Rec 98.4 102.3	-0.03 90 90 Lower 90 -0.15 90	0.03 110 110 Upper 110 0.15 110	RPD	Limit	Qual
WG337921LFB L10356-01AS L10356-02DUP Nitrogen, ammo AC2 ID WG338410 WG338410ICV WG338410ICB WG338410LFB1 L10241-01AS L10241-02DUP	ICB LFB AS DUP mia Type ICV ICB LFB AS DUP	01/24/13 22:52 01/24/13 22:59 01/24/13 22:59 01/24/13 23:01 Analyzed 02/04/13 17:31 02/04/13 17:32 02/04/13 17:33 02/04/13 17:35 02/04/13 17:37	WI120814-9 WI120814-9 M350.1 - 7 PCN/SCN WI121105-5 WI121218-3 WI121218-3	1 1 Automated QC 1.003 1 1	U d Phenate Sample U U	U 1.006 1.012 U Found .987 U 1.023 .997 U	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	100.6 101.2 Rec 98.4 102.3 99.7	-0.03 90 90 Lower 90 -0.15 90 90	0.03 110 110 Upper 110 0.15 110 110	RPD	Limit	Qual



Caldera Mineral Resources

pH (lab)			SM4500H	+ B									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG337980													
WG337980LCSW3	LCSW	01/25/13 15:43	PCN40853	6		6.01	units	100.2	98	102			
L10356-03DUP	DUP	01/25/13 16:40			8	7.99	units				0.1	20	
WG337980LCSW6	LCSW	01/25/13 17:47	PCN40853	6		6.02	units	100.3	98	102			
WG337980LCSW9	LCSW	01/25/13 20:59	PCN40853	6		6.03	units	100.5	98	102			
WG337980LCSW12		01/26/13 0:21	PCN40853	6		6.02	units	100.3	98	102			
WG337980LCSW15	LCSW	01/26/13 2:49	PCN40853	6		6.02	units	100.3	98	102			
Residue, Filterab	le (TDS) @180C	SM2540C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG337988													
WG337988PBW	PBW	01/25/13 16:30				U	mg/L		-20	20			
WG337988LCSW	LCSW	01/25/13 16:30	PCN41148	260		256	mg/L	98.5	80	120			
L10367-02DUP	DUP	01/25/13 16:40			430	418	mg/L				2.8	20	
Residue, Non-Filt	erable	(TSS) @105C	SM2540D										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338047													
WG338047PBW	PBW	01/28/13 14:20				U	mg/L		-15	15			
WG338047LCSW	LCSW	01/28/13 14:21	PCN41148	160		154	mg/L	96.3	80	120			
L10373-01DUP	DUP	01/28/13 14:35			U	U	mg/L				0	20	RA
Selenium, dissol	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338270													
WG338270ICV	ICV	01/31/13 23:52	MS130102-2	.05		.05222	mg/L	104.4	90	110			
WG338270ICB	ICB	01/31/13 23:56				U	mg/L		-0.0003	0.0003			
WG338270LFB	LFB	01/31/13 23:59	MS130108-1	.05005		.04818	mg/L	96.3	85	115			
L10347-02AS	AS	02/01/13 0:16	MS130108-1	.25025	U	.24165	mg/L	96.6	70	130			
L10347-02ASD	ASD	02/01/13 0:19	MS130108-1	.25025	U	.2504	mg/L	100.1	70	130	3.56	20	
Silver, dissolved			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338270													
WG338270ICV	ICV	01/31/13 23:52	MS130102-2	.02006		.02089	mg/L	104.1	90	110			
WG338270ICB	ICB	01/31/13 23:56		.02000		.02000 U	mg/L		-0.00015	0.00015			
WG338270LFB	LFB	01/31/13 23:59	MS130108-1	.01001		.00976	mg/L	97.5	85	115			
L10347-02AS	AS	02/01/13 0:16	MS130108-1	.05005	U	.04665	mg/L	93.2	70	130			
							0						



Silver, total			M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338469													
WG338469ICV	ICV	02/05/13 18:54	MS130102-2	.02006		.02067	mg/L	103	90	110			
WG338469ICB	ICB	02/05/13 18:57				U	mg/L		-0.00015	0.00015			
WG338365LRB	LRB	02/05/13 19:01				U	mg/L		-0.00011	0.00011			
WG338365LFB	LFB	02/05/13 19:04	MS130108-1	.01001		.009502	mg/L	94.9	85	115			
L10262-04LFM	LFM	02/05/13 19:45	MS130108-1	.01001	U	.00899	mg/L	89.8	70	130			
L10262-04LFMD	LFMD	02/05/13 19:48	MS130108-1	.01001	U	.00905	mg/L	90.4	70	130	0.67	20	
L10425-02LFM	LFM	02/05/13 20:35	MS130108-1	.01001	U	.009037	mg/L	90.3	70	130			
L10425-02LFMD	LFMD	02/05/13 20:39	MS130108-1	.01001	U	.0091	mg/L	90.9	70	130	0.69	20	
Sulfate			D516-02 -	Turbidime	etric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338396													
WG338396ICB	ICB	02/04/13 11:57				U	mg/L		-3	3			
WG338396ICV	ICV	02/04/13 11:57	WI130130-2	20		20.8	mg/L	104	90	110			
WG338396LFB	LFB	02/04/13 14:03	WI121025-3	10		9.5	mg/L	95	90	110			
L10244-01DUP	DUP	02/04/13 14:10			39	39.8	mg/L				2	20	R
L10244-02AS	AS	02/04/13 14:10	SO4TURB5X	10	120	128.8	mg/L	88	90	110	_		М
	_						5			-			
Sulfide as S	Turno	Analyzed	SM4500S PCN/SCN	QC	Sample	Found	Unito	Rec	Lower	Uppor	RPD	Limit	Qual
ACZ ID	Туре	Analyzeu	PCN/SCN	QC	Sample	Found	Units	nec	Lower	Upper	NPU	Liiiiit	Quai
WG338037													
WG338037ICV	ICV	01/28/13 12:00	WC130128-1	.36		.387	mg/L	107.5	90	110			
WG338037ICB	ICB	01/28/13 12:06				U	mg/L		-0.06	0.06			
WG338037LFB	LFB	01/28/13 12:12	WC130128-1	.2453333		.279	mg/L	113.7	80	120			
L10405-04AS	AS	01/28/13 14:58	WC130128-1	.2453333	U	.322	mg/L	131.3	75	125			М
L10405-04DUP	DUP	01/28/13 15:04			U	U	mg/L				0	20	R
Uranium, dissol	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338270													
WG338270ICV	ICV	01/31/13 23:52	MS130102-2	.05		.05259	mg/L	105.2	90	110			
WG338270ICB	ICB	01/31/13 23:56				U	mg/L		-0.0003	0.0003			
WG338270LFB	LFB	01/31/13 23:59	MS130108-1	.05		.04941	mg/L	98.8	85	115			
L10347-02AS	AS	02/01/13 0:16	MS130108-1	.25	U	.2409	mg/L	96.4	70	130			
L10347-02ASD	ASD	02/01/13 0:19	MS130108-1	.25	U	.24865	mg/L	99.5	70	130	3.17	20	
Uranium, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338469													
WG338469ICV	ICV	02/05/13 18:54	MS130102-2	.05		.05398	mg/L	108	90	110			
WG338469ICB	ICB	02/05/13 18:57				.00000 U	mg/L		-0.0003	0.0003			
WG338365LRB	LRB	02/05/13 19:01				U	mg/L		-0.00022	0.00022			
WG338365LFB	LFB	02/05/13 19:01	MS130108-1	.05		.04938	mg/L	98.8	-0.00022	115			
L10262-04LFM	LFM	02/05/13 19:04	MS130108-1 MS130108-1	.05	.0009	.05222	mg/L	102.6	70	130			
L10262-04LFMD		02/05/13 19:45	MS130108-1 MS130108-1	.05	.0009	.05262	mg/L	102.0	70 70	130	0.76	20	
L10425-02LFM	LFMD	02/05/13 19:48	MS130108-1 MS130108-1	.05	.0009 U	.05262	-	103.4	70	130	0.70	20	
L10425-02LFM L10425-02LFMD						.05076	mg/L		70 70	130	1.01	20	
		02/05/13 20:39	MS130108-1	.05	U	.00023	mg/L	100.5	70	130	1.01	20	



Zinc, dissolved			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338145													
WG338145ICV	ICV	01/31/13 9:52	ll130114-3	2		1.996	mg/L	99.8	95	105			
WG338145ICB	ICB	01/31/13 9:58				U	mg/L		-0.03	0.03			
WG338145LFB	LFB	01/31/13 10:10	ll121231-2	.5		.516	mg/L	103.2	85	115			
L10356-01AS	AS	01/31/13 10:16	ll121231-2	.5	.17	.691	mg/L	104.2	85	115			
L10356-01ASD	ASD	01/31/13 10:19	ll121231-2	.5	.17	.694	mg/L	104.8	85	115	0.43	20	
Zinc, total			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG338260													
WG338260ICV	ICV	01/31/13 23:32	ll130114-4	2		1.966	mg/L	98.3	95	105			
WG338260ICV WG338260ICB	ICV ICB	01/31/13 23:32 01/31/13 23:38	ll130114-4	2		1.966 U	mg/L mg/L	98.3	95 -0.03	105 0.03			
			ll130114-4	2			•	98.3					
WG338260ICB	ICB	01/31/13 23:38	II130114-4 II121231-2	2		U	mg/L	98.3 102.2	-0.03	0.03			
WG338260ICB WG338226LRB	ICB LRB	01/31/13 23:38 01/31/13 23:50			.11	U U	mg/L mg/L		-0.03 -0.022	0.03 0.022			
WG338260ICB WG338226LRB WG338226LFB	ICB LRB LFB	01/31/13 23:38 01/31/13 23:50 01/31/13 23:53	∥121231-2	.5	.11 .11	U U .511	mg/L mg/L mg/L	102.2	-0.03 -0.022 85	0.03 0.022 115	1	20	
WG338260ICB WG338226LRB WG338226LFB L10261-01LFM	ICB LRB LFB LFM	01/31/13 23:38 01/31/13 23:50 01/31/13 23:53 01/31/13 23:59	ll121231-2 ll121231-2	.5 .5		U U .511 .602	mg/L mg/L mg/L mg/L	102.2 100.4	-0.03 -0.022 85 70	0.03 0.022 115 130	1	20	

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Extended Qualifier Report

Caldera Mineral Resources

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L10356-01	WG338451	Aluminum, total recoverable	M200.8 ICP-MS		Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG338281	Chloride	SM4500CI-E	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG338352	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG338354	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG337965	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG337921	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG338410	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG338047	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG338396	Sulfate	D516-02 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG338037	Sulfide as S	SM4500S2-D	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).



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Inorganic Extended Qualifier Report

Caldera Mineral Resources

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L10356-02	WG338365	Total Hot Plate Digestion	M200.2 ICP-MS	DJ	Sample dilution required due to insufficient sample.
	WG338366	Total Recoverable Digestion	M200.2 ICP-MS	DJ	Sample dilution required due to insufficient sample.
	WG338451	Aluminum, total recoverable	M200.8 ICP-MS	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG338281	Chloride	SM4500CI-E	MЗ	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG338352	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG338354	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG337965	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG337921	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG338410	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG338047	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG338396	Sulfate	D516-02 - Turbidimetric	МЗ	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG338037	Sulfide as S	SM4500S2-D	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Extended Qualifier Report

Caldera Mineral Resources

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L10356-03	WG338451	Aluminum, total recoverable	M200.8 ICP-MS	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG338281	Chloride	SM4500CI-E	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG338352	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG338354	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG337965	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG337921	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG338410	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG338047	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG338396	Sulfate	D516-02 - Turbidimetric	МЗ	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG338037	Sulfide as S	SM4500S2-D	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).



ACZ Project ID: L10356

Wet Chemistry

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

Sulfide as S

SM4500S2-D

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs (O 80/87 (800) 331-5/0

2//3 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Caldera Mineral Resources

Sample Receipt

ACZ Project ID: L10356 Date Received: 01/24/2013 10:15 Received By: ksj Date Printed: 1/24/2013

Receipt Verification

- 1) Is a foreign soil permit included for applicable samples?
- 2) Is the Chain of Custody or other directive shipping papers present?
- 3) Does this project require special handling procedures such as CLP protocol?
- 4) Are any samples NRC licensable material?
- 5) If samples are received past hold time, proceed with requested short hold time analyses?
- 6) Is the Chain of Custody complete and accurate?
- 7) Were any changes made to the Chain of Custody prior to ACZ receiving the samples?

А	change	was	made	in	the	#	of	containers	section	prior	to	ACZ
CU	ustody.											

Samples/Containers

- 8) Are all containers intact and with no leaks?
- 9) Are all labels on containers and are they intact and legible?
- 10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time?
- 11) For preserved bottle types, was the pH checked and within limits?
- 12) Is there sufficient sample volume to perform all requested work?
- 13) Is the custody seal intact on all containers?
- 14) Are samples that require zero headspace acceptable?
- 15) Are all sample containers appropriate for analytical requirements?

 ${\tt L10356-01}$: A orange container was not received and the associated analysis could not be run.

 ${\tt L10356-02}$: A orange container was not received and the associated analysis could not be run.

 $\tt L10356-03$: A orange container was not received and the associated analysis could not be run.

- 16) Is there an Hg-1631 trip blank present?
- 17) Is there a VOA trip blank present?
- 18) Were all samples received within hold time?

Some parameters were received past hold time.

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id

Temp (°C) Rad (µ

Rad (µR/Hr) Custody Seal Intact?

YES	NO	NA
		Х
Х		
		Х
		Х
Х		
Х		
Х		

YES	NO	NA
Х		
Х		
Х		
Х		
Х		
		Х
		Х
	Х	

	Х
	Х
Х	



Caldera Miner	al Resources				ACZ Project ID:	L10356
					Date Received:	01/24/2013 10:15
					Received By:	ksj
					Date Printed:	1/24/2013
	2690	2.8	15	Yes		

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

	ACZ Labo	oratories, Inc. rings, CO 80487 (800) 334	5403	D	35	56	()	i∆∏	(-;[-(:, ()) .
	Name: Mike Thomp Company: Reardon St	eel LLC	-		C		z (0	81		
	E-mail: mt@reardov	steel.us	_	Telep	hone:	97	0 -	գշ	- ما	2926	<u> </u>
	Name: John Br Company: Watley (yan	_	E-mai	il:	jbr	Ian	0	wat	<u>127.c</u> 889	orn
		oroup LLC		Telep	hone:	31	0	777		<u>889</u>	
	Name: Laurens Mur Company: Caldera Mur E-mail: Laurens @ Lu If sample(s) received past holding analysis before expiration, shall A It "NO" then ACZ will contact client for further instruc-	time (HT), or if insufficien CZ proceed with requester Insufficient (NCZ proceed with requester Insufficient (NCZ proceed with requester)] It HT rer Id short	We Telep nains to	<mark>s+H</mark> hone:	<u>ollyw</u> 310 -	, boox	CA	<u>90</u> 9889	Suite 4 069 YES /	02
	is indicated. ACZ will proceed with the requested anal Are samples for SDWA Compliant If yes, please include state forms.	ce Monitoring?		Yes or Color	ado.	1	No	~			
	Sampler's Name:	Sampler's site Information		State	CU	Zip co	de 2	5/32)	Time Zor	ne mst	Ŧ
	EL Concrete Full of Northolia Quote #: Comp By Project/PO #: Reporting state for compliance testin Check box if samples include NRC I		+ 	# of Containers	×	Ę	Lea to	se G	rei	for te	
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d,	CB-04	1/23/13	5W	ø	7						
Custod,											
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a i e	Matrix SW2Surface Water) · GW	(Ground Water) · WW (Waste V	l Vater) · D'	i W (Drink	ing Wate	') · SL (SIL	udge) · S	O (Soil)	· OL (Oil) ·	· Other (Speci	y)
L10356 Chain of											
	Please ref 11 aout - Int N	er to ACZ's terms & conc	titions le	ocated	on the	reverse	side of	f this C	OC.		
	Azin	1/23/1	3		1	78	$\overline{)}$			1.24.13	10.124
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		<u> </u>							E		

FRMAD050.02.11.11

White - Return with sample. Yellow - Retain for your records.



Analytical Report

April 19, 2013

Report to: Mike Thompson Caldera Mineral Resources PO Box 297 Silverton, CO 81433

cc: John Bryan

Project ID: ACZ Project ID: L11281

Mike Thompson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on March 26, 2013. This project has been assigned to ACZ's project number, L11281. Please reference this number in all future inquiries.

Bill to:

Lauren Nuyens

Caldera Mineral Resources

8439 Sunset Blvd. Suite 402

West Hollywood, CA 90069

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L11281. 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 May 19, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/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 raw data reports for ten years.

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

Tony Antalek has reviewed and approved this report.





April 19, 2013

Project ID: ACZ Project ID: L11281

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 1 miscellaneous sample from Caldera Mineral Resources on March 26, 2013. 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 L11281. 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 except those qualified with an ACZ 'H' flag were performed within EPA recommended holding times.

Sample Analysis

This sample was analyzed for inorganic parameters. The individual methods are referenced on both the ACZ invoice and the analytical reports. The extended qualifier reports may contain footnotes qualifying specific elements due to QC failures. In addition the following has been noted with this specific project:

1. The total versus dissolved disparity involving Cadmium (sample -01) was reanalyzed for confirmation.

ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Caldera Mineral Resources

Project ID:

Sample ID: CB-03-032513

Inorganic Analytical Results

ACZ Sample ID:	L11281-01
Date Sampled:	03/25/13 00:00
Date Received:	03/26/13
Sample Matrix:	Surface Water

Inorganic Prep Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date A	nalyst
Cyanide, total	M335.4 - Manual Distillation	Result		Onits	MDL		04/02/13 15:34	lhi
Cyanide, WAD	SM4500-CN I- distillation						04/01/13 14:17	bsi
Total Hot Plate	M200.2 ICP-MS		*				04/16/13 11:44	las
Digestion								
Total Hot Plate Digestion	M200.2 ICP						04/03/13 13:43	aet
Total Recoverable Digestion	M200.2 ICP-MS						03/28/13 13:13	las
Metals Analysis								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date A	nalyst
Aluminum, total recoverable	M200.8 ICP-MS	0.042		mg/L	0.001	0.005	03/30/13 1:14	pmo
Arsenic, dissolved	M200.8 ICP-MS	0.0006	В	mg/L	0.0002	0.001	04/02/13 23:12	msh
Arsenic, total recoverable	M200.8 ICP-MS	0.0012		mg/L	0.0002	0.001	03/30/13 1:14	pmo
Barium, dissolved	M200.7 ICP	0.019	В	mg/L	0.003	0.02	04/01/13 16:09	jjo
Beryllium, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	04/01/13 16:09	jjo
Boron, dissolved	M200.7 ICP	0.04	В	mg/L	0.01	0.05	04/01/13 16:09	jjo
Cadmium, dissolved	M200.8 ICP-MS	0.0010		mg/L	0.0001	0.0005	04/02/13 23:12	msł
Cadmium, total	M200.8 ICP-MS		U	mg/L	0.0005	0.003	04/04/13 18:52	msł
Calcium, dissolved	M200.7 ICP	336		mg/L	0.2	1	04/01/13 16:09	jjo
Chromium, dissolved	M200.8 ICP-MS		U	mg/L	0.0005	0.002	04/02/13 23:12	msh
Chromium, total	M200.8 ICP-MS		U	mg/L	0.003	0.01	04/04/13 18:52	msh
Chromium, Trivalent	Calculation (Total - Hexavalent)		U	mg/L	0.003	0.01	04/19/13 0:00	cald
Copper, dissolved	M200.8 ICP-MS	0.0009	В	mg/L	0.0005	0.003	04/02/13 23:12	msł
Copper, total	M200.8 ICP-MS		U	mg/L	0.003	0.01	04/04/13 18:52	msł
Iron, dissolved	M200.7 ICP		U	mg/L	0.02	0.05	04/01/13 16:09	jjo
Iron, total	M200.7 ICP	0.34		mg/L	0.02	0.05	04/04/13 13:03	aet
Lead, dissolved	M200.8 ICP-MS	0.0011		mg/L	0.0001	0.0005	04/02/13 23:12	msh
Lead, total	M200.8 ICP-MS	0.0094		mg/L	0.0005	0.003	04/04/13 18:52	msh
Magnesium, dissolved	M200.7 ICP	3.9		mg/L	0.2	1	04/01/13 16:09	jjo
Manganese, dissolved	M200.7 ICP	0.229		mg/L	0.005	0.03	04/01/13 16:09	jjo
Manganese, total	M200.7 ICP	0.461		mg/L	0.005	0.03	04/04/13 13:03	aet
Mercury, total	M245.1 CVAA		U	mg/L	0.0002	0.001	04/03/13 16:47	las
Nickel, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	04/01/13 16:09	jjo
Nickel, total	M200.7 ICP		U	mg/L	0.01	0.05	04/04/13 13:03	aet
Selenium, dissolved	M200.8 ICP-MS	0.0004		mg/L	0.0001	0.0003	04/02/13 23:12	msł
Silver, dissolved	M200.8 ICP-MS		U	mg/L	0.00005	0.0003	04/02/13 23:12	msł
Silver, total	M200.8 ICP-MS		U	mg/L	0.0003	0.001	04/04/13 18:52	msł
Uranium, dissolved	M200.8 ICP-MS	0.0005		mg/L	0.0001	0.0005	04/02/13 23:12	msł
Uranium, total	M200.8 ICP-MS		U	mg/L	0.0005	0.003	04/04/13 18:52	msł
Zinc, dissolved	M200.7 ICP	0.22		mg/L	0.01	0.05	04/01/13 16:09	jjo
Zinc, total	M200.7 ICP	0.34		mg/L	0.01	0.05	04/04/13 13:03	aet

* Please refer to Qualifier Reports for details.



Project ID: Sample ID: CB-03-032513

Inorganic Analytical Results

ACZ Sample ID: L11281-01 Date Sampled: 03/25/13 00:00 Date Received: 03/26/13 Sample Matrix: Surface Water

Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3		40			mg/L	2	20	03/29/13 0:00	ljr
Carbonate as CaCO3			U		mg/L	2	20	03/29/13 0:00	ljr
Hydroxide as CaCO3			U		mg/L	2	20	03/29/13 0:00	ljr
Total Alkalinity		40			mg/L	2	20	03/29/13 0:00	ljr
Chloride	SM4500CI-E	2	В	*	mg/L	1	5	04/03/13 14:29	bsu
Conductivity @25C	SM2510B	1430			umhos/cm	1	10	03/29/13 2:24	ljr
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	04/02/13 23:43	pjb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	04/01/13 16:28	tcd
Dissolved Chromium, Hexavalent	SM3500Cr-D		UH	*	mg/L	0.005	0.02	04/02/13 13:04	ljr
Hardness as CaCO3	SM2340B - Calculation	856			mg/L	1	7	04/19/13 0:00	calc
Lab Filtration (0.45um) & Acidification	M200.7/200.8							03/29/13 10:20	las
Lab Filtration (glass fiber filter)	SOPWC050							03/28/13 14:31	ljr
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		U		mg/L	0.02	0.1	04/19/13 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U		mg/L	0.02	0.1	03/26/13 19:22	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U		mg/L	0.01	0.05	03/26/13 19:22	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate		U	*	mg/L	0.05	0.5	04/05/13 17:04	bsu
pH (lab)	SM4500H+ B								
рН		7.9	Н		units	0.1	0.1	03/29/13 0:00	ljr
pH measured at		21.0			С	0.1	0.1	03/29/13 0:00	ljr
Residue, Filterable (TDS) @180C	SM2540C	1280			mg/L	10	20	03/28/13 14:45	ljr
Residue, Non- Filterable (TSS) @105C	SM2540D		U	*	mg/L	5	20	03/28/13 11:32	khw
Sulfate	D516-02 - Turbidimetric	790		*	mg/L	50	300	04/01/13 14:35	mpb
Sulfide as S	SM4500S2-D		U	*	mg/L	0.02	0.1	03/27/13 16:23	ljr



Inorganic Reference

	A distinct act of complex and word of a sub-site time.		
Batch	A distinct set of samples analyzed at a specific time		
Found	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)	A II 6	
MDL	Method Detection Limit. Same as Minimum Reporting Limit.		
PCN/SCN	A number assigned to reagents/standards to trace to the man	utacturer's certific	ate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.	0.1	
QC	True Value of the Control Sample or the amount added to the	•	
Rec	Recovered amount of the true value or spike added, in % (exc		(Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC	, Types	
Upper Some	Upper Recovery Limit, in % (except for LCSS, mg/Kg)		
Sample	Value of the Sample of interest		
Sample Typ	pes		
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
ССВ	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard
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Blanks Control San	Laboratory Control Sample - Water pe Explanations Verifies that there is no or minimal comples Verifies the accuracy of the method,	SDL ontamination in the including the prep	Serial Dilution prep method or calibration procedure. procedure.
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Sample Typ Blanks Control San Duplicates Spikes/Fort	Laboratory Control Sample - Water pe Explanations where the explan	SDL ontamination in the including the prep nt and/or method. ces, if any.	e prep method or calibration procedure.
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Sample Typ Blanks Control San Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal comples werifies the accuracy of the method, Verifies the precision of the instrume ified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water and EPA 600/R-93-100. Methods for the Determination of Inorgan	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc ic Substances in	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993.
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Sample Typ Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal convertingent of the instrume ified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analyte concentration detected at a value between MDL and F Analyte concentration detected at a value between MDL and F Analyte sexceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgar EPA 600/R-94-111. Methods for the Determination of Metals	SDL ontamination in the including the prep nt and/or method. ccs, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Environmental S	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993.
Sample Typ Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal converting the precision of the instrume ified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgar EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	SDL ontamination in the including the prep nt and/or method. ccs, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Environmental S	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal converting the precision of the instrume ified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgar EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Substances in f in Environmental s ater.	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal comples verifies the accuracy of the method, Verifies the precision of the instrume of the matrix interferent verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and for Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined negotiate the material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or the associated value is either the sample quantitation limit or the A600/R-93-100. Methods for Chemical Analysis of Water and PA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Substances in f in Environmental s ater.	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments (1)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal comples verifies the accuracy of the method, Verifies the precision of the instrume iffed Matrix Determines sample matrix interferentor (Qual) Analyte concentration detected at a value between MDL and for Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgant EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slightly	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Environmental s ater.	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments (1) (2)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal comples verifies the accuracy of the method, Verifies the precision of the instrume iffed Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and ff Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgant EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slightly Soil, Sludge, and Plant matrices for Inorganic analyses are reported.	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Environmental s ater. y if the rounded va ported on a dry we received" basis.	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments (1) (2) (3)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal comples verifies the accuracy of the method, Verifies the precision of the instrume ified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are reported on an "as	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Environmental s ater. y if the rounded va ported on a dry we received" basis.	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments (1) (2) (3)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal comples verifies the accuracy of the method, Verifies the precision of the instrume ified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or RCS EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Environmental s ater. y if the rounded va ported on a dry we received" basis. qualifier and/or ce	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments (1) (2) (3) (4) (3) (4)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal control for the method, Verifies the precision of the instrume of the method, Verifies the precision of the instrume of the matrix interferent verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or PA 600/R-93-100. Methods for Chemical Analysis of Water and PA 600/R-94-111. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward Analysis and Plant matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended associated with the result.	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Environmental s ater. y if the rounded va ported on a dry we received" basis. qualifier and/or ce	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.

REP001.09.12.01



Caldera Mineral Resources

Alkalinity as CaC	O3		SM2320B	- Titration	I								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341252													
WG341252PBW1	PBW	03/28/13 17:52				3.3	mg/L		-20	20			
WG341252LCSW2	LCSW	03/28/13 18:07	WC130328-	820		770.3	mg/L	93.9	90	110			
WG341252LCSW5	LCSW	03/28/13 20:49	WC130328-	820		764.2	mg/L	93.2	90	110			
WG341252PBW2	PBW	03/28/13 20:58				3.4	mg/L		-20	20			
WG341252LCSW8	LCSW	03/29/13 0:51	WC130328-	820		775.7	mg/L	94.6	90	110			
WG341252PBW3	PBW	03/29/13 1:00				2.3	mg/L		-20	20			
L11281-01DUP	DUP	03/29/13 2:32			40	40.5	mg/L				1.2	20	
WG341252LCSW11	LCSW	03/29/13 4:32	WC130328-	820		794.4	mg/L	96.9	90	110			
WG341252PBW4	PBW	03/29/13 4:41				U	mg/L		-20	20			
WG341252LCSW14	LCSW	03/29/13 8:25	WC130328-	820		796.3	mg/L	97.1	90	110			
Aluminum, total i	recover	able	M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341266													
WG341266ICV	ICV	03/30/13 0:07	MS130102-2	.1		.1009	mg/L	100.9	90	110			
WG341266ICB	ICB	03/30/13 0:11				U	mg/L		-0.003	0.003			
WG341213LRB	LRB	03/30/13 0:14				.0015	mg/L		-0.0022	0.0022			
WG341213LFB	LFB	03/30/13 0:17	MS130220-1	.050055		.0497	mg/L	99.3	85	115			
L11302-01LFM	LFM	03/30/13 1:40	MS130220-1	.050055	.811	.8729	mg/L	123.7	70	130			
L11302-01LFMD	LFMD	03/30/13 1:43	MS130220-1	.050055	.811	.8685	mg/L	114.9	70	130	0.51	20	
Arsenic, dissolve	d		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341440													
WG341440ICV	ICV	04/02/13 22:42	MS130402-2	.05		.05187	mg/L	103.7	90	110			
WG341440ICB	ICB	04/02/13 22:46				U	mg/L		-0.0006	0.0006			
WG341440LFB	LFB	04/02/13 22:49	MS130329-1	.05005		.04976	mg/L	99.4	85	115			
L11222-03AS	AS	04/02/13 23:05	MS130329-1	.05005	.0015	.05649	mg/L	109.9	70	130			
_11222-03ASD	ASD	04/02/13 23:08	MS130329-1	.05005	.0015	.05618	mg/L	109.3	70	130	0.55	20	
Arsenic, total rec	overab	le	M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341266													
WG341266ICV	ICV	03/30/13 0:07	MS130102-2	.05		.05277	mg/L	105.5	90	110			
	ICB	03/30/13 0:11				U	mg/L		-0.0006	0.0006			
WG341266ICB						U	mg/L		-0.00044	0.00044			
WG341266ICB WG341213LRB	LRB	03/30/13 0.14											
WG341213LRB	LRB LFB	03/30/13 0:14 03/30/13 0:17	MS130220-1	.05005			ma/l	104	85	115			
	LRB LFB LFM	03/30/13 0:14 03/30/13 0:17 03/30/13 1:40	MS130220-1 MS130220-1	.05005 .05005	.001	.05204 .05037	mg/L mg/L	104 98.6	85 70	115 130			



Caldera Mineral Resources

Barium, dissolve	ed		M200.7 IC	;Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341341													
WG341341ICV	ICV	04/01/13 15:48	II130114-3	2		1.967	mg/L	98.4	95	105			
WG341341ICB	ICB	04/01/13 15:54				U	mg/L		-0.009	0.009			
WG341341LFB	LFB	04/01/13 16:06	II130326-2	.5		.498	mg/L	99.6	85	115			
L11286-01AS	AS	04/01/13 16:15	II130326-2	.5	.124	.6167	mg/L	98.5	85	115			
L11286-01ASD	ASD	04/01/13 16:19	II130326-2	.5	.124	.6203	mg/L	99.3	85	115	0.58	20	
Beryllium, disso	lved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341341													
WG341341ICV	ICV	04/01/13 15:48	II130114-3	2		1.952	mg/L	97.6	95	105			
WG341341ICB	ICB	04/01/13 15:54				U	mg/L		-0.03	0.03			
WG341341LFB	LFB	04/01/13 16:06	II130326-2	.5		.506	mg/L	101.2	85	115			
L11286-01AS	AS	04/01/13 16:15	II130326-2	.5	U	.489	mg/L	97.8	85	115			
L11286-01ASD	ASD	04/01/13 16:19	II130326-2	.5	U	.493	mg/L	98.6	85	115	0.81	20	
Boron, dissolve	d		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341341													
WG341341ICV	ICV	04/01/13 15:48	II130114-3	2		2.017	mg/L	100.9	95	105			
WG341341ICB	ICB	04/01/13 15:54		_		U	mg/L		-0.03	0.03			
WG341341LFB	LFB	04/01/13 16:06	II130326-2	.5005		.522	mg/L	104.3	85	115			
L11286-01AS	AS	04/01/13 16:15	II130326-2	.5005	U	.508	mg/L	101.5	85	115			
L11286-01ASD	ASD	04/01/13 16:19	II130326-2	.5005	U	.519	mg/L	103.7	85	115	2.14	20	
Cadmium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341440													
WG341440ICV	ICV	04/02/13 22:42	MS130402-2	.05		.05151	mg/L	103	90	110			
WG341440ICV WG341440ICB	ICB	04/02/13 22:42	M3130402-2	.05		.03131 U	mg/L	105	-0.0003	0.0003			
WG341440LFB	LFB	04/02/13 22:49	MS130329-1	.0501		.05087	mg/L	101.5	-0.0003	115			
L11222-03AS	AS	04/02/13 23:05	MS130329-1	.0501	U	.05199	mg/L	101.5	70	130			
L11222-03ASD	ASD	04/02/13 23:08	MS130329-1	.0501	U	.05016	mg/L	100.0	70	130	3.58	20	
Cadmium, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341585 WG341585ICV	ICV	04/04/13 18:39	MS130402-2	.05		.05001	ma/l	100	90	110			
			1013130402-2	.05		.05001 U	mg/L	100		0.0003			
WG341585ICB WG341499LRB		04/04/13 18:42				U	mg/L		-0.0003				
		04/04/13 18:45	MS130320 4	0501			mg/L	09.1	-0.00022	0.00022			
WG341499LFB		04/04/13 18:49	MS130329-1	.0501		.04916	mg/L	98.1 03	85 70	115 130			
L11316-03LFM		04/04/13 19:31	MS130329-1	.0501	U	.04657	mg/L	93 03	70 70	130 130	0	20	
L11316-03LFMD	LFMD	04/04/13 19:34	MS130329-1	.0501	U	.04657	mg/L	93	70	130	0	20	



Caldera Mineral Resources

Calcium, dissolv	əd		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341341													
WG341341ICV	ICV	04/01/13 15:48	II130114-3	100		97.64	mg/L	97.6	95	105			
WG341341ICB	ICB	04/01/13 15:54				U	mg/L		-0.6	0.6			
WG341341LFB	LFB	04/01/13 16:06	II130326-2	67.95918		70.17	mg/L	103.3	85	115			
L11286-01AS	AS	04/01/13 16:15	II130326-2	67.95918	36.8	105.5	mg/L	101.1	85	115			
L11286-01ASD	ASD	04/01/13 16:19	II130326-2	67.95918	36.8	105.9	mg/L	101.7	85	115	0.38	20	
Chloride			SM45000	Я-Е									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341510													
WG341510ICB	ICB	04/03/13 12:59				U	mg/L		-3	3			
WG341510ICV	ICV	04/03/13 12:59	WI130131-1	54.945		58.3	mg/L	106.1	90	110			
WG341510LFB1	LFB	04/03/13 14:28	WI130201-8	30		31.2	mg/L	104	90	110			
L11281-01AS	AS	04/03/13 14:45	WI130201-8	30	2	33.7	mg/L	105.7	90	110			
L11286-01DUP	DUP	04/03/13 14:46			- 1	1.1	mg/L				9.5	20	R
WG341510LFB2	LFB	04/03/13 14:48	WI130201-8	30		31.6	mg/L	105.3	90	110	0.0		
Chromium, disso	lved		M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341440													
WG341440ICV	ICV	04/02/13 22:42	MS130402-2	.05		.04957	mg/L	99.1	90	110			
WG341440ICB	ICB	04/02/13 22:42	1013130402-2	.05		.04937 U	-	55.1	-0.0015	0.0015			
WG341440LFB	LFB	04/02/13 22:40	MS130329-1	.05005		.04801	mg/L mg/L	95.9	-0.0013	115			
L11222-03AS	AS	04/02/13 23:05	MS130329-1 MS130329-1	.05005	U	.0485	mg/L	96.9	70	130			
L11222-03ASD	ASD	04/02/13 23:03	MS130329-1 MS130329-1	.05005	U	.04836	mg/L	96.6	70	130	0.29	20	
Chromium, total			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341585													
		04/04/12 18:20	M6420402.2	05		04017	ma/l	06.2	00	110			
WG341585ICV	ICV	04/04/13 18:39	MS130402-2	.05		.04817	mg/L	96.3	90	110			
WG341585ICB	ICB	04/04/13 18:42				U	mg/L		-0.0015	0.0015			
WG341499LRB		04/04/13 18:45	M6420200 4	05005		U 04514	mg/L	00.0	-0.0011	0.0011			
WG341499LFB	LFB	04/04/13 18:49	MS130329-1	.05005		.04514	mg/L	90.2	85	115			
L11316-03LFM L11316-03LFMD	LFM LFMD	04/04/13 19:31 04/04/13 19:34	MS130329-1 MS130329-1	.05005 .05005	U U	.04602 .04781	mg/L mg/L	91.9 95.5	70 70	130 130	3.82	20	
Conductivity @2			SM2510E								0.02		
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341252													
		02/20/42 47-54	DONIAGOZ	1400.0		1450.0	umber - /	100	00	140			
WG341252LCSW1	LCSW	03/28/13 17:54	PCN41037	1408.8			umhos/cm	103	90	110			
WG341252LCSW4	LCSW	03/28/13 20:38	PCN41037	1408.8			umhos/cm	101.5	90	110			
WG341252LCSW7	LCSW	03/29/13 0:40	PCN41037	1408.8	4.400		umhos/cm	101	90	110	o <i>t</i>	00	
L11281-01DUP	DUP	03/29/13 2:32	DONING	4 .00 -	1430	1429	umhos/cm	400 -	~~		0.1	20	
WG341252LCSW10		03/29/13 4:19	PCN41037	1408.8		1419.1		100.7	90	110			
WG341252LCSW13	LCSW	03/29/13 8:13	PCN41037	1408.8		1412	umhos/cm	100.2	90	110			



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Copper, dissolv	ed		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341440													
WG341440ICV	ICV	04/02/13 22:42	MS130402-2	.05		.04994	mg/L	99.9	90	110			
WG341440ICB	ICB	04/02/13 22:46				U	mg/L		-0.0015	0.0015			
WG341440LFB	LFB	04/02/13 22:49	MS130329-1	.05005		.04745	mg/L	94.8	85	115			
L11222-03AS	AS	04/02/13 23:05	MS130329-1	.05005	.0011	.04683	mg/L	91.4	70	130			
L11222-03ASD	ASD	04/02/13 23:08	MS130329-1	.05005	.0011	.04731	mg/L	92.3	70	130	1.02	20	
Copper, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341585													
WG341585ICV	ICV	04/04/13 18:39	MS130402-2	.05		.04859	mg/L	97.2	90	110			
WG341585ICB	ICB	04/04/13 18:42				U	mg/L		-0.0015	0.0015			
WG341499LRB	LRB	04/04/13 18:45				U	mg/L		-0.0011	0.0011			
WG341499LFB	LFB	04/04/13 18:49	MS130329-1	.05005		.04551	mg/L	90.9	85	115			
L11316-03LFM	LFM	04/04/13 19:31	MS130329-1	.05005	U	.04576	mg/L	91.4	70	130			
L11316-03LFMD	LFMD	04/04/13 19:34	MS130329-1	.05005	U	.04719	mg/L	94.3	70	130	3.08	20	
Cyanide, total			M335.4 - (Colorimeti	ric w/ distil	lation							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341468													
WG341468ICV	ICV	04/02/13 23:12	WI130321-7	.3		.2873	mg/L	95.8	90	110			
WG341468ICB	ICB	04/02/13 23:12				U	mg/L		-0.003	0.003			
WG341471													
WG341447LRB	LRB	04/02/13 23:36				U	mg/L		-0.003	0.003			
WG341447LFB	LFB	04/02/13 23:37	WI130321-3	.2		.1917	mg/L	95.9	90	110			
L11244-01DUP	DUP	04/02/13 23:40			U	U	mg/L				0	20	R
L11278-01LFM	LFM	04/02/13 23:42	WI130321-3	.2	.009	.1703	mg/L	80.7	90	110			Μ
Cyanide, WAD			SM4500-0	N I-Color	imetric w/	distillatio	on						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341366													
WG341366ICV	ICV	04/01/13 15:37	WI130321-7	.3		.295	mg/L	98.3	90	110			
WG341366ICB	ICB	04/01/13 15:38				U	mg/L		-0.003	0.003			
WG341371													
WG341351LRB	LRB	04/01/13 16:14				U	mg/L		-0.003	0.003			
WG341351LFB	LFB	04/01/13 16:15	WI130321-5	.2		.1917	mg/L	95.9	90	110			
L11281-01DUP	DUP	04/01/13 16:28			U	U	mg/L				0	20	R
L11290-01LFM	LFM	04/01/13 16:30	WI130321-5	.2	U	.1847	mg/L	92.4	90	110			
Dissolved Chro	mium, H	exavalent	SM3500C	r-D									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341427													
WG341427ICV	ICV	04/02/13 12:55	WC121108-	.05		.0489	mg/L	97.8	90	110			
WG341427ICB	ICB	04/02/13 12:58				U	mg/L		-0.015	0.015			
WG341427LFB	LFB	04/02/13 13:01	WC121009-	.05		.0519	mg/L	103.8	90	110			
L11304-02AS	AS	04/02/13 13:13	WC121009-	.05	U	.05	mg/L	100	90	110			
L11304-02DUP	DUP	04/02/13 13:16			U	U	mg/L				0	20	R



Caldera Mineral Resources

Iron, dissolved			M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341341													
WG341341ICV	ICV	04/01/13 15:48	II130114-3	2		1.99	mg/L	99.5	95	105			
WG341341ICB	ICB	04/01/13 15:54				U	mg/L		-0.06	0.06			
WG341341LFB	LFB	04/01/13 16:06	II130326-2	1		1.041	mg/L	104.1	85	115			
L11286-01AS	AS	04/01/13 16:15	II130326-2	1	.05	1.073	mg/L	102.3	85	115			
L11286-01ASD	ASD	04/01/13 16:19	II130326-2	1	.05	1.072	mg/L	102.2	85	115	0.09	20	
Iron, total			M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341550													
WG341550ICV	ICV	04/04/13 12:41	II130114-4	2		2.02	mg/L	101	95	105			
WG341550ICB	ICB	04/04/13 12:45				U	mg/L		-0.06	0.06			
WG341487LRB	LRB	04/04/13 12:57				U	mg/L		-0.044	0.044			
WG341487LFB	LFB	04/04/13 13:00	II130326-2	1		1	mg/L	100	85	115			
L11281-01LFM	LFM	04/04/13 13:07	II130326-2	1	.34	1.365	mg/L	102.5	70	130			
L11281-01LFMD	LFMD	04/04/13 13:10	II130326-2	1	.34	1.376	mg/L	103.6	70	130	0.8	20	
Lead, dissolved			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341440													
WG341440ICV	ICV	04/02/13 22:42	MS130402-2	.05		.05114	mg/L	102.3	90	110			
WG341440ICB	ICB	04/02/13 22:46				U	mg/L		-0.0003	0.0003			
WG341440LFB	LFB	04/02/13 22:49	MS130329-1	.05005		.04961	mg/L	99.1	85	115			
L11222-03AS	AS	04/02/13 23:05	MS130329-1	.05005	.0001	.05029	mg/L	100.3	70	130			
L11222-03ASD	ASD	04/02/13 23:08	MS130329-1	.05005	.0001	.04922	mg/L	98.1	70	130	2.15	20	
Lead, total			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341585													
WG341585ICV	ICV	04/04/13 18:39	MS130402-2	.05		.04976	mg/L	99.5	90	110			
WG341585ICB	ICB	04/04/13 18:42				U	mg/L		-0.0003	0.0003			
WG341499LRB	LRB	04/04/13 18:45				U	mg/L		-0.00022	0.00022			
WG341499LFB	LFB	04/04/13 18:49	MS130329-1	.05005		.04581	mg/L	91.5	85	115			
L11316-03LFM	LFM	04/04/13 19:31	MS130329-1	.05005	.0001	.04609	mg/L	91.9	70	130			
L11316-03LFMD	LFMD	04/04/13 19:34	MS130329-1	.05005	.0001	.04624	mg/L	92.2	70	130	0.32	20	
Magnesium, diss	solved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341341													
WG341341ICV	ICV	04/01/13 15:48	II130114-3	100		100.7	mg/L	100.7	95	105			
WG341341ICB	ICB	04/01/13 15:54				U	mg/L		-0.6	0.6			
WG341341LFB	LFB	04/01/13 16:06	II130326-2	49.99941		51.1	mg/L	102.2	85	115			
L11286-01AS	AS	04/01/13 16:15	II130326-2	49.99941	5.7	56.9	mg/L	102.4	85	115			
		04/01/13 16:19	II130326-2	49.99941		57.1	mg/L	102.8	85		0.35	20	



Caldera Mineral Resources

Manganese, dis	solved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341341													
WG341341ICV	ICV	04/01/13 15:48	II130114-3	2		1.939	mg/L	97	95	105			
WG341341ICB	ICB	04/01/13 15:54				U	mg/L		-0.015	0.015			
WG341341LFB	LFB	04/01/13 16:06	II130326-2	.5		.5098	mg/L	102	85	115			
L11286-01AS	AS	04/01/13 16:15	II130326-2	.5	U	.4977	mg/L	99.5	85	115			
L11286-01ASD	ASD	04/01/13 16:19	II130326-2	.5	U	.5011	mg/L	100.2	85	115	0.68	20	
Vanganese, tot	al		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341550													
NG341550ICV	ICV	04/04/13 12:41	II130114-4	2		1.9515	mg/L	97.6	95	105			
WG341550ICB	ICB	04/04/13 12:45				U	mg/L	-	-0.015	0.015			
WG341487LRB	LRB	04/04/13 12:57				U	mg/L		-0.011	0.011			
WG341487LFB	LFB	04/04/13 13:00	II130326-2	.5		.4917	mg/L	98.3	85	115			
L11281-01LFM	LFM	04/04/13 13:07	II130326-2	.5	.461	.9625	mg/L	100.3	70	130			
L11281-01LFMD	LFMD	04/04/13 13:10	II130326-2	.5	.461	.9809	mg/L	104	70	130	1.89	20	
Mercury, total			M245.1 C	XAA									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341478													
WG341478ICV	ICV	04/03/13 16:35	II130325-2	.005025		.00498	mg/L	99.1	95	105			
WG341478ICB	ICB	04/03/13 16:39	11000202	.000020		.00100 U	mg/L	00.1	-0.0002	0.0002			
WG341478LRB	LRB	04/03/13 16:41				U	mg/L		-0.00044	0.00044			
WG341478LFB	LFB	04/03/13 16:43	II130320-2	.002002		.00187	mg/L	93.4	85	115			
L11343-05LFM	LFM	04/03/13 17:14	II130320-2	.002002	U	.00185	mg/L	92.4	85	115			
_11343-05LFMD	LFMD	04/03/13 17:16	II130320-2	.002002	U	.00187	mg/L	93.4	85	115	1.08	20	
Nickel, dissolve	d		M200.7 I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341341													
NG341341ICV	ICV	04/01/13 15:48	II130114-3	2		1.986	mg/L	99.3	95	105			
		5	1100114-0	-		1.000	•	00.0	-0.03	0.03			
NG341341ICB	10.5	04/01/13 15 54				U	ma/l						
	ICB L FB	04/01/13 15:54 04/01/13 16:06	1130326-2	5		U 514	mg/L ma/l	102.8					
WG341341LFB	LFB	04/01/13 16:06	II130326-2 II130326-2	.5	U	.514	mg/L	102.8 99	85	115			
WG341341LFB L11286-01AS			II130326-2 II130326-2 II130326-2	.5 .5 .5	U U		-	102.8 99 99.8			0.8	20	
WG341341LFB L11286-01AS L11286-01ASD	LFB AS	04/01/13 16:06 04/01/13 16:15	II130326-2	.5 .5		.514 .495	mg/L mg/L	99	85 85	115 115	0.8	20	
WG341341LFB _11286-01AS _11286-01ASD Nickel, total	LFB AS	04/01/13 16:06 04/01/13 16:15	II130326-2 II130326-2	.5 .5		.514 .495	mg/L mg/L mg/L	99	85 85	115 115	0.8 RPD	20 Limit	Qual
WG341341LFB L11286-01AS L11286-01ASD Nickel, total ACZ ID	LFB AS ASD	04/01/13 16:06 04/01/13 16:15 04/01/13 16:19	II130326-2 II130326-2 M200.7 I	.5 .5 CP	U	.514 .495 .499	mg/L mg/L mg/L	99 99.8	85 85 85	115 115 115			Qual
WG341341LFB L11286-01AS L11286-01ASD Nickel, total ACZ ID WG341550	LFB AS ASD Type	04/01/13 16:06 04/01/13 16:15 04/01/13 16:19 Analyzed	II130326-2 II130326-2 M200.7 I PCN/SCN	.5 .5 CP QC	U	.514 .495 .499	mg/L mg/L mg/L Units	99 99.8 Rec	85 85 85 Lower	115 115 115 Upper			Qual
WG341341LFB _11286-01AS _11286-01ASD Nickel, total ACZ ID WG341550 WG341550ICV	LFB AS ASD Type	04/01/13 16:06 04/01/13 16:15 04/01/13 16:19 Analyzed 04/04/13 12:41	II130326-2 II130326-2 M200.7 I	.5 .5 CP	U	.514 .495 .499 Found	mg/L mg/L mg/L Units mg/L	99 99.8	85 85 85 Lower 95	115 115 115 Upper			Qual
WG341341LFB 11286-01AS 11286-01ASD Nickel, total ACZ ID WG341550 WG341550ICV WG341550ICB	LFB AS ASD Type ICV ICB	04/01/13 16:06 04/01/13 16:15 04/01/13 16:19 Analyzed 04/04/13 12:41 04/04/13 12:45	II130326-2 II130326-2 M200.7 I PCN/SCN	.5 .5 CP QC	U	.514 .495 .499 Found 1.985 U	mg/L mg/L mg/L Units mg/L mg/L	99 99.8 Rec	85 85 85 Lower 95 -0.03	115 115 115 Upper 105 0.03			Qual
WG341341LFB L11286-01AS L11286-01ASD Nickel, total ACZ ID WG341550 WG341550ICV WG341550ICB WG341487LRB	LFB AS ASD Type ICV ICB LRB	04/01/13 16:06 04/01/13 16:15 04/01/13 16:19 Analyzed 04/04/13 12:41 04/04/13 12:45 04/04/13 12:57	II130326-2 II130326-2 M200.7 I PCN/SCN II130114-4	.5 .5 CP QC 2	U	.514 .495 .499 Found 1.985 U U U	mg/L mg/L mg/L Units mg/L mg/L	99 99.8 Rec 99.3	85 85 85 Lower 95 -0.03 -0.022	115 115 115 Upper 105 0.03 0.022			Qual
WG341341ICB WG341341LFB L11286-01AS L11286-01ASD Nickel, total ACZ ID WG341550 WG341550ICV WG341550ICB WG341487LRB WG341487LRB WG341487LFB L11281-01LFM	LFB AS ASD Type ICV ICB	04/01/13 16:06 04/01/13 16:15 04/01/13 16:19 Analyzed 04/04/13 12:41 04/04/13 12:45	II130326-2 II130326-2 M200.7 I PCN/SCN	.5 .5 CP QC	U	.514 .495 .499 Found 1.985 U	mg/L mg/L mg/L Units mg/L mg/L	99 99.8 Rec	85 85 85 Lower 95 -0.03	115 115 115 Upper 105 0.03			Qual

Nitrate/Nitrite as	N, diss	olved	M353.2 - A	utomate	d Cadmiur	n Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341115													
WG341115ICV	ICV	03/26/13 18:50	WI130110-1	2.416		2.481	mg/L	102.7	90	110			
WG341115ICB	ICB	03/26/13 18:51				U	mg/L		-0.06	0.06			
WG341115LFB	LFB	03/26/13 18:56	WI130215-3	2		1.912	mg/L	95.6	90	110			
L11277-03AS	AS	03/26/13 19:15	WI130215-3	2	.15	2.117	mg/L	98.4	90	110			
L11279-01DUP	DUP	03/26/13 19:17			3.6	3.576	mg/L				0.7	20	
Nitrite as N, diss	olved		M353.2 - A	utomate	d Cadmiur	n Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341115													
WG341115ICV	ICV	03/26/13 18:50	WI130110-1	.609		.602	mg/L	98.9	90	110			
WG341115ICB	ICB	03/26/13 18:51				U	mg/L		-0.03	0.03			
WG341115LFB	LFB	03/26/13 18:56	WI130215-3	1		.99	mg/L	99	90	110			
L11277-03AS	AS	03/26/13 19:15	WI130215-3	1	U	.958	mg/L	95.8	90	110			
L11279-01DUP	DUP	03/26/13 19:17			.15	.142	mg/L	00.0			5.5	20	
Nitrogen, ammo	nia		M350.1 - A	utomate	d Phenate								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341615													
WG341615ICV	ICV	04/05/13 14:09	WI121105-5	1.003		1.036	mg/L	103.3	90	110			
WG341615ICB	ICB	04/05/13 14:12		1.000		U	mg/L	100.0	-0.15	0.15			
WG341645							-						
WG341645LFB	LFB	04/05/13 16:56	WI121218-3	1		1.04	mg/L	104	90	110			
L11215-01AS	AS	04/05/13 16:59	WI121218-3	1	U	1.058	mg/L	105.8	90	110			
L11222-01DUP	DUP	04/05/13 17:01			.18	.166	mg/L				8.1	20	F
pH (lab)			SM4500H+	ьB									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341252													
WG341252LCSW3	LCSW	03/28/13 18:10	PCN40853	6		6	units	100	98	102			
WG341252LCSW6	LCSW	03/28/13 20:53	PCN40853	6		6.01	units	100.2	98	102			
WG341252LCSW9	LCSW	03/29/13 0:55	PCN40853	6		6.01	units	100.2	98	102			
L11281-01DUP	DUP	03/29/13 2:32		2	7.9	7.92	units				0.3	20	
WG341252LCSW12		03/29/13 4:35	PCN40853	6		6.01	units	100.2	98	102	0.0		
WG341252LCSW15		03/29/13 8:29	PCN40853	6		6	units	100.2	98	102			
Residue, Filterat			SM2540C										
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341242													
		03/28/13 11.10				U	ma/l		-20	20			
WG341242PBW	PBW	03/28/13 14:40		260			mg/L	06.0					
WG341242LCSW	LCSW	03/28/13 14:40	PCN40253	260	1400	250	mg/L	96.2	80	120	0	20	
L11288-04DUP	DUP	03/28/13 14:51			1430	1430	mg/L				0	20	


Caldera Mineral Resources

Residue, Non-Fi		. , .	SM2540D										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341228													
WG341228PBW	PBW	03/28/13 11:15				U	mg/L		-15	15			
WG341228LCSW	LCSW	03/28/13 11:16	PCN40253	160		150	mg/L	93.8	80	120			
L11290-02DUP	DUP	03/28/13 11:38			U	U	mg/L				0	20	R
Selenium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341440													
WG341440ICV	ICV	04/02/13 22:42	MS130402-2	.05		.05207	mg/L	104.1	90	110			
WG341440ICB	ICB	04/02/13 22:46				U	mg/L		-0.0003	0.0003			
WG341440LFB	LFB	04/02/13 22:49	MS130329-1	.05005		.04939	mg/L	98.7	85	115			
L11222-03AS	AS	04/02/13 23:05	MS130329-1	.05005	.0009	.0535	mg/L	105.1	70	130			
L11222-03ASD	ASD	04/02/13 23:08	MS130329-1	.05005	.0009	.05404	mg/L	106.2	70	130	1	20	
Silver, dissolved	ł		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341440													
WG341440ICV	ICV	04/02/13 22:42	MS130402-2	.02006		.02077	mg/L	103.5	90	110			
WG341440ICB	ICB	04/02/13 22:46				U	mg/L		-0.00015	0.00015			
WG341440LFB	LFB	04/02/13 22:49	MS130329-1	.01001		.01026	mg/L	102.5	85	115			
L11222-03AS	AS	04/02/13 23:05	MS130329-1	.01001	U	.009727	mg/L	97.2	70	130			
L11222-03ASD	ASD	04/02/13 23:08	MS130329-1	.01001	U	.009531	mg/L	95.2	70	130	2.04	20	
Silver, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341585													
WG341585ICV	ICV	04/04/13 18:39	MS130402-2	.02006		.02065	mg/L	102.9	90	110			
WG341585ICB	ICB	04/04/13 18:42				U	mg/L		-0.00015	0.00015			
WG341499LRB	LRB	04/04/13 18:45				U	mg/L		-0.00011	0.00011			
WG341499LFB	LFB	04/04/13 18:49	MS130329-1	.01001		.009613	-	96	85	115			
L11316-03LFM	LFM	04/04/13 19:31	MS130329-1	.01001	U	.009206	mg/L	92	70	130			
L11316-03LFMD	LFMD	04/04/13 19:34	MS130329-1	.01001	U	.00917	mg/L	91.6	70	130	0.39	20	
Sulfate			D516-02 -	Turbidim	etric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341359													
WG341359ICB	ICB	04/01/13 11:04				U	mg/L		-3	3			
WG341359ICV	ICV	04/01/13 11:04	WI130401-1	20		19.8	mg/L	99	90	110			
WG341359LFB	LFB	04/01/13 14:11	WI121025-3	10		10.2	mg/L	102	90	110			
L11218-01DUP	DUP	04/01/13 14:27			2700	2530	mg/L				6.5	20	
							0						



Caldera Mineral Resources

Sulfide as S			SM4500S	2-D									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341169													
WG341169ICV	ICV	03/27/13 15:00	WC130326-	.364		.396	mg/L	108.8	90	110			
WG341169ICB	ICB	03/27/13 15:02				U	mg/L		-0.06	0.06			
WG341169LFB1	LFB	03/27/13 15:05	WC130326-	.2391067		.284	mg/L	118.8	80	120			
WG341169LFB2	LFB	03/27/13 16:18	WC130326-	.2391067		.281	mg/L	117.5	80	120			
L11295-01AS	AS	03/27/13 16:48	WC130326-	.2391067	U	.256	mg/L	107.1	75	125			
L11295-01DUP	DUP	03/27/13 16:50			U	U	mg/L				0	20	RA
Uranium, dissolv	ved		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341440													
WG341440ICV	ICV	04/02/13 22:42	MS130402-2	.05		.05357	mg/L	107.1	90	110			
WG341440ICB	ICB	04/02/13 22:46				U	mg/L		-0.0003	0.0003			
WG341440LFB	LFB	04/02/13 22:49	MS130329-1	.05		.05245	mg/L	104.9	85	115			
L11222-03AS	AS	04/02/13 23:05	MS130329-1	.05	.0014	.05572	mg/L	108.6	70	130			
L11222-03ASD	ASD	04/02/13 23:08	MS130329-1	.05	.0014	.05445	mg/L	106.1	70	130	2.31	20	
Uranium, total			M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341585													
WG341585ICV	ICV	04/04/13 18:39	MS130402-2	.05		.05255	mg/L	105.1	90	110			
WG341585ICB	ICB	04/04/13 18:42		.00		.00200 U	mg/L	100.1	-0.0003	0.0003			
WG341499LRB	LRB	04/04/13 18:45				U	mg/L		-0.00022	0.00022			
WG341499LFB	LFB	04/04/13 18:49	MS130329-1	.05		.04864	mg/L	97.3	85	115			
L11316-03LFM	LFM	04/04/13 19:31	MS130329-1	.05	U	.04962	mg/L	99.2	70	130			
L11316-03LFMD	LFMD	04/04/13 19:34	MS130329-1	.05	U	.04971	mg/L	99.4	70	130	0.18	20	
Zinc, dissolved			M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341341													
WG341341ICV	ICV	04/01/13 15:48	II130114-3	2		1.924	mg/L	96.2	95	105			
WG341341ICB	ICB	04/01/13 15:54				U	mg/L		-0.03	0.03			
WG341341LFB	LFB	04/01/13 16:06	II130326-2	.5		.495	mg/L	99	85	115			
L11286-01AS	AS	04/01/13 16:15	II130326-2	.5	U	.484	mg/L	96.8	85	115			
L11286-01ASD	ASD	04/01/13 16:19	II130326-2	.5	U	.49	mg/L	98	85	115	1.23	20	
Zinc, total			M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341550													
	ICV	04/04/13 12:41	II130114-4	2		1.989	mg/L	99.5	95	105			
WG341550ICV				-		U	mg/L		-0.03	0.03			
	ICB	04/04/13 12:45				-							
WG341550ICB	ICB LRB					U	ma/l		-0.022	0.022			
WG341550ICB WG341487LRB	LRB	04/04/13 12:57	II130326-2	.5		U .503	mg/L ma/L	100.6	-0.022 85	0.022 115			
WG341550ICV WG341550ICB WG341487LRB WG341487LFB L11281-01LFM			II130326-2 II130326-2	.5 .5	.34	U .503 .856	mg/L mg/L mg/L	100.6 103.2	-0.022 85 70	0.022 115 130			

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L11281-01	WG342091	Total Hot Plate Digestion	M200.2 ICP-MS	DJ	Sample dilution required due to insufficient sample.
	WG341510	Chloride	SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG341471	Cyanide, total	M335.4 - Colorimetric w/ distillation	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG341371	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG341427	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG341645	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG341228	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG341359	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG341169	Sulfide as S	SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).



ACZ Project ID: L11281

Wet Chemistry

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

Sulfide as S

SM4500S2-D

ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493
Caldera Mineral Resources

Sample Receipt

Caldera Mineral Resources	ACZ Project II Date Receive			L11281
	Received B		0, _0, _0	ksj
	Date Printe	d:	3/2	26/2013
Receipt Verification				
1) lo o foreign coil permit included for applicable complex?	Y	ES	NO	NA X
 Is a foreign soil permit included for applicable samples? Is the Chain of Custody or other directive chipping person present? 		v		^
2) Is the Chain of Custody or other directive shipping papers present?2) Does this president convict and the addition presedures such as CLP preserves.		Х		V
3) Does this project require special handling procedures such as CLP protocol?4) Are any complex NPC licensels metarial?				X
4) Are any samples NRC licensable material?		V		X
5) If samples are received past hold time, proceed with requested short hold time		X		
6) Is the Chain of Custody complete and accurate?		Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the sa	amples?		Х	
Samples/Containers				
9) Are all containers intest and with no looks?		ES X	NO	NA
8) Are all containers intact and with no leaks?				
9) Are all labels on containers and are they intact and legible?		X		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and T		X		
11) For preserved bottle types, was the pH checked and within limits?		X		
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				X
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements? L11281-01 : A orange container was not received and the same series of t			Х	
associated analysis could not be run.	16			
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?			Х	
Some parameters were received past hold time.				
Chain of Custody Related Remarks				
Client Contact Remarks				
Shipping Containers				
Cooler Id Temp (°C) Rad (µR/Hr) Cust	ody Seal Intact	?		
3666 2.7 13 N/A		_		

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

ACZ Labo 2773 Downhill Drive Steamboat Sp	oratories, Inc. prings, CO 80487 (800) 334	C/	1/28	31		(`:	LAII	; ()	ı - <u>†</u> ∫*	. (*	
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Company: Caldera Min	eral Respircos		V	Vest	t Ho					900	டிடி
E-mail: Laurenser			Telep			> - 7	777	- 88			r
If sample(s) received past holding analysis before expiration, shall a					ete				YES NO		
If "NO" then ACZ will contact client for further instru-		be evaluated		2					I		1
is indicated. ACZ will proceed with the requested and Are samples for SDWA Complian		oe quanneo.	Yes		N	١o					
If yes, please include state forms	. Results will be reported to	o PQL fo	or Coto	rado.							
Sampler's Name:	Sampler's site Information		State	CU	Zip coo	le	8143	ne Z	one	my	T
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L11281 Chain of Custody



April 15, 2013

Report to: Mike Thompson Caldera Mineral Resources PO Box 297 Silverton, CO 81433

cc: John Bryan

Project ID: ACZ Project ID: L11295

Mike Thompson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on March 27, 2013. This project has been assigned to ACZ's project number, L11295. Please reference this number in all future inquiries.

Bill to:

Lauren Nuyens

Caldera Mineral Resources

8439 Sunset Blvd. Suite 402

West Hollywood, CA 90069

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L11295. 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 May 15, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/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 raw data reports for ten years.

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

Tony Antalek has reviewed and approved this report.





April 15, 2013

Project ID: ACZ Project ID: L11295

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 1 miscellaneous sample from Caldera Mineral Resources on March 27, 2013. 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 L11295. 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 except those qualified with an ACZ 'H' flag were performed within EPA recommended holding times.

Sample Analysis

This sample was analyzed for inorganic parameters. The individual methods are referenced on both the ACZ invoice and the analytical reports.

ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Caldera Mineral Resources

Project ID:

Sample ID: CB-04-032613

Inorganic Analytical Results

ACZ Sample ID:	L11295-01
Date Sampled:	03/26/13 00:00
Date Received:	03/27/13
Sample Matrix:	Surface Water

Inorganic Prep								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date A	Analyst
Cyanide, total	M335.4 - Manual Distillation						04/02/13 16:41	lhb
Cyanide, WAD	SM4500-CN I- distillation						04/01/13 15:16	bsu
Total Hot Plate Digestion	M200.2 ICP-MS						04/03/13 14:56	las
Total Hot Plate Digestion	M200.2 ICP						04/02/13 17:31	jjc
Total Recoverable Digestion	M200.2 ICP-MS						03/28/13 13:22	las
Metals Analysis								
Parameter	EPA Method	Result	Qual XQ	Units	MDL	PQL	Date A	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	0.270		mg/L	0.001	0.005	03/30/13 1:52	pmc
Arsenic, dissolved	M200.8 ICP-MS	0.0005	В	mg/L	0.0002	0.001	04/15/13 13:34	msh
Arsenic, total recoverable	M200.8 ICP-MS	0.0017		mg/L	0.0002	0.001	03/30/13 1:52	pmc
Barium, dissolved	M200.7 ICP	0.019	В	mg/L	0.003	0.02	04/01/13 16:28	jjc
Beryllium, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	04/01/13 16:28	jjc
Boron, dissolved	M200.7 ICP	0.04	В	mg/L	0.01	0.05	04/01/13 16:28	jjc
Cadmium, dissolved	M200.8 ICP-MS	0.0013		mg/L	0.0001	0.0005	04/15/13 13:34	msh
Cadmium, total	M200.8 ICP-MS	0.0022		mg/L	0.0001	0.0005	04/04/13 18:55	msh
Calcium, dissolved	M200.7 ICP	297		mg/L	0.2	1	04/01/13 16:28	jjc
Chromium, dissolved	M200.8 ICP-MS		U	mg/L	0.0005	0.002	04/15/13 13:34	msh
Chromium, total	M200.8 ICP-MS		U	mg/L	0.0005	0.002	04/04/13 18:55	msh
Chromium, Trivalent	Calculation (Total - Hexavalent)		U	mg/L	0.0005	0.002	04/15/13 0:00	calc
Copper, dissolved	M200.8 ICP-MS	0.0011	В	mg/L	0.0005	0.003	04/15/13 13:34	msh
Copper, total	M200.8 ICP-MS	0.0239		mg/L	0.0005	0.003	04/04/13 18:55	msh
Iron, dissolved	M200.7 ICP		U	mg/L	0.02	0.05	04/01/13 16:28	jjc
Iron, total	M200.7 ICP	1.31		mg/L	0.02	0.05	04/04/13 17:52	jjc
Lead, dissolved	M200.8 ICP-MS	0.0063		mg/L	0.0001	0.0005	04/15/13 13:34	msh
Lead, total	M200.8 ICP-MS	0.1528		mg/L	0.0001	0.0005	04/04/13 18:55	msh
Magnesium, dissolved	M200.7 ICP	3.7		mg/L	0.2	1	04/01/13 16:28	jjc
Manganese, dissolved	M200.7 ICP	0.099		mg/L	0.005	0.03	04/01/13 16:28	jjc
Manganese, total	M200.7 ICP	0.549		mg/L	0.005	0.03	04/04/13 17:52	jjc
Mercury, total	M245.1 CVAA		U	mg/L	0.0002	0.001	03/28/13 15:50	mfm
Nickel, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	04/01/13 16:28	jjc
Nickel, total	M200.7 ICP		U	mg/L	0.01	0.05	04/04/13 17:52	jjc
Selenium, dissolved	M200.8 ICP-MS	0.0005		mg/L	0.0001	0.0003	04/15/13 13:34	msh
Silver, dissolved	M200.8 ICP-MS		U	mg/L	0.00005	0.0003	04/15/13 13:34	msh
Silver, total	M200.8 ICP-MS	0.00060		mg/L	0.00005	0.0003	04/04/13 18:55	msh
Uranium, dissolved	M200.8 ICP-MS	0.0005		mg/L	0.0001	0.0005	04/15/13 13:34	msh
Uranium, total	M200.8 ICP-MS	0.0005		mg/L	0.0001	0.0005	04/04/13 18:55	msh
Zinc, dissolved	M200.7 ICP	0.21		mg/L	0.01	0.05	04/01/13 16:28	jjc
Zinc, total	M200.7 ICP	0.52		mg/L	0.01	0.05	04/04/13 17:52	jjc

* Please refer to Qualifier Reports for details.



Project ID: Sample ID: CB-04-032613

Inorganic Analytical Results

ACZ Sample ID: L11295-01 Date Sampled: 03/26/13 00:00 Date Received: 03/27/13 Sample Matrix: Surface Water

Wet Chemistry									
Parameter	EPA Method	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3		43			mg/L	2	20	03/30/13 0:00	ljr
Carbonate as CaCO3			U		mg/L	2	20	03/30/13 0:00	ljr
Hydroxide as CaCO3			U		mg/L	2	20	03/30/13 0:00	ljr
Total Alkalinity		43			mg/L	2	20	03/30/13 0:00	ljr
Chloride	SM4500CI-E	2	В	*	mg/L	1	5	04/03/13 13:40	bsu
Conductivity @25C	SM2510B	1330			umhos/cm	1	10	03/30/13 14:25	ljr
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	04/02/13 23:54	pjb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation		U	*	mg/L	0.003	0.01	04/01/13 16:37	tcd
Dissolved Chromium, Hexavalent	SM3500Cr-D		UH	*	mg/L	0.005	0.02	04/02/13 13:07	ljr
Hardness as CaCO3	SM2340B - Calculation	758			mg/L	1	7	04/15/13 0:00	calc
Lab Filtration (0.45um) & Acidification	M200.7/200.8							03/29/13 11:02	las
Lab Filtration (glass fiber filter)	SOPWC050							03/29/13 14:37	khw
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2	0.03	В		mg/L	0.02	0.1	04/15/13 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	0.03	В	*	mg/L	0.02	0.1	03/27/13 23:18	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U	*	mg/L	0.01	0.05	03/27/13 22:58	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate		U		mg/L	0.05	0.5	04/05/13 14:52	bsu
pH (lab)	SM4500H+ B								
рН		7.9	Н		units	0.1	0.1	03/30/13 0:00	ljr
pH measured at		22.0			С	0.1	0.1	03/30/13 0:00	ljr
Residue, Filterable (TDS) @180C	SM2540C	1170			mg/L	10	20	03/29/13 16:19	khw
Residue, Non- Filterable (TSS) @105C	SM2540D	10	В	*	mg/L	5	20	03/30/13 16:55	khw
Sulfate	D516-02 - Turbidimetric	760		*	mg/L	20	100	04/01/13 14:26	mpb
Sulfide as S	SM4500S2-D		U	*	mg/L	0.02	0.1	03/27/13 16:45	ljr



Inorganic Reference

	A distinct act of complex and word of a sub-site time.		
Batch	A distinct set of samples analyzed at a specific time		
Found	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)	A II 6	
MDL	Method Detection Limit. Same as Minimum Reporting Limit.		
PCN/SCN	A number assigned to reagents/standards to trace to the man	utacturer's certific	ate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.	0.1	
QC	True Value of the Control Sample or the amount added to the	•	
Rec	Recovered amount of the true value or spike added, in % (exc		(Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC	, Types	
Upper Some	Upper Recovery Limit, in % (except for LCSS, mg/Kg)		
Sample	Value of the Sample of interest		
Sample Typ	pes		
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
ССВ	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard
	· · · · · · · · · · · · · · · · · · ·		
Blanks Control San	Laboratory Control Sample - Water pe Explanations Verifies that there is no or minimal comples Verifies the accuracy of the method,	SDL ontamination in the including the prep	Serial Dilution prep method or calibration procedure. procedure.
Sample Typ Blanks	Laboratory Control Sample - Water pe Explanations where the end of the state of the stat	SDL ontamination in the including the prep nt and/or method.	e prep method or calibration procedure.
Sample Typ Blanks Control San Duplicates	Laboratory Control Sample - Water pe Explanations where the end of the state of the stat	SDL ontamination in the including the prep nt and/or method. ces, if any.	e prep method or calibration procedure.
Sample Typ Blanks Control San Duplicates Spikes/Fort	Laboratory Control Sample - Water pe Explanations where the explanations	SDL ontamination in the including the prep nt and/or method. ces, if any.	e prep method or calibration procedure.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard	Laboratory Control Sample - Water pe Explanations where the explanations	SDL ontamination in the including the prep nt and/or method. ces, if any.	prep method or calibration procedure.
Sample Tyj Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers	Laboratory Control Sample - Water Pe Explanations Verifies that there is no or minimal co mples Verifies the accuracy of the method, Verifies the precision of the instrume ified Matrix Determines sample matrix interferen Verifies the validity of the calibration. (Qual)	SDL ontamination in the including the prep nt and/or method. ces, if any.	e prep method or calibration procedure. procedure. ed value is an estimated quantity.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B	Laboratory Control Sample - Water pe Explanations werifies that there is no or minimal comples werifies the accuracy of the method, Verifies the precision of the instrume ified Matrix Determines sample matrix interferen Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F	SDL ontamination in the including the prep nt and/or method. ces, if any.	e prep method or calibration procedure. procedure. ed value is an estimated quantity.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal comples verifies the accuracy of the method, Verifies the precision of the instrume ified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with an analysis	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold.	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal control of the instrume ified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined negotiation.	SDL ontamination in the including the prep nt and/or method. cces, if any. PQL. The associat h immediate hold t gative threshold. e level of the assoc	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L U	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal comples verifies the accuracy of the method, Verifies the precision of the instrume ified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and ff Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	SDL ontamination in the including the prep nt and/or method. cces, if any. PQL. The associat h immediate hold t gative threshold. e level of the assoc	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L U U	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal comples verifies the accuracy of the method, Verifies the precision of the instrume ified Matrix Determines sample matrix interferen Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and fe Analysis exceeded method hold time. pH is a field test with and Target analyte response was below the laboratory defined nego The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the assoc the sample detect	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal comples werifies the accuracy of the method, Verifies the precision of the instrume ified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water and the sample complexity of the sample of th	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the association the sample detect	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit.
Sample Typ Blanks Control San Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal comples werifies the accuracy of the method, Verifies the precision of the instrume ified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water and EPA 600/R-93-100. Methods for the Determination of Inorgan	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc ic Substances in	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993.
Sample Typ Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal convertingent of the instrume ified Matrix Determines sample matrix interferent verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analyte concentration detected at a value between MDL and F Analyte concentration detected at a value between MDL and F Analyte sexceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-110. Methods for the Determination of Inorgar	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc ic Substances in	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993.
Sample Typ Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal converting the precision of the instrume ified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgar EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	SDL ontamination in the including the prep nt and/or method. ccs, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Environmental S	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993.
Sample Typ Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal convertingent of the instrume ified Matrix Determines sample matrix interferent verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analyte concentration detected at a value between MDL and F Analyte concentration detected at a value between MDL and F Analyte sexceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-110. Methods for the Determination of Inorgar	SDL ontamination in the including the prep nt and/or method. ccs, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Environmental S	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993.
Sample Typ Blanks Control Sar Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal converting the precision of the instrume ified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgar EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	SDL ontamination in the including the prep nt and/or method. ccs, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Environmental S	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal converting the precision of the instrume ified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgar EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Substances in f in Environmental s ater.	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal comples verifies the accuracy of the method, Verifies the precision of the instrume of the matrix interferent verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and for Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined negotiate the material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or the associated value is either the sample quantitation limit or the A600/R-93-100. Methods for Chemical Analysis of Water and PA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Substances in f in Environmental s ater.	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments (1)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal comples verifies the accuracy of the method, Verifies the precision of the instrume iffed Matrix Determines sample matrix interferentor (Qual) Analyte concentration detected at a value between MDL and for Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined nego The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgant EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slightly	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Environmental s ater.	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments (1) (2)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal comples verifies the accuracy of the method, Verifies the precision of the instrume iffed Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and ff Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgant EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slightly Soil, Sludge, and Plant matrices for Inorganic analyses are reported.	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Environmental s ater. y if the rounded va ported on a dry we received" basis.	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments (1) (2) (3)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal comples verifies the accuracy of the method, Verifies the precision of the instrume ified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are reported on an "as	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Environmental s ater. y if the rounded va ported on a dry we received" basis.	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments (1) (2) (3)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal comples verifies the accuracy of the method, Verifies the precision of the instrume ified Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or RCS EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Environmental s ater. y if the rounded va ported on a dry we received" basis. qualifier and/or ce	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Sample Typ Blanks Control Sam Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments (1) (2) (3) (4) (3) (4)	Laboratory Control Sample - Water pe Explanations mples Verifies that there is no or minimal control mples Verifies the accuracy of the method, Verifies the precision of the instrume officed Matrix Determines sample matrix interferent Verifies the validity of the calibration. (Qual) Analyte concentration detected at a value between MDL and F Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or RCes EPA 600/R-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended associated with the result.	SDL ontamination in the including the prep nt and/or method. ces, if any. PQL. The associat n immediate hold t gative threshold. e level of the associat the sample detect and Wastes, Marc in Environmental s ater. y if the rounded va ported on a dry we received" basis. qualifier and/or ce	e prep method or calibration procedure. procedure. ed value is an estimated quantity. ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.

REP001.09.12.01



Caldera Mineral Resources

Alkalinity as CaC	:03		SM2320B	- Titration									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341320													
WG341320PBW1	PBW	03/30/13 13:43				2.9	mg/L		-20	20			
WG341320LCSW2	LCSW	03/30/13 13:57	WC130328-	820		776.6	mg/L	94.7	90	110			
L11300-01DUP	DUP	03/30/13 15:19			92	96.3	mg/L				4.6	20	
WG341320LCSW5	LCSW	03/30/13 17:10	WC130328-	820		766.7	mg/L	93.5	90	110			
WG341320PBW2	PBW	03/30/13 17:19				3.1	mg/L		-20	20			
WG341320LCSW8	LCSW	03/30/13 20:37	WC130328-	820		764.8	mg/L	93.3	90	110			
WG341320PBW3	PBW	03/30/13 20:46				3.3	mg/L		-20	20			
WG341320LCSW11	LCSW	03/31/13 1:21	WC130328-	820		791.1	mg/L	96.5	90	110			
WG341320PBW4	PBW	03/31/13 1:30				U	mg/L		-20	20			
WG341320LCSW14	LCSW	03/31/13 4:34	WC130328-	820		796.9	mg/L	97.2	90	110			
Aluminum, total	recover	able	M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341266													
WG341266ICV	ICV	03/30/13 0:07	MS130102-2	.1		.1009	mg/L	100.9	90	110			
WG341266ICB	ICB	03/30/13 0:11				U	mg/L		-0.003	0.003			
WG341213LRB	LRB	03/30/13 0:14				.0015	mg/L		-0.0022	0.0022			
WG341213LFB	LFB	03/30/13 0:17	MS130220-1	.050055		.0497	mg/L	99.3	85	115			
L11302-01LFM	LFM	03/30/13 1:40	MS130220-1	.050055	.811	.8729	mg/L	123.7	70	130			
L11302-01LFMD	LFMD	03/30/13 1:43	MS130220-1	.050055	.811	.8685	mg/L	114.9	70	130	0.51	20	
Arsenic, dissolv	ed		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341439													
WG341439ICV	ICV	04/15/13 12:13	MS130402-2	.05		.05173	mg/L	103.5	90	110			
WG341439ICB	ICB	04/15/13 12:16	W0100402 2	.00		.00170 U	mg/L	100.0	-0.0006	0.0006			
WG341439LFB	LFB	04/15/13 12:19	MS130329-1	.05005		.04615	mg/L	92.2	85	115			
L11289-05AS	AS	04/15/13 13:12	MS130329-1	.05005	.0018	.0551	mg/L	106.5	70	130			
L11289-05ASD	ASD	04/15/13 13:12	MS130329-1 MS130329-1	.05005	.0018	.05513	mg/L	106.6	70	130	0.05	20	
											0.00	20	
Arsenic, total red	Type	Analyzed	M200.8 IC PCN/SCN	P-IVIS QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
	- 1960	- maryzou		- 40-	oumpic	- ound		-1100	Lowol	oppor		Linin	quur
WG341266													
WG341266ICV	ICV	03/30/13 0:07	MS130102-2	.05		.05277	mg/L	105.5	90	110			
WG341266ICB	ICB	03/30/13 0:11				U	mg/L		-0.0006	0.0006			
WG341213LRB	LRB	03/30/13 0:14				U	mg/L		-0.00044	0.00044			
WG341213LFB	LFB	03/30/13 0:17	MS130220-1	.05005		.05204	mg/L	104	85	115			
L11302-01LFM	LFM	03/30/13 1:40	MS130220-1	.05005	.001	.05037	mg/L	98.6	70	130			
L11302-01LFMD	LFMD	03/30/13 1:43	MS130220-1	.05005	.001	.05039	mg/L	98.7	70	130	0.04	20	



Caldera Mineral Resources

Barium, dissolv	ed		M200.7 IC										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341341													
WG341341ICV	ICV	04/01/13 15:48	II130114-3	2		1.967	mg/L	98.4	95	105			
WG341341ICB	ICB	04/01/13 15:54				U	mg/L		-0.009	0.009			
WG341341LFB	LFB	04/01/13 16:06	II130326-2	.5		.498	mg/L	99.6	85	115			
L11286-01AS	AS	04/01/13 16:15	II130326-2	.5	.124	.6167	mg/L	98.5	85	115			
L11286-01ASD	ASD	04/01/13 16:19	II130326-2	.5	.124	.6203	mg/L	99.3	85	115	0.58	20	
Beryllium, disso	lved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341341													
WG341341ICV	ICV	04/01/13 15:48	II130114-3	2		1.952	mg/L	97.6	95	105			
WG341341ICB	ICB	04/01/13 15:54				U	mg/L		-0.03	0.03			
WG341341LFB	LFB	04/01/13 16:06	II130326-2	.5		.506	mg/L	101.2	85	115			
L11286-01AS	AS	04/01/13 16:15	II130326-2	.5	U	.489	mg/L	97.8	85	115			
L11286-01ASD	ASD	04/01/13 16:19	II130326-2	.5	U	.493	mg/L	98.6	85	115	0.81	20	
Boron, dissolve	d		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341341													
WG341341ICV	ICV	04/01/13 15:48	II130114-3	2		2.017	mg/L	100.9	95	105			
WG341341ICB	ICB	04/01/13 15:54		-		U	mg/L		-0.03	0.03			
WG341341LFB	LFB	04/01/13 16:06	II130326-2	.5005		.522	mg/L	104.3	85	115			
L11286-01AS	AS	04/01/13 16:15	II130326-2	.5005	U	.508	mg/L	101.5	85	115			
L11286-01ASD	ASD	04/01/13 16:19	II130326-2	.5005	U	.519	mg/L	103.7	85	115	2.14	20	
Cadmium, disso	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341439													
WG341439ICV	ICV	04/15/13 12:13	MS130402-2	.05		.05122	mg/L	102.4	90	110			
WG341439ICB	ICB	04/15/13 12:16				U	mg/L		-0.0003	0.0003			
WG341439LFB	LFB	04/15/13 12:19	MS130329-1	.0501		.04678	mg/L	93.4	85	115			
L11289-05AS	AS	04/15/13 13:12	MS130329-1	.0501	.0003	.04844	mg/L	96.1	70	130			
L11289-05ASD	ASD	04/15/13 13:15	MS130329-1	.0501	.0003	.04885	mg/L	96.9	70	130	0.84	20	
Cadmium, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341585													
WG341585ICV	ICV	04/04/13 18:39	MS130402-2	.05		.05001	mg/L	100	90	110			
10000	ICB	04/04/13 18:39	1010100402-2	.00		.05001 U	mg/L	100	-0.0003	0.0003			
WG3415851CP	ICD					U	mg/L		-0.0003	0.0003			
		0//0//12 19.75				0	my/∟		-0.00022	0.00022			
WG341585ICB WG341499LRB	LRB	04/04/13 18:45	MS130320 1	0501		0/016	ma/l	02 1	85	115			
	LRB LFB LFM	04/04/13 18:45 04/04/13 18:49 04/04/13 19:31	MS130329-1 MS130329-1	.0501 .0501	U	.04916 .04657	mg/L mg/L	98.1 93	85 70	115 130			



Caldera Mineral Resources

Calcium, dissolve	əd		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341341													
WG341341ICV	ICV	04/01/13 15:48	II130114-3	100		97.64	mg/L	97.6	95	105			
WG341341ICB	ICB	04/01/13 15:54				U	mg/L		-0.6	0.6			
WG341341LFB	LFB	04/01/13 16:06	II130326-2	67.95918		70.17	mg/L	103.3	85	115			
L11286-01AS	AS	04/01/13 16:15	II130326-2	67.95918	36.8	105.5	mg/L	101.1	85	115			
L11286-01ASD	ASD	04/01/13 16:19	II130326-2	67.95918	36.8	105.9	mg/L	101.7	85	115	0.38	20	
Chloride			SM45000	Я-Е									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341507													
WG341507ICB	ICB	04/03/13 12:59				U	mg/L		-3	3			
WG341507ICV	ICV	04/03/13 12:59	WI130131-1	54.945		58.3	mg/L	106.1	90	110			
WG341507LFB1	LFB	04/03/13 13:22	WI130201-8	30		31.1	mg/L	103.7	90	110			
WG341507LFB2	LFB	04/03/13 13:39	WI130201-8	30		30.9	mg/L	103	90	110			
L11289-08AS	AS	04/03/13 13:39	WI130201-8	30	73	96.9	mg/L	79.7	90	110			Ν
L11290-01DUP	DUP	04/03/13 13:39			24	23.5	mg/L				2.1	20	
Chromium, disso	lved		M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341439													
WG341439ICV	ICV	04/15/13 12:13	MS130402-2	.05		.0475	mg/L	95	90	110			
WG341439ICB	ICB	04/15/13 12:16		.00		U	mg/L	00	-0.0015	0.0015			
WG341439LFB	LFB	04/15/13 12:19	MS130329-1	.05005		.04593	mg/L	91.8	85	115			
L11289-05AS	AS	04/15/13 13:12	MS130329-1	.05005	U	.04412	mg/L	88.2	70	130			
L11289-05ASD	ASD	04/15/13 13:15	MS130329-1	.05005	U	.0446	mg/L	89.1	70	130	1.08	20	
Chromium, total			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341585													
WG341585ICV	ICV	04/04/13 18:39	MS130402-2	.05		.04817	mg/L	96.3	90	110			
WG341585ICB	ICB	04/04/13 18:42		.00		U	mg/L	00.0	-0.0015	0.0015			
WG341499LRB	LRB	04/04/13 18:45				U	mg/L		-0.0011	0.0011			
WG341499LFB	LFB	04/04/13 18:49	MS130329-1	.05005		.04514	mg/L	90.2	85	115			
L11316-03LFM	LFM	04/04/13 19:31	MS130329-1	.05005	U	.04602	mg/L	91.9	70	130			
L11316-03LFMD	LFMD	04/04/13 19:34	MS130329-1	.05005	U	.04781	mg/L	95.5	70	130	3.82	20	
Conductivity @25	5C		SM2510E	3									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341320													
WG341320LCSW1	LCSW	03/30/13 13:45	PCN41037	1408.8		1445.5	umhos/cm	102.6	90	110			
L11300-01DUP	DUP	03/30/13 15:19			417	417	umhos/cm				0	20	
WG341320LCSW4	LCSW	03/30/13 16:59	PCN41037	1408.8		1421.1		100.9	90	110			
WG341320LCSW7	LCSW	03/30/13 20:25	PCN41037	1408.8		1414	umhos/cm	100.4	90	110			
								99.8	90				
WG341320LCSW10	LCSW	03/31/13 1:09	PCN41037	1408.8		1405.9	umhos/cm	99.0	90	110			



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Copper, dissolv	ed		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341439													
WG341439ICV	ICV	04/15/13 12:13	MS130402-2	.05		.04633	mg/L	92.7	90	110			
WG341439ICB	ICB	04/15/13 12:16				U	mg/L		-0.0015	0.0015			
WG341439LFB	LFB	04/15/13 12:19	MS130329-1	.05005		.04439	mg/L	88.7	85	115			
L11289-05AS	AS	04/15/13 13:12	MS130329-1	.05005	.0012	.04054	mg/L	78.6	70	130			
L11289-05ASD	ASD	04/15/13 13:15	MS130329-1	.05005	.0012	.04116	mg/L	79.8	70	130	1.52	20	
Copper, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341585													
WG341585ICV	ICV	04/04/13 18:39	MS130402-2	.05		.04859	mg/L	97.2	90	110			
WG341585ICB	ICB	04/04/13 18:42				U	mg/L		-0.0015	0.0015			
WG341499LRB	LRB	04/04/13 18:45				U	mg/L		-0.0011	0.0011			
WG341499LFB	LFB	04/04/13 18:49	MS130329-1	.05005		.04551	mg/L	90.9	85	115			
L11316-03LFM	LFM	04/04/13 19:31	MS130329-1	.05005	U	.04576	mg/L	91.4	70	130			
L11316-03LFMD	LFMD	04/04/13 19:34	MS130329-1	.05005	U	.04719	mg/L	94.3	70	130	3.08	20	
Cyanide, total			M335.4 - (Colorimetr	ric w/ distil	lation							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341468													
WG341468ICV	ICV	04/02/13 23:12	WI130321-7	.3		.2873	mg/L	95.8	90	110			
WG341468ICB	ICB	04/02/13 23:12				U	mg/L		-0.003	0.003			
WG341471													
WG341447LRB	LRB	04/02/13 23:36				U	mg/L		-0.003	0.003			
WG341447LFB	LFB	04/02/13 23:37	WI130321-3	.2		.1917	mg/L	95.9	90	110			
L11292-02DUP	DUP	04/02/13 23:52			U	U	mg/L				0	20	RA
L11292-03LFM	LFM	04/02/13 23:53	WI130321-3	.2	U	.1771	mg/L	88.6	90	110			M2
Cyanide, WAD			SM4500-0	CN I-Color	imetric w/	distillatio	on						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341366													
WG341366ICV	ICV	04/01/13 15:37	WI130321-7	.3		.295	mg/L	98.3	90	110			
WG341366ICB	ICB	04/01/13 15:38				U	mg/L		-0.003	0.003			
WG341371													
WG341351LRB	LRB	04/01/13 16:14				U	mg/L		-0.003	0.003			
WG341351LFB	LFB	04/01/13 16:15	WI130321-5	.2		.1917	mg/L	95.9	90	110			
L11281-01DUP	DUP	04/01/13 16:28			U	U	mg/L				0	20	RA
L11290-01LFM	LFM	04/01/13 16:30	WI130321-5	.2	U	.1847	mg/L	92.4	90	110			
Dissolved Chro	mium, H	exavalent	SM3500C	r-D									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341427													
WG341427ICV	ICV	04/02/13 12:55	WC121108-	.05		.0489	mg/L	97.8	90	110			
WG341427ICB	ICB	04/02/13 12:58				U	mg/L		-0.015	0.015			
WG341427LFB	LFB	04/02/13 13:01	WC121009-	.05		.0519	mg/L	103.8	90	110			
L11304-02AS	AS	04/02/13 13:13	WC121009-	.05	U	.05	mg/L	100	90	110			
L11304-02DUP	DUP	04/02/13 13:16			U	U	mg/L				0	20	RA



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Iron, dissolved			M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341341													
WG341341ICV	ICV	04/01/13 15:48	II130114-3	2		1.99	mg/L	99.5	95	105			
WG341341ICB	ICB	04/01/13 15:54				U	mg/L		-0.06	0.06			
WG341341LFB	LFB	04/01/13 16:06	II130326-2	1		1.041	mg/L	104.1	85	115			
L11286-01AS	AS	04/01/13 16:15	II130326-2	1	.05	1.073	mg/L	102.3	85	115			
L11286-01ASD	ASD	04/01/13 16:19	II130326-2	1	.05	1.072	mg/L	102.2	85	115	0.09	20	
Iron, total			M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341535													
WG341535ICV	ICV	04/04/13 16:30	II130107-3	2		2.054	mg/L	102.7	95	105			
WG341535ICB	ICB	04/04/13 16:34				U	mg/L		-0.06	0.06			
WG341429LRB	LRB	04/04/13 16:46				U	mg/L		-0.044	0.044			
WG341429LFB	LFB	04/04/13 16:49	II130314-1	1		1.055	mg/L	105.5	85	115			
L11286-01LFM	LFM	04/04/13 17:39	II130314-1	1	.03	1.066	mg/L	103.6	70	130			
L11286-01LFMD	LFMD	04/04/13 17:42	II130314-1	1	.03	1.064	mg/L	103.4	70	130	0.19	20	
Lead, dissolved			M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341439													
WG341439ICV	ICV	04/15/13 12:13	MS130402-2	.05		.04744	mg/L	94.9	90	110			
WG341439ICB	ICB	04/15/13 12:16				U	mg/L		-0.0003	0.0003			
WG341439LFB	LFB	04/15/13 12:19	MS130329-1	.05005		.04304	mg/L	86	85	115			
L11289-05AS	AS	04/15/13 13:12	MS130329-1	.05005	U	.04593	mg/L	91.8	70	130			
L11289-05ASD	ASD	04/15/13 13:15	MS130329-1	.05005	U	.0462	mg/L	92.3	70	130	0.59	20	
Lead, total			M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341585													
WG341585ICV	ICV	04/04/13 18:39	MS130402-2	.05		.04976	mg/L	99.5	90	110			
WG341585ICB	ICB	04/04/13 18:42				U	mg/L		-0.0003	0.0003			
WG341499LRB	LRB	04/04/13 18:45				U	mg/L		-0.00022	0.00022			
WG341499LFB	LFB	04/04/13 18:49	MS130329-1	.05005		.04581	mg/L	91.5	85	115			
L11316-03LFM	LFM	04/04/13 19:31	MS130329-1	.05005	.0001	.04609	mg/L	91.9	70	130			
L11316-03LFMD	LFMD	04/04/13 19:34	MS130329-1	.05005	.0001	.04624	mg/L	92.2	70	130	0.32	20	
Magnesium, dis	solved		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341341													
WG341341ICV	ICV	04/01/13 15:48	II130114-3	100		100.7	mg/L	100.7	95	105			
WG341341ICB	ICB	04/01/13 15:54				U	mg/L	100.7	-0.6	0.6			
	LFB	04/01/13 16:06	II130326-2	49.99941		51.1	mg/L	102.2	85	115			
WG341341I FB													
WG341341LFB L11286-01AS	AS	04/01/13 16:15	II130326-2	49.99941	5.7	56.9	mg/L	102.4	85	115			



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Manganese, dis	solved		M200.7 I	-									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341341													
WG341341ICV	ICV	04/01/13 15:48	II130114-3	2		1.939	mg/L	97	95	105			
WG341341ICB	ICB	04/01/13 15:54				U	mg/L		-0.015	0.015			
WG341341LFB	LFB	04/01/13 16:06	II130326-2	.5		.5098	mg/L	102	85	115			
L11286-01AS	AS	04/01/13 16:15	II130326-2	.5	U	.4977	mg/L	99.5	85	115			
L11286-01ASD	ASD	04/01/13 16:19	II130326-2	.5	U	.5011	mg/L	100.2	85	115	0.68	20	
Manganese, tota	al		M200.7 I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341535													
WG341535ICV	ICV	04/04/13 16:30	II130107-3	2		1.9689	mg/L	98.4	95	105			
WG341535ICB	ICB	04/04/13 16:34				U	mg/L		-0.015	0.015			
WG341429LRB	LRB	04/04/13 16:46				.0054	mg/L		-0.011	0.011			
WG341429LFB	LFB	04/04/13 16:49	II130314-1	.5		.5152	mg/L	103	85	115			
L11286-01LFM	LFM	04/04/13 17:39	II130314-1	.5	U	.5175	mg/L	103.5	70	130			
L11286-01LFMD	LFMD	04/04/13 17:42	II130314-1	.5	U	.5145	mg/L	102.9	70	130	0.58	20	
Mercury, total			M245.1 (CVAA									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341164													
WG341164ICV	ICV	03/28/13 13:05	II130325-2	.005025		.00493	mg/L	98.1	95	105			
WG341164ICB	ICB	03/28/13 13:07	11000202	.000020		.00400 U	mg/L	50.1	-0.0002	0.0002			
WG341207													
WG341207LRB	LRB	03/28/13 14:49				U	mg/L		-0.00044	0.00044			
WG341207LFB	LFB	03/28/13 14:51	II130320-2	.002002		.00184	mg/L	91.9	85	115			
L11290-01LFM	LFM	03/28/13 15:33	II130320-2	.002002	U	.00185	mg/L	92.4	85	115			
L11290-01LFMD	LFMD	03/28/13 15:35	II130320-2	.002002	U	.00188	mg/L	93.9	85	115	1.61	20	
Nickel, dissolve	d		M200.7 I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341341													
WG341341ICV	ICV	04/01/13 15:48	II130114-3	2		1.986	mg/L	99.3	95	105			
WG341341ICB	ICB	04/01/13 15:54	11130114-3	2		1.900 U	mg/L	55.5	-0.03	0.03			
WG341341LFB	LFB	04/01/13 16:06	II130326-2	.5		.514	mg/L	102.8	85	115			
L11286-01AS	AS	04/01/13 16:15	II130326-2	.5	U	.495	mg/L	99	85	115			
L11286-01ASD	ASD	04/01/13 16:19	II130326-2	.5	U	.499	mg/L	99.8	85	115	0.8	20	
Nickel, total			M200.7 I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341535													
WG341535ICV	ICV	04/04/13 16:30	II130107-3	2		1.977	mg/L	98.9	95	105			
WG341535ICB	ICB	04/04/13 16:34		-		U	mg/L	20.0	-0.03	0.03			
WG341429LRB	LRB	04/04/13 16:46				U	mg/L		-0.022	0.022			
		04/04/13 16:49	II130314-1	.5		.513	mg/L	102.6	85	115			
WG341429LFB	LFR	04/04/13 10.43		.0									
WG341429LFB L11286-01LFM	LFB LFM	04/04/13 17:39	II130314-1	.5	U	.523	mg/L	104.6	70	130			

Nitrate/Nitrite as	N, diss	olved	M353.2 - A	Automate	d Cadmiur	n Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341193													
WG341193ICV	ICV	03/27/13 22:33	WI130110-1	2.416		2.46	mg/L	101.8	90	110			
WG341193ICB	ICB	03/27/13 22:35				U	mg/L		-0.06	0.06			
WG341193LFB	LFB	03/27/13 22:38	WI130215-3	2		1.966	mg/L	98.3	90	110			
L11289-08AS	AS	03/27/13 23:15	WI130215-3	10	6.3	16.21	mg/L	99.1	90	110			
L11295-01DUP	DUP	03/27/13 23:19			.03	.021	mg/L				35.3	20	R
Nitrite as N, disso	olved		M353.2 - A	Automate	d Cadmiur	n Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341193													
WG341193ICV	ICV	03/27/13 22:33	WI130110-1	.609		.608	mg/L	99.8	90	110			
WG341193ICB	ICB	03/27/13 22:35	WHOOTIOT	.000		.000 U	mg/L	00.0	-0.03	0.03			
WG341193LFB	LFB	03/27/13 22:38	WI130215-3	1		1.003	mg/L	100.3	90	110			
L11289-08AS	AS	03/27/13 22:57	WI130215-3	1	U	.998	mg/L	99.8	90	110			
L11295-01DUP	DUP	03/27/13 22:59	WII30213-3	I	U	.990 U	mg/L	99.0	90	110	0	20	R
Nitrogen, ammor	nia		M350.1 - A	Automate	d Phenate								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341615													
WG341615ICV	ICV	04/05/13 14:09	WI121105-5	1.003		1.036	mg/L	103.3	90	110			
WG341615ICB	ICB	04/05/13 14:12	W1121100 0	1.000		U	mg/L	100.0	-0.15	0.15			
WG341615LFB1	LFB	04/05/13 14:13	WI121218-3	1		1.013	mg/L	101.3	90	110			
WG341615LFB2	LFB	04/05/13 15:01	WI121218-3	1		1.006	mg/L	101.6	90	110			
L11294-01AS	AS	04/05/13 15:14	WI121218-3	10	26.1	36.13	mg/L	100.3	90	110			
L11294-02DUP	DUP	04/05/13 15:16	W11212100	10	23.3	23.81	mg/L	100.0	50	110	2.2	20	
pH (lab)			SM4500H	+ B									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341320													
WG341320LCSW3	LCSW	03/30/13 14:01	PCN40853	6		6	units	100	98	102			
	DUP	03/30/13 14:01	FCI140655	0	0.0			100	90	102	1 5	20	
L11300-01DUP			PCN40853	c	8.2	8.32	units	100.0	00	100	1.5	20	
WG341320LCSW6	LCSW	03/30/13 17:13		6 6		6.01	units	100.2	98	102			
WG341320LCSW9	LCSW	03/30/13 20:40	PCN40853			6	units	100	98	102			
WG341320LCSW12 WG341320LCSW15		03/31/13 1:25 03/31/13 4:37	PCN40853 PCN40853	6 6		6 6	units units	100 100	98 98	102 102			
				Ŭ		Ū	annto						
Residue, Filterab ACZ ID	Type	Analyzed	SM2540C PCN/SCN	QC	Sample	Found	Unite	Rec	Lower	Upper	RPD	Limit	Qual
	-Type-	Analyzeu		- <u>4</u> 0-	Jampie	-1 ounu	-onits-	- Nec	Lower	opper		Emile	Guar
WG341305													
WG341305PBW	PBW	03/29/13 16:00				U	mg/L		-20	20			
WG341305LCSW	LCSW	03/29/13 16:01	PCN40253	260		240	mg/L	92.3	80	120			
L11340-06DUP	DUP	03/29/13 16:29			3350	3370	mg/L				0.6	20	



Caldera Mineral Resources

Residue, Non-Fi	Iterable	(TSS) @105C	SM2540D										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341323													
WG341323PBW	PBW	03/30/13 16:45				U	mg/L		-15	15			
WG341323LCSW	LCSW	03/30/13 16:46	PCN40254	160		149	mg/L	93.1	80	120			
L11314-04DUP	DUP	03/30/13 17:05			7	8	mg/L				13.3	20	R
Selenium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341439													
WG341439ICV	ICV	04/15/13 12:13	MS130402-2	.05		.05011	mg/L	100.2	90	110			
WG341439ICB	ICB	04/15/13 12:16				U	mg/L		-0.0003	0.0003			
WG341439LFB	LFB	04/15/13 12:19	MS130329-1	.05005		.04673	mg/L	93.4	85	115			
L11289-05AS	AS	04/15/13 13:12	MS130329-1	.05005	.0029	.05669	mg/L	107.5	70	130			
L11289-05ASD	ASD	04/15/13 13:15	MS130329-1	.05005	.0029	.05807	mg/L	110.2	70	130	2.41	20	
Silver, dissolved	ł		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341439													
WG341439ICV	ICV	04/15/13 12:13	MS130402-2	.02006		.0207	mg/L	103.2	90	110			
WG341439ICB	ICB	04/15/13 12:16				U	mg/L		-0.00015	0.00015			
WG341439LFB	LFB	04/15/13 12:19	MS130329-1	.01001		.009387	mg/L	93.8	85	115			
L11289-05AS	AS	04/15/13 13:12	MS130329-1	.01001	U	.007906	mg/L	79	70	130			
L11289-05ASD	ASD	04/15/13 13:15	MS130329-1	.01001	U	.008586	mg/L	85.8	70	130	8.25	20	
Silver, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341585													
WG341585ICV	ICV	04/04/13 18:39	MS130402-2	.02006		.02065	mg/L	102.9	90	110			
WG341585ICB	ICB	04/04/13 18:42				U	mg/L		-0.00015	0.00015			
WG341499LRB	LRB	04/04/13 18:45				U	mg/L		-0.00011	0.00011			
WG341499LFB	LFB	04/04/13 18:49	MS130329-1	.01001		.009613	mg/L	96	85	115			
L11316-03LFM	LFM	04/04/13 19:31	MS130329-1	.01001	U	.009206	mg/L	92	70	130			
L11316-03LFMD	LFMD	04/04/13 19:34	MS130329-1	.01001	U	.00917	mg/L	91.6	70	130	0.39	20	
Sulfate			D516-02 -	Turbidim	etric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341359													
WG341359ICB	ICB	04/01/13 11:04				U	mg/L		-3	3			
WG341359ICV	ICV	04/01/13 11:04	WI130401-1	20		19.8	mg/L	99	90	110			
WG341359LFB	LFB	04/01/13 14:11	WI121025-3	10		10.2	mg/L	102	90	110			
L11292-01AS	AS	04/01/13 14:14	WI121025-3	10	25	34.7	mg/L	97	90	110			
	DUP	04/01/13 14:30			330	329	mg/L				0.3	20	R



Caldera Mineral Resources

Sulfide as S			SM4500S	2-D									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341169													
WG341169ICV	ICV	03/27/13 15:00	WC130326-	.364		.396	mg/L	108.8	90	110			
WG341169ICB	ICB	03/27/13 15:02				U	mg/L		-0.06	0.06			
WG341169LFB1	LFB	03/27/13 15:05	WC130326-	.2391067		.284	mg/L	118.8	80	120			
WG341169LFB2	LFB	03/27/13 16:18	WC130326-	.2391067		.281	mg/L	117.5	80	120			
L11295-01AS	AS	03/27/13 16:48	WC130326-	.2391067	U	.256	mg/L	107.1	75	125			
L11295-01DUP	DUP	03/27/13 16:50			U	U	mg/L				0	20	RA
Uranium, dissolv	ved		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341439													
WG341439ICV	ICV	04/15/13 12:13	MS130402-2	.05		.0474	mg/L	94.8	90	110			
WG341439ICB	ICB	04/15/13 12:16				U	mg/L		-0.0003	0.0003			
WG341439LFB	LFB	04/15/13 12:19	MS130329-1	.05		.04337	mg/L	86.7	85	115			
L11289-05AS	AS	04/15/13 13:12	MS130329-1	.05	.0215	.07837	mg/L	113.7	70	130			
L11289-05ASD	ASD	04/15/13 13:15	MS130329-1	.05	.0215	.07839	mg/L	113.8	70	130	0.03	20	
Uranium, total			M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341585													
WG341585ICV	ICV	04/04/13 18:39	MS130402-2	.05		.05255	mg/L	105.1	90	110			
WG341585ICB	ICB	04/04/13 18:42	MIG 100402 2	.00		.00200 U	mg/L	100.1	-0.0003	0.0003			
WG341499LRB	LRB	04/04/13 18:45				U	mg/L		-0.00022	0.00022			
WG341499LFB	LFB	04/04/13 18:49	MS130329-1	.05		.04864	mg/L	97.3	85	115			
L11316-03LFM	LFM	04/04/13 19:31	MS130329-1	.05	U	.04962	mg/L	99.2	70	130			
L11316-03LFMD	LFMD	04/04/13 19:34	MS130329-1	.05	U	.04971	mg/L	99.4	70	130	0.18	20	
Zinc, dissolved			M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341341													
WG341341ICV	ICV	04/01/13 15:48	II130114-3	2		1.924	mg/L	96.2	95	105			
WG341341ICB	ICB	04/01/13 15:54				U	mg/L		-0.03	0.03			
WG341341LFB	LFB	04/01/13 16:06	II130326-2	.5		.495	mg/L	99	85	115			
L11286-01AS	AS	04/01/13 16:15	II130326-2	.5	U	.484	mg/L	96.8	85	115			
L11286-01ASD	ASD	04/01/13 16:19	II130326-2	.5	U	.49	mg/L	98	85	115	1.23	20	
Zinc, total			M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG341535													
WG341535ICV	ICV	04/04/13 16:30	II130107-3	2		2.001	mg/L	100.1	95	105			
	ICB	04/04/13 16:34				U	mg/L		-0.03	0.03			
WG341535ICB						U	mg/L		-0.022	0.022			
	LRB	04/04/13 16:46											
WG341429LRB	LRB LFB	04/04/13 16:40	II130314-1	.5		.518	mg/L	103.6	85	115			
WG341535ICB WG341429LRB WG341429LFB L11286-01LFM			II130314-1 II130314-1	.5 .5	U	.518 .523	mg/L mg/L	103.6 104.6	85 70	115 130			

ACZ 2773 Downhill Drive Laboratories, Inc. Steamboat Springs, CO 80487

(800) 334-5493

Caldera Mineral Resources

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L11295-01	WG341507	Chloride	SM4500CI-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG341471	Cyanide, total	M335.4 - Colorimetric w/ distillation	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG341371	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG341427	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG341193	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG341323	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG341359	Sulfate	D516-02 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG341169	Sulfide as S	SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).



ACZ Project ID: L11295

Wet Chemistry

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

Sulfide as S

SM4500S2-D

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Caldera Mineral Resources	ACZ Project	t ID:		L11295
	Date Receiv	ved: (03/27/201	3 10:11
	Received	By:		ksj
	Date Prin	ited:	3/2	27/2013
Receipt Verification		1/50	NO	
1) Is a foreign soil permit included for applicable samples?	Γ	YES	NO	NA X
2) Is the Chain of Custody or other directive shipping papers present?		Х		
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time and	alyses?	Х		
6) Is the Chain of Custody complete and accurate?		Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the samp	les?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		Х		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time	e?	Х		
11) For preserved bottle types, was the pH checked and within limits?		Х		
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?			Х	
Some parameters were received past hold time.				
Chain of Custody Related Remarks				

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Rad ($\mu R/Hr$)	Custody Seal Intact?
3687	4.3	12	N/A

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

	AGZ La 2773 Downhill Drive Steamboa			5493	-17	H	PR	(·Λ	J : `	ļ,	(
• •	Name: Milkr Th Company: Acardon E-mail: MtP reav	Sterl LL			Addre Teleph		5.11	<i>ver</i>	<u>r 5</u> ton 420	<u>, C.</u>		<u>143</u> 4	<u></u>
	Name: John B Company: Caldera		Resources		E-mail Telept		j br 31c	<u>yav</u>) -	<u> </u>	uatls - 8	1 7 . 1881	<u>com</u> 9	· · · · · · · · · · · · · · · · · · ·
	Name: Laurens Company: Culderan E-mail: Laurens P If sample(s) received past hol analysis before expiration, sh If 'NO' then ACZ will contact client for further i is indicated. ACZ will proceed with the requested	אשמאלע אין	r if insufficient with requested	HT rem	Teleph ains to	5+ }	tolly 311	woo	<u>Suns</u> 0) (7777	CA 9	BDL		402
	Are samples for SDWA Comp If yes, please include state for Sampler's Name:	iance Monitoring ms. Results will	g?	PQL for	Yes Color State	ado.	Zip co	No ode (× 1433	Time Zo	one	ms	T
	Quote #: Carry Project/PO #: Reporting state for compliance for Check box if samples include N	RC licensed mate			# of Containers			Pl te	ea s	r / 55-1-1-36	ef 2	~	
	<u>CB-04-032613</u>			51	7								
Custod,													
11295 Chain of C	Matrix SW Surface Water)	GW (Ground Water) · WW (Waste W	ater) · DV	V (Drinki	ing Water) · SL (SI	udge) - (SO (Soil)	- OL (Oi	l) · Other	(Specify)
	Pleas	e refer to ACZ's	terms & cond	itions la	cated	on the	reverse	e side (of this (COC.			
	l		3/24/				4				<u>8</u> .2	4131	D:11

FRMAD050.02.11.11

White - Return with sample. Yellow - Retain for your records.



June 04, 2013

Report to: Mike Thompson Caldera Mineral Resources PO Box 297 Silverton, CO 81433

cc: John Bryan

Project ID: ACZ Project ID: L12162

Mike Thompson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on May 21, 2013. This project has been assigned to ACZ's project number, L12162. Please reference this number in all future inquiries.

Bill to:

Lauren Nuyens

Caldera Mineral Resources

8439 Sunset Blvd. Suite 402

West Hollywood, CA 90069

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L12162. 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 July 04, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/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 raw data reports for ten years.

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

And Tony Antalek has reviewed and approved this report.





June 04, 2013

Project ID: ACZ Project ID: L12162

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 5 miscellaneous samples from Caldera Mineral Resources on May 21, 2013. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L12162. 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 except those qualified with an ACZ 'H' flag were performed within EPA recommended holding times.

Sample Analysis

These samples were analyzed for inorganic and organic parameters. The individual methods are referenced on both the ACZ invoice and the analytical reports.

ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Caldera Mineral Resources

Project ID:

Sample ID: A-052013

Inorganic Analytical Results

ACZ Sample ID:	L12162-01
Date Sampled:	05/20/13 00:00
Date Received:	05/21/13
Sample Matrix:	Surface Water

Inorganic Prep Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date A	Analyst
Cyanide, total	M335.4 - Manual Distillation	Bliation	Result		Onto	MEL		05/30/13 13:54	mpb
Cyanide, WAD	SM4500-CN I- distillation							05/30/13 12:01	tcd
Total Hot Plate	M200.2 ICP-MS							05/24/13 13:01	las
Digestion									
Total Hot Plate Digestion	M200.2 ICP							05/28/13 14:38	aeb
Total Recoverable Digestion	M200.2 ICP-MS							05/28/13 11:24	scp
Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date A	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	1	0.162		mg/L	0.001	0.005	05/31/13 1:02	pmc
Arsenic, dissolved	M200.8 ICP-MS	1	0.0005	В	mg/L	0.0002	0.001	05/29/13 23:08	msh
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0009	В	mg/L	0.0002	0.001	05/31/13 1:02	pmc
Barium, dissolved	M200.7 ICP	1	0.038		mg/L	0.003	0.02	05/28/13 19:50	aeb
Beryllium, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	05/28/13 19:50	aeb
Boron, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	05/28/13 19:50	aeb
Cadmium, dissolved	M200.8 ICP-MS	1	0.0007		mg/L	0.0001	0.0005	05/29/13 23:08	msh
Cadmium, total	M200.8 ICP-MS	1	0.0008		mg/L	0.0001	0.0005	05/24/13 21:24	pmc
Calcium, dissolved	M200.7 ICP	1	28.5		mg/L	0.2	1	05/28/13 19:50	aeb
Chromium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	05/29/13 23:08	msh
Chromium, total	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	05/24/13 21:24	pmc
Chromium, Trivalent	Calculation (Total - Hexavale	nt)		U	mg/L	0.0005	0.002	06/04/13 9:34	calc
Copper, dissolved	M200.8 ICP-MS	1	0.0042		mg/L	0.0005	0.003	05/29/13 23:08	msh
Copper, total	M200.8 ICP-MS	1	0.0066		mg/L	0.0005	0.003	05/24/13 21:24	pmc
Iron, dissolved	M200.7 ICP	1		U	mg/L	0.02	0.05	05/28/13 19:50	aeb
Iron, total	M200.7 ICP	1	0.19		mg/L	0.02	0.05	05/29/13 11:32	aeb
Lead, dissolved	M200.8 ICP-MS	1	0.0010		mg/L	0.0001	0.0005	05/29/13 23:08	msh
Lead, total	M200.8 ICP-MS	1	0.0097		mg/L	0.0001	0.0005	05/24/13 21:24	pmc
Magnesium, dissolved	M200.7 ICP	1	1.4		mg/L	0.2	1	05/28/13 19:50	aeb
Manganese, dissolved	M200.7 ICP	1	0.058		mg/L	0.005	0.03	05/28/13 19:50	aeb
Manganese, total	M200.7 ICP	1	0.087		mg/L	0.005	0.03	05/29/13 11:32	aeb
Mercury, total	M245.1 CVAA	1		U	mg/L	0.0002	0.001	05/28/13 14:38	mfm
Nickel, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	05/28/13 19:50	aeb
Nickel, total	M200.7 ICP	1		U	mg/L	0.01	0.05	05/29/13 11:32	aeb
Selenium, dissolved	M200.8 ICP-MS	1	0.0003	В	mg/L	0.0001	0.0003	05/29/13 23:08	msh
Silver, dissolved	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	05/29/13 23:08	msh
Silver, total	M200.8 ICP-MS	1	0.00007	В	mg/L	0.00005	0.0003	05/24/13 21:24	pmc
Uranium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0001	0.0005	05/29/13 23:08	msh
Uranium, total	M200.8 ICP-MS	1	0.0001	В	mg/L	0.0001	0.0005	05/24/13 21:24	pmc
Zinc, dissolved	M200.7 ICP	1	0.21		mg/L	0.01	0.05	05/28/13 19:50	aeb
Zinc, total	M200.7 ICP	1	0.25		mg/L	0.01	0.05	05/29/13 11:32	aeb

* Please refer to Qualifier Reports for details.



Project ID: Sample ID: A-052013

Inorganic Analytical Results

ACZ Sample ID: L12162-01 Date Sampled: 05/20/13 00:00 Date Received: 05/21/13 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	31			mg/L	2	20	05/24/13 0:00	abm
Carbonate as CaCO3		1		U		mg/L	2	20	05/24/13 0:00	abm
Hydroxide as CaCO3		1		U		mg/L	2	20	05/24/13 0:00	abm
Total Alkalinity		1	31			mg/L	2	20	05/24/13 0:00	abm
Chloride	SM4500CI-E	1		U	*	mg/L	1	5	05/30/13 12:39	jlf
Conductivity @25C	SM2510B	1	188			umhos/cm	1	10	05/24/13 3:51	abm
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5 [°]		U	*	mg/L	0.003	0.01	05/31/13 17:11	mpb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	05/30/13 16:13	lhb
Dissolved Chromium, Hexavalent	SM3500Cr-D	1		UH	*	mg/L	0.005	0.02	05/22/13 14:26	abm
Hardness as CaCO3	SM2340B - Calculation		77			mg/L	1	7	06/04/13 9:34	calc
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							05/23/13 15:55	las
Lab Filtration (glass fiber filter)	SOPWC050	1							05/21/13 14:59	dcw
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.38			mg/L	0.02	0.1	06/04/13 9:34	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.38			mg/L	0.02	0.1	05/21/13 22:30	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	05/21/13 22:30	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	05/29/13 17:27	mpb
pH (lab)	SM4500H+ B									
pН		1	8.0	н		units	0.1	0.1	05/24/13 0:00	abm
pH measured at		1	22.0			С	0.1	0.1	05/24/13 0:00	abm
Residue, Filterable (TDS) @180C	SM2540C	1	120			mg/L	10	20	05/22/13 16:09	dcw
Residue, Non- Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	05/23/13 13:41	mss3
Sulfate	D516-02 - Turbidimetric	5	44		*	mg/L	5	30	05/31/13 11:30	lhb
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	05/21/13 14:01	abm

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Caldera Mineral Resources

Project ID:

Sample ID: B-052013

Inorganic Analytical Results

ACZ Sample ID:	L12162-02
Date Sampled:	05/20/13 00:00
Date Received:	05/21/13
Sample Matrix:	Surface Water

Inorganic Prep									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation							05/30/13 14:06	mpt
Cyanide, WAD	SM4500-CN I- distillation							05/30/13 12:01	tco
Total Hot Plate Digestion	M200.2 ICP-MS							05/24/13 13:13	las
Total Hot Plate Digestion	M200.2 ICP			*				05/28/13 14:50	aeb
Total Recoverable Digestion	M200.2 ICP-MS							05/28/13 11:36	scp
Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date .	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	1	0.153		mg/L	0.001	0.005	05/31/13 1:06	pmc
Arsenic, dissolved	M200.8 ICP-MS	1	0.0008	В	mg/L	0.0002	0.001	05/29/13 23:11	msh
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0014		mg/L	0.0002	0.001	05/31/13 1:06	pmc
Barium, dissolved	M200.7 ICP	1	0.032		mg/L	0.003	0.02	05/28/13 19:59	aeb
Beryllium, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	05/28/13 19:59	aeb
Boron, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	05/28/13 19:59	aeb
Cadmium, dissolved	M200.8 ICP-MS	1	0.0003	В	mg/L	0.0001	0.0005	05/29/13 23:11	msh
Cadmium, total	M200.8 ICP-MS	1	0.0003	В	mg/L	0.0001	0.0005	05/24/13 21:27	pmc
Calcium, dissolved	M200.7 ICP	1	20.9		mg/L	0.2	1	05/28/13 19:59	aeb
Chromium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	05/29/13 23:11	msh
Chromium, total	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	05/24/13 21:27	pmc
Chromium, Trivalent	Calculation (Total - Hexavale			U	mg/L	0.0005	0.002	06/04/13 9:34	calc
Copper, dissolved	M200.8 ICP-MS	1	0.0010	В	mg/L	0.0005	0.003	05/29/13 23:11	msh
Copper, total	M200.8 ICP-MS	1	0.0016	В	mg/L	0.0005	0.003	05/24/13 21:27	pmc
Iron, dissolved	M200.7 ICP	1	0.09		mg/L	0.02	0.05	05/28/13 19:59	aeb
Iron, total	M200.7 ICP	2	0.15		mg/L	0.04	0.1	05/29/13 11:36	aeb
Lead, dissolved	M200.8 ICP-MS	1	0.0007		mg/L	0.0001	0.0005	05/29/13 23:11	msh
Lead, total	M200.8 ICP-MS	1	0.0060		mg/L	0.0001	0.0005	05/24/13 21:27	pmc
Magnesium, dissolved	M200.7 ICP	1	1.6		mg/L	0.2	1	05/28/13 19:59	aeb
Manganese, dissolved	M200.7 ICP	1	0.024	В	mg/L	0.005	0.03	05/28/13 19:59	aeb
Manganese, total	M200.7 ICP	2	0.05		mg/L	0.01	0.05	05/29/13 11:36	aeb
Mercury, total	M245.1 CVAA	1		U	mg/L	0.0002	0.001	05/28/13 14:40	mfm
Nickel, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	05/28/13 19:59	aeb
Nickel, total	M200.7 ICP	2		U	mg/L	0.02	0.1	05/29/13 11:36	aeb
Selenium, dissolved	M200.8 ICP-MS	1	0.0002	В	mg/L	0.0001	0.0003	05/29/13 23:11	msh
Silver, dissolved	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	05/29/13 23:11	msh
Silver, total	M200.8 ICP-MS	1	0.00008	В	mg/L	0.00005	0.0003	05/24/13 21:27	pmc
Uranium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0001	0.0005	05/29/13 23:11	msh
Uranium, total	M200.8 ICP-MS	1		U	mg/L	0.0001	0.0005	05/24/13 21:27	pmc
Zinc, dissolved	M200.7 ICP	1	0.11		mg/L	0.01	0.05	05/28/13 19:59	aeb
Zinc, total	M200.7 ICP	2	0.13		mg/L	0.02	0.1	05/29/13 11:36	aeb

* Please refer to Qualifier Reports for details.



Project ID: Sample ID: B-052013

Inorganic Analytical Results

ACZ Sample ID: L12162-02 Date Sampled: 05/20/13 00:00 Date Received: 05/21/13 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	31			mg/L	2	20	05/24/13 0:00	abm
Carbonate as CaCO3		1		U		mg/L	2	20	05/24/13 0:00	abm
Hydroxide as CaCO3		1		U		mg/L	2	20	05/24/13 0:00	abm
Total Alkalinity		1	31			mg/L	2	20	05/24/13 0:00	abm
Chloride	SM4500CI-E	1		U	*	mg/L	1	5	05/30/13 12:39) jlf
Conductivity @25C	SM2510B	1	143			umhos/cm	1	10	05/24/13 3:59	abm
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	05/31/13 17:13	8 mpb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	05/30/13 16:14	lhb
Dissolved Chromium, Hexavalent	SM3500Cr-D	1		UH	*	mg/L	0.005	0.02	05/22/13 14:28	8 abm
Hardness as CaCO3	SM2340B - Calculation		59			mg/L	1	7	06/04/13 9:34	calc
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							05/23/13 15:59) las
Lab Filtration (glass fiber filter)	SOPWC050	1							05/21/13 15:01	dcw
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.46			mg/L	0.02	0.1	06/04/13 9:34	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.46			mg/L	0.02	0.1	05/21/13 22:32	2 pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	05/21/13 22:32	2 pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	05/29/13 17:28	8 mpb
pH (lab)	SM4500H+ B									
рН		1	8.0	Н		units	0.1	0.1	05/24/13 0:00	abm
pH measured at		1	22.0			С	0.1	0.1	05/24/13 0:00	abm
Residue, Filterable (TDS) @180C	SM2540C	1	80			mg/L	10	20	05/22/13 16:12	dcw
Residue, Non- Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	05/23/13 13:43	8 mss3
Sulfate	D516-02 - Turbidimetric	1	32		*	mg/L	1	5	05/31/13 11:26	6 lhb
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	05/21/13 14:03	abm

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Project ID:

Sample ID: C-052013

Inorganic Analytical Results

ACZ Sample ID:	L12162-03
Date Sampled:	05/20/13 00:00
Date Received:	05/21/13
Sample Matrix:	Surface Water

Inorganic Prep								_	
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL		Analyst
Cyanide, total	M335.4 - Manual Distillation							05/30/13 14:18	mpb
Cyanide, WAD	SM4500-CN I- distillation							05/30/13 12:01	tcd
Total Hot Plate Digestion	M200.2 ICP-MS							05/24/13 13:25	las
Total Hot Plate Digestion	M200.2 ICP							05/28/13 15:25	aeb
Total Recoverable Digestion	M200.2 ICP-MS							05/28/13 11:48	scp
Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date A	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	1	0.158		mg/L	0.001	0.005	05/31/13 1:09	pmc
Arsenic, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0002	0.001	05/29/13 23:15	msh
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0004	В	mg/L	0.0002	0.001	05/31/13 1:09	pmc
Barium, dissolved	M200.7 ICP	1	0.020		mg/L	0.003	0.02	05/28/13 20:02	aeb
Beryllium, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	05/28/13 20:02	aeb
Boron, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	05/28/13 20:02	aeb
Cadmium, dissolved	M200.8 ICP-MS	1	0.0011		mg/L	0.0001	0.0005	05/29/13 23:15	msh
Cadmium, total	M200.8 ICP-MS	1	0.0012		mg/L	0.0001	0.0005	05/24/13 21:30	pmc
Calcium, dissolved	M200.7 ICP	1	13.9		mg/L	0.2	1	05/28/13 20:02	aeb
Chromium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	05/29/13 23:15	msh
Chromium, total	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	05/24/13 21:30	pmc
Chromium, Trivalent	Calculation (Total - Hexavaler	nt)		U	mg/L	0.0005	0.002	06/04/13 9:34	calc
Copper, dissolved	M200.8 ICP-MS	1	0.0085		mg/L	0.0005	0.003	05/29/13 23:15	msh
Copper, total	M200.8 ICP-MS	1	0.0114		mg/L	0.0005	0.003	05/24/13 21:30	pmc
Iron, dissolved	M200.7 ICP	1		U	mg/L	0.02	0.05	05/28/13 20:02	aeb
Iron, total	M200.7 ICP	1	0.17		mg/L	0.02	0.05	05/29/13 11:45	aeb
Lead, dissolved	M200.8 ICP-MS	1	0.0011		mg/L	0.0001	0.0005	05/29/13 23:15	msh
Lead, total	M200.8 ICP-MS	1	0.0091		mg/L	0.0001	0.0005	05/24/13 21:30	pmc
Magnesium, dissolved	M200.7 ICP	1	0.7	В	mg/L	0.2	1	05/28/13 20:02	aeb
Manganese, dissolved	M200.7 ICP	1		U	mg/L	0.005	0.03	05/28/13 20:02	aeb
Manganese, total	M200.7 ICP	1	0.022	В	mg/L	0.005	0.03	05/29/13 11:45	aeb
Mercury, total	M245.1 CVAA	1		U	mg/L	0.0002	0.001	05/28/13 14:47	mfm
Nickel, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	05/28/13 20:02	aeb
Nickel, total	M200.7 ICP	1		U	mg/L	0.01	0.05	05/29/13 11:45	aeb
Selenium, dissolved	M200.8 ICP-MS	1	0.0002	В	mg/L	0.0001	0.0003	05/29/13 23:15	msh
Silver, dissolved	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	05/29/13 23:15	msh
Silver, total	M200.8 ICP-MS	1	0.00008	В	mg/L	0.00005	0.0003	05/24/13 21:30	pmc
Uranium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0001	0.0005	05/29/13 23:15	msh
Uranium, total	M200.8 ICP-MS	1		U	mg/L	0.0001	0.0005	05/24/13 21:30	pmc
Zinc, dissolved	M200.7 ICP	1	0.29		mg/L	0.01	0.05	05/28/13 20:02	aeb
Zinc, total	M200.7 ICP	1	0.33		mg/L	0.01	0.05	05/29/13 11:45	aeb

* Please refer to Qualifier Reports for details.



Project ID: Sample ID: C-052013

Inorganic Analytical Results

ACZ Sample ID: L12162-03 Date Sampled: 05/20/13 00:00 Date Received: 05/21/13 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	26			mg/L	2	20	05/24/13 0:00	abm
Carbonate as CaCO3		1		U		mg/L	2	20	05/24/13 0:00	abm
Hydroxide as CaCO3		1		U		mg/L	2	20	05/24/13 0:00	abm
Total Alkalinity		1	26			mg/L	2	20	05/24/13 0:00	abm
Chloride	SM4500CI-E	1		U	*	mg/L	1	5	05/30/13 12:40	jlf
Conductivity @25C	SM2510B	1	89			umhos/cm	1	10	05/24/13 4:05	abm
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5 ⁰		U	*	mg/L	0.003	0.01	05/31/13 17:14	mpb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	05/30/13 16:15	lhb
Dissolved Chromium, Hexavalent	SM3500Cr-D	1		UH	*	mg/L	0.005	0.02	05/22/13 14:30	abm
Hardness as CaCO3	SM2340B - Calculation		38			mg/L	1	7	06/04/13 9:34	calc
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							05/23/13 16:03	las
Lab Filtration (glass fiber filter)	SOPWC050	1							05/21/13 15:03	dcw
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.22			mg/L	0.02	0.1	06/04/13 9:34	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.22			mg/L	0.02	0.1	05/21/13 22:34	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	05/21/13 22:34	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	05/29/13 17:31	mpb
pH (lab)	SM4500H+ B									
pН		1	7.9	н		units	0.1	0.1	05/24/13 0:00	abm
pH measured at		1	22.0			С	0.1	0.1	05/24/13 0:00	abm
Residue, Filterable (TDS) @180C	SM2540C	1	50			mg/L	10	20	05/22/13 16:15	dcw
Residue, Non- Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	05/23/13 13:45	mss3
Sulfate	D516-02 - Turbidimetric	1	17		*	mg/L	1	5	05/31/13 11:26	lhb
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	05/21/13 14:06	abm



Project ID:

Sample ID: D-052013

Inorganic Analytical Results

ACZ Sample ID:	L12162-04
Date Sampled:	05/20/13 00:00
Date Received:	05/21/13
Sample Matrix:	Surface Water

norganic Prep	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date A	halve
Parameter	M335.4 - Manual Distillation	Bilution	Result		Units	WIDL	PQL		Analys
Cyanide, total								05/30/13 14:24	mp
Cyanide, WAD	SM4500-CN I- distillation							05/30/13 12:01	tc
Fotal Hot Plate Digestion	M200.2 ICP							05/28/13 15:37	ae
Fotal Hot Plate Digestion	M200.2 ICP-MS							05/24/13 13:37	la
Fotal Recoverable Digestion	M200.2 ICP-MS							05/28/13 12:00	so
Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date A	Analys
Aluminum, total ecoverable	M200.8 ICP-MS	1	0.049		mg/L	0.001	0.005	05/31/13 1:12	pm
Arsenic, dissolved	M200.8 ICP-MS	1	0.0005	В	mg/L	0.0002	0.001	05/29/13 23:25	ms
Arsenic, total ecoverable	M200.8 ICP-MS	1	0.0008	В	mg/L	0.0002	0.001	05/31/13 1:12	pm
Barium, dissolved	M200.7 ICP	1	0.015	В	mg/L	0.003	0.02	05/28/13 20:05	a
Beryllium, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	05/28/13 20:05	ae
oron, dissolved	M200.7 ICP	1	0.02	В	mg/L	0.01	0.05	05/28/13 20:05	a
admium, dissolved	M200.8 ICP-MS	1	0.0014		mg/L	0.0001	0.0005	05/29/13 23:25	m
admium, total	M200.8 ICP-MS	1	0.0017		mg/L	0.0001	0.0005	05/24/13 21:33	pr
alcium, dissolved	M200.7 ICP	1	263		mg/L	0.2	1	05/28/13 20:05	a
chromium, dissolved	M200.8 ICP-MS	1	0.0011	В	mg/L	0.0005	0.002	05/29/13 23:25	m
hromium, total	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	05/24/13 21:33	pr
Chromium, Trivalent	Calculation (Total - Hexavaler			U	mg/L	0.0005	0.002	06/04/13 9:35	Ca
copper, dissolved	M200.8 ICP-MS	1	0.0013	В	mg/L	0.0005	0.003	05/29/13 23:25	m
Copper, total	M200.8 ICP-MS	1	0.0064		mg/L	0.0005	0.003	05/24/13 21:33	pr
ron, dissolved	M200.7 ICP	1		U	mg/L	0.02	0.05	05/28/13 20:05	a
ron, total	M200.7 ICP	1	0.30		mg/L	0.02	0.05	05/29/13 11:48	a
ead, dissolved	M200.8 ICP-MS	1	0.0114		mg/L	0.0001	0.0005	05/29/13 23:25	m
ead, total	M200.8 ICP-MS	1	0.0757		mg/L	0.0001	0.0005	05/24/13 21:33	pr
lagnesium, dissolved	M200.7 ICP	1	3.4		mg/L	0.2	1	05/28/13 20:05	a
langanese, dissolved	M200.7 ICP	1	0.159		mg/L	0.005	0.03	05/28/13 20:05	а
langanese, total	M200.7 ICP	1	0.276		mg/L	0.005	0.03	05/29/13 11:48	а
lercury, total	M245.1 CVAA	1		U	mg/L	0.0002	0.001	05/28/13 14:49	m
lickel, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	05/28/13 20:05	а
lickel, total	M200.7 ICP	1		U	mg/L	0.01	0.05	05/29/13 11:48	а
elenium, dissolved	M200.8 ICP-MS	1	0.0006		mg/L	0.0001	0.0003	05/29/13 23:25	m
Silver, dissolved	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	05/29/13 23:25	m
Silver, total	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	05/24/13 21:33	pr
Jranium, dissolved	M200.8 ICP-MS	1	0.0005	В	mg/L	0.0001	0.0005	05/29/13 23:25	m
Jranium, total	M200.8 ICP-MS	1	0.0005		mg/L	0.0001	0.0005	05/24/13 21:33	pr
Zinc, dissolved	M200.7 ICP	1	0.30		mg/L	0.01	0.05	05/28/13 20:05	a
Zinc, total	M200.7 ICP	1	0.40		mg/L	0.01	0.05	05/29/13 11:48	a

* Please refer to Qualifier Reports for details.



Project ID: Sample ID: D-052013

Inorganic Analytical Results

ACZ Sample ID: L12162-04 Date Sampled: 05/20/13 00:00 Date Received: 05/21/13 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	45			mg/L	2	20	05/24/13 0:00	abm
Carbonate as CaCO3		1		U		mg/L	2	20	05/24/13 0:00	abm
Hydroxide as CaCO3		1		U		mg/L	2	20	05/24/13 0:00	abm
Total Alkalinity		1	45			mg/L	2	20	05/24/13 0:00	abm
Chloride	SM4500CI-E	1	1	В	*	mg/L	1	5	05/30/13 12:40	jlf
Conductivity @25C	SM2510B	1	1200			umhos/cm	1	10	05/24/13 4:21	abm
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	05/31/13 17:15	mpb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	05/30/13 16:16	lhb
Dissolved Chromium, Hexavalent	SM3500Cr-D	1		UH	*	mg/L	0.005	0.02	05/22/13 14:32	abm
Hardness as CaCO3	SM2340B - Calculation		671			mg/L	1	7	06/04/13 9:35	calc
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							05/23/13 16:08	las
Lab Filtration (glass fiber filter)	SOPWC050	1							05/21/13 15:05	dcw
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.05	В		mg/L	0.02	0.1	06/04/13 9:35	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.05	В		mg/L	0.02	0.1	05/21/13 22:35	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	05/21/13 22:35	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	05/29/13 17:32	mpb
pH (lab)	SM4500H+ B									
pН		1	8.1	н		units	0.1	0.1	05/24/13 0:00	abm
pH measured at		1	22.0			С	0.1	0.1	05/24/13 0:00	abm
Residue, Filterable (TDS) @180C	SM2540C	1	1000			mg/L	10	20	05/22/13 16:17	dcw
Residue, Non- Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	05/23/13 13:47	mss3
Sulfate	D516-02 - Turbidimetric	50	570		*	mg/L	50	300	05/31/13 11:38	lhb
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	05/21/13 14:09	abm

ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Caldera Mineral Resources

Project ID:

Sample ID: E-052013

Inorganic Analytical Results

ACZ Sample ID:	L12162-05
Date Sampled:	05/20/13 00:00
Date Received:	05/21/13
Sample Matrix:	Surface Water

Inorganic Prep									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date A	Analyst
Cyanide, total	M335.4 - Manual Distillation							05/30/13 14:30	mpb
Cyanide, WAD	SM4500-CN I- distillation							05/30/13 17:12	mpb
Total Hot Plate Digestion	M200.2 ICP-MS							05/24/13 13:49	las
Total Hot Plate Digestion	M200.2 ICP			*				05/28/13 15:49	aeb
Total Recoverable Digestion	M200.2 ICP-MS							05/28/13 12:12	scp
Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date A	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	1	0.086		mg/L	0.001	0.005	05/31/13 1:15	pmc
Arsenic, dissolved	M200.8 ICP-MS	1	0.0005	В	mg/L	0.0002	0.001	05/29/13 23:34	msh
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0010		mg/L	0.0002	0.001	05/31/13 1:15	pmc
Barium, dissolved	M200.7 ICP	1	0.014	В	mg/L	0.003	0.02	05/28/13 20:08	aeb
Beryllium, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	05/28/13 20:08	aeb
Boron, dissolved	M200.7 ICP	1	0.02	В	mg/L	0.01	0.05	05/28/13 20:08	aeb
Cadmium, dissolved	M200.8 ICP-MS	1	0.0011		mg/L	0.0001	0.0005	05/29/13 23:34	msh
Cadmium, total	M200.8 ICP-MS	1	0.0023		mg/L	0.0001	0.0005	05/24/13 21:37	pmc
Calcium, dissolved	M200.7 ICP	1	261		mg/L	0.2	1	05/28/13 20:08	aeb
Chromium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	05/29/13 23:34	msh
Chromium, total	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	05/24/13 21:37	pmc
Chromium, Trivalent	Calculation (Total - Hexavaler	nt)		U	mg/L	0.0005	0.002	06/04/13 9:35	calc
Copper, dissolved	M200.8 ICP-MS	1	0.0010	В	mg/L	0.0005	0.003	05/29/13 23:34	msh
Copper, total	M200.8 ICP-MS	1	0.0204		mg/L	0.0005	0.003	05/24/13 21:37	pmc
Iron, dissolved	M200.7 ICP	1		U	mg/L	0.02	0.05	05/28/13 20:08	aeb
Iron, total	M200.7 ICP	2	0.59		mg/L	0.04	0.1	05/29/13 11:51	aeb
Lead, dissolved	M200.8 ICP-MS	1	0.0072		mg/L	0.0001	0.0005	05/29/13 23:34	msh
Lead, total	M200.8 ICP-MS	1	0.1597		mg/L	0.0001	0.0005	05/24/13 21:37	pmc
Magnesium, dissolved	M200.7 ICP	1	3.4		mg/L	0.2	1	05/28/13 20:08	aeb
Manganese, dissolved	M200.7 ICP	1	0.140		mg/L	0.005	0.03	05/28/13 20:08	aeb
Manganese, total	M200.7 ICP	2	0.93		mg/L	0.01	0.05	05/29/13 11:51	aeb
Mercury, total	M245.1 CVAA	1		U	mg/L	0.0002	0.001	05/28/13 14:51	mfm
Nickel, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	05/28/13 20:08	aeb
Nickel, total	M200.7 ICP	2		U	mg/L	0.02	0.1	05/29/13 11:51	aeb
Selenium, dissolved	M200.8 ICP-MS	1	0.0006		mg/L	0.0001	0.0003	05/29/13 23:34	msh
Silver, dissolved	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	05/29/13 23:34	msh
Silver, total	M200.8 ICP-MS	1	0.00017	В	mg/L	0.00005	0.0003	05/24/13 21:37	pmc
Uranium, dissolved	M200.8 ICP-MS	1	0.0005	В	mg/L	0.0001	0.0005	05/29/13 23:34	msh
Uranium, total	M200.8 ICP-MS	1	0.0005		mg/L	0.0001	0.0005	05/24/13 21:37	pmc
Zinc, dissolved	M200.7 ICP	1	0.21		mg/L	0.01	0.05	05/28/13 20:08	aeb
Zinc, total	M200.7 ICP	2	0.59		mg/L	0.02	0.1	05/29/13 11:51	aeb

* Please refer to Qualifier Reports for details.



Project ID: Sample ID: E-052013

Inorganic Analytical Results

ACZ Sample ID: L12162-05 Date Sampled: 05/20/13 00:00 Date Received: 05/21/13 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	46			mg/L	2	20	05/24/13 0:00	abm
Carbonate as CaCO3		1		U		mg/L	2	20	05/24/13 0:00	abm
Hydroxide as CaCO3		1		U		mg/L	2	20	05/24/13 0:00	abm
Total Alkalinity		1	46			mg/L	2	20	05/24/13 0:00	abm
Chloride	SM4500CI-E	1	1	В	*	mg/L	1	5	05/30/13 12:40	jlf
Conductivity @25C	SM2510B	1	1200			umhos/cm	1	10	05/24/13 4:29	abm
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	05/31/13 17:18	mpb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	05/31/13 15:54	mpb
Dissolved Chromium, Hexavalent	SM3500Cr-D	1		UH	*	mg/L	0.005	0.02	05/22/13 14:35	abm
Hardness as CaCO3	SM2340B - Calculation		666			mg/L	1	7	06/04/13 9:35	calc
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							05/23/13 16:12	las
Lab Filtration (glass fiber filter)	SOPWC050	1							05/21/13 15:07	dcw
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.04	В		mg/L	0.02	0.1	06/04/13 9:35	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.04	В		mg/L	0.02	0.1	05/21/13 22:37	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	05/21/13 22:37	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	05/29/13 17:33	mpb
pH (lab)	SM4500H+ B									
pН		1	8.1	Н		units	0.1	0.1	05/24/13 0:00	abm
pH measured at		1	22.0			С	0.1	0.1	05/24/13 0:00	abm
Residue, Filterable (TDS) @180C	SM2540C	1	1000			mg/L	10	20	05/22/13 16:20	dcw
Residue, Non- Filterable (TSS) @105C	SM2540D	1	6	В	*	mg/L	5	20	05/23/13 13:49	mss3
Sulfate	D516-02 - Turbidimetric	50	560			mg/L	50	300	05/31/13 11:38	lhb
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	05/21/13 14:12	abm


Inorganic Reference

Batch Found	Explanations		
rouna	A distinct set of samples analyzed at a specific time		
	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)		
MDL	Method Detection Limit. Same as Minimum Reporting Limit.		
PCN/SCN	A number assigned to reagents/standards to trace to the man	iufacturer's certific	ate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.		
QC	True Value of the Control Sample or the amount added to the	•	
Rec	Recovered amount of the true value or spike added, in % (exc		/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC	Types	
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)		
Sample	Value of the Sample of interest		
Sample Typ	bes		
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
ССВ	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	SDL	Serial Dilution
Duplicates Spikes/Forti	ified Matrix Determines sample matrix interferen		
Standard	Verifies the validity of the calibration.		
Z Qualifiers	(Qual)		
В	Analyte concentration detected at a value between MDL and F	PQL. The associat	ed value is an estimated quantity.
н	Analysis exceeded method hold time. pH is a field test with an	n immediate hold t	
			ime.
L	Target analyte response was below the laboratory defined neg		ime.
	Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the	gative threshold.	
L		gative threshold. e level of the asso	ciated value.
L U	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or	gative threshold. e level of the asso	ciated value.
L U ethod Referen	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces	gative threshold. e level of the asso the sample detect	iciated value. ion limit.
L U ethod Referen	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a	gative threshold. e level of the asso the sample detect and Wastes, Marc	iciated value. ion limit. h 1983.
L U ethod Referen (1) (2)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan	gative threshold. e level of the asso the sample detect and Wastes, Marc hic Substances in l	iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals	gative threshold. e level of the asso the sample detect and Wastes, Marc hic Substances in l	iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U thod Referen (1) (2) (3) (4)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	gative threshold. e level of the asso the sample detect and Wastes, Marc hic Substances in l in Environmental s	iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3) (4) (5)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals	gative threshold. e level of the asso the sample detect and Wastes, Marc hic Substances in l in Environmental s	iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U thod Referen (1) (2) (3) (4) (5) mments	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewa	gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental s ater.	iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
L U thod Referen (1) (2) (3) (4) (5) mments (1)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slightly	gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental s ater. y if the rounded va	ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
L U thod Referent (1) (2) (3) (4) (5) (1) (2)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or inces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slightly Soil, Sludge, and Plant matrices for Inorganic analyses are rep	gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in 1 in Environmental 3 ater. y if the rounded va ported on a dry we	ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
L U thod Referent (1) (2) (3) (4) (5) (1) (2) (1) (2) (3)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or inces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slightly Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as	gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental s ater. y if the rounded va ported on a dry we s received" basis.	ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
L U thod Referent (1) (2) (3) (4) (5) (1) (2)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or inces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slightly Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended	gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental s ater. y if the rounded va ported on a dry we s received" basis.	ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
L U thod Referent (1) (2) (3) (4) (5) (4) (5) (1) (2) (3) (4)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or inces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewa QC results calculated from raw data. Results may vary slightly Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended associated with the result.	gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental s ater. y if the rounded va ported on a dry we s received" basis. qualifier and/or ce	ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. Hues are used in the calculations. right basis.
L U thod Referent (1) (2) (3) (4) (5) (1) (2) (1) (2) (3)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or inces EPA 600/4-83-020. Methods for Chemical Analysis of Water at EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slightly Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended	gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental s ater. y if the rounded va ported on a dry we s received" basis. qualifier and/or ce	ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. Hues are used in the calculations. right basis.

REP001.09.12.01



Caldera Mineral Resources

Alkalinity as CaC	03			- Titration									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344253													
WG344253PBW1	PBW	05/23/13 16:22				U	mg/L		-20	20			
WG344253LCSW2	LCSW	05/23/13 16:35	WC130514-	820.0001		755.4	mg/L	92.1	90	110			
WG344253LCSW5	LCSW	05/23/13 19:55	WC130514-	820.0001		770	mg/L	93.9	90	110			
WG344253PBW2	PBW	05/23/13 20:03				2.2	mg/L		-20	20			
WG344253LCSW8	LCSW	05/23/13 23:19	WC130514-	820.0001		781.9	mg/L	95.4	90	110			
WG344253PBW3	PBW	05/23/13 23:27				U	mg/L		-20	20			
WG344253LCSW11	LCSW	05/24/13 2:36	WC130514-	820.0001		777.3	mg/L	94.8	90	110			
WG344253PBW4	PBW	05/24/13 2:45				U	mg/L		-20	20			
_12162-03DUP	DUP	05/24/13 4:13			26	23.9	mg/L				8.4	20	
_12167-01DUP	DUP	05/24/13 5:52			30	29.9	mg/L				0.3	20	
WG344253LCSW14	LCSW	05/24/13 6:06	WC130514-	820.0001		793.9	mg/L	96.8	90	110			
Aluminum, total	recover	able	M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344558													
NG344558ICV	ICV	05/31/13 0:50	MS130416-2	.1		.1008	ma/l	100.8	90	110			
NG344558ICB	ICB	05/31/13 0:53	1013130410-2	.1		. 1008 U	mg/L	100.0	-0.003	0.003			
WG3443581CB	LRB	05/31/13 0:56				.002	mg/L		-0.003	0.003			
WG344383LFB	LFB	05/31/13 0:59	MS130508-1	.050055		.0506	mg/L	101 1	-0.0022 85	115			
	LFD				.024		mg/L	101.1	85 70				
L12163-06LFM L12163-06LFMD		05/31/13 1:22	MS130508-1	.050055		.0715	mg/L	94.9		130	5 71	20	
L12103-06LFIMD	LFMD	05/31/13 1:31	MS130508-1	.050055	.024	.0757	mg/L	103.3	70	130	5.71	20	
Arsenic, dissolve	ed		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
NG344534													
NG344534ICV	ICV	05/29/13 22:51	MS130416-2	.05		.05307	mg/L	106.1	90	110			
NG344534ICB	ICB	05/29/13 22:55				U	mg/L		-0.0006	0.0006			
VG344534LFB	LFB	05/29/13 22:58	MS130508-1	.05005		.0497	mg/L	99.3	85	115			
_12162-03AS	AS	05/29/13 23:18	MS130508-1	.05005	U	.05262	mg/L	105.1	70	130			
_12162-03ASD	ASD	05/29/13 23:21	MS130508-1	.05005	U	.05388	mg/L	107.7	70	130	2.37	20	
Arsenic, total rec	overab	le	M200.8 IC	CP-MS									
	overab Type	le Analyzed	M200.8 IC PCN/SCN	CP-MS QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
ACZ ID					Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
Arsenic, total rec ACZ ID WG344558 WG344558ICV					Sample	Found	Units mg/L	Rec 104	Lower 90	Upper 110	RPD	Limit	Qual
ACZ ID WG344558 WG344558ICV	Туре	Analyzed	PCN/SCN	QC	Sample						RPD	Limit	Qual
ACZ ID WG344558 WG344558ICV WG344558ICB	Type	Analyzed 05/31/13 0:50	PCN/SCN	QC	Sample	.052	mg/L		90	110	RPD	Limit	Qual
ACZ ID WG344558 WG344558ICV WG344558ICB WG344383LRB	Type ICV ICB	Analyzed 05/31/13 0:50 05/31/13 0:53	PCN/SCN	QC	Sample	.052 U	mg/L mg/L mg/L		90 -0.0006	110 0.0006	RPD	Limit	Qual
ACZ ID WG344558	Type ICV ICB LRB	Analyzed 05/31/13 0:50 05/31/13 0:53 05/31/13 0:56	PCN/SCN MS130416-2	QC .05	Sample .0013	.052 U U	mg/L mg/L	104	90 -0.0006 -0.00044	110 0.0006 0.00044	RPD	Limit	Qual



Caldera Mineral Resources

Barium, dissolv	ed		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344402													
WG344402ICV	ICV	05/28/13 19:28	II130510-1	2		1.983	mg/L	99.2	95	105			
WG344402ICB	ICB	05/28/13 19:34				U	mg/L		-0.009	0.009			
WG344402LFB	LFB	05/28/13 19:47	II130524-3	.5		.5001	mg/L	100	85	115			
L12162-01AS	AS	05/28/13 19:53	II130524-3	.5	.038	.5424	mg/L	100.9	85	115			
L12162-01ASD	ASD	05/28/13 19:56	II130524-3	.5	.038	.5449	mg/L	101.4	85	115	0.46	20	
Beryllium, disso	olved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344402													
WG344402ICV	ICV	05/28/13 19:28	II130510-1	2		1.962	mg/L	98.1	95	105			
WG344402ICB	ICB	05/28/13 19:34				U	mg/L		-0.03	0.03			
WG344402LFB	LFB	05/28/13 19:47	II130524-3	.5		.502	mg/L	100.4	85	115			
L12162-01AS	AS	05/28/13 19:53	II130524-3	.5	U	.494	mg/L	98.8	85	115			
L12162-01ASD	ASD	05/28/13 19:56	II130524-3	.5	U	.493	mg/L	98.6	85	115	0.2	20	
Boron, dissolve	ed		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
NG344402													
WG344402ICV	ICV	05/28/13 19:28	II130510-1	2		2.063	mg/L	103.2	95	105			
WG344402ICB	ICB	05/28/13 19:34		2		2.000 U	mg/L	100.2	-0.03	0.03			
WG344402LFB	LFB	05/28/13 19:47	II130524-3	.5005		.527	mg/L	105.3	85	115			
L12162-01AS	AS	05/28/13 19:53	II130524-3	.5005	U	.532	mg/L	106.3	85	115			
_12162-01ASD	ASD	05/28/13 19:56	II130524-3	.5005	U	.529	mg/L	105.7	85	115	0.57	20	
Cadmium, disso	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
NG244524													
WG344534	101/		NO100110.0	05		05005		4047	00	110			
WG344534ICV	ICV	05/29/13 22:51	MS130416-2	.05		.05235	mg/L	104.7	90	110			
WG344534ICB	ICB	05/29/13 22:55	10100500 1	0504		U	mg/L	00.0	-0.0003	0.0003			
WG344534LFB	LFB	05/29/13 22:58	MS130508-1	.0501	0011	.04957	mg/L	98.9	85 70	115			
_12162-03AS _12162-03ASD	AS ASD	05/29/13 23:18 05/29/13 23:21	MS130508-1 MS130508-1	.0501 .0501	.0011 .0011	.05029 .05115	mg/L mg/L	98.2 99.9	70 70	130 130	1.7	20	
Cadmium, total			M200.8 IC				3. –		-				
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344357													
WG344357ICV	ICV	05/24/13 20:29	MS130416-2	.05		.05191	mg/L	103.8	90	110			
WG344357IC8	ICB	05/24/13 20:29	10-2	.00		.03191 U	mg/L	.00.0	-0.0003	0.0003			
WG344293LRB	LRB	05/24/13 20:32				U	mg/L		-0.00022	0.00022			
	LFB	05/24/13 20:39	MS130508-1	.0501		.04804	mg/L	95.9	-0.00022	115			
NG344293I FR		05/24/13 21:01	MS130508-1	.0501	U	.0483	mg/L	96.4	70	130			
	I FM				0	.0 +00		00.4					
WG344293LFB _12123-06LFM _12123-06LFMD	LFM LFMD		MS130508-1	.0501	U	.04808	ma/l	96	70	130	0.46	20	
	LFM LFMD LFM	05/24/13 21:11 05/24/13 21:40	MS130508-1 MS130508-1	.0501 .0501	U .0023	.04808 .0498	mg/L mg/L	96 94.8	70 70	130 130	0.46	20	



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Calcium, dissolve	ed		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344402													
WG344402ICV	ICV	05/28/13 19:28	II130510-1	100		98.41	mg/L	98.4	95	105			
WG344402ICB	ICB	05/28/13 19:34				U	mg/L		-0.6	0.6			
WG344402LFB	LFB	05/28/13 19:47	II130524-3	67.95918		71.55	mg/L	105.3	85	115			
L12162-01AS	AS	05/28/13 19:53	II130524-3	67.95918	28.5	98.99	mg/L	103.7	85	115			
L12162-01ASD	ASD	05/28/13 19:56	II130524-3	67.95918	28.5	98.96	mg/L	103.7	85	115	0.03	20	
Chloride			SM4500C	Я-Е									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344607													
WG344607ICB	ICB	05/30/13 11:43				U	mg/L		-3	3			
WG344607ICV	ICV	05/30/13 11:43	WI130131-1	54.945		58.9	mg/L	107.2	90	110			
WG344607LFB1	LFB	05/30/13 12:38	WI130201-8	30		31.8	mg/L	106	90	110			
L12046-01AS	AS	05/30/13 12:38	WI130201-8	30	33	59.8	mg/L	89.3	90	110			N
L12046-02DUP	DUP	05/30/13 12:38			40	40.3	mg/L				0.7	20	
WG344607LFB2	LFB	05/30/13 12:42	WI130201-8	30		32.2	mg/L	107.3	90	110			
Chromium, disso	lved		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344534													
WG344534ICV	ICV	05/29/13 22:51	MS130416-2	.05		.05157	mg/L	103.1	90	110			
WG344534ICB	ICB	05/29/13 22:55				U	mg/L		-0.0015	0.0015			
WG344534LFB	LFB	05/29/13 22:58	MS130508-1	.05005		.05089	mg/L	101.7	85	115			
L12162-03AS	AS	05/29/13 23:18	MS130508-1	.05005	U	.04881	mg/L	97.5	70	130			
L12162-03ASD	ASD	05/29/13 23:21	MS130508-1	.05005	U	.05005	mg/L	100	70	130	2.51	20	
Chromium, total			M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344357													
WG344357ICV	ICV	05/24/13 20:29	MS130416-2	.05		.05022	mg/L	100.4	90	110			
WG344357ICB	ICB	05/24/13 20:32				U	mg/L		-0.0015	0.0015			
WG344293LRB	LRB	05/24/13 20:35				U	mg/L		-0.0011	0.0011			
WG344293LFB	LFB	05/24/13 20:39	MS130508-1	.05005		.04763	mg/L	95.2	85	115			
L12123-06LFM	LFM	05/24/13 21:01	MS130508-1	.05005	.0015	.04825	mg/L	93.4	70	130			
L12123-06LFMD	LFMD	05/24/13 21:11	MS130508-1	.05005	.0015	.0486	mg/L	94.1	70	130	0.72	20	
L12162-05LFM	LFM	05/24/13 21:40	MS130508-1	.05005	U	.04587	mg/L	91.6	70	130			
L12162-05LFMD	LFMD	05/24/13 21:49	MS130508-1	.05005	U	.04535	mg/L	90.6	70	130	1.14	20	
Conductivity @2	5C		SM2510B	}									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344253													
WG344253LCSW1	LCSW	05/23/13 16:24	PCN41036	1408.8		1426.2	umhos/cm	101.2	90	110			
WG344253LCSW4	LCSW	05/23/13 19:43	PCN41036	1408.8		1402.8	umhos/cm	99.6	90	110			
WG344253LCSW7	LCSW	05/23/13 23:07	PCN41036	1408.8		1391.6	umhos/cm	98.8	90	110			
WG344253LCSW10	LCSW	05/24/13 2:25	PCN41036	1408.8		1375.4	umhos/cm	97.6	90	110			
	DUP	05/24/13 4:13			89	89.5	umhos/cm				0.6	20	
L12162-03DUP													
L12162-03DUP L12167-01DUP	DUP	05/24/13 5:52			83	81.3	umhos/cm				2.1	20	



Caldera Mineral Resources

Copper, dissolv	ed		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344534													
WG344534ICV	ICV	05/29/13 22:51	MS130416-2	.05		.05176	mg/L	103.5	90	110			
WG344534ICB	ICB	05/29/13 22:55				U	mg/L		-0.0015	0.0015			
WG344534LFB	LFB	05/29/13 22:58	MS130508-1	.05005		.04951	mg/L	98.9	85	115			
L12162-03AS	AS	05/29/13 23:18	MS130508-1	.05005	.0085	.05582	mg/L	94.5	70	130			
L12162-03ASD	ASD	05/29/13 23:21	MS130508-1	.05005	.0085	.05708	mg/L	97.1	70	130	2.23	20	
Copper, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344357													
WG344357ICV	ICV	05/24/13 20:29	MS130416-2	.05		.05188	mg/L	103.8	90	110			
WG344357ICB	ICB	05/24/13 20:32				U	mg/L		-0.0015	0.0015			
WG344293LRB	LRB	05/24/13 20:35				U	mg/L		-0.0011	0.0011			
WG344293LFB	LFB	05/24/13 20:39	MS130508-1	.05005		.0483	mg/L	96.5	85	115			
L12123-06LFM	LFM	05/24/13 21:01	MS130508-1	.05005	.0023	.04893	mg/L	93.2	70	130			
L12123-06LFMD		05/24/13 21:11	MS130508-1	.05005	.0023	.04883	mg/L	93	70	130	0.2	20	
L12162-05LFM		05/24/13 21:40	MS130508-1 MS130508-1	.05005	.0023	.06379	-	95 86.7	70	130	0.2	20	
L12162-05LFM		05/24/13 21:40	MS130508-1 MS130508-1	.05005	.0204	.06379	mg/L mg/L	82	70 70	130	3.74	20	
Cyanide, total			M335.4 - 0				5	-			-		
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
	1360	, analyzou	1 on oon	40	oumpio	round	onno	1100	Lower	oppor		2	quui
WG344720													
WG344720ICV1	ICV	05/31/13 15:51	WI130522-6	.3		.2988	mg/L	99.6	90	110			
WG344720ICB1	ICB	05/31/13 15:52				U	mg/L		-0.003	0.003			
WG344740													
WG344609LRB	LRB	05/31/13 17:08				U	mg/L		-0.003	0.003			
WG344609LFB	LFB	05/31/13 17:09	WI130522-2	.2		.1818	mg/L	90.9	90	110			
L12162-01DUP	DUP	05/31/13 17:12			U	U	mg/L				0	20	R
L12162-02LFM	LFM	05/31/13 17:14	WI130522-2	.2	U	.1977	mg/L	98.9	90	110			
Cyanide, WAD			SM4500-C	N I-Color	imetric w/	distillatio	on						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344626													
WG344626ICV	ICV	05/30/13 16:06	WI130522-6	.3		.2894	mg/L	96.5	90	110			
WG344626ICB	ICB	05/30/13 16:07		.0		U	mg/L	00.0	-0.003	0.003			
WG344598LRB	LRB	05/30/13 16:08				U	mg/L		-0.003	0.003			
WG344598LFB	LFB	05/30/13 16:09	W/1130522 A	n		.2019	-	101	-0.003 90	110			
			WI130522-4	.2		.2019 U	mg/L	101	90	110	0	20	
L12159-01DUP L12159-02LFM	DUP LFM	05/30/13 16:11 05/30/13 16:12	WI130522-4	.2	U U	.1969	mg/L mg/L	98.5	90	110	0	20	R
WG344720	21.00	00,00,10,10,12	WINGOOLL 1		C	.1000	iiig/L	00.0	00	110			
		05/24/42 45-54	W/1120500 0	2		2000	ma //	00.0	00	110			
WG344720ICV1	ICV	05/31/13 15:51	WI130522-6	.3		.2988	mg/L	99.6	90	110			
WG344720ICB1	ICB	05/31/13 15:52				U	mg/L		-0.003	0.003			
	LRB	05/31/13 15:53		_		U	mg/L		-0.003	0.003			
WG344635LFB	LFB	05/31/13 15:54	WI130522-4	.2		.1938	mg/L	96.9	90	110	-		_
WG344635LRB WG344635LFB L12162-05DUP L12196-04LFM	LFB DUP LFM	05/31/13 15:54 05/31/13 15:55 05/31/13 15:57	WI130522-4 WI130522-4	.2 .2	U U	.1938 U .1966	mg/L mg/L mg/L	96.9 98.3	90 90	110 110	0	20	R/



Caldera Mineral Resources

Dissolved Chron	nium, H	exavalent	SM3500C	r-D									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344175													
WG344175ICV	ICV	05/22/13 14:20	WC130409-	.05		.0515	mg/L	103	90	110			
WG344175ICB	ICB	05/22/13 14:22				U	mg/L		-0.015	0.015			
WG344175LFB	LFB	05/22/13 14:24	WC130409-	.05		.0514	mg/L	102.8	90	110			
L12178-02AS	AS	05/22/13 14:41	WC130409-	.05	U	.0467	mg/L	93.4	90	110			
L12178-02DUP	DUP	05/22/13 14:43			U	U	mg/L				0	20	RA
Iron, dissolved			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344402													
WG344402ICV	ICV	05/28/13 19:28	II130510-1	2		2.002	mg/L	100.1	95	105			
WG344402ICB	ICB	05/28/13 19:34		-		 U	mg/L		-0.06	0.06			
WG344402LFB	LFB	05/28/13 19:47	II130524-3	1		1.043	mg/L	104.3	85	115			
L12162-01AS	AS	05/28/13 19:53	II130524-3	1	U	1.052	mg/L	105.2	85	115			
L12162-01ASD	ASD	05/28/13 19:56	II130524-3	1	U	1.043	mg/L	104.3	85	115	0.86	20	
Iron, total			M200.7 IC	:P			-						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344479	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,								oppos			
		05/00/40 44-00	114005444	0		0.004		100.1	05	105			
WG344479ICV	ICV	05/29/13 11:08	II130514-1	2		2.001	mg/L	100.1	95	105			
WG344479ICB	ICB	05/29/13 11:14				U	mg/L		-0.06	0.06			
WG344416LRB WG344416LFB	LRB LFB	05/29/13 11:26 05/29/13 11:29	II130524-3	1		U .998	mg/L	99.8	-0.044 85	0.044 115			
L12162-02LFM	LFD	05/29/13 11:39	II130324-3	2	.16	.990 2.128	mg/L mg/L	99.8 98.9	85 70	130			
L12162-02LFMD		05/29/13 11:42	II2XWATER	2	.16	2.120	mg/L	90.9 99	70	130	0.09	20	
Lead, dissolved			M200.8 IC	P-MS			0						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,			Campio					oppo.			
WG344534													
WG344534ICV	ICV	05/29/13 22:51	MS130416-2	.05		.05289	mg/L	105.8	90	110			
WG344534ICB	ICB	05/29/13 22:55				U	mg/L		-0.0003	0.0003			
WG344534LFB	LFB	05/29/13 22:58	MS130508-1	.05005		.04973	mg/L	99.4	85	115			
L12162-03AS	AS	05/29/13 23:18	MS130508-1	.05005	.0011	.04909	mg/L	95.9	70	130	0.04	20	
L12162-03ASD	ASD	05/29/13 23:21	MS130508-1	.05005	.0011	.0501	mg/L	97.9	70	130	2.04	20	
Lead, total			M200.8 IC										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344357													
WG344357ICV	ICV	05/24/13 20:29	MS130416-2	.05		.05384	mg/L	107.7	90	110			
WG344357ICB	ICB	05/24/13 20:32				U	mg/L		-0.0003	0.0003			
WG344293LRB	LRB	05/24/13 20:35				U	mg/L		-0.00022	0.00022			
WG344293LFB	LFB	05/24/13 20:39	MS130508-1	.05005		.04839	mg/L	96.7	85	115			
L12123-06LFM	LFM	05/24/13 21:01	MS130508-1	.05005	.0006	.04883	mg/L	96.4	70	130			
L12123-06LFMD	LFMD	05/24/13 21:11	MS130508-1	.05005	.0006	.04905	mg/L	96.8	70	130	0.45	20	
L12162-05LFM	LFM	05/24/13 21:40	MS130508-1	.05005	.1597	.2049	mg/L	90.3	70	130			
L12162-05LFMD	LFMD	05/24/13 21:49	MS130508-1	.05005	.1597	.209	mg/L	98.5	70	130	1.98	20	



Caldera Mineral Resources

Magnesium, dis	solved		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344402													
WG344402ICV	ICV	05/28/13 19:28	II130510-1	100		100.33	mg/L	100.3	95	105			
WG344402ICB	ICB	05/28/13 19:34				U	mg/L		-0.6	0.6			
WG344402LFB	LFB	05/28/13 19:47	II130524-3	49.99941		52.03	mg/L	104.1	85	115			
L12162-01AS	AS	05/28/13 19:53	II130524-3	49.99941	1.4	53.48	mg/L	104.2	85	115			
L12162-01ASD	ASD	05/28/13 19:56	II130524-3	49.99941	1.4	53.42	mg/L	104	85	115	0.11	20	
Manganese, dis	solved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344402													
WG344402ICV	ICV	05/28/13 19:28	II130510-1	2		1.941	mg/L	97.1	95	105			
WG344402ICB	ICB	05/28/13 19:34				U	mg/L		-0.015	0.015			
WG344402LFB	LFB	05/28/13 19:47	II130524-3	.5		.5108	mg/L	102.2	85	115			
L12162-01AS	AS	05/28/13 19:53	II130524-3	.5	.058	.5681	mg/L	102	85	115			
L12162-01ASD	ASD	05/28/13 19:56	II130524-3	.5	.058	.5679	mg/L	102	85	115	0.04	20	
Manganese, tota	al		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344479													
WG344479ICV	ICV	05/29/13 11:08	II130514-1	2		1.9305	mg/L	96.5	95	105			
WG344479ICB	ICB	05/29/13 11:14		-		U	mg/L	0010	-0.015	0.015			
WG344416LRB	LRB	05/29/13 11:26				U	mg/L		-0.011	0.011			
WG344416LFB	LFB	05/29/13 11:29	II130524-3	.5		.4827	mg/L	96.5	85	115			
L12162-02LFM	LFM	05/29/13 11:39	II2XWATER	1	.05	1.025	mg/L	97.5	70	130			
L12162-02LFMD	LFMD	05/29/13 11:42	II2XWATER	1	.05	1.032	mg/L	98.2	70	130	0.68	20	
Mercury, total			M245.1 C	VAA									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344271													
WG344271ICV	ICV	05/28/13 10:17	II130522-4	.005025		.0052	mg/L	103.5	95	105			
WG344271ICB	ICB	05/28/13 10:19				U	mg/L		-0.0002	0.0002			
WG344314							-						
WG344314LRB	LRB	05/28/13 14:21				U	mg/L		-0.00044	0.00044			
WG344314LFB	LFB	05/28/13 14:23	II130515-2	.002002		.00193	mg/L	96.4	85	115			
L12161-01LFM	LFM	05/28/13 14:30	II130515-2	.002002	U	.00205	mg/L	102.4	85	115			
L12161-01LFMD	LFMD	05/28/13 14:32	II130515-2	.002002	U	.00196	mg/L	97.9	85	115	4.49	20	
Nickel, dissolve	d		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344402													
WG344402ICV	ICV	05/28/13 19:28	II130510-1	2		1.97	mg/L	98.5	95	105			
WG344402ICB	ICB	05/28/13 19:34	-			U	mg/L		-0.03	0.03			
WG344402LFB	LFB	05/28/13 19:47	II130524-3	.5		.508	mg/L	101.6	85	115			
L12162-01AS	AS	05/28/13 19:53	II130524-3	.5	U	.511	mg/L	102.2	85	115			
	ASD	05/28/13 19:56	II130524-3	.5	U	.511	mg/L	102.2	85	115	0	20	



Caldera Mineral Resources

Nickel, total			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344479													
WG344479ICV	ICV	05/29/13 11:08	II130514-1	2		1.976	mg/L	98.8	95	105			
WG344479ICB	ICB	05/29/13 11:14				U	mg/L		-0.03	0.03			
WG344416LRB	LRB	05/29/13 11:26				U	mg/L		-0.022	0.022			
WG344416LFB	LFB	05/29/13 11:29	II130524-3	.5		.48	mg/L	96	85	115			
L12162-02LFM	LFM	05/29/13 11:39	II2XWATER	1	U	.97	mg/L	97	70	130			
L12162-02LFMD	LFMD	05/29/13 11:42	II2XWATER	1	U	.971	mg/L	97.1	70	130	0.1	20	
Nitrate/Nitrite as	N, diss	olved	M353.2 - A	Automated	d Cadmiur	n Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344110													
WG344110ICV	ICV	05/21/13 22:26	WI130411-3	2.416		2.536	mg/L	105	90	110			
WG344110ICB	ICB	05/21/13 22:27				U	mg/L		-0.06	0.06			
WG344110LFB	LFB	05/21/13 22:28	WI130215-3	2		2.021	mg/L	101.1	90	110			
L12162-01AS	AS	05/21/13 22:31	WI130215-3	2	.38	2.333	mg/L	97.7	90	110			
L12162-02DUP	DUP	05/21/13 22:33			.46	.462	mg/L				0.4	20	
Nitrite as N, diss	olved		M353.2 - A	Automate	d Cadmiur	n Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344110													
WG344110ICV	ICV	05/21/13 22:26	WI130411-3	.609		.614	mg/L	100.8	90	110			
WG344110ICB	ICB	05/21/13 22:27				U	mg/L		-0.03	0.03			
WG344110LFB	LFB	05/21/13 22:28	WI130215-3	1		1.017	mg/L	101.7	90	110			
L12162-01AS	AS	05/21/13 22:31	WI130215-3	1	U	.971	mg/L	97.1	90	110			
L12162-02DUP	DUP	05/21/13 22:33			U	U	mg/L				0	20	RA
Nitrogen, ammor	nia		M350.1 - A	Automated	d Phenate								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344510													
WG344510ICV	ICV	05/29/13 14:51	WI121105-5	1.003		1.065	mg/L	106.2	90	110			
WG344510ICB	ICB	05/29/13 14:52				U	mg/L		-0.15	0.15			
WG344540													
WG344540LFB	LFB	05/29/13 17:04	WI121218-3	1		.94	mg/L	94	90	110			
L12161-01AS	AS	05/29/13 17:22	WI121218-3	1	U	.974	mg/L	97.4	90	110			
L12161-02DUP	DUP	05/29/13 17:24			U	U	mg/L				0	20	RA
pH (lab)			SM4500H	+ B									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344253													
WG344253LCSW3	LCSW	05/23/13 16:38	PCN40853	6		6	units	100	98	102			
WG344253LCSW6	LCSW	05/23/13 19:58	PCN40853	6		6.02	units	100.3	98	102			
WG344253LCSW9	LCSW	05/23/13 23:22	PCN40853	6		6.02	units	100.3	98	102			
WG344253LCSW12	LCSW	05/24/13 2:40	PCN40853	6		6.02	units	100.3	98	102			
L12162-03DUP	DUP	05/24/13 4:13			7.9	7.87	units				0.4	20	
L12167-01DUP	DUP	05/24/13 5:52			8	7.94	units				0.8	20	
WG344253LCSW15	LCSW	05/24/13 6:09	PCN40853	6		6.01	units	100.2	98	102			



Caldera Mineral Resources

Residue, Filtera	ble (TDS) @180C	SM2540C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344189													
WG344189PBW	PBW	05/22/13 16:02				U	mg/L		-20	20			
WG344189LCSW	LCSW	05/22/13 16:04	PCN42164	260		252	mg/L	96.9	80	120			
L12168-01DUP	DUP	05/22/13 16:33			830	840	mg/L				1.2	10	
Residue, Non-Fi	Iterable	(TSS) @105C	SM2540D										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344244													
WG344244PBW	PBW	05/23/13 13:30				U	mg/L		-15	15			
WG344244LCSW	LCSW	05/23/13 13:31	PCN42164	160		148	mg/L	92.5	80	120			
L12163-02DUP	DUP	05/23/13 13:53		100	U	U	mg/L	02.0	00	120	0	10	RA
Selenium, disso	lvod		M200.8 IC	P_MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
	1900	- Analyzou		40	Campio	round	onno	1100	Lower	oppor		2	duui
WG344534													
WG344534ICV	ICV	05/29/13 22:51	MS130416-2	.05		.05281	mg/L	105.6	90	110			
WG344534ICB	ICB	05/29/13 22:55				.00013	mg/L		-0.0003	0.0003			
WG344534LFB	LFB	05/29/13 22:58	MS130508-1	.05005		.04901	mg/L	97.9	85	115			
L12162-03AS	AS	05/29/13 23:18	MS130508-1	.05005	.0002	.05122	mg/L	101.9	70	130			
L12162-03ASD	ASD	05/29/13 23:21	MS130508-1	.05005	.0002	.05211	mg/L	103.7	70	130	1.72	20	
Silver, dissolved	k		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344534													
WG344534ICV	ICV	05/29/13 22:51	MS130416-2	.02002		.02058	mg/L	102.8	90	110			
WG344534ICB	ICB	05/29/13 22:55				U	mg/L		-0.00015	0.00015			
WG344534LFB	LFB	05/29/13 22:58	MS130508-1	.01001		.01014	mg/L	101.3	85	115			
L12162-03AS	AS	05/29/13 23:18	MS130508-1	.01001	U	.009733	•	97.2	70	130			
L12162-03ASD	ASD	05/29/13 23:21	MS130508-1	.01001	U	.009885	•	98.8	70	130	1.55	20	
Silver, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344357													
WG344357ICV	ICV	05/24/13 20:29	MS130416-2	.02002		.02094	mg/L	104.6	90	110			
WG344357ICB	ICB	05/24/13 20:29	MO100410-2	.02002		.02094 U	mg/L	10-1.0	-0.00015	0.00015			
WG344293LRB	LRB	05/24/13 20:32				U	mg/L		-0.00013	0.00013			
WG344293LFB	LFB		MS130508 1	.01001		.01003	-	100.2	-0.00011				
		05/24/13 20:39	MS130508-1				mg/L			115 130			
L12123-06LFM		05/24/13 21:01	MS130508-1	.01001	U	.009983	•	99.7	70	130	0.50	20	
L12123-06LFMD		05/24/13 21:11	MS130508-1	.01001	U	.009924	•	99.1	70	130	0.59	20	
L12162-05LFM		05/24/13 21:40	MS130508-1	.01001	.00017	.009713	0	95.3	70	130	4 07	00	
L12162-05LFMD	LFMD	05/24/13 21:49	MS130508-1	.01001	.00017	.009847	mg/L	96.7	70	130	1.37	20	



Caldera Mineral Resources

A 0 7 ID			2010.02	Turbidime	suic								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344685													
WG344685ICB	ICB	05/31/13 10:43				U	mg/L		-3	3			
WG344685ICV	ICV	05/31/13 10:43	WI130520-7	20		20.4	mg/L	102	90	110			
WG344685LFB	LFB	05/31/13 11:24	WI130416-3	9.99		9.5	mg/L	95.1	90	110			
L12164-01AS	AS	05/31/13 11:33	SO4TURB5	10	161	171.4	mg/L	104	90	110			
L12040-01DUP	DUP	05/31/13 11:35			2300	2320	mg/L				0.9	20	
L12040-03AS	AS	05/31/13 11:35	SO4TURB20	50	3600	3580	mg/L	-40	90	110			M3
L12162-05DUP	DUP	05/31/13 11:38			560	602	mg/L				7.2	20	
Sulfide as S			SM4500S	2-D									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344069													
WG344069ICV	ICV	05/21/13 12:15	WC130520-	.35734		.386	mg/L	108	90	110			
	ICB	05/21/13 12:18				U	mg/L		-0.06	0.06			
WG344085	102	00/2 // 10 12:10				Ū	<u>g</u> / _		0.00	0.00			
	ICV	05/21/13 13:50	WC130520-	.35734		.379	mg/L	106.1	90	110			
	ICB	05/21/13 13:52	WC130320-	.55754		.575 U	mg/L	100.1	-0.06	0.06			
	LFB	05/21/13 13:55	WC130520-	.2346667		.252	mg/L	107.4	80	120			
	AS	05/21/13 14:14	WC130520-	.2346667	U	.261	mg/L	111.2	75	125			
	DUP	05/21/13 14:17	W0100020	.2040007	U	U.201	mg/L	111.2	10	120	0	20	RA
Uranium, dissolve	h		M200.8 IC	P-MS									
	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344534													
	1014							100					
	ICV	05/29/13 22:51	MS130416-2	.05		.05301	mg/L	106	90	110			
	ICB	05/29/13 22:55	10100500 1	05		U	mg/L	101 5	-0.0003	0.0003			
	LFB	05/29/13 22:58	MS130508-1	.05		.05074	mg/L	101.5	85	115			
	AS	05/29/13 23:18	MS130508-1	.05	U	.04929	mg/L	98.6	70	130	4 00	00	
L12162-03ASD	ASD	05/29/13 23:21	MS130508-1	.05	U	.05028	mg/L	100.6	70	130	1.99	20	
Uranium, total			M200.8 IC										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344357													
WG344357ICV	ICV	05/24/13 20:29	MS130416-2	.05		.05239	mg/L	104.8	90	110			
WG344357ICB	ICB	05/24/13 20:32				U	mg/L		-0.0003	0.0003			
WG344293LRB	LRB	05/24/13 20:35				U	mg/L		-0.00022	0.00022			
WG344293LFB	LFB	05/24/13 20:39	MS130508-1	.05		.04766	mg/L	95.3	85	115			
L12123-06LFM	LFM	05/24/13 21:01	MS130508-1	.05	.0001	.04759	mg/L	95	70	130			
L12123-06LFMD	LFMD	05/24/13 21:11	MS130508-1	.05	.0001	.04793	mg/L	95.7	70	130	0.71	20	
L12162-05LFM	LFM	05/24/13 21:40	MS130508-1	.05	.0005	.05029	mg/L	99.6	70	130			
L12162-05LFMD	LFMD	05/24/13 21:49	MS130508-1	.05	.0005	.05097	mg/L	100.9	70	130	1.34	20	



Caldera Mineral Resources

Zinc, dissolved			M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344402													
WG344402ICV	ICV	05/28/13 19:28	II130510-1	2		1.984	mg/L	99.2	95	105			
WG344402ICB	ICB	05/28/13 19:34				U	mg/L		-0.03	0.03			
WG344402LFB	LFB	05/28/13 19:47	II130524-3	.5		.525	mg/L	105	85	115			
L12162-01AS	AS	05/28/13 19:53	II130524-3	.5	.21	.734	mg/L	104.8	85	115			
L12162-01ASD	ASD	05/28/13 19:56	II130524-3	.5	.21	.736	mg/L	105.2	85	115	0.27	20	
Zinc, total			M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG344479													
WG344479ICV	ICV	05/29/13 11:08	II130514-1	2		1.957	mg/L	97.9	95	105			
WG344479ICB	ICB	05/29/13 11:14				U	mg/L		-0.03	0.03			
WG344416LRB	LRB	05/29/13 11:26				U	mg/L		-0.022	0.022			
WG344416LFB	LFB	05/29/13 11:29	II130524-3	.5		.488	mg/L	97.6	85	115			
L12162-02LFM	LFM	05/29/13 11:39	II2XWATER	1	.14	1.118	mg/L	98.8	70	130			
L12162-02LFMD	LFMD	05/29/13 11:42	II2XWATER	1	.14	1.119	mg/L	98.9	70	130	0.09	20	

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Caldera Mineral Resources

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L12162-01	WG344607	Chloride	SM4500CI-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG344740	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344626	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344175	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344110	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344540	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344244	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344685	Sulfate	D516-02 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG344085	Sulfide as S	SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L12162-02	WG344416	Total Hot Plate Digestion	M200.2 ICP	DJ	Sample dilution required due to insufficient sample.
	WG344607	Chloride	SM4500CI-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG344740	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344626	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344175	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344110	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344540	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344244	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344685	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG344085	Sulfide as S	SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L12162-03	WG344607	Chloride	SM4500CI-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG344740	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344626	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344175	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344110	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344540	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344244	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344685	Sulfate	D516-02 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG344085	Sulfide as S	SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L12162-04	WG344607	Chloride	SM4500CI-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG344740	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344626	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344175	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344110	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344540	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344244	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344685	Sulfate	D516-02 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG344085	Sulfide as S	SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

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Inorganic Extended Qualifier Report

Caldera Mineral Resources

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L12162-05	WG344416	Total Hot Plate Digestion	M200.2 ICP	DJ	Sample dilution required due to insufficient sample.
	WG344607	Chloride	SM4500CI-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG344740	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344720	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344175	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344110	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344540	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344244	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG344085	Sulfide as S	SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

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Caldera Mineral Resources

Project ID: Sample ID: A-052013 ACZ Sample ID: L12162-01 Date Sampled: 05/20/13 0:00 Date Received: 05/21/13 Sample Matrix: Surface Water

Oil & Grease, Total Recoverable

Analysis Method: 1664A - Gravimetric Extract Method:

Workgroup:	WG344472								
Analyst: Extract Date:	dsg								
Analysis Date:	05/29/13 11:01								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.064	*	mg/L	2.128	10.64

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Caldera Mineral Resources

Project ID: Sample ID: B-052013 ACZ Sample ID: L12162-02 Date Sampled: 05/20/13 0:00 Date Received: 05/21/13 Sample Matrix: Surface Water

Oil & Grease, Total Recoverable

Analysis Method: 1664A - Gravimetric Extract Method:

Workgroup:	WG344472								
Analyst: Extract Date:	dsg								
Analysis Date:	05/29/13 11:02								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.064	*	mg/L	2.128	10.64

Caldera Mineral Resources

Project ID: Sample ID: C-052013 ACZ Sample ID: L12162-03 Date Sampled: 05/20/13 0:00 Date Received: 05/21/13 Sample Matrix: Surface Water

Oil & Grease, Total Recoverable

Analysis Method: **1664A - Gravimetric** Extract Method:

Workgroup:	WG344472								
Analyst:	dsg								
Extract Date:									
Analysis Date:	05/29/13 11:03								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.064	*	mg/L	2.128	10.64

Caldera Mineral Resources

Project ID: Sample ID: D-052013 ACZ Sample ID: L12162-04 Date Sampled: 05/20/13 0:00 Date Received: 05/21/13 Sample Matrix: Surface Water

Oil & Grease, Total Recoverable

Analysis Method: **1664A - Gravimetric** Extract Method:

Workgroup:	WG344472								
Analyst:	dsg								
Extract Date:									
Analysis Date:	05/29/13 11:04								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.064	*	mg/L	2.128	10.64

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(800) 334-5493

Caldera Mineral Resources

Project ID: Sample ID: E-052013 ACZ Sample ID: L12162-05 Date Sampled: 05/20/13 0:00 Date Received: 05/21/13 Sample Matrix: Surface Water

Oil & Grease, Total Recoverable

Analysis Method: 1664A - Gravimetric Extract Method:

Workgroup:	WG344472								
Analyst: Extract Date:	dsg								
Analysis Date:	05/29/13 11:05								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.064	*	mg/L	2.128	10.64



Organic Reference

Batch	Explanations	2	
atcn Found	A distinct set of samples analyzed at a specific time Value of the QC Type of interest	5	
imit	Upper limit for RPD, in %.	(Ka)	
ower	Lower Recovery Limit, in % (except for LCSS, mg/	Kg)	
CL	Lower Control Limit	ting Limit Allows for instrum	cont and annual fluctuations
MDL	Method Detection Limit. Same as Minimum Report	-	
PCN/SCN	A number assigned to reagents/standards to trace		
PQL	Practical Quantitation Limit, typically 5 times the MI		
2C 200	True Value of the Control Sample or the amount ad		
Rec	Amount of the true value or spike added recovered		/Kg)
RPD Inner	Relative Percent Difference, calculation used for Di		
lpper ICI	Upper Recovery Limit, in % (except for LCSS, mg/	ny)	
ICL Sampla	Upper Control Limit		
Sample	Value of the Sample of interest		
ample Ty	pes		
SURR	Surrogate	LFM	Laboratory Fortified Matrix
VTS	Internal Standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
CSS	Laboratory Control Sample - Soil	MS/MSD	Matrix Spike/Matrix Spike Duplicate
CSW	Laboratory Control Sample - Water	PBS	Prep Blank - Soil
FB	Laboratory Cartified Diank		
	Laboratory Fortified Blank	PBW	Prep Blank - Water
		PBW	Prep Blank - Water
	pe Explanations		Prep Blank - Water
ample Ty	pe Explanations Verifies that there is no or		e prep method or calibration procedure.
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ample Tyr ilanks control Sar uplicates ipikes/Fort Qualifiers i) 1 od Refere 1) 2) 3) 4) 5) ments 1) 2)	pe Explanations Verifies that there is no or mples Verifies the accuracy of th Verifies the precision of th Verifies the precision of th tified Matrix Determines sample matrix (Qual) Analyte concentration detected at a value between Analyte concentration is estimated due to result exit Analyte concentration detected at a value between Analyte concentration detected at a value between Target analyte response was below the laboratory of The material was analyzed for, but was not detected The associated value is either the sample quantitation PEA 600/4-83-020. Methods for Chemical Analysis EPA 600/4-90/020. Methods for the Determination EPA 600/4-92/129. Methods for Evaluating Solid W Standard Methods for the Examination of Water an QC results calculated from raw data. Results may Excluding Oil & Grease, solid & biological matrices	minimal contamination in th e method, including the prep e instrument and/or method c interferences, if any. MDL and PQL. The associa ceeding calibration range. test with an immediate hold MDL and PQL. The associa defined negative threshold. Id above the level of the ass tion limit or the sample detect s of Water and Wastes, Marr of Organic Compounds in D of Organic Compounds in D vaste. Id Wastewater.	e prep method or calibration procedure. p procedure. Ited value is an estimated quantity. time. Ited value is an estimated quantity. ociated value. ction limit. ch 1983. Drinking Water (I), July 1990. Drinking Water (II), July 1990. Prinking Water (II), July 1990.

For a complete list of ACZ's Extended Qualifiers, please click:

http://www.acz.com/public/extquallist.pdf



Caldera Mineral Resources

ACZ Project ID: L12162

1664A - Gravimetric

Oil & Grease, Total Recoverable

WG344472

LCSW	Sample ID:	WG344472LCSW	I	PCN/S	CN: OP13	30517-2		Anal	/zed:	05/29	/13 11:13
Compound		QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE		40		34.4	mg/L	86.0	78	114			
LCSWD	Sample ID:	WG344472LCSW	/D	PCN/S	CN: OP13	30517-2		Analy	/zed:	05/29	/13 11:14
Compound		QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE		40		34	mg/L	85.0	78	114	1.2	18	
PBW	Sample ID:	WG344472PBW						Analy	/zed:	05/29	/13 11:00
Compound		QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE				U	mg/L		-5	5			



Organic Extended Qualifier Report

Caldera Mineral Resources

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L12162-01	WG344472	Oil and Grease	1664A - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.
L12162-02	WG344472	Oil and Grease	1664A - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.
L12162-03	WG344472	Oil and Grease	1664A - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.
L12162-04	WG344472	Oil and Grease	1664A - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.
L12162-05	WG344472	Oil and Grease	1664A - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.



ACZ Project ID: L12162

Wet Chemistry

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

Sulfide as S

SM4500S2-D

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Caldera Mineral Resources	ACZ Proje	ect ID:		L12162
	Date Rece	eived: 0	5/21/201	3 10:31
	Receive	ed By:		ksj
	Date Pr	inted:	5/	21/2013
Receipt Verification		V/50	NO	
1) Is a foreign soil permit included for applicable samples?		YES	NO	NA X
2) Is the Chain of Custody or other directive shipping papers present?		X		
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time analy	yses?	Х		
6) Is the Chain of Custody complete and accurate?		Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the sample	s?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		Х		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time?	2	Х		
11) For preserved bottle types, was the pH checked and within limits?		Х		
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?			Х	
Some parameters were received past hold time.				

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Temp (°C)	Rad ($\mu R/Hr$)
3.8	13
4.8	14
	3.8

Custody Seal Intact? ------Yes Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

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

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ACZ Labo	DI ALONIES, INC prings, CO 80487 (800) 334	-5 493	0	$ \phi $	$\overline{\mathbf{Q}}$	{.[17 A H				
		1									
Name: Mike Th		-	Addre		$\frac{4}{1}$				<u></u>	162	2
E-mail: MF@reav	rdonsteel. US	1	Telep	hone:	<u>5.10</u> 970			<u> </u>			2
						n					
Name: John Brya	~		E-ma	il:	jbr 310	ya	$\sim @$	wat	-ley	. Co	~
Company: Caldera W	Americ Resour	<u>9</u> 5	Telep	hone:	31	D'	777	- 89	389 1		
		ſ	الم الم		(2) L 7	G (.		- Di	۱r.	Ja	10.0
Name: Laurens A Company: Caldera Min	veral Resource	2	Addre		<u>843</u>	-					
E-mail: Laurens@ w	ratby, com		Telep	hone:	310			- 88			
If sample(s) received past holding analysis before expiration, shall <i>i</i>	•				ete				YES NO	~	
If "ND" then ACZ will contact client for further instru- is indicated, ACZ will proceed with the requested ana	ction. If neither "YES" nor "NO			¥ .					L		
Are samples for SDWA Complian	ce Monitoring?		Yes		Ν	10	V	-			
If yes, please include state forms Sampler's Name:	. Results will be reported t Sampler's site Information			rado.	Zip coo	te S	422	Time Zo	one	ms	_
in visit stands a file file											
	SW Short		Containers			8					
Project/PO #: Reporting state for compliance testi	Project/PO #:					$\mathcal{P}^{\mathcal{L}}$	ea s	e r Gisa	el-e		
Check box if samples include NRC	licensed material?		of Co				カフ	900	100	•	
			*								
A-052013	05/20/13	SW	δ	<u> </u>							
B-052013	05/20/13	SW									
	0510-117										
C-052013	05/20/13	30									
D-052013	05/30/13	sw								· · · ·	
5 00 0012	05/22/22	61.7									
E - 052013	05/20/13	SW									
Matrix SW (Surface Water) · GW	(Ground Water) · WW (Waste)	u Water) · D∖	W (Drink	king Wate	r) · SL (Slu	dge) · :	SO (Soil) OL (Oil) · Other	(Specify	•)
i stivili i s											
Please refer to ACZ's terms & conditions located on the reverse side of this COC.											
/1//	5/20/1:	3 2:0	1		7	X			୪ନା	B	<u>(</u>):31
					~~~						

L12162 Chain of Custody

FRMAD050.02.11.11

White - Return with sample. Yellow - Retain for your records.



August 13, 2013

Report to: Mike Thompson Caldera Mineral Resources PO Box 297 Silverton, CO 81433

cc: John Bryan

Project ID: ACZ Project ID: L13488

Mike Thompson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on July 25, 2013. This project has been assigned to ACZ's project number, L13488. Please reference this number in all future inquiries.

Bill to:

Lauren Nuyens

Caldera Mineral Resources

8439 Sunset Blvd. Suite 402

West Hollywood, CA 90069

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L13488. 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 September 12, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/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 raw data reports for ten years.

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

S. Habermehl

Scott Habermehl has reviewed and approved this report.





## **Caldera Mineral Resources**

## Project ID:

Sample ID: CB-A

# Inorganic Analytical Results

ACZ Sample ID:	L13488-01
Date Sampled:	07/24/13 00:00
Date Received:	07/25/13
Sample Matrix:	Surface Water

Inorganic Prep	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Parameter	M335.4 - Manual Distillation	Bilution	Result		Units	MDL	PQL	08/06/13 12:31	
Cyanide, total									tcd
Cyanide, WAD	SM4500-CN I- distillation							08/05/13 9:16	mla
Total Hot Plate Digestion	M200.2 ICP							08/01/13 14:45	aeb
Total Hot Plate Digestion	M200.2 ICP-MS							08/05/13 19:36	las
Total Recoverable Digestion	M200.2 ICP-MS			*				08/06/13 12:24	scp
Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date A	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	5	0.048		mg/L	0.005	0.03	08/07/13 18:46	msh
Arsenic, dissolved	M200.8 ICP-MS	1	0.0008	В	mg/L	0.0002	0.001	08/02/13 18:39	msh
Arsenic, total recoverable	M200.8 ICP-MS	5	0.002	В	mg/L	0.001	0.005	08/07/13 1:15	pmc
Barium, dissolved	M200.7 ICP	1	0.037		mg/L	0.003	0.02	08/01/13 19:11	jjc
Beryllium, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	08/01/13 19:11	jjc
Boron, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	08/01/13 19:11	jjc
Cadmium, dissolved	M200.8 ICP-MS	1	0.0008		mg/L	0.0001	0.0005	08/02/13 18:39	msh
Cadmium, total	M200.8 ICP-MS	1	0.0010		mg/L	0.0001	0.0005	08/06/13 21:34	las
Calcium, dissolved	M200.7 ICP	1	63.8		mg/L	0.2	1	08/01/13 19:11	jjc
Chromium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	08/02/13 18:39	msh
Chromium, total	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	08/06/13 21:34	las
Chromium, Trivalent	Calculation (Total - Hexavale	nt)		U	mg/L	0.0005	0.002	08/09/13 16:00	calc
Copper, dissolved	M200.8 ICP-MS	1	0.0037		mg/L	0.0005	0.003	08/02/13 18:39	msh
Copper, total	M200.8 ICP-MS	1	0.0071		mg/L	0.0005	0.003	08/08/13 23:44	msh
Iron, dissolved	M200.7 ICP	1	0.05		mg/L	0.02	0.05	08/01/13 19:11	jjc
Iron, total	M200.7 ICP	1	0.11		mg/L	0.02	0.05	08/02/13 21:46	aeb
Lead, dissolved	M200.8 ICP-MS	1	0.0025		mg/L	0.0001	0.0005	08/02/13 18:39	msh
Lead, total	M200.8 ICP-MS	1	0.0045		mg/L	0.0001	0.0005	08/08/13 23:44	msh
Magnesium, dissolved	M200.7 ICP	1	2.1		mg/L	0.2	1	08/01/13 19:11	jjc
Manganese, dissolved	M200.7 ICP	1	0.190	*	mg/L	0.005	0.03	08/01/13 19:11	jjc
Manganese, total	M200.7 ICP	1	0.188		mg/L	0.005	0.03	08/02/13 21:46	aeb
Mercury, total	M245.1 CVAA	1		U	mg/L	0.0002	0.001	08/01/13 11:31	mfm
Nickel, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	08/01/13 19:11	jjc
Nickel, total	M200.7 ICP	1		U	mg/L	0.01	0.05	08/02/13 21:46	aeb
Selenium, dissolved	M200.8 ICP-MS	1	0.0003		mg/L	0.0001	0.0003	08/02/13 18:39	msh
Silver, dissolved	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	08/02/13 18:39	msh
Silver, total	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	08/06/13 21:34	las
Uranium, dissolved	M200.8 ICP-MS	1	0.0001	В	mg/L	0.0001	0.0005	08/02/13 18:39	msh
Uranium, total	M200.8 ICP-MS	1	0.0002	В	mg/L	0.0001	0.0005	08/06/13 21:34	las
Zinc, dissolved	M200.7 ICP	1	0.21		mg/L	0.01	0.05	08/01/13 19:11	jjc
					-				

M200.7 ICP

1

0.22

mg/L

0.01

0.05

Zinc, total

* Please refer to Qualifier Reports for details.

08/02/13 21:46

aeb

## Caldera Mineral Resources

Project ID:

Sample ID: CB-A

# Inorganic Analytical Results

ACZ Sample ID: L13488-01 Date Sampled: 07/24/13 00:00 Date Received: 07/25/13 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	36		*	mg/L	2	20	07/27/13 0:00	khw
Carbonate as CaCO3		1		U	*	mg/L	2	20	07/27/13 0:00	khw
Hydroxide as CaCO3		1		U	*	mg/L	2	20	07/27/13 0:00	khw
Total Alkalinity		1	36		*	mg/L	2	20	07/27/13 0:00	khw
Chloride	SM4500CI-E	1		U	*	mg/L	1	5	08/05/13 14:29	) mpb
Conductivity @25C	SM2510B	1	369		*	umhos/cm	1	10	07/27/13 20:13	8 khw
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	08/07/13 20:05	5 pjb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	08/05/13 18:34	bsu
Dissolved Chromium, Hexavalent	SM3500Cr-D	1		UH	*	mg/L	0.005	0.02	07/25/13 12:30	) khw
Hardness as CaCO3	SM2340B - Calculation		168			mg/L	1	7	08/09/13 16:00	) calc
Lab Filtration (0.45um filter)	SOPWC050	1							07/30/13 10:03	8 khw
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							07/30/13 18:02	scp
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.26			mg/L	0.02	0.1	08/09/13 16:00	) calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.26		*	mg/L	0.02	0.1	07/25/13 19:32	2 pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	07/25/13 19:32	2 pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	08/05/13 15:32	tcd
pH (lab)	SM4500H+ B									
рН		1	8.0	н	*	units	0.1	0.1	07/27/13 0:00	khw
pH measured at		1	20.0		*	С	0.1	0.1	07/27/13 0:00	khw
Residue, Filterable (TDS) @180C	SM2540C	1	252		*	mg/L	10	20	07/31/13 13:53	dcw
Residue, Non- Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	07/31/13 11:27	′ mss3
Sulfate	D516-02 - Turbidimetric	5	129		*	mg/L	5	25	08/08/13 10:46	bsu
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	07/31/13 13:32	2 abm

## **Caldera Mineral Resources**

## Project ID:

Sample ID: CB-B

# Inorganic Analytical Results

ACZ Sample ID:	L13488-02
Date Sampled:	07/24/13 00:00
Date Received:	07/25/13
Sample Matrix:	Surface Water

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation								08/06/13 12:31	tcd
Cyanide, WAD	SM4500-CN I- distillation								08/05/13 9:33	mla
Total Hot Plate Digestion	M200.2 ICP				*				08/07/13 14:23	jjc
Total Hot Plate Digestion	M200.2 ICP-MS								08/05/13 19:48	las
Total Recoverable Digestion	M200.2 ICP-MS								08/06/13 12:36	scp
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum total	M200 8 ICP-MS	1	0.066			ma/l	0.001	0.005	08/07/13 18.56	meh

Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	1	0.066		mg/L	0.001	0.005	08/07/13 18:56	msh
Arsenic, dissolved	M200.8 ICP-MS	1	0.0015		mg/L	0.0002	0.001	08/02/13 18:42	msh
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0017		mg/L	0.0002	0.001	08/07/13 1:18	pmc
Barium, dissolved	M200.7 ICP	1	0.046		mg/L	0.003	0.02	08/01/13 19:14	jjc
Beryllium, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	08/01/13 19:14	jjc
Boron, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	08/01/13 19:14	jjc
Cadmium, dissolved	M200.8 ICP-MS	1	0.0004	В	mg/L	0.0001	0.0005	08/02/13 18:42	msh
Cadmium, total	M200.8 ICP-MS	1	0.0006		mg/L	0.0001	0.0005	08/06/13 21:44	las
Calcium, dissolved	M200.7 ICP	1	26.0		mg/L	0.2	1	08/01/13 19:14	jjc
Chromium, dissolved	M200.8 ICP-MS	1	0.0006	В	mg/L	0.0005	0.002	08/02/13 18:42	msh
Chromium, total	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	08/06/13 21:44	las
Chromium, Trivalent	Calculation (Total - Hexavalent	t)		U	mg/L	0.0005	0.002	08/09/13 16:00	calc
Copper, dissolved	M200.8 ICP-MS	1	0.0040		mg/L	0.0005	0.003	08/02/13 18:42	msh
Copper, total	M200.8 ICP-MS	1	0.0021	В	mg/L	0.0005	0.003	08/08/13 23:47	msh
Iron, dissolved	M200.7 ICP	1	0.12		mg/L	0.02	0.05	08/07/13 12:23	jjc
Iron, total	M200.7 ICP	2	0.09	В	mg/L	0.04	0.1	08/08/13 12:03	jjc
Lead, dissolved	M200.8 ICP-MS	1	0.0030		mg/L	0.0001	0.0005	08/02/13 18:42	msh
Lead, total	M200.8 ICP-MS	1	0.0032		mg/L	0.0001	0.0005	08/08/13 23:47	msh
Magnesium, dissolved	M200.7 ICP	1	2.0		mg/L	0.2	1	08/01/13 19:14	jjc
Manganese, dissolved	M200.7 ICP	1	0.215	*	mg/L	0.005	0.03	08/01/13 19:14	jjc
Manganese, total	M200.7 ICP	1	0.241		mg/L	0.005	0.03	08/02/13 21:55	aeb
Mercury, total	M245.1 CVAA	1		U	mg/L	0.0002	0.001	08/01/13 11:33	mfm
Nickel, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	08/01/13 19:14	jjc
Nickel, total	M200.7 ICP	1		U	mg/L	0.01	0.05	08/02/13 21:55	aeb
Selenium, dissolved	M200.8 ICP-MS	1	0.0002	В	mg/L	0.0001	0.0003	08/02/13 18:42	msh
Silver, dissolved	M200.8 ICP-MS	1	0.00007	В	mg/L	0.00005	0.0003	08/02/13 18:42	msh
Silver, total	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	08/06/13 21:44	las
Uranium, dissolved	M200.8 ICP-MS	1	0.0002	В	mg/L	0.0001	0.0005	08/02/13 18:42	msh
Uranium, total	M200.8 ICP-MS	1	0.0001	В	mg/L	0.0001	0.0005	08/06/13 21:44	las
Zinc, dissolved	M200.7 ICP	1	0.12		mg/L	0.01	0.05	08/01/13 19:14	jjc
Zinc, total	M200.7 ICP	1	0.13		mg/L	0.01	0.05	08/02/13 21:55	aeb

* Please refer to Qualifier Reports for details.

## Caldera Mineral Resources

Project ID:

Sample ID: CB-B

# Inorganic Analytical Results

ACZ Sample ID: L13488-02 Date Sampled: 07/24/13 00:00 Date Received: 07/25/13 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	32		*	mg/L	2	20	07/27/13 0:00	khw
Carbonate as CaCO3		1		U	*	mg/L	2	20	07/27/13 0:00	khw
Hydroxide as CaCO3		1		U	*	mg/L	2	20	07/27/13 0:00	khw
Total Alkalinity		1	32		*	mg/L	2	20	07/27/13 0:00	khw
Chloride	SM4500CI-E	1		U	*	mg/L	1	5	08/05/13 14:29	mpb
Conductivity @25C	SM2510B	1	167		*	umhos/cm	1	10	07/27/13 20:20	khw
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	08/07/13 20:06	pjb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	08/05/13 18:36	bsu
Dissolved Chromium, Hexavalent	SM3500Cr-D	1		UH	*	mg/L	0.005	0.02	07/25/13 12:36	khw
Hardness as CaCO3	SM2340B - Calculation		73			mg/L	1	7	08/09/13 16:00	calc
Lab Filtration (0.45um filter)	SOPWC050	1							07/30/13 10:07	khw
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							07/30/13 18:04	scp
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.35			mg/L	0.02	0.1	08/09/13 16:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.35		*	mg/L	0.02	0.1	07/25/13 19:33	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	07/25/13 19:33	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1	0.08	В	*	mg/L	0.05	0.5	08/05/13 15:33	tcd
pH (lab)	SM4500H+ B									
рН		1	8.0	Н	*	units	0.1	0.1	07/27/13 0:00	khw
pH measured at		1	19.0		*	С	0.1	0.1	07/27/13 0:00	khw
Residue, Filterable (TDS) @180C	SM2540C	1	108		*	mg/L	10	20	07/31/13 13:55	dcw
Residue, Non- Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	07/31/13 11:29	mss3
Sulfate	D516-02 - Turbidimetric	5	43.2		*	mg/L	5	25	08/08/13 10:46	bsu
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	07/31/13 13:38	abm

## **Caldera Mineral Resources**

## Project ID:

Sample ID: CB-C

# Inorganic Analytical Results

ACZ Sample ID:	L13488-03
Date Sampled:	07/24/13 00:00
Date Received:	07/25/13
Sample Matrix:	Surface Water

Inorganic Prep									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL		Analyst
Cyanide, total	M335.4 - Manual Distillation							08/06/13 12:32	tco
Cyanide, WAD	SM4500-CN I- distillation							08/05/13 9:50	mla
Total Hot Plate Digestion	M200.2 ICP							08/01/13 16:14	aeb
Total Hot Plate Digestion	M200.2 ICP-MS							08/05/13 20:00	las
Total Recoverable Digestion	M200.2 ICP-MS							08/06/13 12:48	scp
Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date /	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	1	0.027		mg/L	0.001	0.005	08/07/13 19:00	msh
Arsenic, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0002	0.001	08/02/13 18:46	msh
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0004	В	mg/L	0.0002	0.001	08/07/13 1:21	pmc
Barium, dissolved	M200.7 ICP	1	0.044		mg/L	0.003	0.02	08/01/13 19:17	jjo
Beryllium, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	08/01/13 19:17	jjo
Boron, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	08/01/13 19:17	jjo
Cadmium, dissolved	M200.8 ICP-MS	1	0.0009		mg/L	0.0001	0.0005	08/02/13 18:46	msh
Cadmium, total	M200.8 ICP-MS	1	0.0011		mg/L	0.0001	0.0005	08/06/13 21:48	las
Calcium, dissolved	M200.7 ICP	1	23.4		mg/L	0.2	1	08/01/13 19:17	jjo
Chromium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	08/02/13 18:46	msh
Chromium, total	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	08/06/13 21:48	las
Chromium, Trivalent	Calculation (Total - Hexavaler	nt)		U	mg/L	0.0005	0.002	08/09/13 16:00	calo
Copper, dissolved	M200.8 ICP-MS	1	0.0021	В	mg/L	0.0005	0.003	08/02/13 18:46	msh
Copper, total	M200.8 ICP-MS	1	0.0031		mg/L	0.0005	0.003	08/08/13 23:50	msh
Iron, dissolved	M200.7 ICP	1		U	mg/L	0.02	0.05	08/01/13 19:17	jjo
Iron, total	M200.7 ICP	1		U	mg/L	0.02	0.05	08/02/13 21:58	aeb
Lead, dissolved	M200.8 ICP-MS	1	0.0011		mg/L	0.0001	0.0005	08/02/13 18:46	msh
Lead, total	M200.8 ICP-MS	1	0.0016		mg/L	0.0001	0.0005	08/08/13 23:50	msh
Magnesium, dissolved	M200.7 ICP	1	1.2		mg/L	0.2	1	08/01/13 19:17	jjo
Manganese, dissolved	M200.7 ICP	1		U *	mg/L	0.005	0.03	08/01/13 19:17	jjo
Manganese, total	M200.7 ICP	1		U	mg/L	0.005	0.03	08/02/13 21:58	aeb
Mercury, total	M245.1 CVAA	1		U	mg/L	0.0002	0.001	08/01/13 11:35	mfm
Nickel, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	08/01/13 19:17	jjo
Nickel, total	M200.7 ICP	1		U	mg/L	0.01	0.05	08/02/13 21:58	aeb
Selenium, dissolved	M200.8 ICP-MS	1	0.0002	В	mg/L	0.0001	0.0003	08/02/13 18:46	msh
Silver, dissolved	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	08/02/13 18:46	msh
Silver, total	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	08/06/13 21:48	las
Uranium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0001	0.0005	08/02/13 18:46	msh
Uranium, total	M200.8 ICP-MS	1		U	mg/L	0.0001	0.0005	08/06/13 21:48	las
Zinc, dissolved	M200.7 ICP	1	0.21		mg/L	0.01	0.05	08/01/13 19:17	jjo
Zinc, total	M200.7 ICP	1	0.22		mg/L	0.01	0.05	08/02/13 21:58	aeb

* Please refer to Qualifier Reports for details.

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

### **Caldera Mineral Resources**

Project ID: Sample ID: CB-C

# Inorganic Analytical Results

ACZ Sample ID: L13488-03 Date Sampled: 07/24/13 00:00 Date Received: 07/25/13 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	27		*	mg/L	2	20	07/27/13 0:00	khw
Carbonate as CaCO3		1		U	*	mg/L	2	20	07/27/13 0:00	khw
Hydroxide as CaCO3		1		U	*	mg/L	2	20	07/27/13 0:00	khw
Total Alkalinity		1	27		*	mg/L	2	20	07/27/13 0:00	khw
Chloride	SM4500CI-E	1		U	*	mg/L	1	5	08/05/13 14:29	mpb
Conductivity @25C	SM2510B	1	147		*	umhos/cm	1	10	07/27/13 20:27	khw
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	08/07/13 20:08	pjb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	08/05/13 18:37	bsu
Dissolved Chromium, Hexavalent	SM3500Cr-D	1		UH	*	mg/L	0.005	0.02	07/25/13 12:41	khw
Hardness as CaCO3	SM2340B - Calculation		63			mg/L	1	7	08/09/13 16:00	calc
Lab Filtration (0.45um filter)	SOPWC050	1							07/30/13 10:11	khw
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							07/30/13 18:07	scp
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.18			mg/L	0.02	0.1	08/09/13 16:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.18		*	mg/L	0.02	0.1	07/25/13 19:36	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	07/25/13 19:36	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	08/05/13 15:34	tcd
pH (lab)	SM4500H+ B									
pН		1	7.9	Н	*	units	0.1	0.1	07/27/13 0:00	khw
pH measured at		1	19.0		*	С	0.1	0.1	07/27/13 0:00	khw
Residue, Filterable (TDS) @180C	SM2540C	1	94		*	mg/L	10	20	07/31/13 13:56	dcw
Residue, Non- Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	07/31/13 11:31	mss3
Sulfate	D516-02 - Turbidimetric	1	38.7		*	mg/L	1	5	08/08/13 10:39	bsu
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	07/31/13 13:44	abm

## **Caldera Mineral Resources**

### Project ID:

Sample ID: CB-D

# Inorganic Analytical Results

ACZ Sample ID:	L13488-04
Date Sampled:	07/24/13 00:00
Date Received:	07/25/13
Sample Matrix:	Surface Water

Inorganic Prep									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation							08/06/13 12:32	tco
Cyanide, WAD	SM4500-CN I- distillation							08/06/13 14:28	tcc
Total Hot Plate Digestion	M200.2 ICP							08/01/13 16:36	aeb
Total Hot Plate	M200.2 ICP-MS							08/05/13 20:12	las
Digestion Total Recoverable Digestion	M200.2 ICP-MS							08/06/13 13:00	scp
Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	1	0.045		mg/L	0.001	0.005	08/07/13 19:03	msh
Arsenic, dissolved	M200.8 ICP-MS	1	0.0003	В	mg/L	0.0002	0.001	08/02/13 18:49	msh
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0007	В	mg/L	0.0002	0.001	08/07/13 1:25	pmc
Barium, dissolved	M200.7 ICP	1	0.020		mg/L	0.003	0.02	08/01/13 19:27	jjo
Beryllium, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	08/01/13 19:27	jjc
Boron, dissolved	M200.7 ICP	1	0.01	В	mg/L	0.01	0.05	08/01/13 19:27	jjc
Cadmium, dissolved	M200.8 ICP-MS	1	0.0017		mg/L	0.0001	0.0005	08/02/13 18:49	msh
Cadmium, total	M200.8 ICP-MS	1	0.0021		mg/L	0.0001	0.0005	08/06/13 21:51	las
Calcium, dissolved	M200.7 ICP	1	213		mg/L	0.2	1	08/01/13 19:27	jjc
Chromium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	08/02/13 18:49	msh
Chromium, total	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	08/06/13 21:51	las
Chromium, Trivalent	Calculation (Total - Hexavaler			U	mg/L	0.0005	0.002	08/09/13 16:01	calc
Copper, dissolved	M200.8 ICP-MS	1	0.0052		mg/L	0.0005	0.003	08/02/13 18:49	msh
Copper, total	M200.8 ICP-MS	1	0.0264		mg/L	0.0005	0.003	08/08/13 23:54	msh
Iron, dissolved	M200.7 ICP	1	0.02	В	mg/L	0.02	0.05	08/01/13 19:27	jjc
Iron, total	M200.7 ICP	1	0.34		mg/L	0.02	0.05	08/02/13 22:07	aeb
Lead, dissolved	M200.8 ICP-MS	1	0.0016		mg/L	0.0001	0.0005	08/02/13 18:49	msh
Lead, total	M200.8 ICP-MS	1	0.0174		mg/L	0.0001	0.0005	08/08/13 23:54	msh
Magnesium, dissolved	M200.7 ICP	1	3.2		mg/L	0.2	1	08/01/13 19:27	jjc
Manganese, dissolved	M200.7 ICP	1	0.153	*	mg/L	0.005	0.03	08/01/13 19:27	jjc
Manganese, total	M200.7 ICP	1	0.181		mg/L	0.005	0.03	08/02/13 22:07	aeb
Mercury, total	M245.1 CVAA	1		U	mg/L	0.0002	0.001	08/01/13 11:41	mfm
Nickel, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	08/01/13 19:27	jjc
Nickel, total	M200.7 ICP	1		U	mg/L	0.01	0.05	08/02/13 22:07	aeb
Selenium, dissolved	M200.8 ICP-MS	1	0.0005		mg/L	0.0001	0.0003	08/02/13 18:49	msh
Silver, dissolved	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	08/02/13 18:49	msh
Silver, total	M200.8 ICP-MS	1	0.00006	В	mg/L	0.00005	0.0003	08/06/13 21:51	las
Uranium, dissolved	M200.8 ICP-MS	1	0.0005		mg/L	0.0001	0.0005	08/02/13 18:49	msh
Uranium, total	M200.8 ICP-MS	1	0.0005		mg/L	0.0001	0.0005	08/06/13 21:51	las
Zinc, dissolved	M200.7 ICP	1	0.40		mg/L	0.01	0.05	08/01/13 19:27	jjo
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* Please refer to Qualifier Reports for details.

## Caldera Mineral Resources

Project ID:

Sample ID: CB-D

# Inorganic Analytical Results

ACZ Sample ID: L13488-04 Date Sampled: 07/24/13 00:00 Date Received: 07/25/13 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	46		*	mg/L	2	20	07/27/13 0:00	khw
Carbonate as CaCO3		1		U	*	mg/L	2	20	07/27/13 0:00	khw
Hydroxide as CaCO3		1		U	*	mg/L	2	20	07/27/13 0:00	khw
Total Alkalinity		1	46		*	mg/L	2	20	07/27/13 0:00	khw
Chloride	SM4500CI-E	1	1	В	*	mg/L	1	5	08/05/13 15:48	8 mpb
Conductivity @25C	SM2510B	1	996		*	umhos/cm	1	10	07/27/13 20:35	5 khw
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	08/07/13 20:09	) pjb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	08/07/13 20:33	s pjb
Dissolved Chromium, Hexavalent	SM3500Cr-D	1		UH	*	mg/L	0.005	0.02	07/25/13 12:46	6 khw
Hardness as CaCO3	SM2340B - Calculation		546			mg/L	1	7	08/09/13 16:01	calc
Lab Filtration (0.45um filter)	SOPWC050	1							07/30/13 10:16	6 khw
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							07/30/13 18:09	scp
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.06	В		mg/L	0.02	0.1	08/09/13 16:01	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.06	В	*	mg/L	0.02	0.1	07/25/13 19:38	B pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	07/25/13 19:38	s pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	08/05/13 15:35	5 tcd
pH (lab)	SM4500H+ B									
pН		1	8.0	н	*	units	0.1	0.1	07/27/13 0:00	khw
pH measured at		1	19.0		*	С	0.1	0.1	07/27/13 0:00	khw
Residue, Filterable (TDS) @180C	SM2540C	1	816		*	mg/L	10	20	07/31/13 13:58	dcw
Residue, Non- Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	07/31/13 11:33	8 mss3
Sulfate	D516-02 - Turbidimetric	20	513		*	mg/L	20	100	08/08/13 10:50	) bsu
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	07/31/13 13:49	) abm

## **Caldera Mineral Resources**

## Project ID:

Sample ID: CB-E

# Inorganic Analytical Results

ACZ Sample ID:	L13488-05
Date Sampled:	07/24/13 00:00
Date Received:	07/25/13
Sample Matrix:	Surface Water

Parameter     EPA Method     Dilution     Result     Qual XQ     Units     MDL     PQL     Date     Analyst       Cyanide, total     MS354 - Manual Distillation     -     08/06/13 12:32     tot     08/06/13 12:32     tot     08/06/13 12:32     tot     08/06/13 12:32     tot     08/06/13 16:13     tot     08/06/13 13:12     sep     08/06/13 16:12     sep     08/06/13 16:12     sep     08/06/13 16:12     sep     08/06/13 16:12     sep     10.052     mgL     0.001     0.005     08/07/13 10:26     msh     recoverable     Arsenic, dissolved     M200.3 (CP-MS     1     0.001     mgL     0.001     08/07/13 11:28     pmc     recoverable     mgL     0.001     08/07/13 11:28     pmc     recoverable     M200.7 (CP     1     0.021     mgL     0.001     0.005     08/07/13 11:28     pmc	Inorganic Prep									
Cyanide, WAD     SM4500-CN i- distillation     08/06/13 14.41     tot       Total Hot Plate     M200 2 CP     08/01/13 16.58     aeb       Digestion     M200 2 CP-MS     08/06/13 13.12     spectro       Digestion     M200 2 CP-MS     08/06/13 13.12     spectro       Digestion     M200 2 CP-MS     08/06/13 13.12     spectro       Metals Analysis     Parameter     PA Method     D110     Recoverable     0.001     0.001     Ro00 2     0.001     Ro007/13 19:06     msh       Arsenic, dissolved     M200.8 ICP-MS     1     0.0021     mg/L     0.0002     0.001     Ro07/13 19:06     msh       Arsenic, dissolved     M200.8 ICP-MS     1     0.001     mg/L     0.002     0.001     Ro07/13 19:30     jjc       Barium, dissolved     M200.7 ICP     1     0.021     mg/L     0.000     Ro07/13 19:30     jjc       Cadmium, total     M200.8 ICP-MS     1     0.001     mg/L     0.000     Ro07/13 19:30     jjc       Cadmium, dissolved     M200.7 ICP     1     0.21 <td< th=""><th><b>v</b> ,</th><th>EPA Method</th><th>Dilution</th><th>Result</th><th>Qual XQ</th><th>Units</th><th>MDL</th><th>PQL</th><th>Date</th><th>Analyst</th></td<>	<b>v</b> ,	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Total Holf Plate Digestion Total Holf Plate     M200.2 ICP-MS     98.06/113 10:58     aeb       Digestion Total Holf Plate     M200.2 ICP-MS     98.06/13 20:24     las       Digestion     M200.2 ICP-MS     98.06/13 20:24     las       Digestion     M200.2 ICP-MS     98.06/13 20:24     las       Metals Analysis     F     Parameter     FQA     Monto     Result     Qual     X     Units     MDL     PQL     Out     Monto     Result     Analysis       Aluminum, total     M208.8 ICP-MS     1     0.052     mgL     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001	Cyanide, total	M335.4 - Manual Distillation		-					08/06/13 12:32	tcd
Total Holf Plate Digestion Total Holf Plate     M200.2 ICP-MS     98.06/113 10:58     aeb       Digestion Total Holf Plate     M200.2 ICP-MS     98.06/13 20:24     las       Digestion     M200.2 ICP-MS     98.06/13 20:24     las       Digestion     M200.2 ICP-MS     98.06/13 20:24     las       Metals Analysis     F     Parameter     FQA     Monto     Result     Qual     X     Units     MDL     PQL     Out     Monto     Result     Analysis       Aluminum, total     M208.8 ICP-MS     1     0.052     mgL     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001     0.001	Cvanide, WAD	SM4500-CN I- distillation							08/06/13 14:41	tcd
Digestion Drigetton     N200.2 (CP-MIS     Second Digestion     N200.2 (CP-MIS     N200.2 (CP-MIS		M200.2 ICP								
Digestion Digestion     M2002 ICP-MS     Subsect     Subsec										
Total Recoverable Digestion     M200.2 ICP-MS     OB/06/13 13:12     scp       Parameter     EPA Method     Dilution     Result     Qual     XQ     Units     MDL     PoL     Date     Analysis       Parameter     EPA Method     Dilution     Result     Qual     XQ     Units     MDL     PoL     Date     Analysis       Aluminum, total     M200.8 ICP-MS     1     0.052     mg/L     0.001     0.001     0.002     0.001     0.002/171 81:53     msh       Arsenic, cital     M200.8 ICP-MS     1     0.001     mg/L     0.003     0.02     0.01     0.07/13 19:30     jic       Barium, dissolved     M200.7 ICP     1     0.021     mg/L     0.01     0.05     0.80/01/13 19:30     jic       Cadmium, dissolved     M200.8 ICP-MS     1     0.0017     mg/L     0.001     0.005     0.80/21/3 8:53     msh       Cadmium, dissolved     M200.8 ICP-MS     1     0.0021     mg/L     0.0005     0.002     0.80/21/3 8:53     msh       Cadicium, dis		M200.2 ICP-MS							08/05/13 20:24	las
Digestion     Models     No. 10.10     Models     Models     No. 10.10     Models	•								00/00/40 40 40	
Variate     Parameter     EPA Method     Dilution     Result     Qual     XQ     Units     MDL     PQL     Date     Analyst       Aluminum, total recoverable     M200.8 ICP-MS     1     0.052     mg/L     0.001     0.005     08/07/13 19:06     msh       Arsenic, citasolved     M200.8 ICP-MS     1     0.0004     B     mg/L     0.0002     0.001     08/07/13 19:06     msh       Arsenic, citasolved     M200.8 ICP-MS     1     0.0010     mg/L     0.001     0.002     0.001     08/07/13 19:30     jic       Barlum, dissolved     M200.7 ICP     1     0.02     B     mg/L     0.011     0.055     08/01/13 19:30     jic       Cadmium, dissolved     M200.8 ICP-MS     1     0.002     B     mg/L     0.001     0.0005     08/02/13 18:53     msh       Cadmium, dissolved     M200.7 ICP     1     2.16     mg/L     0.0001     0.0005     0.002     08/02/13 18:53     msh       Cadmium, dissolved     M200.8 ICP-MS     1     0.0024     mg/L<		IVI200.2 ICP-IVI5							08/06/13 13:12	scp
Parameter     EPA Method     Dilution     Result     Qual     XQ     Units     MDL     PQL     Date     Analyst       Aluminum, total recoverable     M208.1CP-MS     1     0.052     mg/L     0.001     0.005     08/07/13 19:06     msh       Arsenic, dissolved     M208.1CP-MS     1     0.0004     B     mg/L     0.0010     0.007     0.001     08/07/13 12:8     pmc       Cadenium, dissolved     M200.7 ICP     1     0.021     mg/L     0.001     0.005     08/01/13 19:30     jic       Beryllium, dissolved     M200.7 ICP     1     0.021     mg/L     0.01     0.055     08/01/13 19:30     jic       Cadmium, dissolved     M200.7 ICP     1     0.021     mg/L     0.001     0.005     08/02/13 18:53     msh       Cadmium, dissolved     M200.7 ICP     1     0.021     mg/L     0.0001     0.0005     08/02/13 18:53     msh       Cadmium, dissolved     M200.7 ICP     1     216     mg/L     0.0005     0.002     08/07/13 18:53     msh <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	-									
Aluminum, total recoverable     M20.8 ICP-MS     1     0.052     mg/L     0.001     0.005     08/07/13 19:06     msh       Arsenic, fotal recoverable     M200.8 ICP-MS     1     0.0004     B     mg/L     0.0002     0.001     08/02/13 18:53     msh       Arsenic, fotal recoverable     M200.8 ICP-MS     1     0.001     mg/L     0.002     0.001     08/07/13 19:30     jjc       Barium, dissolved     M200.7 ICP     1     0.021     mg/L     0.011     0.05     08/01/13 19:30     jjc       Cadmium, dissolved     M200.7 ICP     1     0.021     mg/L     0.001     0.0005     08/02/13 18:53     msh       Cadmium, dissolved     M200.8 ICP-MS     1     0.0017     mg/L     0.0001     0.0005     08/02/13 18:53     msh       Cadmium, dissolved     M200.8 ICP-MS     1     U     mg/L     0.0005     0.002     08/02/13 18:53     msh       Chromium, dissolved     M200.8 ICP-MS     1     U     mg/L     0.0005     0.002     08/02/13 18:53     msh	,	FPA Method	Dilution	Result	Qual XQ	Unite	MDI	POI	Date	Analyst
recoverable     M20.8 kCP-MS     1     0.0004     B     mg/L     0.0002     0.001     08/02/13 k1:28     msh       Arsenic, total     M20.8 KCP-MS     1     0.001     mg/L     0.002     0.001     08/02/13 k1:28     pmc       Barlum, dissolved     M20.7 KCP     1     0.021     mg/L     0.003     0.02     08/01/13 19:30     jjc       Boron, dissolved     M200.7 KCP     1     0.02     B     mg/L     0.01     0.05     08/01/13 19:30     jjc       Cadmium, dissolved     M200.7 KCP     1     0.02     B     mg/L     0.001     0.005     08/02/13 18:53     msh       Cadmium, dissolved     M200.8 KCP-MS     1     0.001     mg/L     0.0001     0.0005     08/02/13 18:53     msh       Cadrium, dissolved     M200.8 KCP-MS     1     0     mg/L     0.0005     0.002     08/08/13 23:57     msh       Chromium, total     M200.8 KCP-MS     1     0.0069     mg/L     0.0005     0.002     08/08/13 23:57     msh       Chrom										
Arsenic, Itali recoverable     M200.8 ICP-MS     1     0.0010     mg/L     0.0022     0.001     08/07/13 1:28     pmc       Barium, dissolved     M200.7 ICP     1     0.021     mg/L     0.001     0.05     08/01/13 19:30     jjc       Boron, dissolved     M200.7 ICP     1     0.02     B     mg/L     0.011     0.05     08/01/13 19:30     jjc       Cadmium, dissolved     M200.7 ICP     1     0.002     B     mg/L     0.001     0.005     08/02/13 18:53     msh       Cadmium, dissolved     M200.8 ICP-MS     1     0.0021     mg/L     0.0001     0.0005     08/02/13 18:53     msh       Calcium, dissolved     M200.8 ICP-MS     1     0.0021     mg/L     0.0005     0.002     08/02/13 18:53     msh       Chromium, dissolved     M200.8 ICP-MS     1     U     mg/L     0.0005     0.002     08/02/13 18:53     msh       Chromium, Trivalent     Caduation (Total - Hexavalent)     U     mg/L     0.0005     0.002     08/02/13 18:53     msh	,		I	0.052		iiig/L	0.001	0.005	00/07/13 19:00	111311
recoverable     mg/L     0.021     mg/L     0.003     0.02     0.001/13 19:30     jjc       Beryllium, dissolved     M200.7 ICP     1     0.021     mg/L     0.011     0.05     08/01/13 19:30     jjc       Beryllium, dissolved     M200.7 ICP     1     0.02     B     mg/L     0.011     0.05     08/01/13 19:30     jjc       Cadmium, dissolved     M200.8 ICP-MS     1     0.0017     mg/L     0.0001     0.0005     08/02/13 18:53     msh       Cadicum, dissolved     M200.8 ICP-MS     1     0.0021     mg/L     0.0005     0.002     08/02/13 18:53     msh       Calcium, dissolved     M200.8 ICP-MS     1     U     mg/L     0.0005     0.002     08/02/13 18:53     msh       Chromium, dissolved     M200.8 ICP-MS     1     U     mg/L     0.0005     0.002     08/02/13 18:53     msh       Copper, dissolved     M200.8 ICP-MS     1     0.028     mg/L     0.0005     0.003     08/02/13 23:57     msh       Copper, dissolved     M200.8 ICP-MS	Arsenic, dissolved	M200.8 ICP-MS	1	0.0004	В	mg/L	0.0002	0.001	08/02/13 18:53	msh
recoverable     mag/L     0.021     mag/L     0.021     0.021     0.021     0.021     0.021     0.021     0.021     0.021     0.021     0.021     0.021     0.021     0.021     0.021     0.021     0.021     0.021     0.021     0.021     0.021     0.021     0.021     0.001     0.0021     0.001     0.0021     0.0021     0.0021     0.0021     0.0021     0.0021     0.0021     0.0021     0.0021     0.0021     0.0021     0.0021     0.0021     0.0021     0.0021     0.0021     0.0021     0.0021     0.0021     0.0021     0.0021     0.0021     0.0021     0.0021     0.0021     0.0021     0.0017     0.0017     0.017     0.0017     0.0017     0.0017     0.0017     0.0011     0.0021     0.0011     0.0012     0.0021     0.0017     0.0017     0.0017     0.0017     0.0017     0.0017     0.0017     0.0017     0.0017     0.0021     0.0017     0.0021     0.0017     0.0021     0.0017     0.0021     0.0011     0.0023     0.0011	Arsenic, total	M200.8 ICP-MS	1	0.0010		mg/L	0.0002	0.001	08/07/13 1:28	pmc
Beryllium, dissolved     M200.7 ICP     1     U     mg/L     0.01     0.05     0.801/13 19:30     jjc       Boron, dissolved     M200.7 ICP     1     0.02     B     mg/L     0.011     0.055     0.801/13 19:30     jjc       Cadmium, dissolved     M200.8 ICP-MS     1     0.0017     mg/L     0.001     0.005     0.802/13 18:53     msh       Calcium, dissolved     M200.8 ICP-MS     1     0.0021     mg/L     0.0005     0.002     0.802/13 18:53     msh       Chromium, dissolved     M200.8 ICP-MS     1     U     mg/L     0.0005     0.002     0.802/13 18:53     msh       Chromium, Trivalent     Calculatin (Total - Hexavalent)     U     mg/L     0.0005     0.002     0.802/13 18:53     msh       Copper, dissolved     M200.8 ICP-MS     1     0.028     mg/L     0.0005     0.002     0.802/13 18:53     msh       Copper, dissolved     M200.8 ICP-MS     1     0.028     mg/L     0.0005     0.003     0.802/13 18:53     msh       Iron, dissolved										
Boron, dissolved     M200.7 ICP     1     0.02     B     mg/L     0.01     0.05     08/01/13 19:30     jr       Cadmium, dissolved     M200.8 ICP-MS     1     0.0017     mg/L     0.0001     0.0005     08/02/13 18:53     msh       Cadmium, total     M200.8 ICP-MS     1     0.0021     mg/L     0.0005     0.0005     08/02/13 18:53     msh       Chromium, dissolved     M200.8 ICP-MS     1     216     mg/L     0.0005     0.002     08/02/13 18:53     msh       Chromium, total     M200.8 ICP-MS     1     U     mg/L     0.0005     0.002     08/02/13 18:53     msh       Copper, dissolved     M200.8 ICP-MS     1     0.0089     mg/L     0.0005     0.002     08/02/13 18:53     msh       Copper, total     M200.8 ICP-MS     1     0.0288     mg/L     0.0005     0.003     08/02/13 18:53     msh       Ion, dissolved     M200.7 ICP     1     0.04     B     mg/L     0.005     0.003     08/02/13 18:53     msh       Ion, total				0.021		Ũ				
Cadmium, dissolved     M200.8 ICP-MS     1     0.0017     mg/L     0.0001     0.0005     08/02/13 18:53     ms/ms/ms/ms/ms/ms/ms/ms/ms/ms/ms/ms/ms/m	<b>,</b>					•				
Cadmium, total     M20.8 ICP-MS     1     0.0021     mg/L     0.0001     0.0005     08/08/13 23:57     msh       Calcium, dissolved     M200.7 ICP     1     216     mg/L     0.2     1     08/01/13 19:30     jjc       Chromium, dissolved     M200.8 ICP-MS     1     U     mg/L     0.0005     0.002     08/02/13 18:53     msh       Chromium, total     M200.8 ICP-MS     1     U     mg/L     0.0005     0.002     08/02/13 18:53     msh       Copper, dissolved     M200.8 ICP-MS     1     0.0069     mg/L     0.0005     0.002     08/02/13 18:53     msh       Copper, dissolved     M200.7 ICP     1     0.04     B     mg/L     0.022     0.05     08/02/13 18:53     msh       Iron, dissolved     M200.7 ICP     1     0.37     mg/L     0.001     0.005     08/02/13 18:53     msh       Lead, dissolved     M200.7 ICP     1     0.33     mg/L     0.001     0.005     08/02/13 18:53     msh       Magnesium, dissolved     M200.7 ICP <td></td> <td></td> <td></td> <td></td> <td>В</td> <td>mg/L</td> <td></td> <td></td> <td></td> <td>jjc</td>					В	mg/L				jjc
Calcium, dissolved     M200.7 ICP     1     216     mg/L     0.02     1     08/01/13 19:30     jjc       Chromium, dissolved     M200.8 ICP-MS     1     U     mg/L     0.0005     0.002     08/02/13 18:53     msh       Chromium, total     M200.8 ICP-MS     1     U     mg/L     0.0005     0.002     08/08/13 23:57     msh       Chromium, Trivalent     Calculation (Total - Hexavalent)     U     mg/L     0.0005     0.002     08/08/13 23:57     msh       Copper, dissolved     M200.8 ICP-MS     1     0.0288     mg/L     0.0005     0.003     08/02/13 18:53     msh       Iron, dissolved     M200.7 ICP     1     0.04     B     mg/L     0.001     0.005     0.802/13 22:10     aeb       Lead, dissolved     M200.7 ICP     1     0.37     mg/L     0.001     0.005     0.802/13 22:10     aeb       Magnaese, dissolved     M200.7 ICP     1     0.33     mg/L     0.001     0.005     0.808/1/3 23:57     msh       Magnaese, dissolved     M200.7 ICP	Cadmium, dissolved	M200.8 ICP-MS	1	0.0017		mg/L	0.0001		08/02/13 18:53	msh
Chromium, dissolved     M200.8 ICP-MS     1     U     mg/L     0.0005     0.002     08/02/13 18:53     ms/L       Chromium, total     M200.8 ICP-MS     1     U     mg/L     0.0005     0.002     08/02/13 18:53     ms/L       Chromium, Trivalent     Calculation (Total - Hexavalent)     U     mg/L     0.0005     0.002     08/02/13 18:53     ms/L       Copper, dissolved     M200.8 ICP-MS     1     0.0069     mg/L     0.0005     0.003     08/02/13 18:53     ms/L       Copper, dissolved     M200.8 ICP-MS     1     0.0288     mg/L     0.002     0.05     08/02/13 18:53     ms/L       Iron, dissolved     M200.7 ICP     1     0.037     mg/L     0.001     0.005     08/02/13 22:10     aeb       Lead, dissolved     M200.7 ICP     1     0.0252     mg/L     0.0005     0.03     08/02/13 22:10     aeb       Magnesium, dissolved     M200.7 ICP     1     0.146     mg/L     0.0005     0.03     08/02/13 18:53     ms/L       Magnesium, dissolved     M200.7 IC	Cadmium, total	M200.8 ICP-MS	1			mg/L		0.0005	08/08/13 23:57	msh
Chromium, total     M200.8 ICP-MS     1     U     mg/L     0.0005     0.002     08/08/13 23:57     msh       Chromium, Trivalent     Calculation (Total - Hexavalent)     U     mg/L     0.0005     0.002     08/08/13 23:57     msh       Copper, dissolved     M200.8 ICP-MS     1     0.0069     mg/L     0.0005     0.003     08/02/13 18:53     msh       Copper, total     M200.8 ICP-MS     1     0.028     mg/L     0.005     0.003     08/08/13 23:57     msh       Iron, dissolved     M200.7 ICP     1     0.04     B     mg/L     0.02     0.05     08/02/13 18:53     msh       Lead, dissolved     M200.7 ICP     1     0.036     mg/L     0.001     0.005     08/02/13 22:10     aeb       Lead, total     M200.8 ICP-MS     1     0.025     mg/L     0.001     0.005     08/02/13 18:53     msh       Lead, total     M200.7 ICP     1     3.3     mg/L     0.025     0.30     08/01/13 19:30     jjc       Manganese, dissolved     M200.7 ICP	Calcium, dissolved	M200.7 ICP	1	216		mg/L	0.2	1	08/01/13 19:30	jjc
Chromium, Trivalent     Calculation (Total - Hexavalent)     U     mg/L     0.0005     0.002     08/09/13 16:01     calc       Copper, dissolved     M200.8 ICP-MS     1     0.0069     mg/L     0.0005     0.002     08/09/13 16:01     calc       Copper, dissolved     M200.8 ICP-MS     1     0.0288     mg/L     0.0005     0.003     08/02/13 18:53     msh       Iron, dissolved     M200.7 ICP     1     0.04     B     mg/L     0.02     0.05     08/01/13 19:30     jjc       Iron, total     M200.7 ICP     1     0.37     mg/L     0.02     0.05     08/02/13 8:53     msh       Lead, dissolved     M200.8 ICP-MS     1     0.0252     mg/L     0.001     0.005     08/02/13 18:53     msh       Magnesium, dissolved     M200.7 ICP     1     0.146     *     mg/L     0.005     0.03     08/01/13 19:30     jjc       Manganese, disal     M200.7 ICP     1     0.146     *     mg/L     0.005     0.03     08/02/13 22:10     aeb       Mercu	Chromium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	08/02/13 18:53	msh
Copper, dissolved     M20.8 ICP-MS     1     0.0069     mg/L     0.0005     0.003     08/02/13 18:53     msh       Copper, total     M20.8 ICP-MS     1     0.0288     mg/L     0.0005     0.003     08/02/13 18:53     msh       Iron, dissolved     M20.7 ICP     1     0.04     B     mg/L     0.022     0.05     08/02/13 18:53     msh       Lead, dissolved     M200.7 ICP     1     0.037     mg/L     0.02     0.05     08/02/13 22:10     aeb       Lead, dissolved     M200.8 ICP-MS     1     0.0252     mg/L     0.0001     0.0005     08/02/13 18:53     msh       Magnesium, dissolved     M200.7 ICP     1     3.3     mg/L     0.22     1     08/01/13 19:30     jjc       Manganese, dissolved     M20.7 ICP     1     0.146     *     mg/L     0.005     0.03     08/01/13 19:30     jjc       Manganese, dissolved     M20.7 ICP     1     0.146     *     mg/L     0.005     0.03     08/02/13 22:10     aeb       Mercury,	Chromium, total	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	08/08/13 23:57	msh
Copper, total     M200.8 ICP-MS     1     0.0288     mg/L     0.0001     0.003     08/08/13 23:57     msh       Iron, dissolved     M200.7 ICP     1     0.044     B     mg/L     0.025     0.8/08/13 23:57     msh       Iron, dissolved     M200.7 ICP     1     0.37     mg/L     0.02     0.05     08/02/13 22:10     aeb       Lead, dissolved     M200.8 ICP-MS     1     0.0036     mg/L     0.001     0.0005     08/02/13 22:10     aeb       Lead, total     M200.8 ICP-MS     1     0.0252     mg/L     0.0011     0.0005     08/02/13 22:10     aeb       Magnesium, dissolved     M200.7 ICP     1     0.146     *     mg/L     0.005     0.03     08/01/13 19:30     jjc       Manganese, dissolved     M200.7 ICP     1     0.146     *     mg/L     0.005     0.03     08/01/13 19:30     jjc       Manganese, total     M20.7 ICP     1     0.250     mg/L     0.001     0.055     0.03     08/01/13 19:30     jjc       Nickel,	Chromium, Trivalent	Calculation (Total - Hexavaler	nt)		U	mg/L	0.0005	0.002	08/09/13 16:01	calc
Iron, dissolved   M200.7 ICP   1   0.04   B   mg/L   0.02   0.05   08/01/13 19:30   jjc     Iron, dissolved   M200.7 ICP   1   0.37   mg/L   0.02   0.05   08/02/13 22:10   aeb     Lead, dissolved   M200.8 ICP-MS   1   0.0036   mg/L   0.0001   0.0005   08/02/13 18:53   msh     Lead, total   M200.8 ICP-MS   1   0.0252   mg/L   0.0011   0.0005   08/02/13 23:57   msh     Magnesium, dissolved   M200.7 ICP   1   3.3   mg/L   0.22   1   08/01/13 19:30   jjc     Manganese, dissolved   M200.7 ICP   1   0.146   *   mg/L   0.005   0.03   08/01/13 19:30   jjc     Manganese, total   M200.7 ICP   1   0.146   *   mg/L   0.005   0.03   08/01/13 19:30   jjc     Marganese, total   M200.7 ICP   1   0.250   mg/L   0.001   0.05   0.8001/13 19:30   jjc     Nickel, dissolved   M200.7 ICP   1   U   mg/L   0.011   0.05   08/01	Copper, dissolved	M200.8 ICP-MS	1	0.0069		mg/L	0.0005	0.003	08/02/13 18:53	msh
Iron, total   M200.7 ICP   1   0.37   mg/L   0.02   0.05   08/02/13 22:10   aeb     Lead, dissolved   M200.8 ICP-MS   1   0.0036   mg/L   0.001   0.0005   08/02/13 22:10   aeb     Lead, total   M200.8 ICP-MS   1   0.0252   mg/L   0.001   0.0005   08/02/13 23:57   msh     Magnesium, dissolved   M200.7 ICP   1   3.3   mg/L   0.2   1   08/01/13 19:30   jjc     Manganese, dissolved   M200.7 ICP   1   0.146   *   mg/L   0.005   0.03   08/02/13 22:10   aeb     Mercury, total   M20.7 ICP   1   0.146   *   mg/L   0.005   0.03   08/02/13 22:10   aeb     Mercury, total   M20.7 ICP   1   0.250   mg/L   0.005   0.03   08/02/13 22:10   aeb     Nickel, dissolved   M200.7 ICP   1   U   mg/L   0.01   0.55   08/01/13 19:30   jjc     Nickel, total   M200.7 ICP   1   U   mg/L   0.01   0.55   08/02/13 22:10   aeb	Copper, total	M200.8 ICP-MS	1	0.0288		mg/L	0.0005	0.003	08/08/13 23:57	msh
Lead, dissolved   M20.8 ICP-MS   1   0.0036   mg/L   0.0001   0.0005   08/02/13 18:53   msh     Lead, total   M20.8 ICP-MS   1   0.0252   mg/L   0.0001   0.0005   08/02/13 18:53   msh     Magnesium, dissolved   M200.7 ICP   1   3.3   mg/L   0.2   1   08/01/13 19:30   jjc     Manganese, dissolved   M200.7 ICP   1   0.146   *   mg/L   0.0005   0.03   08/02/13 22:10   aeb     Mercury, total   M20.7 ICP   1   0.250   mg/L   0.0002   0.001   08/02/13 22:10   aeb     Mickel, dissolved   M200.7 ICP   1   0.250   mg/L   0.0002   0.001   08/01/13 19:30   jjc     Marganese, total   M20.7 ICP   1   U   mg/L   0.001   0.055   08/01/13 11:43   mfm     Nickel, dissolved   M200.7 ICP   1   U   mg/L   0.011   0.05   08/02/13 18:53   msh     Silver, dissolved   M200.8 ICP-MS   1   0.0005   mg/L   0.001   0.003   08/02/13 18:53   ms	Iron, dissolved	M200.7 ICP	1	0.04	В	mg/L	0.02	0.05	08/01/13 19:30	jjc
Lead, total   M200.8 ICP-MS   1   0.0252   mg/L   0.0001   0.0005   08/08/13 23:57   msh     Magnesium, dissolved   M200.7 ICP   1   3.3   mg/L   0.2   1   08/01/13 19:30   jjc     Manganese, dissolved   M200.7 ICP   1   0.146   *   mg/L   0.005   0.03   08/01/13 19:30   jjc     Manganese, total   M200.7 ICP   1   0.250   mg/L   0.005   0.03   08/02/13 22:10   aeb     Mercury, total   M245.1 CVAA   1   U   mg/L   0.001   0.05   08/01/13 19:30   jjc     Nickel, dissolved   M200.7 ICP   1   U   mg/L   0.001   0.05   08/01/13 19:30   jjc     Nickel, total   M200.7 ICP   1   U   mg/L   0.01   0.05   08/02/13 22:10   aeb     Selenium, dissolved   M200.8 ICP-MS   1   0.0005   mg/L   0.01   0.05   08/02/13 18:53   msh     Silver, total   M200.8 ICP-MS   1   0.0007   B   mg/L   0.0001   0.0003   08/02/13 18:53   <	Iron, total	M200.7 ICP	1	0.37		mg/L	0.02	0.05	08/02/13 22:10	aeb
Magnesium, dissolved     M200.7 ICP     1     3.3     mg/L     0.2     1     08/01/13 19:30     jjc       Manganese, dissolved     M200.7 ICP     1     0.146     *     mg/L     0.005     0.03     08/01/13 19:30     jjc       Manganese, dissolved     M200.7 ICP     1     0.250     mg/L     0.005     0.03     08/01/13 19:30     jjc       Manganese, total     M200.7 ICP     1     0.250     mg/L     0.005     0.03     08/01/13 19:30     jjc       Mercury, total     M245.1 CVAA     1     U     mg/L     0.001     0.05     08/01/13 19:30     jjc       Nickel, dissolved     M200.7 ICP     1     U     mg/L     0.01     0.05     08/02/13 22:10     aeb       Selenium, dissolved     M200.8 ICP-MS     1     0.0005     mg/L     0.01     0.05     08/02/13 22:10     aeb       Silver, total     M200.8 ICP-MS     1     0.0005     mg/L     0.001     0.003     08/02/13 18:53     msh       Silver, total     M200.8 ICP-MS	Lead, dissolved	M200.8 ICP-MS	1	0.0036		mg/L	0.0001	0.0005	08/02/13 18:53	msh
Manganese, dissolved     M200.7 ICP     1     0.146     *     mg/L     0.005     0.03     08/01/13 19:30     jjc       Manganese, total     M200.7 ICP     1     0.250     mg/L     0.005     0.03     08/02/13 22:10     aeb       Mercury, total     M245.1 CVAA     1     U     mg/L     0.002     0.001     08/01/13 11:43     mfm       Nickel, dissolved     M200.7 ICP     1     U     mg/L     0.011     0.05     08/01/13 19:30     jjc       Nickel, dissolved     M200.7 ICP     1     U     mg/L     0.01     0.05     08/01/13 19:30     jjc       Nickel, total     M200.7 ICP     1     U     mg/L     0.01     0.05     08/02/13 22:10     aeb       Selenium, dissolved     M200.8 ICP-MS     1     0.0005     mg/L     0.001     0.053     08/02/13 18:53     msh       Silver, total     M200.8 ICP-MS     1     0.0007     B     mg/L     0.0005     0.003     08/02/13 18:53     msh       Uranium, dissolved     M200.8 IC	Lead, total	M200.8 ICP-MS	1	0.0252		mg/L	0.0001	0.0005	08/08/13 23:57	msh
Manganese, total     M200.7 ICP     1     0.250     mg/L     0.005     0.03     08/02/13 22:10     aeb       Mercury, total     M245.1 CVAA     1     U     mg/L     0.0002     0.001     08/01/13 11:43     mfm       Nickel, dissolved     M200.7 ICP     1     U     mg/L     0.01     0.05     08/02/13 22:10     aeb       Nickel, total     M200.7 ICP     1     U     mg/L     0.01     0.05     08/01/13 19:30     jjc       Nickel, total     M200.7 ICP     1     U     mg/L     0.01     0.05     08/02/13 22:10     aeb       Selenium, dissolved     M200.8 ICP-MS     1     0.0005     mg/L     0.001     0.053     08/02/13 18:53     msh       Silver, dissolved     M200.8 ICP-MS     1     0.00007     B     mg/L     0.0003     08/02/13 18:53     msh       Viranium, dissolved     M200.8 ICP-MS     1     0.0004     B     mg/L     0.0001     0.005     08/02/13 18:53     msh       Uranium, dissolved     M200.8 ICP-MS	Magnesium, dissolved	M200.7 ICP	1	3.3		mg/L	0.2	1	08/01/13 19:30	jjc
Mercury, total     M245.1 CVAA     1     U     mg/L     0.0002     0.001     08/01/13 11:43     mfm       Nickel, dissolved     M200.7 ICP     1     U     mg/L     0.01     0.05     08/01/13 19:30     jjc       Nickel, total     M200.7 ICP     1     U     mg/L     0.01     0.05     08/01/13 19:30     jjc       Selenium, dissolved     M200.8 ICP-MS     1     0.0005     mg/L     0.01     0.05     08/02/13 22:10     aeb       Silver, dissolved     M200.8 ICP-MS     1     0.0005     mg/L     0.0001     0.003     08/02/13 18:53     msh       Silver, total     M200.8 ICP-MS     1     0.0007     B     mg/L     0.0005     0.003     08/02/13 18:53     msh       Varanium, dissolved     M200.8 ICP-MS     1     0.0007     B     mg/L     0.0005     0.003     08/02/13 18:53     msh       Uranium, dissolved     M200.8 ICP-MS     1     0.0004     B     mg/L     0.0001     0.005     08/02/13 18:53     msh       Uran	Manganese, dissolved	M200.7 ICP	1	0.146	*	mg/L	0.005	0.03	08/01/13 19:30	jjc
Nickel, dissolved     M200.7 ICP     1     U     mg/L     0.01     0.05     08/01/13 19:30     jjc       Nickel, total     M200.7 ICP     1     U     mg/L     0.01     0.05     08/02/13 22:10     aeb       Selenium, dissolved     M200.8 ICP-MS     1     0.0005     mg/L     0.0001     0.003     08/02/13 18:53     msh       Silver, dissolved     M200.8 ICP-MS     1     0.0007     B     mg/L     0.0005     0.003     08/02/13 18:53     msh       Silver, total     M200.8 ICP-MS     1     0.00007     B     mg/L     0.0005     0.003     08/02/13 18:53     msh       Uranium, dissolved     M200.8 ICP-MS     1     0.00007     B     mg/L     0.0005     0.003     08/02/13 18:53     msh       Uranium, dissolved     M200.8 ICP-MS     1     0.0004     B     mg/L     0.0001     0.005     08/02/13 18:53     msh       Uranium, total     M200.8 ICP-MS     1     0.0005     mg/L     0.001     0.005     08/08/13 23:57     msh </td <td>Manganese, total</td> <td>M200.7 ICP</td> <td>1</td> <td>0.250</td> <td></td> <td>mg/L</td> <td>0.005</td> <td>0.03</td> <td>08/02/13 22:10</td> <td>aeb</td>	Manganese, total	M200.7 ICP	1	0.250		mg/L	0.005	0.03	08/02/13 22:10	aeb
Nickel, total     M200.7 ICP     1     U     mg/L     0.01     0.05     08/02/13 22:10     aeb       Selenium, dissolved     M200.8 ICP-MS     1     0.0005     mg/L     0.0001     0.003     08/02/13 22:10     aeb       Silver, dissolved     M200.8 ICP-MS     1     0.0005     mg/L     0.0003     08/02/13 18:53     msh       Silver, total     M200.8 ICP-MS     1     0.00007     B     mg/L     0.0005     0.0003     08/02/13 18:53     msh       Uranium, dissolved     M200.8 ICP-MS     1     0.00007     B     mg/L     0.0005     0.0003     08/02/13 18:53     msh       Uranium, dissolved     M200.8 ICP-MS     1     0.0004     B     mg/L     0.0001     0.005     08/02/13 18:53     msh       Uranium, total     M200.8 ICP-MS     1     0.0005     mg/L     0.0001     0.005     08/08/13 23:57     msh       Zinc, dissolved     M200.7 ICP     1     0.41     mg/L     0.01     0.05     08/01/13 19:30     jjc	Mercury, total	M245.1 CVAA	1		U	mg/L	0.0002	0.001	08/01/13 11:43	mfm
Selenium, dissolved   M200.8 ICP-MS   1   0.0005   mg/L   0.0001   0.0003   08/02/13 18:53   msh     Silver, dissolved   M200.8 ICP-MS   1   U   mg/L   0.0005   0.0003   08/02/13 18:53   msh     Silver, total   M200.8 ICP-MS   1   0.0007   B   mg/L   0.0005   0.0003   08/02/13 18:53   msh     Uranium, dissolved   M200.8 ICP-MS   1   0.0004   B   mg/L   0.0001   0.0005   08/02/13 18:53   msh     Uranium, total   M200.8 ICP-MS   1   0.0004   B   mg/L   0.0001   0.0005   08/02/13 18:53   msh     Uranium, total   M200.8 ICP-MS   1   0.0005   mg/L   0.0001   0.0005   08/02/13 18:53   msh     Zinc, dissolved   M200.7 ICP   1   0.41   mg/L   0.01   0.05   08/01/13 19:30   jjc	Nickel, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	08/01/13 19:30	jjc
Silver, dissolved     M200.8 ICP-MS     1     U     mg/L     0.00005     0.0003     08/02/13 18:53     msh       Silver, total     M200.8 ICP-MS     1     0.00007     B     mg/L     0.00005     0.0003     08/02/13 18:53     msh       Uranium, dissolved     M200.8 ICP-MS     1     0.0004     B     mg/L     0.0005     0.8005     08/02/13 18:53     msh       Uranium, total     M200.8 ICP-MS     1     0.0004     B     mg/L     0.0005     08/02/13 18:53     msh       Jinc, dissolved     M200.7 ICP     1     0.41     mg/L     0.001     0.05     08/08/13 23:57     msh	Nickel, total	M200.7 ICP	1		U	mg/L	0.01	0.05	08/02/13 22:10	aeb
Silver, total     M200.8 ICP-MS     1     0.00007     B     mg/L     0.00005     0.0003     08/08/13 23:57     msh       Uranium, dissolved     M200.8 ICP-MS     1     0.0004     B     mg/L     0.0001     0.0005     08/02/13 18:53     msh       Uranium, total     M200.8 ICP-MS     1     0.0005     mg/L     0.0001     0.0005     08/08/13 23:57     msh       Zinc, dissolved     M200.7 ICP     1     0.41     mg/L     0.01     0.05     08/01/13 19:30     jjc	Selenium, dissolved		1	0.0005		mg/L	0.0001	0.0003	08/02/13 18:53	msh
Uranium, dissolved     M200.8 ICP-MS     1     0.0004     B     mg/L     0.0001     0.0005     08/02/13 18:53     msh       Uranium, total     M200.8 ICP-MS     1     0.0005     mg/L     0.0001     0.0005     08/08/13 23:57     msh       Zinc, dissolved     M200.7 ICP     1     0.41     mg/L     0.01     0.05     08/01/13 19:30     jjc	Silver, dissolved		1		U	mg/L	0.00005	0.0003	08/02/13 18:53	msh
Uranium, total     M200.8 ICP-MS     1     0.0005     mg/L     0.0001     0.0005     08/08/13 23:57     msh       Zinc, dissolved     M200.7 ICP     1     0.41     mg/L     0.01     0.05     08/01/13 19:30     jjc	Silver, total	M200.8 ICP-MS	1	0.00007	В	mg/L	0.00005	0.0003	08/08/13 23:57	msh
Zinc, dissolved     M200.7 ICP     1     0.41     mg/L     0.01     0.05     08/01/13     19:30     jjc	Uranium, dissolved	M200.8 ICP-MS	1	0.0004	В	mg/L	0.0001	0.0005	08/02/13 18:53	msh
	Uranium, total	M200.8 ICP-MS	1	0.0005		mg/L	0.0001	0.0005	08/08/13 23:57	msh
Zinc, total     M200.7 ICP     1     0.52     mg/L     0.01     0.05     08/02/13 22:10     aeb	Zinc, dissolved	M200.7 ICP	1	0.41		mg/L	0.01	0.05	08/01/13 19:30	jjc
	Zinc, total	M200.7 ICP	1	0.52		mg/L	0.01	0.05	08/02/13 22:10	aeb

* Please refer to Qualifier Reports for details.

## Caldera Mineral Resources

Project ID:

Sample ID: CB-E

# Inorganic Analytical Results

ACZ Sample ID: L13488-05 Date Sampled: 07/24/13 00:00 Date Received: 07/25/13 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	51		*	mg/L	2	20	07/27/13 0:00	khw
Carbonate as CaCO3		1		U	*	mg/L	2	20	07/27/13 0:00	khw
Hydroxide as CaCO3		1		U	*	mg/L	2	20	07/27/13 0:00	khw
Total Alkalinity		1	51		*	mg/L	2	20	07/27/13 0:00	khw
Chloride	SM4500CI-E	1		U	*	mg/L	1	5	08/05/13 15:48	mpb
Conductivity @25C	SM2510B	1	1000		*	umhos/cm	1	10	07/27/13 20:43	khw
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	08/07/13 20:10	) pjb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	08/07/13 20:35	j pjb
Dissolved Chromium, Hexavalent	SM3500Cr-D	1		UH	*	mg/L	0.005	0.02	07/25/13 12:51	khw
Hardness as CaCO3	SM2340B - Calculation		554			mg/L	1	7	08/09/13 16:01	calc
Lab Filtration (0.45um filter)	SOPWC050	1							07/30/13 10:20	khw
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							07/30/13 18:11	scp
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.07	В		mg/L	0.02	0.1	08/09/13 16:01	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.07	В	*	mg/L	0.02	0.1	07/25/13 19:39	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	07/25/13 19:39	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	08/05/13 15:36	tcd
pH (lab)	SM4500H+ B									
рН		1	8.0	н	*	units	0.1	0.1	07/27/13 0:00	khw
pH measured at		1	19.0		*	С	0.1	0.1	07/27/13 0:00	khw
Residue, Filterable (TDS) @180C	SM2540C	1	812		*	mg/L	10	20	07/31/13 14:00	dcw
Residue, Non- Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	07/31/13 11:38	mss3
Sulfate	D516-02 - Turbidimetric	20	487		*	mg/L	20	100	08/08/13 11:29	bsu
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	07/31/13 13:55	abm
#### **Caldera Mineral Resources**

## Project ID:

Inorganic Prep

Sample ID: CB-F

# Inorganic Analytical Results

ACZ Sample ID:	L13488-06
Date Sampled:	07/24/13 00:00
Date Received:	07/25/13
Sample Matrix:	Surface Water

inorganic Prep									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date .	Analyst
Cyanide, total	M335.4 - Manual Distillation							08/06/13 12:32	tcd
Cyanide, WAD	SM4500-CN I- distillation							08/06/13 14:54	tcd
Total Hot Plate Digestion	M200.2 ICP							08/01/13 17:20	aeb
Total Hot Plate Digestion	M200.2 ICP-MS							08/05/13 20:36	las
Total Recoverable Digestion	M200.2 ICP-MS			*				08/06/13 13:24	scp
Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date .	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	5	0.026	В	mg/L	0.005	0.03	08/07/13 19:10	msh
Arsenic, dissolved	M200.8 ICP-MS	1	0.0005	В	mg/L	0.0002	0.001	08/02/13 18:56	msh
Arsenic, total recoverable	M200.8 ICP-MS	5		U	mg/L	0.001	0.005	08/07/13 1:31	pmc
Barium, dissolved	M200.7 ICP	1	0.028		mg/L	0.003	0.02	08/01/13 19:33	jjc
Beryllium, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	08/01/13 19:33	jjc
Boron, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	08/01/13 19:33	jjc
Cadmium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0001	0.0005	08/02/13 18:56	msh
Cadmium, total	M200.8 ICP-MS	1	0.0003	В	mg/L	0.0001	0.0005	08/06/13 21:58	las
Calcium, dissolved	M200.7 ICP	1	18.6		mg/L	0.2	1	08/01/13 19:33	jjc
Chromium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	08/02/13 18:56	msh
Chromium, total	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	08/06/13 21:58	las
Chromium, Trivalent	Calculation (Total - Hexavaler	nt)		U	mg/L	0.0005	0.002	08/09/13 16:01	calc
Copper, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.003	08/02/13 18:56	msh
Copper, total	M200.8 ICP-MS	1	0.0009	В	mg/L	0.0005	0.003	08/09/13 0:00	msh
Iron, dissolved	M200.7 ICP	1		U	mg/L	0.02	0.05	08/01/13 19:33	jjc
Iron, total	M200.7 ICP	1		U	mg/L	0.02	0.05	08/02/13 22:13	aeb
Lead, dissolved	M200.8 ICP-MS	1	0.0001	В	mg/L	0.0001	0.0005	08/02/13 18:56	msh
Lead, total	M200.8 ICP-MS	1	0.0003	В	mg/L	0.0001	0.0005	08/09/13 0:00	msh
Magnesium, dissolved	M200.7 ICP	1	0.6	В	mg/L	0.2	1	08/01/13 19:33	jjc
Manganese, dissolved	M200.7 ICP	1		U *	mg/L	0.005	0.03	08/01/13 19:33	jjc
Manganese, total	M200.7 ICP	1		U	mg/L	0.005	0.03	08/02/13 22:13	aeb
Mercury, total	M245.1 CVAA	1		U	mg/L	0.0002	0.001	08/01/13 11:45	mfm
Nickel, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	08/01/13 19:33	jjc
Nickel, total	M200.7 ICP	1		U	mg/L	0.01	0.05	08/02/13 22:13	aeb
Selenium, dissolved	M200.8 ICP-MS	1	0.0001	В	mg/L	0.0001	0.0003	08/02/13 18:56	msh
Silver, dissolved	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	08/02/13 18:56	msh
Silver, total	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	08/06/13 21:58	las
Uranium, dissolved	M200.8 ICP-MS	1	0.0002	В	mg/L	0.0001	0.0005	08/02/13 18:56	msh
Uranium, total	M200.8 ICP-MS	1	0.0003	В	mg/L	0.0001	0.0005	08/06/13 21:58	las
					-				
Zinc, dissolved	M200.7 ICP	1	0.03	В	mg/L	0.01	0.05	08/01/13 19:33	jjc

* Please refer to Qualifier Reports for details.

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

#### **Caldera Mineral Resources**

Project ID: Sample ID: CB-F

# Inorganic Analytical Results

ACZ Sample ID: L13488-06 Date Sampled: 07/24/13 00:00 Date Received: 07/25/13 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	27		*	mg/L	2	20	07/27/13 0:00	khw
Carbonate as CaCO3		1		U	*	mg/L	2	20	07/27/13 0:00	khw
Hydroxide as CaCO3		1		U	*	mg/L	2	20	07/27/13 0:00	
Total Alkalinity		1	27		*	mg/L	2	20	07/27/13 0:00	khw
Chloride	SM4500CI-E	1		U	*	mg/L	1	5	08/05/13 15:50	) mpb
Conductivity @25C	SM2510B	1	111		*	umhos/cm	1	10	07/27/13 20:58	8 khw
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	08/07/13 20:11	pjb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	08/07/13 20:37	pjb
Dissolved Chromium, Hexavalent	SM3500Cr-D	1		UH	*	mg/L	0.005	0.02	07/25/13 12:57	' khw
Hardness as CaCO3	SM2340B - Calculation		49			mg/L	1	7	08/09/13 16:01	calc
Lab Filtration (0.45um filter)	SOPWC050	1							07/30/13 10:24	khw
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							07/30/13 18:14	scp
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.33			mg/L	0.02	0.1	08/09/13 16:01	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.33		*	mg/L	0.02	0.1	07/25/13 19:40	) pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	07/25/13 19:40	) pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	08/05/13 15:38	tcd
pH (lab)	SM4500H+ B									
рН		1	7.9	н	*	units	0.1	0.1	07/27/13 0:00	khw
pH measured at		1	20.0		*	С	0.1	0.1	07/27/13 0:00	khw
Residue, Filterable (TDS) @180C	SM2540C	1	70		*	mg/L	10	20	07/31/13 14:02	dcw
Residue, Non- Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	07/31/13 11:40	) mss3
Sulfate	D516-02 - Turbidimetric	1	25.6		*	mg/L	1	5	08/08/13 11:10	) bsu
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	07/31/13 14:01	abm



## Inorganic Reference

Batch Found	Explanations		
rouna	A distinct set of samples analyzed at a specific time		
	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)		
MDL	Method Detection Limit. Same as Minimum Reporting Limit.		
PCN/SCN	A number assigned to reagents/standards to trace to the man	iufacturer's certific	ate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.		
QC	True Value of the Control Sample or the amount added to the	•	
Rec	Recovered amount of the true value or spike added, in % (exc		/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC	Types	
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)		
Sample	Value of the Sample of interest		
Sample Typ	bes		
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
ССВ	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	SDL	Serial Dilution
Duplicates Spikes/Forti	ified Matrix Determines sample matrix interferen		
Standard	Verifies the validity of the calibration.		
Z Qualifiers	(Qual)		
В	Analyte concentration detected at a value between MDL and F	PQL. The associat	ed value is an estimated quantity.
н	Analysis exceeded method hold time. pH is a field test with an	n immediate hold t	
			ime.
L	Target analyte response was below the laboratory defined neg		ime.
	Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above the	gative threshold.	
L		gative threshold. e level of the asso	ciated value.
L U	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or	gative threshold. e level of the asso	ciated value.
L U ethod Referen	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces	gative threshold. e level of the asso the sample detect	iciated value. ion limit.
L U ethod Referen	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a	gative threshold. e level of the asso the sample detect and Wastes, Marc	iciated value. ion limit. h 1983.
L U ethod Referen (1) (2)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan	gative threshold. e level of the asso the sample detect and Wastes, Marc hic Substances in l	iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals	gative threshold. e level of the asso the sample detect and Wastes, Marc hic Substances in l	iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U thod Referen (1) (2) (3) (4)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	gative threshold. e level of the asso the sample detect and Wastes, Marc hic Substances in I in Environmental S	iciated value. ion limit. h 1983. Environmental Samples, August 1993.
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L U thod Referen (1) (2) (3) (4) (5) mments (1)	The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slightly	gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental s ater. y if the rounded va	ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
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REP001.09.12.01



#### **Caldera Mineral Resources**

Alkalinity as CaC	O3		SM2320E	8 - Titration									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348361													
WG348361PBW1	PBW	07/27/13 14:21				16.3	mg/L		-20	20			
WG348361LCSW2	LCSW	07/27/13 14:34	WC130724-	820.0001		757.8	mg/L	92.4	90	110			
WG348361LCSW5	LCSW	07/27/13 16:23	WC130724-	820.0001		770.4	mg/L	94	90	110			
WG348361PBW2	PBW	07/27/13 16:32				3.1	mg/L		-20	20			
WG348361LCSW8	LCSW	07/27/13 19:29	WC130724-	820.0001		786.1	mg/L	95.9	90	110			
WG348361PBW3	PBW	07/27/13 19:38				2.8	mg/L		-20	20			
L13488-05DUP	DUP	07/27/13 20:51			51	45.6	mg/L				11.2	20	
L13493-04DUP	DUP	07/27/13 22:51			2280	2268.5	mg/L				0.5	20	
WG348361LCSW11	LCSW	07/27/13 23:04	WC130724-	820.0001		764.5	mg/L	93.2	90	110			
WG348361PBW4	PBW	07/27/13 23:12				3	mg/L		-20	20			
WG348361LCSW14	LCSW	07/28/13 2:19	WC130724-	820.0001		765.6	mg/L	93.4	90	110			
Aluminum, total	recover	able	M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG349052													
WG349052ICV	ICV	08/07/13 18:13	MS130717-9	.1		.0983	mg/L	98.3	90	110			
WG349052ICB	ICB	08/07/13 18:17				U	mg/L		-0.003	0.003			
WG348749LRB	LRB	08/07/13 18:20				.0022	mg/L		-0.0022	0.0022			
WG348749LFB	LFB	08/07/13 18:23	MS130717-1	.050055		.0483	mg/L	96.5	85	115			
WG348897LRB	LRB	08/07/13 18:40				.001	mg/L		-0.0022	0.0022			
WG348897LFB	LFB	08/07/13 18:43	MS130717-1	.050055		.0569	mg/L	113.7	85	115			
L13529-02LFM	LFM	08/07/13 19:16	MS130717-1	.050055	.136	.1779	mg/L	83.7	70	130			
L13529-02LFMD	LFMD	08/07/13 19:20	MS130717-1	.050055	.136	.1778	mg/L	83.5	70	130	0.06	20	
Arsenic, dissolve	d		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348694													
WG348694ICV	ICV	08/02/13 17:16	MS130717-9	.05		.05333	mg/L	106.7	90	110			
WG348694ICB	ICB	08/02/13 17:19				U	mg/L		-0.0006	0.0006			
WG348694LFB	LFB	08/02/13 17:22	MS130717-1	.05005		.04897	mg/L	97.8	85	115			
L13459-03AS	AS	08/02/13 18:19	MS130717-1	25.025	U	24.74	mg/L	98.9	70	130			
L13459-03ASD	ASD	08/02/13 18:22	MS130717-1	25.025	U	25.2	mg/L	100.7	70	130	1.84	20	
Arsenic, total rec	overab	le	M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348967													
WG348967ICV	ICV	08/07/13 1:02	MS130717-9	.05		.05234	mg/L	104.7	90	110			
VVGJ403071CV	ICB	08/07/13 1:05				U	mg/L		-0.0006	0.0006			
	ICD						-						
WG348967ICB						U	ma/L		-0.00044	0.00044			
WG348967ICB WG348897LRB	LRB	08/07/13 1:09	MS130717-1	.05005		U .05237	mg/L ma/L	104 6	-0.00044 85	0.00044 115			
WG348967ICB			MS130717-1 MS130717-1	.05005 .05005	.0002	U .05237 .04789	mg/L mg/L mg/L	104.6 95.3	-0.00044 85 70	0.00044 115 130			



### **Caldera Mineral Resources**

Barium, dissolv	ved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348699													
WG348699ICV	ICV	08/01/13 17:54	II130729-1	2		1.9865	mg/L	99.3	95	105			
WG348699ICB	ICB	08/01/13 18:00				U	mg/L		-0.009	0.009			
WG348699LFB	LFB	08/01/13 18:13	II130716-5	.5		.4952	mg/L	99	85	115			
L13483-03AS	AS	08/01/13 19:02	II130716-5	.5	.015	.5106	mg/L	99.1	85	115			
L13483-03ASD	ASD	08/01/13 19:05	II130716-5	.5	.015	.5083	mg/L	98.7	85	115	0.45	20	
Beryllium, diss	olved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348699													
WG348699ICV	ICV	08/01/13 17:54	II130729-1	2		1.975	mg/L	98.8	95	105			
WG348699ICB	ICB	08/01/13 18:00				U	mg/L		-0.03	0.03			
WG348699LFB	LFB	08/01/13 18:13	II130716-5	.5		.507	mg/L	101.4	85	115			
L13483-03AS	AS	08/01/13 19:02	II130716-5	.5	U	.5	mg/L	100	85	115			
L13483-03ASD	ASD	08/01/13 19:05	II130716-5	.5	U	.498	mg/L	99.6	85	115	0.4	20	
Boron, dissolve	əd		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348699													
WG348699ICV	ICV	08/01/13 17:54	II130729-1	2		2.03	mg/L	101.5	95	105			
WG348699ICB	ICB	08/01/13 18:00				U	mg/L		-0.03	0.03			
WG348699LFB	LFB	08/01/13 18:13	II130716-5	.5005		.52	mg/L	103.9	85	115			
L13483-03AS	AS	08/01/13 19:02	II130716-5	.5005	.01	.525	mg/L	102.9	85	115			
L13483-03ASD	ASD	08/01/13 19:05	II130716-5	.5005	.01	.526	mg/L	103.1	85	115	0.19	20	
Cadmium, diss	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348694													
WG348694ICV	ICV	08/02/13 17:16	MS130717-9	.05		.04725	mg/L	94.5	90	110			
WG348694ICB	ICB	08/02/13 17:19				U	mg/L		-0.0003	0.0003			
WG348694LFB	LFB	08/02/13 17:22	MS130717-1	.0501		.04417	mg/L	88.2	85	115			
L13459-03AS	AS	08/02/13 18:19	MS130717-1	25.05	.24	22.295	mg/L	88	70	130			
L13459-03ASD	ASD	08/02/13 18:22	MS130717-1	25.05	.24	22.335	mg/L	88.2	70	130	0.18	20	



## **Caldera Mineral Resources**

Cadmium, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348943													
NG348943ICV	ICV	08/06/13 20:21	MS130717-9	.05		.04798	mg/L	96	90	110			
WG348943ICB	ICB	08/06/13 20:24				U	mg/L		-0.0003	0.0003			
VG348811LRB	LRB	08/06/13 20:27				U	mg/L		-0.00022	0.00022			
NG348811LFB	LFB	08/06/13 20:31	MS130717-1	.0501		.05232	mg/L	104.4	85	115			
_13488-06LFM	LFM	08/06/13 22:01	MS130717-1	.0501	.0003	.05158	mg/L	102.4	70	130			
13488-06LFMD	LFMD	08/06/13 22:04	MS130717-1	.0501	.0003	.04821	mg/L	95.6	70	130	6.75	20	
NG349149													
VG349149ICV	ICV	08/08/13 23:01	MS130717-9	.05		.05027	mg/L	100.5	90	110			
VG349149ICB	ICB	08/08/13 23:04				U	mg/L		-0.0003	0.0003			
WG348811LRB	LRB	08/08/13 23:07				U	mg/L		-0.00022	0.00022			
NG348811LFB	LFB	08/08/13 23:11	MS130717-1	.0501		.04812	mg/L	96	85	115			
_13488-06LFM	LFM	08/09/13 0:04	MS130717-1	.0501	U	.04605	mg/L	91.9	70	130			
L13488-06LFMD	LFMD	08/09/13 0:07	MS130717-1	.0501	U	.04604	mg/L	91.9	70	130	0.02	20	
Calcium, dissol	ved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348699													
WG348699ICV	ICV	08/01/13 17:54	II130729-1	100		100.21	mg/L	100.2	95	105			
WG348699ICB	ICB	08/01/13 18:00				U	mg/L		-0.6	0.6			
WG348699LFB	LFB	08/01/13 18:13	II130716-5	68.0028		71.24	mg/L	104.8	85	115			
_13483-03AS	AS	08/01/13 19:02	II130716-5	68.0028	48.5	116.8	mg/L	100.4	85	115			
_13483-03ASD	ASD	08/01/13 19:05	II130716-5	68.0028	48.5	116.6	mg/L	100.1	85	115	0.17	20	
Chloride			SM4500C	I-E									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348826													
VG348826ICB	ICB	08/05/13 10:25				U	mg/L		-3	3			
VG348826ICV	ICV	08/05/13 10:25	WI130722-5	54.945		57.3	mg/L	104.3	90	110			
VG348826LFB1	LFB	08/05/13 14:27	WI130201-8	30		31.9	mg/L	106.3	90	110			
13479-01DUP	DUP	08/05/13 14:27	111002010	00	22	22.5	mg/L	100.0	00	110	2.2	20	
_13482-01AS	AS	08/05/13 14:27	WI130201-8	30	2	34.6	mg/L	108.7	90	110	<b>L</b> .L	20	
_13488-03AS	AS	08/05/13 14:29	WI130201-8	30	U	33.2	mg/L	110.7	90	110			
	DUP	08/05/13 14:29			14	13.9	mg/L				0.7	20	
13505-14DUP	20.	08/05/13 14:31	WI130201-8	30		32.4	mg/L	108	90	110	•	20	
	LFB	00/03/13 14.31					-						
WG348826LFB2	LFB	00/03/13 14:31											
WG348826LFB2 WG348858						U	ma/L		-3	3			
NG348826LFB2 WG348858 NG348858ICB	ICB	08/05/13 10:25		54,945		U 57.3	mg/L ma/L	104.3	-3 90	3 110			
L13505-14DUP WG348826LFB2 WG348858 WG348858ICB WG348858ICV WG348858LFB	ICB ICV	08/05/13 10:25 08/05/13 10:25	WI130722-5	54.945 30		57.3	mg/L	104.3 108.7	90	110			
WG348826LFB2 <b>WG348858</b> WG348858ICB	ICB	08/05/13 10:25		54.945 30 30	30			104.3 108.7 100					



#### **Caldera Mineral Resources**

Chromium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348694													
WG348694ICV	ICV	08/02/13 17:16	MS130717-9	.05		.04821	mg/L	96.4	90	110			
WG348694ICB	ICB	08/02/13 17:19				U	mg/L		-0.0015	0.0015			
WG348694LFB	LFB	08/02/13 17:22	MS130717-1	.05005		.04564	mg/L	91.2	85	115			
L13459-03AS	AS	08/02/13 18:19	MS130717-1	25.025	U	22.97	mg/L	91.8	70	130			
L13459-03ASD	ASD	08/02/13 18:22	MS130717-1	25.025	U	23.2	mg/L	92.7	70	130	1	20	
Chromium, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348943													
WG348943ICV	ICV	08/06/13 20:21	MS130717-9	.05		.04723	mg/L	94.5	90	110			
WG348943ICB	ICB	08/06/13 20:24				U	mg/L		-0.0015	0.0015			
WG348811LRB	LRB	08/06/13 20:27				U	mg/L		-0.0011	0.0011			
WG348811LFB	LFB	08/06/13 20:31	MS130717-1	.05005		.05266	mg/L	105.2	85	115			
L13488-06LFM	LFM	08/06/13 22:01	MS130717-1	.05005	U	.05242	mg/L	104.7	70	130			
L13488-06LFMD	LFMD	08/06/13 22:04	MS130717-1	.05005	U	.0512	mg/L	102.3	70	130	2.35	20	
WG349149													
WG349149ICV	ICV	08/08/13 23:01	MS130717-9	.05		.0494	mg/L	98.8	90	110			
WG349149ICB	ICB	08/08/13 23:04				U	mg/L		-0.0015	0.0015			
WG348811LRB	LRB	08/08/13 23:07				U	mg/L		-0.0011	0.0011			
WG348811LFB	LFB	08/08/13 23:11	MS130717-1	.05005		.04832	mg/L	96.5	85	115			
L13488-06LFM	LFM	08/09/13 0:04	MS130717-1	.05005	U	.04736	mg/L	94.6	70	130			
L13488-06LFMD	LFMD	08/09/13 0:07	MS130717-1	.05005	U	.04778	mg/L	95.5	70	130	0.88	20	
Conductivity @2	5C		SM2510B										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348361													
WG348361LCSW1	LCSW	07/27/13 14:23	PCN42820	1408.8		1465.3	umhos/cm	104	90	110			
WG348361LCSW4	LCSW	07/27/13 16:11	PCN42820	1408.8			umhos/cm	101.5	90	110			
WG348361LCSW7	LCSW	07/27/13 19:17	PCN42820	1408.8			umhos/cm	97.1	90	110			
L13488-05DUP	DUP	07/27/13 20:51	1 01142020	1400.0	1000	998	umhos/cm	57.1	00	110	0.2	20	
L13493-04DUP	DUP	07/27/13 22:51			4310	4300	umhos/cm				0.2	20	
WG348361LCSW10		07/27/13 22:52	PCN42820	1408.8	1010		umhos/cm	95.4	90	110	0.2	20	
WG348361LCSW10		07/28/13 2:08	PCN42820 PCN42820	1408.8			umhos/cm	95.4 96.4	90 90	110			
Copper, dissolve			M200.8 IC						-	-			
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
	51												
WG348694		00/00/40 47 40	M0400747.0	05		04003		00.5	<u></u>	440			
WG348694ICV	ICV	08/02/13 17:16	MS130717-9	.05		.04924	mg/L	98.5	90	110			
WG348694ICB	ICB	08/02/13 17:19		05005		U	mg/L	00 <i>i</i>	-0.0015	0.0015			
WG348694LFB	LFB	08/02/13 17:22	MS130717-1	.05005		.04476	mg/L	89.4	85	115			
	• •												
L13459-03AS L13459-03ASD	AS ASD	08/02/13 18:19 08/02/13 18:22	MS130717-1 MS130717-1	25.025 25.025	164 164	181.95 182.05	mg/L mg/L	71.7 72.1	70 70	130 130	0.05	20	



#### **Caldera Mineral Resources**

Copper, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG349149													
WG349149ICV	ICV	08/08/13 23:01	MS130717-9	.05		.05007	mg/L	100.1	90	110			
WG349149ICB	ICB	08/08/13 23:04				U	mg/L		-0.0015	0.0015			
WG348811LRB	LRB	08/08/13 23:07				U	mg/L		-0.0011	0.0011			
WG348811LFB	LFB	08/08/13 23:11	MS130717-1	.05005		.04851	mg/L	96.9	85	115			
L13488-06LFM	LFM	08/09/13 0:04	MS130717-1	.05005	.0009	.04745	mg/L	93	70	130			
L13488-06LFMD	LFMD	08/09/13 0:07	MS130717-1	.05005	.0009	.04771	mg/L	93.5	70	130	0.55	20	
Cyanide, total			M335.4 - (	Colorimetr	ic w/ distil	lation							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG349059													
WG349059ICV	ICV	08/07/13 18:54	WI130807-6	.3		.2903	mg/L	96.8	90	110			
WG349059ICB	ICB	08/07/13 18:55				U	mg/L		-0.003	0.003			
WG349061													
WG348905LRB	LRB	08/07/13 19:58				U	mg/L		-0.003	0.003			
WG348905LFB	LFB	08/07/13 19:58	WI130723-2	.2		.1805	mg/L	90.3	90	110			
L13479-01DUP	DUP	08/07/13 20:00			U	U	mg/L				0	20	RA
L13479-02LFM	LFM	08/07/13 20:02	WI130723-2	.2	U	.1561	mg/L	78.1	90	110			M2
Cyanide, WAD			SM4500-0	CN I-Color	imetric w/	distillati	on						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348865													
WG348865ICV	ICV	08/05/13 17:55	WI130723-6	.3		.2848	mg/L	94.9	90	110			
WG348865ICB	ICB	08/05/13 17:56				U	mg/L		-0.003	0.003			
WG348867													
WG348800LRB	LRB	08/05/13 18:32				U	mg/L		-0.003	0.003			
WG348800LFB	LFB	08/05/13 18:33	WI130723-4	.2		.1866	mg/L	93.3	90	110			
L13488-01DUP	DUP	08/05/13 18:35			U	U	mg/L				0	20	RA
L13488-02LFM	LFM	08/05/13 18:36	WI130723-4	.2	U	.1668	mg/L	83.4	90	110			M2
WG349059													
WG349059ICV	ICV	08/07/13 18:54	WI130807-6	.3		.2903	mg/L	96.8	90	110			
WG349059ICB	ICB	08/07/13 18:55				U	mg/L		-0.003	0.003			
WG349062													
WG348930LRB	LRB	08/07/13 20:32				U	mg/L		-0.003	0.003			
WG348930LFB	LFB	08/07/13 20:32	WI130723-2	.2		.1879	mg/L	94	90	110			
L13488-04DUP	DUP	08/07/13 20:34			U	U	mg/L				0	20	RA
L13488-05LFM	LFM	08/07/13 20:36	WI130723-2	.2	U	.1315	mg/L	65.8	90	110			M2
Dissolved Chro	mium, H	exavalent	SM3500C	r-D									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348252													
WG348252ICV	ICV	07/25/13 12:15	WC130531-	.05		.0489	mg/L	97.8	90	110			
WG348252ICB	ICB	07/25/13 12:20				U	mg/L		-0.015	0.015			
WG348252LFB	LFB	07/25/13 12:25	WC130523-	.05		.0509	mg/L	101.8	90	110			
L13488-06AS	AS	07/25/13 13:02	WC130523-	.05	U	.0521	mg/L	104.2	90	110			
L13488-06DUP	DUP	07/25/13 13:07			U	U	mg/L				0	20	RA



#### **Caldera Mineral Resources**

Iron, dissolved			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348699													
WG348699ICV	ICV	08/01/13 17:54	II130729-1	2		2.011	mg/L	100.6	95	105			
WG348699ICB	ICB	08/01/13 18:00				U	mg/L		-0.06	0.06			
WG348699LFB	LFB	08/01/13 18:13	II130716-5	1.0014		1.022	mg/L	102.1	85	115			
L13483-03AS	AS	08/01/13 19:02	II130716-5	1.0014	.08	1.09	mg/L	101.9	85	115			
L13483-03ASD	ASD	08/01/13 19:05	II130716-5	1.0014	.08	1.083	mg/L	101.2	85	115	0.64	20	
WG348997													
WG348997ICV	ICV	08/07/13 11:46	II130729-1	2		1.992	mg/L	99.6	95	105			
WG348997ICB	ICB	08/07/13 11:52				U	mg/L		-0.06	0.06			
WG348997LFB	LFB	08/07/13 12:04	II130716-5	1.0014		.982	mg/L	98.1	85	115			
L13326-03AS	AS	08/07/13 12:10	II130716-5	1.0014	U	.984	mg/L	98.3	85	115			
L13326-03ASD	ASD	08/07/13 12:13	II130716-5	1.0014	U	1.001	mg/L	100	85	115	1.71	20	
Iron, total			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348739													
WG348739ICV	ICV	08/02/13 21:11	II130716-1	2		2.026	mg/L	101.3	95	105			
WG348739ICB	ICB	08/02/13 21:17				U	mg/L		-0.06	0.06			
WG348663LRB	LRB	08/02/13 21:30				U	mg/L		-0.044	0.044			
WG348663LFB	LFB	08/02/13 21:33	II130716-5	1.0014		1.018	mg/L	101.7	85	115			
L13488-01LFM	LFM	08/02/13 21:49	II130716-5	1.0014	.12	1.134	mg/L	102.3	70	130			
L13488-01LFMD	LFMD	08/02/13 21:52	II130716-5	1.0014	.12	1.112	mg/L	100.1	70	130	1.96	20	
WG349094													
WG349094ICV	ICV	08/08/13 11:33	II130716-1	2		2.027	mg/L	101.4	95	105			
WG349094ICB	ICB	08/08/13 11:38				U	mg/L		-0.06	0.06			
WG349027LRB	LRB	08/08/13 11:51				U	mg/L		-0.044	0.044			
WG349027LFB	LFB	08/08/13 11:54	II130716-5	1.0014		1.036	mg/L	103.5	85	115			
L13603-01LFM	LFM	08/08/13 12:09	II130716-5	1.0014	.25	1.291	mg/L	104	70	130			
L13603-01LFMD	LFMD	08/08/13 12:12	II130716-5	1.0014	.25	1.277	mg/L	102.6	70	130	1.09	20	
Lead, dissolved			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348694													
WG348694ICV	ICV	08/02/13 17:16	MS130717-9	.05		.05098	mg/L	102	90	110			
WG348694ICB	ICB	08/02/13 17:19				U	mg/L		-0.0003	0.0003			
WG348694LFB	LFB	08/02/13 17:22	MS130717-1	.05005		.04561	mg/L	91.1	85	115			
L13459-03AS	AS	08/02/13 18:19	MS130717-1	25.025	U	22.645	mg/L	90.5	70	130			
L13459-03ASD	ASD	08/02/13 18:22	MS130717-1	25.025	U	22.72	mg/L	90.8	70	130	0.33	20	



#### **Caldera Mineral Resources**

Lead, total			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG349149													
WG349149ICV	ICV	08/08/13 23:01	MS130717-9	.05		.04838	mg/L	96.8	90	110			
WG349149ICB	ICB	08/08/13 23:04				U	mg/L		-0.0003	0.0003			
WG348811LRB	LRB	08/08/13 23:07				U	mg/L		-0.00022	0.00022			
WG348811LFB	LFB	08/08/13 23:11	MS130717-1	.05005		.04384	mg/L	87.6	85	115			
L13488-06LFM	LFM	08/09/13 0:04	MS130717-1	.05005	.0003	.0447	mg/L	88.7	70	130			
L13488-06LFMD	LFMD	08/09/13 0:07	MS130717-1	.05005	.0003	.04485	mg/L	89	70	130	0.34	20	
Magnesium, dis	solved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348699													
WG348699ICV	ICV	08/01/13 17:54	II130729-1	100		98.82	mg/L	98.8	95	105			
WG348699ICB	ICB	08/01/13 18:00				U	mg/L		-0.6	0.6			
WG348699LFB	LFB	08/01/13 18:13	II130716-5	49.99752		50.38	mg/L	100.8	85	115			
L13483-03AS	AS	08/01/13 19:02	II130716-5	49.99752	6.8	56.55	mg/L	99.5	85	115			
L13483-03ASD	ASD	08/01/13 19:05	II130716-5	49.99752	6.8	56.43	mg/L	99.3	85	115	0.21	20	
Manganese, dis	solved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348699													
WG348699ICV	ICV	08/01/13 17:54	II130729-1	2		1.9722	ma/l	98.6	95	105			
WG348699IC8	ICB	08/01/13 17.54	11130729-1	2		1.9722 U	mg/L	90.0	95 -0.015	0.015			
WG348699LFB	LFB	08/01/13 18:00	II130716-5	.5		.5067	mg/L mg/L	101.3	-0.015	115			
L13483-03AS	AS	08/01/13 19:02	II130716-5	.5	1.52	1.904	mg/L	76.8	85	115			M3
L13483-03ASD	ASD	08/01/13 19:05	II130716-5	.5	1.52	1.903	mg/L	76.6	85	115	0.05	20	M3
Manganese, tota	al		M200.7 I	:P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
	1 Jpo	, analyzou		40	Gampio	round	onno	1100	Lonor	oppor		2	quui
WG348739													
WG348739ICV	ICV	08/02/13 21:11	II130716-1	2		1.986	mg/L	99.3	95	105			
WG348739ICB	ICB	08/02/13 21:17				U	mg/L		-0.015	0.015			
WG348663LRB	LRB	08/02/13 21:30				U	mg/L		-0.011	0.011			
WG348663LFB	LFB	08/02/13 21:33	II130716-5	.5		.5004	mg/L	100.1	85	115			
L13488-01LFM	LFM	08/02/13 21:49	II130716-5	.5	.188	.7071	mg/L	103.8	70	130			
L13488-01LFMD	LFMD	08/02/13 21:52	II130716-5	.5	.188	.6764	mg/L	97.7	70	130	4.44	20	
Mercury, total			M245.1 C	VAA									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348520													
WG348520ICV	ICV	08/01/13 8:48	II130711-4	.005025		.00483	mg/L	96.1	95	105			
WG348520ICB	ICB	08/01/13 8:51				.00403 U	mg/L	00.1	-0.0002	0.0002			
WG348586							Ũ						
WG348586LRB	LRB	08/01/13 11:26				U	mg/L		-0.00044	0.00044			
WG348586LFB	LRB	08/01/13 11:28	1130709 7	.002002		.0018	-	80.0					
L13488-03LFM	LFB	08/01/13 11:28	II130708-7 II130708-7	.002002	U	.0018	mg/L mg/L	89.9 92.4	85 85	115 115			
L13488-03LFMD		08/01/13 11:39	II130708-7 II130708-7	.002002	U	.00185	mg/L	92.4 90.9	85 85	115	1.63	20	
		00/01/13 11.39	1130700-7	.002002	U	.00102	mg/∟	90.9	00	115	1.03	20	



#### **Caldera Mineral Resources**

Nickel, dissolve	d		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348699													
WG348699ICV	ICV	08/01/13 17:54	II130729-1	2		2.031	mg/L	101.6	95	105			
WG348699ICB	ICB	08/01/13 18:00				U	mg/L		-0.03	0.03			
WG348699LFB	LFB	08/01/13 18:13	II130716-5	.5		.506	mg/L	101.2	85	115			
L13483-03AS	AS	08/01/13 19:02	II130716-5	.5	U	.511	mg/L	102.2	85	115			
L13483-03ASD	ASD	08/01/13 19:05	II130716-5	.5	U	.511	mg/L	102.2	85	115	0	20	
Nickel, total			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348739													
WG348739ICV	ICV	08/02/13 21:11	II130716-1	2		1.998	mg/L	99.9	95	105			
WG348739ICB	ICB	08/02/13 21:17				U	mg/L		-0.03	0.03			
WG348663LRB	LRB	08/02/13 21:30				U	mg/L		-0.022	0.022			
WG348663LFB	LFB	08/02/13 21:33	II130716-5	.5		.495	mg/L	99	85	115			
L13488-01LFM	LFM	08/02/13 21:49	II130716-5	.5	U	.507	mg/L	101.4	70	130			
L13488-01LFMD	LFMD	08/02/13 21:52	II130716-5	.5	U	.485	mg/L	97	70	130	4.44	20	
Nitrate/Nitrite as	s N, diss	olved	M353.2 - /	Automate	d Cadmiur	n Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348280													
WG348280ICV	ICV	07/25/13 19:20	WI130712-3	2.416		2.499	mg/L	103.4	90	110			
WG348280ICB	ICB	07/25/13 19:21				U	mg/L		-0.06	0.06			
WG348280LFB	LFB	07/25/13 19:25	WI130215-3	2		2.026	mg/L	101.3	90	110			
L13479-01AS	AS	07/25/13 19:27	WI130215-3	2	.04	2.105	mg/L	103.3	90	110			
L13479-02DUP	DUP	07/25/13 19:29			U	U	mg/L				0	20	R
Nitrite as N, dise	solved		M353.2 - /	Automate	d Cadmiur	n Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348280													
WG348280ICV	ICV	07/25/13 19:20	WI130712-3	.609		.582	mg/L	95.6	90	110			
WG348280ICB	ICB	07/25/13 19:21				U	mg/L		-0.03	0.03			
WG348280LFB	LFB	07/25/13 19:25	WI130215-3	1		1.037	mg/L	103.7	90	110			
L13479-01AS	AS	07/25/13 19:27	WI130215-3	1	U	1.043	mg/L	104.3	90	110			
L13479-02DUP	DUP	07/25/13 19:29			U	U	mg/L				0	20	R
Nitrogen, ammo	nia		M350.1 - /	Automate	d Phenate								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348830													
WG348830ICV	ICV	08/05/13 13:12	WI121105-5	1.003		1.065	mg/L	106.2	90	110			
WG348830ICB	ICB	08/05/13 13:15				U	mg/L		-0.15	0.15			
WG348851													
WG348851LFB1	LFB	08/05/13 15:06	WI121218-3	1		1.002	mg/L	100.2	90	110			
L13378-03AS	AS	08/05/13 15:23	WI121218-3	1	U	.97	mg/L	97	90	110			
L13378-04DUP	DUP	08/05/13 15:25			U	U	mg/L				0	20	R
WG348851LFB2	LFB	08/05/13 15:37	WI121218-3	1		1.006	mg/L	100.6	90	110			
L13488-06AS	AS	08/05/13 15:39	WI121218-3	1	U	1.021	mg/L	102.1	90	110			
L13506-10DUP	DUP	08/05/13 15:41			.08	.083	mg/L				3.7	20	R



#### Caldera Mineral Resources

pH (lab)			SM4500H	+ B									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348361													
WG348361LCSW3	LCSW	07/27/13 14:37	PCN41777	6		6.01	units	100.2	98	102			
WG348361LCSW6	LCSW	07/27/13 16:27	PCN41777	6		6.04	units	100.7	98	102			
WG348361LCSW9	LCSW	07/27/13 19:33	PCN41777	6		6.04	units	100.7	98	102			
L13488-05DUP	DUP	07/27/13 20:51			8	8.01	units				0.1	20	
L13493-04DUP	DUP	07/27/13 22:51			8.6	8.64	units				0.5	20	
WG348361LCSW12		07/27/13 23:07	PCN41777	6		6.03	units	100.5	98	102			
WG348361LCSW15	LCSW	07/28/13 2:23	PCN41777	6		6.04	units	100.7	98	102			
Residue, Filterab	le (TDS	) @180C	SM2540C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348592													
WG348592PBW	PBW	07/31/13 13:50				U	mg/L		-20	20			
WG348592LCSW	LCSW	07/31/13 13:51	PCN42842	260		264	mg/L	101.5	80	120			
L13539-01DUP	DUP	07/31/13 14:10			1030	1050	mg/L				1.9	10	
Residue, Non-Fil	terable	(TSS) @105C	SM2540D										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348568													
WG348568PBW	PBW	07/31/13 11:10				U	mg/L		-6	6			
WG348568LCSW	LCSW	07/31/13 11:12	PCN42842	160		148	mg/L	92.5	80	120			
L13488-04DUP	DUP	07/31/13 11:36			U	U	mg/L				0	10	R
L13493-04DUP	DUP	07/31/13 11:59			13	14	mg/L				7.4	10	R
Selenium, dissol	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348694													
WG348694ICV	ICV	08/02/13 17:16	MS130717-9	.05		.05401	mg/L	108	90	110			
WG348694ICB	ICB	08/02/13 17:19				U	mg/L		-0.0003	0.0003			
WG348694LFB	LFB	08/02/13 17:22	MS130717-1	.05005		.04789	mg/L	95.7	85	115			
L13459-03AS	AS	08/02/13 18:19	MS130717-1	25.025	U	23.455	mg/L	93.7	70	130			
L13459-03ASD	ASD	08/02/13 18:22	MS130717-1	25.025	U	23.725	mg/L	94.8	70	130	1.14	20	
Silver, dissolved			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348694													
WG348694ICV	ICV	08/02/13 17:16	MS130717-9	.02002		.01927	mg/L	96.3	90	110			
WG348694ICB	ICB	08/02/13 17:19		.02002		.01927 U	mg/L	00.0	-0.00015	0.00015			
	.00			.01001			mg/L	90.1	85	115			
	I FB	08/02/13 17 22	MS130717-1										
WG348694LFB L13459-03AS	LFB AS	08/02/13 17:22 08/02/13 18:19	MS130717-1 MS130717-1	5.005	U	.009023 4.547	mg/L	90.8	70	130			



#### Caldera Mineral Resources

Silver, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348943													
WG348943ICV	ICV	08/06/13 20:21	MS130717-9	.02002		.01961	mg/L	98	90	110			
WG348943ICB	ICB	08/06/13 20:24				U	mg/L		-0.00015	0.00015			
WG348811LRB	LRB	08/06/13 20:27				U	mg/L		-0.00011	0.00011			
WG348811LFB	LFB	08/06/13 20:31	MS130717-1	.01001		.01055	mg/L	105.4	85	115			
L13488-06LFM	LFM	08/06/13 22:01	MS130717-1	.01001	U	.01058	mg/L	105.7	70	130			
L13488-06LFMD	LFMD	08/06/13 22:04	MS130717-1	.01001	U	.009913	mg/L	99	70	130	6.51	20	
WG349149													
WG349149ICV	ICV	08/08/13 23:01	MS130717-9	.02002		.0201	mg/L	100.4	90	110			
WG349149ICB	ICB	08/08/13 23:04				U	mg/L		-0.00015	0.00015			
WG348811LRB	LRB	08/08/13 23:07				U	mg/L		-0.00011	0.00011			
WG348811LFB	LFB	08/08/13 23:11	MS130717-1	.01001		.009559	mg/L	95.5	85	115			
L13488-06LFM	LFM	08/09/13 0:04	MS130717-1	.01001	U	.009323	mg/L	93.1	70	130			
L13488-06LFMD	LFMD	08/09/13 0:07	MS130717-1	.01001	U	.009266	mg/L	92.6	70	130	0.61	20	
Sulfate			D516-02 -	Turbidim	etric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG349105													
WG349105ICB	ICB	08/08/13 9:37				U	mg/L		-3	3			
WG349105ICV	ICV	08/08/13 9:37	WI130808-1	20		19.3	mg/L	96.5	90	110			
WG349105LFB	LFB	08/08/13 10:38	WI130416-3	9.99		10.5	mg/L	105.1	90	110			
L13483-01DUP	DUP	08/08/13 10:45			133	131	mg/L				1.5	20	
L13483-02AS	AS	08/08/13 10:45	SO4TURB5	10	132	140	mg/L	80	90	110			M3
L13658-01DUP	DUP	08/08/13 11:18			192	190	mg/L				1	20	
L13658-02AS	AS	08/08/13 11:30	SO4TURB10	10	201	209	mg/L	80	90	110			M3
Sulfide as S			SM4500S	2-D									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348547													
WG348547ICV	ICV	07/31/13 9:15	WC130730-	.31734		.33	mg/L	104	90	110			
WG348547ICB	ICB	07/31/13 9:21				U	mg/L		-0.06	0.06			
WG348583													
WG348583ICV	ICV	07/31/13 13:15	WC130730-	.31734		.307	mg/L	96.7	90	110			
WG348583ICB	ICB	07/31/13 13:20				U	mg/L		-0.06	0.06			
WG348583LFB	LFB	07/31/13 13:26	WC130730-	.22044		.234	mg/L	106.2	80	120			
L13513-05AS	AS	07/31/13 14:42	WC130730-	.22044	U	.248	mg/L	112.5	75	125			
L13513-05DUP	DUP	07/31/13 14:47			U	U	mg/L				0	20	RA
Uranium, dissol	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348694													_
WG348694ICV	ICV	08/02/13 17:16	MS130717-9	.05		.05263	mg/L	105.3	90	110			
WG348694ICB	ICB	08/02/13 17:19				U	mg/L		-0.0003	0.0003			
WG348694LFB	LFB	08/02/13 17:22	MS130717-1	.05		.04896	mg/L	97.9	85	115			
L13459-03AS	AS	08/02/13 18:19	MS130717-1	25	.13	24.195	mg/L	96.3	70	130			



## Caldera Mineral Resources

Uranium, total			M200.8 ICF	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348943													
WG348943ICV	ICV	08/06/13 20:21	MS130717-9	.05		.0514	mg/L	102.8	90	110			
WG348943ICB	ICB	08/06/13 20:24				U	mg/L		-0.0003	0.0003			
WG348811LRB	LRB	08/06/13 20:27				U	mg/L		-0.00022	0.00022			
WG348811LFB	LFB	08/06/13 20:31	MS130717-1	.05		.05355	mg/L	107.1	85	115			
L13488-06LFM	LFM	08/06/13 22:01	MS130717-1	.05	.0003	.05794	mg/L	115.3	70	130			
L13488-06LFMD	LFMD	08/06/13 22:04	MS130717-1	.05	.0003	.0533	mg/L	106	70	130	8.34	20	
WG349149													
WG349149ICV	ICV	08/08/13 23:01	MS130717-9	.05		.0529	mg/L	105.8	90	110			
WG349149ICB	ICB	08/08/13 23:04				U	mg/L		-0.0003	0.0003			
WG348811LRB	LRB	08/08/13 23:07				U	mg/L		-0.00022	0.00022			
WG348811LFB	LFB	08/08/13 23:11	MS130717-1	.05		.04769	mg/L	95.4	85	115			
L13488-06LFM	LFM	08/09/13 0:04	MS130717-1	.05	.0003	.05087	mg/L	101.1	70	130			
L13488-06LFMD	LFMD	08/09/13 0:07	MS130717-1	.05	.0003	.05058	mg/L	100.6	70	130	0.57	20	
Zinc, dissolved			M200.7 ICF	)									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348699													
WG348699ICV	ICV	08/01/13 17:54	II130729-1	2		1.958	mg/L	97.9	95	105			
WG348699ICB	ICB	08/01/13 18:00				U	mg/L		-0.03	0.03			
WG348699LFB	LFB	08/01/13 18:13	II130716-5	.5		.512	mg/L	102.4	85	115			
L13483-03AS	AS	08/01/13 19:02	II130716-5	.5	.02	.53	mg/L	102	85	115			
L13483-03ASD	ASD	08/01/13 19:05	II130716-5	.5	.02	.525	mg/L	101	85	115	0.95	20	
Zinc, total			M200.7 ICF	)									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG348739													
WG348739ICV	ICV	08/02/13 21:11	II130716-1	2		1.993	mg/L	99.7	95	105			
WG348739ICB	ICB	08/02/13 21:17				U	mg/L		-0.03	0.03			
WG348663LRB	LRB	08/02/13 21:30				U	mg/L		-0.022	0.022			
WG348663LFB	LFB	08/02/13 21:33	II130716-5	.5		.504	mg/L	100.8	85	115			
L13488-01LFM	LFM	08/02/13 21:49	II130716-5	.5	.23	.754	mg/L	106.8	70	130			
L13488-01LFMD	LFMD	08/02/13 21:52	II130716-5	.5	.23	.722	mg/L	100.4	70	130	4.34	20	



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#### **Caldera Mineral Resources**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L13488-01	WG348897	Total Recoverable Digestion	M200.2 ICP-MS	DJ	Sample dilution required due to insufficient sample.
	WG348699	Manganese, dissolved	M200.7 ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG348361	Bicarbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG348826	Chloride	SM4500CI-E	Q6	Sample was received above recommended temperature.
	WG348361	Conductivity @25C	SM2510B	Q6	Sample was received above recommended temperature.
	WG349061	Cyanide, total	M335.4 - Colorimetric w/ distillation M335.4 - Colorimetric w/	M2 Q6	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. Sample was received above recommended temperature.
			distillation M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348867	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500-CN I-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348252	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	Q6	Sample was received above recommended temperature.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348361	Hydroxide as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG348280	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348851	Nitrogen, ammonia	M350.1 - Automated Phenate	Q6	Sample was received above recommended temperature.
			M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348361	рН	SM4500H+ B	Q6	Sample was received above recommended temperature.
		pH measured at	SM4500H+ B	Q6	Sample was received above recommended temperature.
	WG348592	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG348568	Residue, Non-Filterable (TSS) @105C	SM2540D	Q6	Sample was received above recommended temperature.
			SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG349105	Sulfate	D516-02 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02 - Turbidimetric	Q6	Sample was received above recommended temperature.
	WG348583	Sulfide as S	SM4500S2-D	Q6	Sample was received above recommended temperature.
			SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348361	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.



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# Inorganic Extended Qualifier Report

#### **Caldera Mineral Resources**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L13488-02	WG349027	Total Hot Plate Digestion	M200.2 ICP	DJ	Sample dilution required due to insufficient sample.
	WG348699	Manganese, dissolved	M200.7 ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG348361	Bicarbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG348826	Chloride	SM4500CI-E	Q6	Sample was received above recommended temperature.
	WG348361	Conductivity @25C	SM2510B	Q6	Sample was received above recommended temperature.
	WG349061	Cyanide, total	M335.4 - Colorimetric w/ distillation M335.4 - Colorimetric w/	M2 Q6	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable. Sample was received above recommended temperature.
			distillation	QU	Sample was received above recommended temperature.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348867	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500-CN I-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348252	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	Q6	Sample was received above recommended temperature.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348361	Hydroxide as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG348280	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348851	Nitrogen, ammonia	M350.1 - Automated Phenate	Q6	Sample was received above recommended temperature.
			M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348361	рН	SM4500H+ B	Q6	Sample was received above recommended temperature.
		pH measured at	SM4500H+ B	Q6	Sample was received above recommended temperature.
	WG348592	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG348568	Residue, Non-Filterable (TSS) @105C	SM2540D	Q6	Sample was received above recommended temperature.
			SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG349105	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02 - Turbidimetric	Q6	Sample was received above recommended temperature.
	WG348583	Sulfide as S	SM4500S2-D	Q6	Sample was received above recommended temperature.
			SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348361	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.

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#### **Caldera Mineral Resources**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L13488-03	WG348699	Manganese, dissolved	M200.7 ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG348361	Bicarbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG348826	Chloride	SM4500CI-E	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500CI-E	Q6	Sample was received above recommended temperature.
	WG348361	Conductivity @25C	SM2510B	Q6	Sample was received above recommended temperature.
	WG349061	Cyanide, total	M335.4 - Colorimetric w/ distillation	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M335.4 - Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348867	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500-CN I-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348252	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	Q6	Sample was received above recommended temperature.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348361	Hydroxide as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG348280	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348851	Nitrogen, ammonia	M350.1 - Automated Phenate	Q6	Sample was received above recommended temperature.
			M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348361	рН	SM4500H+ B	Q6	Sample was received above recommended temperature.
		pH measured at	SM4500H+ B	Q6	Sample was received above recommended temperature.
	WG348592	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG348568	Residue, Non-Filterable (TSS) @105C	SM2540D	Q6	Sample was received above recommended temperature.
			SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG349105	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02 - Turbidimetric	Q6	Sample was received above recommended temperature.
	WG348583	Sulfide as S	SM4500S2-D	Q6	Sample was received above recommended temperature.
			SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348361	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.

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#### **Caldera Mineral Resources**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L13488-04	WG348699	Manganese, dissolved	M200.7 ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG348361	Bicarbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG348858	Chloride	SM4500CI-E	Q6	Sample was received above recommended temperature.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348361	Conductivity @25C	SM2510B	Q6	Sample was received above recommended temperature.
	WG349061	Cyanide, total	M335.4 - Colorimetric w/ distillation	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M335.4 - Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG349062	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500-CN I-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348252	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	Q6	Sample was received above recommended temperature.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348361	Hydroxide as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG348280	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348851	Nitrogen, ammonia	M350.1 - Automated Phenate	Q6	Sample was received above recommended temperature.
			M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348361	рН	SM4500H+ B	Q6	Sample was received above recommended temperature.
		pH measured at	SM4500H+ B	Q6	Sample was received above recommended temperature.
	WG348592	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG348568	Residue, Non-Filterable (TSS) @105C	SM2540D	Q6	Sample was received above recommended temperature.
			SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG349105	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02 - Turbidimetric	Q6	Sample was received above recommended temperature.
	WG348583	Sulfide as S	SM4500S2-D	Q6	Sample was received above recommended temperature.
			SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348361	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L13488-05	WG348699	Manganese, dissolved	M200.7 ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG348361	Bicarbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG348858	Chloride	SM4500CI-E	Q6	Sample was received above recommended temperature.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348361	Conductivity @25C	SM2510B	Q6	Sample was received above recommended temperature.
	WG349061	Cyanide, total	M335.4 - Colorimetric w/ distillation	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M335.4 - Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG349062	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500-CN I-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348252	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	Q6	Sample was received above recommended temperature.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348361	Hydroxide as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG348280	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348851	Nitrogen, ammonia	M350.1 - Automated Phenate	Q6	Sample was received above recommended temperature.
			M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348361	pН	SM4500H+ B	Q6	Sample was received above recommended temperature.
		pH measured at	SM4500H+ B	Q6	Sample was received above recommended temperature.
	WG348592	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG348568	Residue, Non-Filterable (TSS) @105C	SM2540D	Q6	Sample was received above recommended temperature.
			SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG349105	Sulfate	D516-02 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02 - Turbidimetric	Q6	Sample was received above recommended temperature.
	WG348583	Sulfide as S	SM4500S2-D	Q6	Sample was received above recommended temperature.
			SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348361	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.



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#### **Caldera Mineral Resources**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L13488-06	WG348897	Total Recoverable Digestion	M200.2 ICP-MS	DJ	Sample dilution required due to insufficient sample.
	WG348699	Manganese, dissolved	M200.7 ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG348361	Bicarbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG348858	Chloride	SM4500CI-E	Q6	Sample was received above recommended temperature.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348361	Conductivity @25C	SM2510B	Q6	Sample was received above recommended temperature.
	WG349061	Cyanide, total	M335.4 - Colorimetric w/ distillation	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M335.4 - Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG349062	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500-CN I-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348252	Dissolved Chromium, Hexavalent	SM3500Cr-D	H3	Sample was received and analyzed past holding time.
			SM3500Cr-D	Q6	Sample was received above recommended temperature.
			SM3500Cr-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348361	Hydroxide as CaCO3	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG348280	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348851	Nitrogen, ammonia	M350.1 - Automated Phenate	Q6	Sample was received above recommended temperature.
			M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG348361	рН	SM4500H+ B	Q6	Sample was received above recommended temperature.
		pH measured at	SM4500H+ B	Q6	Sample was received above recommended temperature.
	WG348592	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG348568	Residue, Non-Filterable (TSS) @105C	SM2540D	Q6	Sample was received above recommended temperature.
			SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG349105	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02 - Turbidimetric	Q6	Sample was received above recommended temperature.
	WG348583	Sulfide as S	SM4500S2-D	Q6	Sample was received above recommended temperature.
			SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).



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#### **Caldera Mineral Resources**

ACZ ID	WORKNUM F	PARAMETER	METHOD	QUAL	DESCRIPTION
	WG348361 1	otal Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.

**Caldera Mineral Resources** 

Project ID: Sample ID: CB-A ACZ Sample ID: L13488-01 Date Sampled: 07/24/13 0:00 Date Received: 07/25/13 Sample Matrix: Surface Water

## Oil & Grease, Total Recoverable

Workgroup:	WG348759								
Analyst:	itk								
Extract Date:									
Analysis Date:	08/02/13 13:41								
Compound		CAS	Resu	lt QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.031	*	mg/L	2.062	10.31

**Caldera Mineral Resources** 

Project ID: Sample ID: CB-B ACZ Sample ID: L13488-02 Date Sampled: 07/24/13 0:00 Date Received: 07/25/13 Sample Matrix: Surface Water

## Oil & Grease, Total Recoverable

Workgroup:	WG348759								
Analyst:	itk								
Extract Date:									
Analysis Date:	08/02/13 13:42								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.02	*	mg/L	2.04	10.2

**Caldera Mineral Resources** 

Project ID: Sample ID: CB-C ACZ Sample ID: L13488-03 Date Sampled: 07/24/13 0:00 Date Received: 07/25/13 Sample Matrix: Surface Water

## Oil & Grease, Total Recoverable

Workgroup:	WG348759								
Analyst:	itk								
Extract Date:									
Analysis Date:	08/02/13 13:43								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.031	*	mg/L	2.062	10.31

**Caldera Mineral Resources** 

Project ID: Sample ID: CB-D ACZ Sample ID: L13488-04 Date Sampled: 07/24/13 0:00 Date Received: 07/25/13 Sample Matrix: Surface Water

## Oil & Grease, Total Recoverable

Workgroup:	WG348759								
Analyst:	itk								
Extract Date:									
Analysis Date:	08/02/13 13:44								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.075	*	mg/L	2.15	10.75

**Caldera Mineral Resources** 

Project ID: Sample ID: CB-E ACZ Sample ID: L13488-05 Date Sampled: 07/24/13 0:00 Date Received: 07/25/13 Sample Matrix: Surface Water

## Oil & Grease, Total Recoverable

Workgroup:	WG348759								
Analyst:	itk								
Extract Date:									
Analysis Date:	08/02/13 13:45								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.02	*	mg/L	2.04	10.2

**Caldera Mineral Resources** 

Project ID: Sample ID: CB-F ACZ Sample ID: L13488-06 Date Sampled: 07/24/13 0:00 Date Received: 07/25/13 Sample Matrix: Surface Water

## Oil & Grease, Total Recoverable

Workgroup:	WG348759								
Analyst:	itk								
Extract Date:									
Analysis Date:	08/02/13 13:46								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.075	*	mg/L	2.15	10.75



Organic Reference

ower       Lower Recovery Limit, in % (except for LCSS, mg/Kg)         CL       Lower Control Limit         MDL       Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument at CN/SCN         A number assigned to reagents/standards to trace to the manufacturer's certificate or Practical Quantitation Limit, typically 5 times the MDL.         QC       True Value of the Control Sample or the amount added to the Spike         Rec       Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)         QPD       Relative Percent Difference, calculation used for Duplicate QC Types         Upper       Upper Recovery Limit, in % (except for LCSS, mg/Kg)         UCL       Upper Control Limit         VAlue of the Sample of interest         SURR       Surrogate         VTS       Internal Standard       LFM       Lai         DUP       Sample Duplicate       LRB       Lai         CSS       Laboratory Control Sample - Soil       MS/MSD       Ma         CSW       Laboratory Control Sample - Water       PBS       Prectore	
Limit       Upper limit for RPD, in %.         Lower       Lower Recovery Limit, in % (except for LCSS, mg/Kg)         LCL       Lower Control Limit         MDL       Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument at 2007/SCN         A number assigned to reagents/standards to trace to the manufacturer's certificate of 202         Practical Quantitation Limit, typically 5 times the MDL.         QC       True Value of the Control Sample or the amount added to the Spike         Rec       Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)         RPD       Relative Percent Difference, calculation used for Duplicate QC Types         Upper       Upper Control Limit         JCL       Upper Control Limit, in % (except for LCSS, mg/Kg)         JCL       Upper Control Limit         Sample       Value of the Sample of interest         Surrogate       LFM       Lal         NTS       Internal Standard       LFM       Lal         DUP       Sample Duplicate       LRB       Lal         CSS       Laboratory Control Sample - Soil       MS/MSD       Ma         CSW       Laboratory Control Sample - Water       PBS       Prece	analysis oratory Fortified Matrix oratory Fortified Matrix Duplicate
Lower       Lower Recovery Limit, in % (except for LCSS, mg/Kg)         LCL       Lower Control Limit         MDL       Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument at 2007/SCN         A number assigned to reagents/standards to trace to the manufacturer's certificate of 2020         Practical Quantitation Limit, typically 5 times the MDL.         QC       True Value of the Control Sample or the amount added to the Spike         Rec       Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)         RPD       Relative Percent Difference, calculation used for Duplicate QC Types         Upper       Upper Recovery Limit, in % (except for LCSS, mg/Kg)         JCL       Upper Control Limit         Sample       Value of the Sample of interest         Surrogate       LFM       Laid         NTS       Internal Standard       LFMD       Laid         DUP       Sample Duplicate       LRB       Laid         CSSK       Laboratory Control Sample - Soil       MS/MSD       Ma         CSSW       Laboratory Control Sample - Water       PBS       Prec	analysis oratory Fortified Matrix oratory Fortified Matrix Duplicate
CL       Lower Control Limit         MDL       Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument at PCN/SCN         A number assigned to reagents/standards to trace to the manufacturer's certificate of PQL         Practical Quantitation Limit, typically 5 times the MDL.         QC       True Value of the Control Sample or the amount added to the Spike         Rec       Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)         RPD       Relative Percent Difference, calculation used for Duplicate QC Types         Upper       Upper Recovery Limit, in % (except for LCSS, mg/Kg)         UCL       Upper Control Limit         Sample       Value of the Sample of interest         SURR       Surrogate       LFM       Lal         NTS       Internal Standard       LFMD       Lal         DUP       Sample Duplicate       LRB       Lal         CSW       Laboratory Control Sample - Soil       MS/MSD       Ma	analysis oratory Fortified Matrix oratory Fortified Matrix Duplicate
MDL       Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument a         PCN/SCN       A number assigned to reagents/standards to trace to the manufacturer's certificate of         PQL       Practical Quantitation Limit, typically 5 times the MDL.         QC       True Value of the Control Sample or the amount added to the Spike         Rec       Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)         RPD       Relative Percent Difference, calculation used for Duplicate QC Types         Upper       Upper Recovery Limit, in % (except for LCSS, mg/Kg)         UCL       Upper Control Limit         Sample       Value of the Sample of interest         SURR       Surrogate       LFM       Lal         NTS       Internal Standard       LFMD       Lal         DUP       Sample Duplicate       LRB       Lal         CSSW       Laboratory Control Sample - Soil       MS/MSD       Ma	analysis oratory Fortified Matrix oratory Fortified Matrix Duplicate
PCN/SCN       A number assigned to reagents/standards to trace to the manufacturer's certificate of PQL         Practical Quantitation Limit, typically 5 times the MDL.         QC       True Value of the Control Sample or the amount added to the Spike         Rec       Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)         RPD       Relative Percent Difference, calculation used for Duplicate QC Types         Upper       Upper Recovery Limit, in % (except for LCSS, mg/Kg)         VCL       Upper Control Limit         Sample       Value of the Sample of interest         SURR       Surrogate         LFMD       Lal         NTS       Internal Standard       LFMD         DUP       Sample Duplicate       LRB       Lal         CSSW       Laboratory Control Sample - Soil       MS/MSD       Ma	analysis oratory Fortified Matrix oratory Fortified Matrix Duplicate
PQL       Practical Quantitation Limit, typically 5 times the MDL.         QC       True Value of the Control Sample or the amount added to the Spike         Rec       Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)         RPD       Relative Percent Difference, calculation used for Duplicate QC Types         Upper       Upper Recovery Limit, in % (except for LCSS, mg/Kg)         UCL       Upper Control Limit         Sample       Value of the Sample of interest         SURR       Surrogate       LFM       Lal         NTS       Internal Standard       LFMD       Lal         DUP       Sample Duplicate       LRB       Lal         CSSW       Laboratory Control Sample - Soil       MS/MSD       Ma	oratory Fortified Matrix oratory Fortified Matrix Duplicate
QC       True Value of the Control Sample or the amount added to the Spike         Rec       Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)         RPD       Relative Percent Difference, calculation used for Duplicate QC Types         Upper       Upper Recovery Limit, in % (except for LCSS, mg/Kg)         V/L       Upper Control Limit         Sample       Value of the Sample of interest         Surrogate       LFM       Lal         D/P       Sample Duplicate       LRB       Lal         CSS       Laboratory Control Sample - Soil       MS/MSD       Ma         CSW       Laboratory Control Sample - Water       PBS       Pre	oratory Fortified Matrix Duplicate
Rec       Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)         RPD       Relative Percent Difference, calculation used for Duplicate QC Types         Upper       Upper Recovery Limit, in % (except for LCSS, mg/Kg)         UCL       Upper Control Limit         Sample       Value of the Sample of interest         SURR       Surrogate         Internal Standard       LFM         DUP       Sample Duplicate         CSS       Laboratory Control Sample - Soil         CSW       Laboratory Control Sample - Water	oratory Fortified Matrix Duplicate
RPD       Relative Percent Difference, calculation used for Duplicate QC Types         Upper       Upper Recovery Limit, in % (except for LCSS, mg/Kg)         UCL       Upper Control Limit         Sample       Value of the Sample of interest         Surrogate       LFM         NTS       Internal Standard         DUP       Sample Duplicate         LCSS       Laboratory Control Sample - Soil         MS/MSD       Ma         CSW       Laboratory Control Sample - Water	oratory Fortified Matrix Duplicate
Upper       Upper Recovery Limit, in % (except for LCSS, mg/Kg)         UCL       Upper Control Limit         Sample       Value of the Sample of interest         Sample Types       E         SURR       Surrogate         NTS       Internal Standard         DUP       Sample Duplicate         LCSS       Laboratory Control Sample - Soil         MS/MSD       Ma         CSW       Laboratory Control Sample - Water	oratory Fortified Matrix Duplicate
JCL       Upper Control Limit         Sample       Value of the Sample of interest         Sample       Value of the Sample of interest         Surrogate       LFM       Lait         NTS       Internal Standard       LFMD       Lait         DUP       Sample Duplicate       LRB       Lait         CSS       Laboratory Control Sample - Soil       MS/MSD       Ma         CSW       Laboratory Control Sample - Water       PBS       Pre-	oratory Fortified Matrix Duplicate
Sample       Value of the Sample of interest         Sample Types       LFM       Lal         SURR       Surrogate       LFMD       Lal         NTS       Internal Standard       LFMD       Lal         DUP       Sample Duplicate       LRB       Lal         CSS       Laboratory Control Sample - Soil       MS/MSD       Ma         CSW       Laboratory Control Sample - Water       PBS       Pres	oratory Fortified Matrix Duplicate
Surrogate       LFM       Lal         SURR       Surrogate       LFM       Lal         NTS       Internal Standard       LFMD       Lal         DUP       Sample Duplicate       LRB       Lal         CSS       Laboratory Control Sample - Soil       MS/MSD       Ma         CSW       Laboratory Control Sample - Water       PBS       Pre-	oratory Fortified Matrix Duplicate
SURRSurrogateLFMLalNTSInternal StandardLFMDLalDUPSample DuplicateLRBLalCSSLaboratory Control Sample - SoilMS/MSDMaCSWLaboratory Control Sample - WaterPBSPre	oratory Fortified Matrix Duplicate
WTSInternal StandardLFMDLaiDUPSample DuplicateLRBLaiCSSLaboratory Control Sample - SoilMS/MSDMaCSWLaboratory Control Sample - WaterPBSPre	oratory Fortified Matrix Duplicate
DUPSample DuplicateLRBLalLCSSLaboratory Control Sample - SoilMS/MSDMaLCSWLaboratory Control Sample - WaterPBSPre	
CSSLaboratory Control Sample - SoilMS/MSDMaCSWLaboratory Control Sample - WaterPBSPre	oratory Reagent Blank
CSW Laboratory Control Sample - Water PBS Pre	
	rix Spike/Matrix Spike Duplicate
	p Blank - Soil
<i>FB</i> Laboratory Fortified Blank <i>PBW</i> Pre	p Blank - Water
Blanks Verifies that there is no or minimal contamination in the pre	method or calibration procedure
Control Samples Verifies the accuracy of the method, including the prep proc	•
Duplicates Verifies the precision of the instrument and/or method.	
Spikes/Fortified Matrix Determines sample matrix interferences, if any.	
Qualifiers (Qual)	
Analyte concentration detected at a value between MDL and PQL. The associated value between MDL and PQL.	lue is an estimated quantity.
O Analyte concentration is estimated due to result exceeding calibration range.	
Analysis exceeded method hold time. pH is a field test with an immediate hold time.	lue is an estimated quantity
Analyte concentration detected at a value between MDL and PQL. The associated va	ilue is an estimated quantity.
. Target analyte response was below the laboratory defined negative threshold.	
J The material was analyzed for, but was not detected above the level of the associated	
The associated value is either the sample quantitation limit or the sample detection I	init.
od References	
1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 19	33.
	g Water (I), July 1990.
2) EPA 600/4-90/020. Methods for the Determination of Organic Compounds in Drinkir	ng Water (II) July 1990
<ol> <li>EPA 600/4-90/020. Methods for the Determination of Organic Compounds in Drinkir</li> <li>EPA 600/R-92/129. Methods for the Determination of Organic Compounds in Drinkir</li> </ol>	ig water (ii), ouly 1000.
3) EPA 600/R-92/129. Methods for the Determination of Organic Compounds in Drinkin	g water (ii), oury 1000.
<ul> <li>3) EPA 600/R-92/129. Methods for the Determination of Organic Compounds in Drinkin</li> <li>4) EPA SW-846. Test Methods for Evaluating Solid Waste.</li> <li>5) Standard Methods for the Examination of Water and Wastewater.</li> </ul>	g Walci (ii), ouij 1990.
<ul> <li>3) EPA 600/R-92/129. Methods for the Determination of Organic Compounds in Drinkin</li> <li>4) EPA SW-846. Test Methods for Evaluating Solid Waste.</li> <li>5) Standard Methods for the Examination of Water and Wastewater.</li> </ul>	
<ul> <li>3) EPA 600/R-92/129. Methods for the Determination of Organic Compounds in Drinkin</li> <li>4) EPA SW-846. Test Methods for Evaluating Solid Waste.</li> <li>5) Standard Methods for the Examination of Water and Wastewater.</li> <li>ments</li> <li>1) QC results calculated from raw data. Results may vary slightly if the rounded values</li> </ul>	are used in the calculations.
<ul> <li>3) EPA 600/R-92/129. Methods for the Determination of Organic Compounds in Drinkin</li> <li>4) EPA SW-846. Test Methods for Evaluating Solid Waste.</li> <li>5) Standard Methods for the Examination of Water and Wastewater.</li> <li>ments</li> <li>1) QC results calculated from raw data. Results may vary slightly if the rounded values</li> <li>2) Excluding Oil &amp; Grease, solid &amp; biological matrices for organic analyses are reported</li> </ul>	are used in the calculations. on a wet weight basis.
<ul> <li>3) EPA 600/R-92/129. Methods for the Determination of Organic Compounds in Drinkin</li> <li>4) EPA SW-846. Test Methods for Evaluating Solid Waste.</li> <li>5) Standard Methods for the Examination of Water and Wastewater.</li> <li>ments</li> <li>1) QC results calculated from raw data. Results may vary slightly if the rounded values</li> </ul>	are used in the calculations. on a wet weight basis.

For a complete list of ACZ's Extended Qualifiers, please click:

http://www.acz.com/public/extquallist.pdf



#### Caldera Mineral Resources

## ACZ Project ID: L13488

1664A - Gravimetric

## Oil & Grease, Total Recoverable

WG348759

LCSW	Sample ID:	WG348759LCSV	V	PCN/S	CN: OP13	30726-2		Analy	/zed:	08/02	/13 13:47
Compound		QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE		40		34.5	mg/L	86.3	78	114			
LCSWD	Sample ID:	WG348759LCSV	VD	PCN/S	CN: OP13	30726-2		Analy	/zed:	08/02	/13 13:49
Compound		QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE		40		34.4	mg/L	86.0	78	114	0.3	18	
PBW	Sample ID:	WG348759PBW						Analy	zed:	08/02	/13 13:40
Compound		QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE				U	mg/L		-5	5			



(800) 334-5493

#### **Caldera Mineral Resources**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L13488-01	WG348759	Oil and Grease	1664A - Gravimetric	Q6	Sample was received above recommended temperature.
			1664A - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.
L13488-02	WG348759	Oil and Grease	1664A - Gravimetric	Q6	Sample was received above recommended temperature.
			1664A - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.
L13488-03	WG348759	Oil and Grease	1664A - Gravimetric	Q6	Sample was received above recommended temperature.
			1664A - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.
L13488-04	WG348759	Oil and Grease	1664A - Gravimetric	Q6	Sample was received above recommended temperature.
			1664A - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.
L13488-05	WG348759	Oil and Grease	1664A - Gravimetric	Q6	Sample was received above recommended temperature.
			1664A - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.
L13488-06	WG348759	Oil and Grease	1664A - Gravimetric	Q6	Sample was received above recommended temperature.
			1664A - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.



ACZ Project ID: L13488

Wet Chemistry

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

Sulfide as S

SM4500S2-D

ACZ	Laborator	rie	s, Ir	IC.	
2773 Downhill Drive					

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

## Sample Receipt

Caldera Mineral Resources	ACZ Proje	ct ID:		L13488
	Date Rece		7/25/201	3 10:15
	Receive	•		gac
	Date Pr	inted:	7/	25/2013
Receipt Verification		YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			NO	X
2) Is the Chain of Custody or other directive shipping papers present?		Х		
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time	analyses?	Х		
6) Is the Chain of Custody complete and accurate?		Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the sa	mples?		Х	
Samples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		Х		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and T	ïme?	Х		
11) For preserved bottle types, was the pH checked and within limits?		Х		
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?			Х	
Some parameters were received past hold time.				

Chain of Custody Related Remarks

**Client Contact Remarks** 

#### Shipping Containers

(	Cooler Id	Temp (°C)	Rad ( $\mu$ R/Hr)	Custody Seal Intact?
	3332	12.8	13	Yes
	3376	9.1	12	Yes

#### Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s) but was thawed by receipt at ACZ.

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

	boratories, Inc. amboat Springs, CO 80487 (8	300) 334	3	488	3	CHA	AIN o	f CL	JSTO	DDY
Report to:			5455			:				
Name: Mike Thor	м _O sén		Addre	ess: 4	Rive	r St	·			
Company: Reasdou					ventor			521	814	33
E-mail: mt@rea	irdonsteel. is		Telep	hone:	970 -	426	- 29	24		
Copy of Report to:	•				Ì	تر و				
Name: John Br	yan		E-mai	il: jbe	yan Q	wat	ley.	com		
Company: Caldera	Mineral Resources				310 - 7		•			
Invoice to:					<.					
Name: Laurens	Nuyens		Addre	ess:	8439	SUM	sete	stud.	Surk	402
	Mineral Resources			est He						
E-mail: Laurens	@ watley.com			hone: 3		,	-			
	: holding time ( $HT$ ), or if insuffi				lete			YES	$\overline{\mathcal{U}}$	
-	, shall ACZ proceed with reques act client for further instruction			-	0"			NO	. <u> </u>	J
	eed with the requested analyse					ill be qu	alified.			
PROJECT INFORMATION			AN/	ALYSES RE	QUESTED	(attach	list or u	se quo	te nun	nber)
Quote #: Lamp	Bird - SW-Short		6							
Project/PO #:			iner		- (			L.	_	
Reporting state for cor	npliance testing:		Containers		PL	16 NR	vol	500		
Sampler's Name:		_	of Co			to q	001	e		
Are any samples NRC li			#				r			
SAMPLE IDENTIFICAT		Matrix	· · · -							
$\underline{CB-A}$	07/24/2013	SW	8							
<u>CB-B</u>	07/24/2013	SW	8			+				
	07/24/2013	SW								
<u>CB-D</u> CB-E	07/24/2013	<u>sw</u>	8 8							
CB-F	07/24/2013	Sie	8							<u> </u>
LD-F	<u> </u>	SW	0			+				 
		_								
<u> </u>										
Matrix SW (Surrace Wat	ter) · GW (Ground Water) · WW (\	Naste Wa	ier) · D'	W (Drinking	Water) · S	_ (Sludge	e) · SO (S	Soil) • C	DL (Oil)	• Oth
MARKS/ SAMPLE DIS							ŕ			
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Diagon	refer to ACZ's terms & con	ditional	ocato	d on tha r	overce c	da of t	his CO	~		)
RELINQUISHE			ocated		ElVED B				TE:TI	ME
ma	07/24				7X			¥∙⊋Þ		
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FRMAD050.03.05.02

White - Return with sample.

Yellow - Retain for your records.

Page 44 of 44



October 11, 2013

Report to: Mike Thompson Caldera Mineral Resources LLC P.O. Box 549, 4900 County Road 361 Ouary, CO 81427

cc: Karmen King

Bill to: Mike Thompson Caldera Mineral Resources LLC P.O. Box 549, 4900 County Road 361 Ouary, CO 81427

Project ID: ACZ Project ID: L14633

Mike Thompson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on September 25, 2013. This project has been assigned to ACZ's project number, L14633. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L14633. 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 November 10, 2013. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/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 raw data reports for ten years.

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

Max janice

Max Janicek has reviewed and approved this report.





#### **Caldera Mineral Resources LLC**

Project ID:

Sample ID: CB-D

# Inorganic Analytical Results

ACZ Sample ID:	L14633-01
Date Sampled:	09/24/13 00:00
Date Received:	09/25/13
Sample Matrix:	Surface Water

Inorganic Prep									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL		Analyst
Cyanide, total	M335.4 - Manual Distillation							10/03/13 12:43	mpt
Cyanide, WAD	SM4500-CN I- distillation							10/03/13 13:33	mpb
Total Hot Plate Digestion	M200.2 ICP-MS			*				10/02/13 13:12	las
Total Hot Plate Digestion	M200.2 ICP							10/01/13 16:11	aeb
Total Recoverable Digestion	M200.2 ICP-MS							09/27/13 14:32	las
Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	1	0.042		mg/L	0.001	0.005	10/01/13 4:00	pmc
Arsenic, dissolved	M200.8 ICP-MS	1	0.0004	В	mg/L	0.0002	0.001	10/10/13 3:10	pmc
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0009	В	mg/L	0.0002	0.001	10/01/13 4:00	pmc
Barium, dissolved	M200.7 ICP	1	0.023		mg/L	0.003	0.02	09/30/13 10:40	aeb
Beryllium, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	09/30/13 10:40	aeb
Boron, dissolved	M200.7 ICP	1	0.03	В	mg/L	0.01	0.05	09/30/13 10:40	aeb
Cadmium, dissolved	M200.8 ICP-MS	1	0.0016		mg/L	0.0001	0.0005	10/04/13 21:15	las
Cadmium, total	M200.8 ICP-MS	5	0.0019	В	mg/L	0.0005	0.003	10/05/13 0:21	pmc
Calcium, dissolved	M200.7 ICP	1	216	*	mg/L	0.2	1	09/30/13 10:40	aeb
Chromium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	10/04/13 21:15	las
Chromium, total	M200.8 ICP-MS	5		U	mg/L	0.003	0.01	10/05/13 0:21	pmc
Chromium, Trivalent	Calculation (Total - Hexavaler	nt)		U	mg/L	0.003	0.01	10/11/13 13:52	calc
Copper, dissolved	M200.8 ICP-MS	1	0.0032		mg/L	0.0005	0.003	10/04/13 21:15	las
Copper, total	M200.8 ICP-MS	5	0.023		mg/L	0.003	0.01	10/05/13 0:21	pmc
Iron, dissolved	M200.7 ICP	1		U	mg/L	0.02	0.05	09/30/13 10:40	aeb
Iron, total	M200.7 ICP	1	0.29	*	mg/L	0.02	0.05	10/02/13 21:22	aeb
Lead, dissolved	M200.8 ICP-MS	1	0.0004	В	mg/L	0.0001	0.0005	10/04/13 21:15	las
Lead, total	M200.8 ICP-MS	5	0.0179		mg/L	0.0005	0.003	10/05/13 0:21	pmc
Magnesium, dissolved	M200.7 ICP	1	3.3		mg/L	0.2	1	09/30/13 10:40	aeb
Manganese, dissolved	M200.7 ICP	1	0.110		mg/L	0.005	0.03	09/30/13 10:40	aeb
Manganese, total	M200.7 ICP	1	0.135	*	mg/L	0.005	0.03	10/02/13 21:22	aeb
Mercury, total	M245.1 CVAA	1		U	mg/L	0.0002	0.001	09/30/13 13:33	mfm
Nickel, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	09/30/13 10:40	aeb
Nickel, total	M200.7 ICP	1		U	mg/L	0.01	0.05	10/02/13 21:22	aeb
Selenium, dissolved	M200.8 ICP-MS	1	0.0007		mg/L	0.0001	0.0003	10/04/13 21:15	las
Silver, dissolved	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	10/04/13 21:15	las
Silver, total	M200.8 ICP-MS	5		U	mg/L	0.0003	0.001	10/05/13 0:21	pmc
Uranium, dissolved	M200.8 ICP-MS	1	0.0005		mg/L	0.0001	0.0005	10/04/13 21:15	las
Uranium, total	M200.8 ICP-MS	5	0.0006	В	mg/L	0.0005	0.003	10/05/13 0:21	pmc
Zinc, dissolved	M200.7 ICP	1	0.36		mg/L	0.01	0.05	09/30/13 10:40	aeb
Zinc, total	M200.7 ICP	1	0.42		mg/L	0.01	0.05	10/02/13 21:22	aeb

* Please refer to Qualifier Reports for details.

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

#### **Caldera Mineral Resources LLC**

Project ID:

Sample ID: CB-D

# Inorganic Analytical Results

ACZ Sample ID: **L14633-01** Date Sampled: 09/24/13 00:00 Date Received: 09/25/13 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	63			mg/L	2	20	09/26/13 0:00	mss3
Carbonate as CaCO3		1		U		mg/L	2	20	09/26/13 0:00	mss3
Hydroxide as CaCO3		1		U		mg/L	2	20	09/26/13 0:00	mss3
Total Alkalinity		1	63			mg/L	2	20	09/26/13 0:00	mss3
Chloride	SM4500CI-E	1		U	*	mg/L	1	5	10/09/13 11:18	tcd
Conductivity @25C	SM2510B	1	1030			umhos/cm	1	10	09/26/13 18:33	mss3
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	10/03/13 23:04	pjb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	10/03/13 23:37	pjb
Dissolved Chromium, Hexavalent	SM3500Cr-B	1		UH	*	mg/L	0.005	0.02	09/25/13 12:22	mss3
Hardness as CaCO3	SM2340B - Calculation		554			mg/L	1	7	10/11/13 13:52	calc
Lab Filtration (0.45um filter)	SOPWC050	1							09/30/13 9:54	id
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							09/26/13 15:25	mfm
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.11			mg/L	0.02	0.1	10/11/13 13:52	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.11			mg/L	0.02	0.1	09/25/13 19:42	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	09/25/13 19:42	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	10/01/13 15:46	mla
pH (lab)	SM4500H+ B									
pН		1	8	н		units	0.1	0.1	09/26/13 0:00	mss3
pH measured at		1	20			С	0.1	0.1	09/26/13 0:00	mss3
Residue, Filterable (TDS) @180C	SM2540C	1	840			mg/L	10	20	09/27/13 19:31	khw
Residue, Non- Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	09/30/13 11:35	id
Sulfate	D516-02 - Turbidimetric	20	514		*	mg/L	20	100	10/04/13 13:33	mpb
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	06/25/13 12:45	khw
# ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

## **Caldera Mineral Resources LLC**

Project ID:

Sample ID: CB-E

# Inorganic Analytical Results

ACZ Sample ID:	L14633-02
Date Sampled:	09/24/13 00:00
Date Received:	09/25/13
Sample Matrix:	Surface Water

Inorganic Prep									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation							10/03/13 12:50	mpb
Cyanide, WAD	SM4500-CN I- distillation							10/03/13 13:51	mpb
Total Hot Plate	M200.2 ICP							10/01/13 16:22	aeb
Digestion									
Total Hot Plate	M200.2 ICP-MS							10/02/13 13:24	las
Digestion Total Recoverable	M200.2 ICP-MS							00/27/12 15:14	laa
Digestion								09/27/13 15:14	las
Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date /	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	1	0.037		mg/L	0.001	0.005	10/01/13 4:16	pmc
Arsenic, dissolved	M200.8 ICP-MS	1	0.0003	В	mg/L	0.0002	0.001	10/10/13 3:13	pmc
Arsenic, total	M200.8 ICP-MS	1	0.0009	В	mg/L	0.0002	0.001	10/01/13 4:16	pmc
recoverable					5				F -
Barium, dissolved	M200.7 ICP	1	0.023		mg/L	0.003	0.02	09/30/13 10:49	aeb
Beryllium, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	09/30/13 10:49	aeb
Boron, dissolved	M200.7 ICP	1	0.03	В	mg/L	0.01	0.05	09/30/13 10:49	aeb
Cadmium, dissolved	M200.8 ICP-MS	1	0.0014		mg/L	0.0001	0.0005	10/10/13 3:13	pmc
Cadmium, total	M200.8 ICP-MS	1	0.0017		mg/L	0.0001	0.0005	10/05/13 0:24	pmc
Calcium, dissolved	M200.7 ICP	1	215	*	mg/L	0.2	1	09/30/13 10:49	aeb
Chromium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	10/04/13 21:33	las
Chromium, total	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	10/05/13 0:24	pmc
Chromium, Trivalent	Calculation (Total - Hexavaler	nt)		U	mg/L	0.0005	0.002	10/11/13 13:53	calc
Copper, dissolved	M200.8 ICP-MS	1	0.0030		mg/L	0.0005	0.003	10/04/13 21:33	las
Copper, total	M200.8 ICP-MS	1	0.0159		mg/L	0.0005	0.003	10/05/13 0:24	pmc
Iron, dissolved	M200.7 ICP	1		U	mg/L	0.02	0.05	09/30/13 10:49	aeb
Iron, total	M200.7 ICP	1	0.28	*	mg/L	0.02	0.05	10/02/13 21:25	aeb
Lead, dissolved	M200.8 ICP-MS	1	0.0002	В	mg/L	0.0001	0.0005	10/10/13 3:13	pmc
Lead, total	M200.8 ICP-MS	1	0.0228		mg/L	0.0001	0.0005	10/05/13 0:24	pmc
Magnesium, dissolved	M200.7 ICP	1	3.3		mg/L	0.2	1	09/30/13 10:49	aeb
Manganese, dissolved	M200.7 ICP	1	0.105		mg/L	0.005	0.03	09/30/13 10:49	aeb
Manganese, total	M200.7 ICP	1	0.175	*	mg/L	0.005	0.03	10/02/13 21:25	aeb
Mercury, total	M245.1 CVAA	1		U	mg/L	0.0002	0.001	09/30/13 13:39	mfm
Nickel, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	09/30/13 10:49	aeb
Nickel, total	M200.7 ICP	1		U	mg/L	0.01	0.05	10/02/13 21:25	aeb
Selenium, dissolved	M200.8 ICP-MS	1	0.0005		mg/L	0.0001	0.0003	10/04/13 21:33	las
Silver, dissolved	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	10/04/13 21:33	las
Silver, total	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	10/05/13 0:24	pmc
Uranium, dissolved	M200.8 ICP-MS	1	0.0004	В	mg/L	0.0001	0.0005	10/04/13 21:33	las
Uranium, total	M200.8 ICP-MS	1	0.0006		mg/L	0.0001	0.0005	10/05/13 0:24	pmc
Zinc, dissolved	M200.7 ICP	1	0.32		mg/L	0.01	0.05	09/30/13 10:49	aeb
Zinc, total	M200.7 ICP	1	0.39		mg/L	0.01	0.05	10/02/13 21:25	aeb
		·	0.00		<del>9</del> , ⊏	0.01	0.00		400

* Please refer to Qualifier Reports for details.

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:

Sample ID: CB-E

# Inorganic Analytical Results

ACZ Sample ID: L14633-02 Date Sampled: 09/24/13 00:00 Date Received: 09/25/13 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	47			mg/L	2	20	09/26/13 0:00	mss3
Carbonate as CaCO3		1		U		mg/L	2	20	09/26/13 0:00	mss3
Hydroxide as CaCO3		1		U		mg/L	2	20	09/26/13 0:00	mss3
Total Alkalinity		1	47			mg/L	2	20	09/26/13 0:00	mss3
Chloride	SM4500CI-E	1		U	*	mg/L	1	5	10/09/13 11:18	tcd
Conductivity @25C	SM2510B	1	1040			umhos/cm	1	10	09/26/13 18:41	mss3
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	10/03/13 23:04	pjb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	10/03/13 23:39	pjb
Dissolved Chromium, Hexavalent	SM3500Cr-B	1		UH	*	mg/L	0.005	0.02	09/25/13 12:25	mss3
Hardness as CaCO3	SM2340B - Calculation		551			mg/L	1	7	10/11/13 13:53	calc
Lab Filtration (0.45um filter)	SOPWC050	1							09/30/13 10:00	id
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							09/26/13 15:25	mfm
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.11			mg/L	0.02	0.1	10/11/13 13:53	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.11			mg/L	0.02	0.1	09/25/13 19:43	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	09/25/13 19:43	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	10/01/13 15:48	mla
pH (lab)	SM4500H+ B									
pН		1	8	Н		units	0.1	0.1	09/26/13 0:00	mss3
pH measured at		1	21			С	0.1	0.1	09/26/13 0:00	mss3
Residue, Filterable (TDS) @180C	SM2540C	1	848			mg/L	10	20	09/27/13 19:32	khw
Residue, Non- Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	09/30/13 11:40	id
Sulfate	D516-02 - Turbidimetric	20	520		*	mg/L	20	100	10/04/13 13:33	mpb
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	06/25/13 12:45	khw



# Inorganic Reference

Batch	Explanations		
Fourd	A distinct set of samples analyzed at a specific time		
Found	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)	A II	
MDL	Method Detection Limit. Same as Minimum Reporting Limit.		
PCN/SCN	A number assigned to reagents/standards to trace to the man	iutacturer's certific	ate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.	0.1	
QC	True Value of the Control Sample or the amount added to the	•	
Rec	Recovered amount of the true value or spike added, in % (exc		/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC	Types	
Upper Sample	Upper Recovery Limit, in % (except for LCSS, mg/Kg) Value of the Sample of interest		
	· ·		
C Sample Typ		1.0014/0	Laboratory Control Compley Water Durlingt
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD LCSW	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water	PQV SDL	Practical Quantitation Verification standard Serial Dilution
Duplicates Spikes/Forti	ified Matrix Determines sample matrix interferen		
Standard	Verifies the validity of the calibration.		
Z Qualifiers	(Qual)		
В	Analyte concentration detected at a value between MDL and F		
	,	PQL. The associat	ed value is an estimated quantity.
н	Analysis exceeded method hold time. pH is a field test with an		
H L	-	n immediate hold t	
	Analysis exceeded method hold time. pH is a field test with an	n immediate hold t gative threshold.	ime.
L	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg	n immediate hold t gative threshold. e level of the asso	ime. iciated value.
L	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	n immediate hold t gative threshold. e level of the asso	ime. iciated value.
L U	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or	n immediate hold t gative threshold. e level of the asso the sample detect	ime. iciated value. ion limit.
L U ethod Referei	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc	ime. iciated value. ion limit. h 1983.
L U ethod Referen	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces EPA 600/4-83-020. Methods for Chemical Analysis of Water a	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2)	Analysis exceeded method hold time. pH is a field test with ar Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or <b>nces</b> EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or <b>nces</b> EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3) (4)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or <b>nces</b> EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental S	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
L U ethod Referen (1) (2) (3) (4) (5)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or <b>nces</b> EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental s ater.	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
L U ethod Referen (1) (2) (3) (4) (5) emments	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or <b>nces</b> EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgar EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental s ater. y if the rounded va	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
L U (1) (2) (3) (4) (5) mments (1)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or <b>nces</b> EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slight	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in l in Environmental s ater. y if the rounded va ported on a dry we	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
L U ethod Referen (1) (2) (3) (4) (5) 0 mments (1) (2)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or <b>nces</b> EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are results	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in 1 in Environmental s ater. y if the rounded va ported on a dry we s received" basis.	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.
L U ethod Referen (1) (2) (3) (4) (5) 0 mments (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or <b>nces</b> EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in 1 in Environmental s ater. y if the rounded va ported on a dry we s received" basis.	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.
L U ethod Referen (1) (2) (3) (4) (5) 0 mments (1) (2) (3)	Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or <b>nces</b> EPA 600/4-83-020. Methods for Chemical Analysis of Water a EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastewar QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended	n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in 1 in Environmental s ater. y if the rounded va ported on a dry we s received" basis. qualifier and/or ce	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.

REP001.09.12.01



# Inorganic QC Summary

### **Caldera Mineral Resources LLC**

Alkalinity as CaC	03		SM2320E	- Titration									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG351885													
WG351885PBW1	PBW	09/26/13 13:45				U	mg/L		-20	20			
WG351885LCSW2	LCSW	09/26/13 13:59	WC130916-	820.0001		779.8	mg/L	95.1	90	110			
WG351885LCSW5	LCSW	09/26/13 16:21	WC130916-	820.0001		786.3	mg/L	95.9	90	110			
WG351885PBW2	PBW	09/26/13 16:30				2.7	mg/L		-20	20			
L14634-01DUP	DUP	09/26/13 19:03			568	570.9	mg/L				0.5	20	
WG351885LCSW8	LCSW	09/26/13 19:15	WC130916-	820.0001		788.4	mg/L	96.1	90	110			
WG351885PBW3	PBW	09/26/13 19:24				U	mg/L		-20	20			
WG351885LCSW11	LCSW	09/26/13 22:35	WC130916-	820.0001		793.5	mg/L	96.8	90	110			
WG351885PBW4	PBW	09/26/13 22:43				2.6	mg/L		-20	20			
WG351885LCSW14	LCSW	09/27/13 1:32	WC130916-	820.0001		805.4	mg/L	98.2	90	110			
Aluminum, total r	ecover	able	M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352082													
WG352082ICV	ICV	10/01/13 2:49	MS130717-9	.1		.1002	mg/L	100.2	90	110			
WG352082ICB	ICB	10/01/13 2:52				U	mg/L		-0.003	0.003			
WG351928LRB	LRB	10/01/13 2:56				U	mg/L		-0.0022	0.0022			
WG351928LFB	LFB	10/01/13 2:59	MS130816-3	.050055		.0509	mg/L	101.7	85	115			
L14633-01LFM	LFM	10/01/13 4:10	MS130816-3	.050055	.042	.0862	mg/L	88.3	70	130			
L14633-01LFMD	LFMD	10/01/13 4:13	MS130816-3	.050055	.042	.0887	mg/L	93.3	70	130	2.86	20	
Arsenic, dissolve	d		M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352650													
		40/40/40 0:00	M0404004 4	05		0505		405	00	440			
WG352650ICV	ICV	10/10/13 2:02	MS131001-1	.05		.0525	mg/L	105	90	110			
WG352650ICB	ICB	10/10/13 2:06	MC40007.0	05005		U	mg/L	05.4	-0.0006	0.0006			
WG352650LFB	LFB	10/10/13 2:09	MS130927-2	.05005	0000	.04759	mg/L	95.1	85	115			
L14695-01AS	AS	10/10/13 3:26	MS130927-2	.05005	.0009	.05686	mg/L	111.8	70	130	4.0		
L14695-01ASD	ASD	10/10/13 3:29	MS130927-2	.05005	.0009	.05789	mg/L	113.9	70	130	1.8	20	
Arsenic, total rec	overab	le	M200.8 IC										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352082													
WG352082ICV	ICV	10/01/13 2:49	MS130717-9	.05		.05326	mg/L	106.5	90	110			
WG352082ICB	ICB	10/01/13 2:52				U	mg/L		-0.0006	0.0006			
WG351928LRB	LRB	10/01/13 2:56				.00025	mg/L		-0.00044	0.00044			
WG351928LFB	LFB	10/01/13 2:59	MS130816-3	.05005		.05084	mg/L	101.6	85	115			
L14633-01LFM	LFM	10/01/13 4:10	MS130816-3	.05005	.0009	.05285	mg/L	103.8	70	130			
L14633-01LFMD	LFMD	10/01/13 4:13	MS130816-3	.05005	.0009	.05384	mg/L	105.8	70	130	1.86	20	



Barium, dissolv	ved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352022													
WG352022ICV	ICV	09/30/13 10:02	II130916-1	2		2.011	mg/L	100.6	95	105			
WG352022ICB	ICB	09/30/13 10:08				.0034	mg/L		-0.009	0.009			
WG352022LFB	LFB	09/30/13 10:20	II130906-9	.5		.4965	mg/L	99.3	85	115			
L14633-01AS	AS	09/30/13 10:43	II130906-9	.5	.023	.5301	mg/L	101.4	85	115			
L14633-01ASD	ASD	09/30/13 10:46	II130906-9	.5	.023	.528	mg/L	101	85	115	0.4	20	
Beryllium, diss	olved		M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qua
WG352022													
NG352022ICV	ICV	09/30/13 10:02	II130916-1	2		1.963	mg/L	98.2	95	105			
WG352022ICB	ICB	09/30/13 10:08				U	mg/L		-0.03	0.03			
WG352022LFB	LFB	09/30/13 10:20	II130906-9	.5		.501	mg/L	100.2	85	115			
L14633-01AS	AS	09/30/13 10:43	II130906-9	.5	U	.501	mg/L	100.2	85	115			
L14633-01ASD	ASD	09/30/13 10:46	II130906-9	.5	U	.497	mg/L	99.4	85	115	0.8	20	
Boron, dissolve	h		M200.7 IC	P			0						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qua
WG352022	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,								oppos			
	1014									105			
WG352022ICV	ICV	09/30/13 10:02	II130916-1	2		2.046	mg/L	102.3	95	105			
WG352022ICB	ICB	09/30/13 10:08				U	mg/L		-0.03	0.03			
WG352022LFB	LFB	09/30/13 10:20	II130906-9	.5005		.516	mg/L	103.1	85	115			
_14633-01AS	AS	09/30/13 10:43	II130906-9	.5005	.03	.561	mg/L	106.1	85	115			
_14633-01ASD	ASD	09/30/13 10:46	II130906-9	.5005	.03	.56	mg/L	105.9	85	115	0.18	20	
Cadmium, diss	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qua
WG352373													
NG352373ICV	ICV	10/04/13 19:58	MS131001-1	.05		.04869	mg/L	97.4	90	110			
WG352373ICB	ICB	10/04/13 20:01				U	mg/L		-0.0003	0.0003			
WG352373LFB	LFB	10/04/13 20:05	MS130927-2	.0501		.04767	mg/L	95.1	85	115			
L14633-01AS	AS	10/04/13 21:26	MS130927-2	.0501	.0016	.04956	mg/L	95.7	70	130			
_14633-01ASD	ASD	10/04/13 21:29	MS130927-2	.0501	.0016	.04934	mg/L	95.3	70	130	0.44	20	
WG352650													
WG352650ICV	ICV	10/10/13 2:02	MS131001-1	.05		.04888	mg/L	97.8	90	110			
WG352650ICB	ICB	10/10/13 2:06				U	mg/L		-0.0003	0.0003			
WG352650LFB	LFB	10/10/13 2:09	MS130927-2	.0501		.04851	mg/L	96.8	85	115			
L14695-01AS	AS	10/10/13 3:26	MS130927-2	.0501	U	.04966	mg/L	99.1	70	130			



Cadmium, total			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352389													
WG352389ICV	ICV	10/04/13 23:55	MS131001-1	.05		.05027	mg/L	100.5	90	110			
WG352389ICB	ICB	10/04/13 23:58				U	mg/L		-0.0003	0.0003			
WG352179LRB	LRB	10/05/13 0:01				U	mg/L		-0.00022	0.00022			
WG352179LFB	LFB	10/05/13 0:05	MS130927-2	.0501		.04971	mg/L	99.2	85	115			
L14610-02LFM	LFM	10/05/13 0:14	MS130927-2	.0501	.0014	.05144	mg/L	99.9	70	130			
L14610-02LFMD	LFMD	10/05/13 0:17	MS130927-2	.0501	.0014	.05108	mg/L	99.2	70	130	0.7	20	
Calcium, dissolv	ved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352022													
WG352022ICV	ICV	09/30/13 10:02	II130916-1	100		98.49	mg/L	98.5	95	105			
WG352022ICB	ICB	09/30/13 10:08				U	mg/L		-0.6	0.6			
WG352022LFB	LFB	09/30/13 10:20	II130906-9	68.00225		70.03	mg/L	103	85	115			
L14633-01AS	AS	09/30/13 10:43	II130906-9	68.00225	216	273.1	mg/L	84	85	115			M3
L14633-01ASD	ASD	09/30/13 10:46	II130906-9	68.00225	216	271.9	mg/L	82.2	85	115	0.44	20	M3
Chloride			SM45000	Я-Е									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352603													
WG352603ICB	ICB	10/09/13 11:06				U	mg/L		-3	3			
WG352603ICV	ICV	10/09/13 11:06	WI130722-5	54.945		58.6	mg/L	106.7	90	110			
WG352603LFB1	LFB	10/09/13 11:17	WI130201-8	30		31.7	mg/L	105.7	90	110			
L14633-02AS	AS	10/09/13 11:24	WI130201-8	30	U	33.5	mg/L	111.7	90	110			M1
L14638-01DUP	DUP	10/09/13 11:24			6	5.9	mg/L				1.7	20	RA
L14612-01AS	AS	10/09/13 11:27	10XCL	30	580	597	mg/L	56.7	90	110			M3
L14612-02DUP	DUP	10/09/13 11:35			580	580	mg/L				0	20	
WG352603LFB2	LFB	10/09/13 11:35	WI130201-8	30		31.7	mg/L	105.7	90	110			
Chromium, diss	olved		M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352373													
WG352373ICV	ICV	10/04/13 19:58	MS131001-1	.05		.04746	mg/L	94.9	90	110			
WG352373IC8	ICB	10/04/13 19:38	MS131001-1	.05		.04740 U	-	54.5	-0.0015	0.0015			
WG352373LFB	LFB	10/04/13 20:01	MS130927-2	.05005		.04818	mg/L mg/L	96.3	-0.0015	115			
L14633-01AS	AS	10/04/13 21:26	MS130927-2 MS130927-2	.05005	U	.04706	mg/L	94	70	130			
L14633-01ASD	ASD	10/04/13 21:29	MS130927-2	.05005	U	.04913	mg/L	98.2	70	130	4.3	20	
Chromium, total			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352389													
		10/04/12 22:55	M6124004 4	05		04770	m~//	05.6	00	110			
WG352389ICV		10/04/13 23:55	MS131001-1	.05		.04779	mg/L	95.6	90	110			
WG352389ICB		10/04/13 23:58				U	mg/L		-0.0015	0.0015			
WG352179LRB		10/05/13 0:01	M612002 0	05005		U 04017	mg/L	00.0	-0.0011	0.0011			
WG352179LFB		10/05/13 0:05	MS130927-2	.05005		.04917	mg/L	98.2	85 70	115			
L14610-02LFM L14610-02LFMD	LFM LFMD	10/05/13 0:14 10/05/13 0:17	MS130927-2 MS130927-2	.05005 .05005	U U	.0497 .0485	mg/L mg/L	99.3 96.9	70 70	130 130	2.44	20	
		10/03/13 0.17	1013130921-2	.00000	0	.0403	my/L	50.9	70	130	2.44	20	



Conductivity @25	5C		SM2510B										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG351885													
WG351885LCSW1	LCSW	09/26/13 13:47	PCN42819	1408.8		1459.8	umhos/cm	103.6	90	110			
WG351885LCSW4	LCSW	09/26/13 16:09	PCN42819	1408.8		1430.3	umhos/cm	101.5	90	110			
L14634-01DUP	DUP	09/26/13 19:03			6480	6490	umhos/cm				0.2	20	
WG351885LCSW7	LCSW	09/26/13 19:04	PCN42819	1408.8		1411	umhos/cm	100.2	90	110			
WG351885LCSW10	LCSW	09/26/13 22:23	PCN42819	1408.8		1395.7	umhos/cm	99.1	90	110			
WG351885LCSW13	LCSW	09/27/13 1:20	PCN42819	1408.8		1381.4	umhos/cm	98.1	90	110			
Copper, dissolve	d		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352373													
WG352373ICV	ICV	10/04/13 19:58	MS131001-1	.05		.04873	mg/L	97.5	90	110			
WG352373ICB	ICB	10/04/13 20:01				U	mg/L		-0.0015	0.0015			
WG352373LFB	LFB	10/04/13 20:05	MS130927-2	.05005		.04765	mg/L	95.2	85	115			
L14633-01AS	AS	10/04/13 21:26	MS130927-2	.05005	.0032	.04663	mg/L	86.8	70	130			
L14633-01ASD	ASD	10/04/13 21:29	MS130927-2	.05005	.0032	.04905	mg/L	91.6	70	130	5.06	20	
Copper, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352389													
WG352389ICV	ICV	10/04/13 23:55	MS131001-1	.05		.05017	mg/L	100.3	90	110			
WG352389ICB	ICB	10/04/13 23:58				U	mg/L		-0.0015	0.0015			
WG352179LRB	LRB	10/05/13 0:01				U	mg/L		-0.0011	0.0011			
WG352179LFB	LFB	10/05/13 0:05	MS130927-2	.05005		.05059	mg/L	101.1	85	115			
L14610-02LFM	LFM	10/05/13 0:14	MS130927-2	.05005	U	.0499	mg/L	99.7	70	130			
L14610-02LFMD	LFMD	10/05/13 0:17	MS130927-2	.05005	U	.0492	mg/L	98.3	70	130	1.41	20	
Cyanide, total			M335.4 - (	Colorimetr	ic w/ distil	ation							
Cyannue, iotai						ation							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
	Туре	Analyzed					Units	Rec	Lower	Upper	RPD	Limit	Qual
ACZ ID	Туре	Analyzed						Rec 93.5	Lower 90	Upper 110	RPD	Limit	Qual
ACZ ID WG352333			PCN/SCN	QC		Found	Units mg/L mg/L				RPD	Limit	Qual
ACZ ID WG352333 WG352333ICV	ICV	10/03/13 22:23	PCN/SCN	QC		Found .2805	mg/L		90	110	RPD	Limit	Qual
ACZ ID WG352333 WG352333ICV WG352333ICB	ICV	10/03/13 22:23	PCN/SCN	QC		Found .2805	mg/L mg/L		90	110	RPD	Limit	Qual
ACZ ID WG352333 WG352333ICV WG352333ICB WG352336	ICV ICB	10/03/13 22:23 10/03/13 22:24	PCN/SCN	QC		Found .2805 U	mg/L mg/L mg/L		90 -0.003	110 0.003	RPD	Limit	Qual
ACZ ID WG352333 WG352333ICV WG352333ICB WG352336 WG352290LRB	ICV ICB LRB	10/03/13 22:23 10/03/13 22:24 10/03/13 22:58	PCN/SCN WI131002-8	QC .3		Found .2805 U	mg/L mg/L	93.5	90 -0.003 -0.003	110 0.003 0.003	RPD 0	Limit 20	Qual

Cyanide, WAD			SM4500-0	CN I-Color	imetric w/	distillatio	on						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352333													
WG352333ICV	ICV	10/03/13 22:23	WI131002-8	.3		.2805	mg/L	93.5	90	110			
WG352333ICB	ICB	10/03/13 22:24				U	mg/L		-0.003	0.003			
WG352338													
WG352298LRB	LRB	10/03/13 23:36				U	mg/L		-0.003	0.003			
WG352298LFB	LFB	10/03/13 23:37	WI131002-6	.2		.1966	mg/L	98.3	90	110			
L14633-01DUP	DUP	10/03/13 23:38			U	U	mg/L				0	20	RA
L14633-02LFM	LFM	10/03/13 23:40	WI131002-6	.2	U	.191	mg/L	95.5	90	110			
Dissolved Chro	mium, H	exavalent	SM3500C	r-B									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG351751													
WG351751ICV	ICV	09/25/13 9:50	WC130531-	.05		.0496	mg/L	99.2	90	110			
WG351751ICB	ICB	09/25/13 9:52				U	mg/L		-0.015	0.015			
WG351782							0						
WG351782ICV	ICV	09/25/13 12:13	WC130531-	.05		.0523	mg/L	104.6	90	110			
WG351782ICB	ICB	09/25/13 12:16				U	mg/L		-0.015	0.015			
WG351782LFB	LFB	09/25/13 12:19	WC130523-	.05		.0515	mg/L	103	90	110			
L14633-02AS	AS	09/25/13 12:28	WC130523-	.05	U	.0554	mg/L	110.8	90	110			M1
L14633-02DUP	DUP	09/25/13 12:31			U	U	mg/L				0	20	RA
Iron, dissolved			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352022													
WG352022ICV	ICV	09/30/13 10:02	II130916-1	2		2.03	mg/L	101.5	95	105			
WG352022ICB	ICB	09/30/13 10:08		-		U	mg/L		-0.06	0.06			
WG352022LFB	LFB	09/30/13 10:20	II130906-9	1.0014		1.021	mg/L	102	85	115			
L14633-01AS	AS	09/30/13 10:43	II130906-9	1.0014	U	1.046	mg/L	104.5	85	115			
L14633-01ASD	ASD	09/30/13 10:46	II130906-9	1.0014	U	1.039	mg/L	103.8	85	115	0.67	20	
Iron, total			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352199													
WG352199ICV	ICV	10/02/13 20:26	II130820-1	2		2.044	mg/L	102.2	95	105			
WG352199ICB	ICB	10/02/13 20:32				U	mg/L		-0.06	0.06			
WG352132LRB	LRB	10/02/13 20:45				.021	mg/L		-0.044	0.044			
WG352132LFB	LFB	10/02/13 20:48	II130906-9	1.0014		1.064	mg/L	106.3	85	115			
L14610-02LFM	LFM	10/02/13 21:04	II130906-9	1.0014	92.1	92.52	mg/L	41.9	70	130			M3
L14610-02LFMD	LFMD	10/02/13 21:07	II130906-9	1.0014	92.1	91.66	mg/L	-43.9	70	130	0.93	20	M3



Lead, dissolved	ł		M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352373													
WG352373ICV	ICV	10/04/13 19:58	MS131001-1	.05		.04766	mg/L	95.3	90	110			
WG352373ICB	ICB	10/04/13 20:01				U	mg/L		-0.0003	0.0003			
WG352373LFB	LFB	10/04/13 20:05	MS130927-2	.05005		.04582	mg/L	91.5	85	115			
L14633-01AS	AS	10/04/13 21:26	MS130927-2	.05005	.0004	.04162	mg/L	82.4	70	130			
L14633-01ASD	ASD	10/04/13 21:29	MS130927-2	.05005	.0004	.04246	mg/L	84	70	130	2	20	
WG352650													
WG352650ICV	ICV	10/10/13 2:02	MS131001-1	.05		.04963	mg/L	99.3	90	110			
WG352650ICB	ICB	10/10/13 2:06				U	mg/L		-0.0003	0.0003			
WG352650LFB	LFB	10/10/13 2:09	MS130927-2	.05005		.04811	mg/L	96.1	85	115			
L14695-01AS	AS	10/10/13 3:26	MS130927-2	.05005	U	.04992	mg/L	99.7	70	130			
L14695-01ASD	ASD	10/10/13 3:29	MS130927-2	.05005	U	.05051	mg/L	100.9	70	130	1.17	20	
Lead, total			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352389													
WG352389ICV	ICV	10/04/13 23:55	MS131001-1	.05		.05199	mg/L	104	90	110			
WG352389IC8	ICB	10/04/13 23:58	M3131001-1	.05		.03199 U	mg/L	104	-0.0003	0.0003			
WG352179LRB	LRB	10/04/13 23:38				U	mg/L		-0.00022	0.00022			
WG352179LFB	LFB	10/05/13 0:05	MS130927-2	.05005		.05038	mg/L	100.7	85	115			
L14610-02LFM	LFM	10/05/13 0:14	MS130927-2	.05005	U	.05202	mg/L	103.9	70	130			
L14610-02LFMD	LFMD	10/05/13 0:17	MS130927-2	.05005	U	.0518	mg/L	103.5	70	130	0.42	20	
Magnesium, dis	bovloas		M200.7 I				0						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,								- pp.			
WG352022													
WG352022ICV	ICV	09/30/13 10:02	II130916-1	100		96.53	mg/L	96.5	95	105			
WG352022ICB	ICB	09/30/13 10:08	114200000 0	40,00005		U 40.45	mg/L	00.0	-0.6	0.6			
WG352022LFB	LFB	09/30/13 10:20	II130906-9	49.99695	2.2	49.15	mg/L	98.3	85	115			
L14633-01AS L14633-01ASD	AS ASD	09/30/13 10:43 09/30/13 10:46	II130906-9 II130906-9	49.99695 49.99695	3.3 3.3	52.16 51.93	mg/L mg/L	97.7 97.3	85 85	115 115	0.44	20	
		09/30/13 10.40			5.5	51.95	mg/∟	97.5	00	115	0.44	20	
Manganese, dis		Anolymod	M200.7 IC		Comple	Found	Unite	Dee		Linner	DDD	limit	Qual
ACZ ID	I ype	Analyzed		QC	Sample	Found	omis	Rec	Lower	Upper	- KPD	Limit	Qual
WG352022													
WG352022ICV	ICV	09/30/13 10:02	II130916-1	2		1.965	mg/L	98.3	95	105			
WG352022ICB	ICB	09/30/13 10:08				U	mg/L		-0.015	0.015			
WG352022LFB	LFB	09/30/13 10:20	II130906-9	.5		.4975	mg/L	99.5	85	115			
L14633-01AS	AS	09/30/13 10:43	II130906-9	.5	.11	.6052	mg/L	99	85	115			
L14633-01ASD	ASD	09/30/13 10:46	II130906-9	.5	.11	.601	mg/L	98.2	85	115	0.7	20	



# Inorganic QC Summary

#### **Caldera Mineral Resources LLC**

Manganese, tota	al		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352199													
WG352199ICV	ICV	10/02/13 20:26	II130820-1	2		1.978	mg/L	98.9	95	105			
WG352199ICB	ICB	10/02/13 20:32				U	mg/L		-0.015	0.015			
WG352132LRB	LRB	10/02/13 20:45				.007	mg/L		-0.011	0.011			
WG352132LFB	LFB	10/02/13 20:48	II130906-9	.5		.5165	mg/L	103.3	85	115			
L14610-02LFM	LFM	10/02/13 21:04	II130906-9	.5	101	101.34	mg/L	68	70	130			M3
L14610-02LFMD	LFMD	10/02/13 21:07	II130906-9	.5	101	99.46	mg/L	-308	70	130	1.87	20	M3
Mercury, total			M245.1 C	<b>NAA</b>									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG351910													
WG351910ICV2	ICV	09/30/13 9:14	II130920-2	.005025		.0052	mg/L	103.5	95	105			
WG351910ICB	ICB	09/30/13 9:16				U	mg/L		-0.0002	0.0002			
WG352020													
WG352020LRB	LRB	09/30/13 12:40				U	mg/L		-0.00044	0.00044			
WG352020LFB	LFB	09/30/13 12:42	II130924-2	.002002		.00183	mg/L	91.4	85	115			
L14633-01LFM	LFM	09/30/13 13:35	II130924-2	.002002	U	.00185	mg/L	92.4	85	115			
L14633-01LFMD	LFMD	09/30/13 13:37	II130924-2	.002002	U	.00188	mg/L	93.9	85	115	1.61	20	
Nickel, dissolve	d		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352022													
WG352022ICV	ICV	09/30/13 10:02	II130916-1	2		2.003	mg/L	100.2	95	105			
WG352022ICB	ICB	09/30/13 10:08				U	mg/L		-0.03	0.03			
WG352022LFB	LFB	09/30/13 10:20	II130906-9	.5		.497	mg/L	99.4	85	115			
L14633-01AS	AS	09/30/13 10:43	II130906-9	.5	U	.491	mg/L	98.2	85	115			
L14633-01ASD	ASD	09/30/13 10:46	II130906-9	.5	U	.493	mg/L	98.6	85	115	0.41	20	
Nickel, total			M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352199													
WG352199ICV	ICV	10/02/13 20:26	II130820-1	2		2.026	mg/L	101.3	95	105			
WG352199ICB	ICB	10/02/13 20:32		-		U	mg/L		-0.03	0.03			
WG352132LRB	LRB	10/02/13 20:45				U	mg/L		-0.022	0.022			
WG352132LFB	LFB	10/02/13 20:48	II130906-9	.5		.514	mg/L	102.8	85	115			
L14610-02LFM	LFM	10/02/13 21:04	II130906-9	.5	.34	.837	mg/L	99.4	70	130			
L14610-02LFMD	LFMD	10/02/13 21:07	II130906-9	.5	.34	.85	mg/L	102	70	130	1.54	20	
Nitrate/Nitrite as	N, diss	olved	M353.2 -	Automated	d Cadmiur	n Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG351818													
WG351818ICV	ICV	09/25/13 19:26	WI130712-3	2.416		2.374	mg/L	98.3	90	110			
	ICB	09/25/13 19:27					mg/L		-0.06	0.06			
				2		1.987	mg/L	99.4	90	110			
WG351818ICB	LFB	09/25/13 19:32	WI130816-3	2									
	LFB DUP	09/25/13 19:32 09/25/13 19:36	WI130816-3	2	.42	.41	mg/L				2.4	20	
WG351818ICB WG351818LFB1			WI130816-3 WI130816-3	2	.42		-	93.6	90	110	2.4	20	

Nitrite as N, diss	olved		M353.2 - A	utomate	d Cadmiun	n Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG351818													
WG351818ICV	ICV	09/25/13 19:26	WI130712-3	.609		.58	mg/L	95.2	90	110			
WG351818ICB	ICB	09/25/13 19:27				U	mg/L		-0.03	0.03			
WG351818LFB1	LFB	09/25/13 19:32	WI130816-3	1		1.003	mg/L	100.3	90	110			
L14630-01AS	AS	09/25/13 19:34	WI130816-3	1	.03	1.016	mg/L	98.6	90	110			
L14632-01DUP	DUP	09/25/13 19:36			U	U	mg/L				0	20	R/
WG351818LFB2	LFB	09/25/13 20:06	WI130816-3	1		1.028	mg/L	102.8	90	110			
Nitrogen, ammor	nia		M350.1 - A	utomate	d Phenate								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352118													
WG352118ICV	ICV	10/01/13 14:12	WI121105-5	1.003		.989	mg/L	98.6	90	110			
WG352118ICB	ICB	10/01/13 14:15				U	mg/L		-0.15	0.15			
WG352133													
WG352133LFB1	LFB	10/01/13 15:43	WI121218-3	1		1.069	mg/L	106.9	90	110			
L14630-01AS	AS	10/01/13 15:45	WI121218-3	1	.15	1.254	mg/L	110.4	90	110			
L14633-01DUP	DUP	10/01/13 15:47			U	U	mg/L				0	20	R
WG352133LFB2	LFB	10/01/13 16:14	WI121218-3	1		1.092	mg/L	109.2	90	110			
pH (lab)			SM4500H-	⊦ B									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG351885													
WG351885LCSW3	LCSW	09/26/13 14:02	PCN41777	6		6.03	units	100.5	98	102			
WG351885LCSW6	LCSW	09/26/13 16:25	PCN41777	6		6.04	units	100.5	98	102			
L14634-01DUP	DUP	09/26/13 19:03	1 01141777	0	7.7	7.65	units	100.7	50	102	0.7	20	
WG351885LCSW9	LCSW	09/26/13 19:19	PCN41777	6		6.04	units	100.7	98	102	0.1	20	
WG351885LCSW12		09/26/13 22:38	PCN41777	6		6.04	units	100.7	98	102			
WG351885LCSW15		09/27/13 1:36	PCN41777	6		6.05	units	100.8	98	102			
Residue, Filterab	le (TDS	) @180C	SM2540C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WC254007													
WG351997		na/27/13 10·25				U	mg/L		-20	20			
WG351997PBW	PBW	09/27/13 19:25				266	mg/L	102.3	80	120			
WG351997PBW WG351997LCSW	LCSW	09/27/13 19:26	PCN43784	260	1010	1000							
WG351997PBW WG351997LCSW			PCN43784	260	1010	1000	mg/L				1	10	
WG351997PBW WG351997LCSW L14637-04DUP Residue, Non-Fil	LCSW DUP	09/27/13 19:26 09/27/13 19:43	PCN43784 SM2540D	260	1010						1	10	
WG351997PBW WG351997LCSW L14637-04DUP Residue, Non-Fil	LCSW DUP	09/27/13 19:26 09/27/13 19:43		260 QC	1010 Sample	1000 Found		Rec	Lower	Upper	RPD	10 Limit	Qual
WG351997PBW	LCSW DUP terable	09/27/13 19:26 09/27/13 19:43 (TSS) @105C	SM2540D					Rec	Lower	Upper			Qual
WG351997PBW WG351997LCSW L14637-04DUP Residue, Non-Fil ACZ ID WG352034	LCSW DUP terable	09/27/13 19:26 09/27/13 19:43 (TSS) @105C	SM2540D					Rec	Lower -6	Upper 6			Qual
WG351997PBW WG351997LCSW L14637-04DUP Residue, Non-Fil ACZ ID	LCSW DUP terable Type	09/27/13 19:26 09/27/13 19:43 (TSS) @105C Analyzed	SM2540D			Found	Units	Rec 95.6					Qual



Selenium, disso	olved		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352373													
WG352373ICV	ICV	10/04/13 19:58	MS131001-1	.05		.05038	mg/L	100.8	90	110			
WG352373ICB	ICB	10/04/13 20:01				U	mg/L		-0.0003	0.0003			
WG352373LFB	LFB	10/04/13 20:05	MS130927-2	.05005		.04732	mg/L	94.5	85	115			
L14633-01AS	AS	10/04/13 21:26	MS130927-2	.05005	.0007	.05354	mg/L	105.6	70	130			
L14633-01ASD	ASD	10/04/13 21:29	MS130927-2	.05005	.0007	.05034	mg/L	99.2	70	130	6.16	20	
Silver, dissolve	d		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352373													
WG352373ICV	ICV	10/04/13 19:58	MS131001-1	.02002		.01875	mg/L	93.7	90	110			
WG352373ICB	ICB	10/04/13 20:01				U	mg/L		-0.00015	0.00015			
WG352373LFB	LFB	10/04/13 20:05	MS130927-2	.01001		.01033	mg/L	103.2	85	115			
L14633-01AS	AS	10/04/13 21:26	MS130927-2	.01001	U	.008729	mg/L	87.2	70	130			
L14633-01ASD	ASD	10/04/13 21:29	MS130927-2	.01001	U	.008658	mg/L	86.5	70	130	0.82	20	
Silver, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352389													
WG352389ICV	ICV	10/04/13 23:55	MS131001-1	.02002		.01968	mg/L	98.3	90	110			
WG352389ICB	ICB	10/04/13 23:58	MO101001-1	.02002		.01300 U	mg/L	30.5	-0.00015	0.00015			
WG352179LRB	LRB	10/05/13 0:01				U	mg/L		-0.00013	0.00013			
WG352179LFB	LFB	10/05/13 0:05	MS130927-2	.01001		.009489	mg/L	94.8	-0.00011	115			
L14610-02LFM	LFM	10/05/13 0:14	MS130927-2 MS130927-2	.01001	U	.00907	mg/L	90.6	70	130			
L14610-02LFMD		10/05/13 0:14	MS130927-2 MS130927-2	.01001	U	.00907	mg/L	89.3	70	130	1.44	20	
Sulfate				Turbidime	atric		5		-			-	
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
	Type	Analyzeu		QU	Sample	Tound	Units	Nec	Lower	Opper		Linin	Quai
WG352376													
WG352376ICB	ICB	10/04/13 10:36				U	mg/L		-3	3			
WG352376ICV	ICV	10/04/13 10:36	WI130924-7	20		19.9	mg/L	99.5	90	110			
WG352376LFB	LFB	10/04/13 12:53	WI130416-3	9.99		10.3	mg/L	103.1	90	110			
L14612-05DUP	DUP	10/04/13 12:53			29.6	43	mg/L				36.9	20	R
L14612-06AS	AS	10/04/13 13:33	SO4TURB20	100	3090	2950	mg/L	-140	90	110			Μ
Sulfide as S			SM4500S	2-D									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG351788													
L14633-02DUP	DUP	06/25/13 12:45			U	U	mg/L				0	20	R
	ICB	06/25/13 12:45				U	mg/L		-0.06	0.06			
WG351788ICB			10/0400004	22724			-	99	90	110			
	ICV	06/25/13 12:45	WC130924-	.33/34		.334	ma/L	33	90	110			
WG351788ICB WG351788ICV WG351788LFB	ICV LFB	06/25/13 12:45 06/25/13 12:45	WC130924- WC130924-	.33734 .2337734		.334 .267	mg/L mg/L	99 114.2	90 80	120			



Uranium, dissolv	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352373													
WG352373ICV	ICV	10/04/13 19:58	MS131001-1	.05		.0516	mg/L	103.2	90	110			
WG352373ICB	ICB	10/04/13 20:01				U	mg/L		-0.0003	0.0003			
WG352373LFB	LFB	10/04/13 20:05	MS130927-2	.05		.05047	mg/L	100.9	85	115			
L14633-01AS	AS	10/04/13 21:26	MS130927-2	.05	.0005	.04172	mg/L	82.4	70	130			E6
L14633-01ASD	ASD	10/04/13 21:29	MS130927-2	.05	.0005	.04311	mg/L	85.2	70	130	3.28	20	
Uranium, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352389													
WG352389ICV	ICV	10/04/13 23:55	MS131001-1	.05		.05103	mg/L	102.1	90	110			
WG352389ICB	ICB	10/04/13 23:58				U	mg/L		-0.0003	0.0003			
WG352179LRB	LRB	10/05/13 0:01				U	mg/L		-0.00022	0.00022			
WG352179LFB	LFB	10/05/13 0:05	MS130927-2	.05		.05008	mg/L	100.2	85	115			
L14610-02LFM	LFM	10/05/13 0:14	MS130927-2	.05	.0035	.0564	mg/L	105.8	70	130			
L14610-02LFMD	LFMD	10/05/13 0:17	MS130927-2	.05	.0035	.0567	mg/L	106.4	70	130	0.53	20	
Zinc, dissolved			M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352022													
WG352022ICV	ICV	09/30/13 10:02	II130916-1	2		1.99	mg/L	99.5	95	105			
WG352022ICB	ICB	09/30/13 10:08				U	mg/L		-0.03	0.03			
WG352022LFB	LFB	09/30/13 10:20	II130906-9	.5		.501	mg/L	100.2	85	115			
L14633-01AS	AS	09/30/13 10:43	II130906-9	.5	.36	.849	mg/L	97.8	85	115			
L14633-01ASD	ASD	09/30/13 10:46	II130906-9	.5	.36	.852	mg/L	98.4	85	115	0.35	20	
Zinc, total			M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG352199													
WG352199ICV	ICV	10/02/13 20:26	II130820-1	2		1.975	mg/L	98.8	95	105			
WG352199ICB	ICB	10/02/13 20:32				U	mg/L		-0.03	0.03			
WG352132LRB	LRB	10/02/13 20:45				U	mg/L		-0.022	0.022			
WG352132LFB	LFB	10/02/13 20:48	II130906-9	.5		.513	mg/L	102.6	85	115			
L14610-02LFM	LFM	10/02/13 21:04	II130906-9	.5	1.05	1.502	mg/L	96.4	70	130			
L14610-02LFMD	LFMD	10/02/13 21:07	II130906-9	.5	1.05	1.504	mg/L	96.8	70	130	0.13	20	



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#### **Caldera Mineral Resources LLC**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L14633-01	WG352179	Total Hot Plate Digestion	M200.2 ICP-MS	DJ	Sample dilution required due to insufficient sample.
	WG352022	Calcium, dissolved	M200.7 ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG352199	Iron, total	M200.7 ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
		Manganese, total	M200.7 ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG352603	Chloride	SM4500CI-E	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG352336	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG352338	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG351782	Dissolved Chromium, Hexavalent	SM3500Cr-B	H3	Sample was received and analyzed past holding time.
			SM3500Cr-B	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM3500Cr-B	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG351818	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG352133	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG352034	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG352376	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02 - Turbidimetric	RA	
	WG351788	Sulfide as S	SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).



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#### **Caldera Mineral Resources LLC**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L14633-02	WG352022	Calcium, dissolved	M200.7 ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG352199	Iron, total	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
		Manganese, total	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG352603	Chloride	SM4500CI-E	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG352336	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG352338	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG351782	Dissolved Chromium, Hexavalent	SM3500Cr-B	H3	Sample was received and analyzed past holding time.
			SM3500Cr-B	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM3500Cr-B	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG351818	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG352133	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG352034	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG352376	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG351788	Sulfide as S	SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

ACZ	Laboratories, In	С.
2773 Downhill Drive	Steamboat Springs, CO 80487	(800) 334-5493

Project ID: Sample ID: CB-D

ACZ Sample ID:	L14633-01
Date Sampled:	09/24/13 0:00
Date Received:	09/25/13
Sample Matrix:	Surface Water

# Oil & Grease, Total Recoverable

# Analysis Method: **1664A - Gravimetric** Extract Method:

Workgroup:	WG352271								
Analyst:	RJV/JAD								
Extract Date:									
Analysis Date:	10/03/13 10:00								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.03		mg/L	2.06	10.3

ACZ	Laboratories, In	С.
2773 Downhill Drive	Steamboat Springs, CO 80487	(800) 334-5493

Project ID: Sample ID: CB-E ACZ Sample ID: L14633-02 Date Sampled: 09/24/13 0:00 Date Received: 09/25/13 Sample Matrix: Surface Water

# Oil & Grease, Total Recoverable

# Analysis Method: **1664A - Gravimetric** Extract Method:

Workgroup:	WG352271								
Analyst:	RJV/JAD								
Extract Date:									
Analysis Date:	10/03/13 10:24								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.05		mg/L	2.1	10.5



Organic Reference

Batch	Explanations	2	
atcn Found	A distinct set of samples analyzed at a specific time Value of the QC Type of interest	5	
imit	Upper limit for RPD, in %.	(Ka)	
ower	Lower Recovery Limit, in % (except for LCSS, mg/	Kg)	
CL	Lower Control Limit	ting Limit Allows for instrum	cont and annual fluctuations
MDL	Method Detection Limit. Same as Minimum Report	-	
PCN/SCN	A number assigned to reagents/standards to trace		
PQL	Practical Quantitation Limit, typically 5 times the MI		
2C 200	True Value of the Control Sample or the amount ad		
Rec	Amount of the true value or spike added recovered		/Kg)
RPD Inner	Relative Percent Difference, calculation used for Di		
lpper ICI	Upper Recovery Limit, in % (except for LCSS, mg/	ny)	
ICL Sampla	Upper Control Limit		
Sample	Value of the Sample of interest		
ample Ty	pes		
SURR	Surrogate	LFM	Laboratory Fortified Matrix
VTS	Internal Standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
CSS	Laboratory Control Sample - Soil	MS/MSD	Matrix Spike/Matrix Spike Duplicate
CSW	Laboratory Control Sample - Water	PBS	Prep Blank - Soil
FB	Laboratory Cartified Diank		
	Laboratory Fortified Blank	PBW	Prep Blank - Water
		PBW	Prep Blank - Water
	pe Explanations		Prep Blank - Water
ample Ty	pe Explanations Verifies that there is no or		e prep method or calibration procedure.
ample Ty lanks	pe Explanations Verifies that there is no or mples Verifies the accuracy of th	minimal contamination in th	e prep method or calibration procedure.
ample Typ lanks control Sar ouplicates	pe Explanations Verifies that there is no or mples Verifies the accuracy of th	minimal contamination in th e method, including the prep e instrument and/or method	e prep method or calibration procedure.
ample Typ lanks control Sar puplicates pikes/Fort	pe Explanations Verifies that there is no or mples Verifies the accuracy of th Verifies the precision of th tified Matrix Determines sample matrix	minimal contamination in th e method, including the prep e instrument and/or method	e prep method or calibration procedure.
ample Typ Ianks Control Sar Ouplicates Dipikes/Fort Qualifiers	pe Explanations Verifies that there is no or mples Verifies the accuracy of th Verifies the precision of th tified Matrix (Qual)	minimal contamination in th e method, including the prep e instrument and/or method k interferences, if any.	e prep method or calibration procedure. o procedure.
ample Typ Ianks Control Sar Duplicates Spikes/Fort Qualifiers	pe Explanations         mples       Verifies that there is no or         weifies the accuracy of th         Verifies the precision of th         Utified Matrix         Determines sample matrix         (Qual)         Analyte concentration detected at a value between	minimal contamination in th e method, including the prep e instrument and/or method k interferences, if any. MDL and PQL. The associa	e prep method or calibration procedure. o procedure.
ample Typ Ianks Control Sar Ouplicates Epikes/Fort Qualifiers	pe Explanations         weifies that there is no or         mples       Verifies the accuracy of th         Verifies the precision of th         tified Matrix       Determines sample matrix         (Qual)         Analyte concentration detected at a value between         Analyte concentration is estimated due to result excent accuracy of the set of the precision of the	minimal contamination in th e method, including the prep e instrument and/or method k interferences, if any. MDL and PQL. The associa ceeding calibration range.	te prep method or calibration procedure.
ample Typ Ianks Control Sar Duplicates Spikes/Fort Qualifiers	pe Explanations         weifies that there is no or         nples       Verifies the accuracy of th         Verifies the precision of th         Utified Matrix       Determines sample matrix         (Qual)         Analyte concentration detected at a value between         Analyte concentration is estimated due to result exc         Analysis exceeded method hold time. pH is a field	minimal contamination in th e method, including the prep e instrument and/or method c interferences, if any. MDL and PQL. The associa ceeding calibration range. test with an immediate hold	time.
ample Typ Ianks Control Sar Ouplicates Epikes/Fort Qualifiers	pe Explanations         weifies that there is no or         mples       Verifies the accuracy of th         Verifies the precision of th         Utified Matrix       Determines sample matrix         (Qual)         Analyte concentration detected at a value between         Analyte concentration is estimated due to result exit         Analysis exceeded method hold time. pH is a field         Analyte concentration detected at a value between	minimal contamination in th e method, including the pre- e instrument and/or method c interferences, if any. MDL and PQL. The associa ceeding calibration range. test with an immediate hold MDL and PQL. The associa	time.
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For a complete list of ACZ's Extended Qualifiers, please click:

http://www.acz.com/public/extquallist.pdf



# ACZ Project ID: L14633

1664A - Gravimetric

# Oil & Grease, Total Recoverable

WG352271

MS	Sample ID: L14682	-01MS		PCN/S	CN: OP13	30926-2		Anal	yzed:	10/03	/13 14:07
Compound		QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE		40	U	36.3	mg/L	90.8	78	114			
LCSW	Sample ID: WG352	271LCS	N	PCN/S	CN: OP13	30926-2		Anal	yzed:	10/03	/13 16:10
Compound		QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE		40		38.1	mg/L	95.3	78	114			
LCSWD	Sample ID: WG352	271LCS	WD	PCN/S	CN: OP13	30926-2		Anal	yzed:	10/03	/13 16:35
Compound		QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE		40		37	mg/L	92.5	78	114	2.9	18	
PBW	Sample ID: WG352	271PBW	1					Anal	yzed:	10/03	/13 16:59
Compound		00	Comple	Found	Limite	Bee		Linner		Limit	Qual

PBW	Sample ID: WG3522/1PBW						Anaiy	zea:	10/03/	13 16:59
Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE			U	mg/L		-5	5			



ACZ Project ID: L14633

### Caldera Mineral Resources LLC

ACZ ID WORKN	UM PARAMETER	METHOD	QUAL DESCR	RIPTION

No extended qualifiers associated with this analysis



ACZ Project ID: L14633

Wet Chemistry

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

Sulfide as S

SM4500S2-D

**AGE Laboratories, Inc.** 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

# Sample Receipt

Caldera Mineral Resources LLC	ACZ Proje	ct ID:		L14633
	Date Rece		9/25/201	3 10:09
	Receive	-		mtb
	Date Pri	inted:	9/	25/2013
Receipt Verification		YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			NO	X
2) Is the Chain of Custody or other directive shipping papers present?		Х		
3) Does this project require special handling procedures such as CLP protocol?				Х
4) Are any samples NRC licensable material?				Х
5) If samples are received past hold time, proceed with requested short hold time a	analyses?	Х		
6) Is the Chain of Custody complete and accurate?		Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the same	nples?		Х	
amples/Containers				
		YES	NO	NA
8) Are all containers intact and with no leaks?		Х		
9) Are all labels on containers and are they intact and legible?		Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Tir	me?	Х		
11) For preserved bottle types, was the pH checked and within limits?		Х		
12) Is there sufficient sample volume to perform all requested work?		Х		
13) Is the custody seal intact on all containers?				Х
14) Are samples that require zero headspace acceptable?				Х
15) Are all sample containers appropriate for analytical requirements?		Х		
16) Is there an Hg-1631 trip blank present?				Х
17) Is there a VOA trip blank present?				Х
18) Were all samples received within hold time?			Х	
Some parameters were received past hold time.				
Chain of Custody Related Remarks				

**Client Contact Remarks** 

## Shipping Containers

Cooler	Id
3047	

Temp (°C) _____ 2.5

Rad  $(\mu R/Hr)$ _____ N/A

Custody Seal Intact? _____

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

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

14

	aboratories, Inc	. C	1410	333	,	Cl		l of	CUS	TO	ΟY
2773 Downhill Drive Steamb	oat Springs, CO_80487_(800) 3	34-5493									
Report to:											
Name: MIK Th	Nineval Rosources LLC		Addre	ss: PD	Sox	549	,491	<u> 00 0</u>	R 36	1	
Company: (alderal	Mineval Rosauras LLC	-	C)	uray	, C	0	814	127			
E-mail: inter reardo	snsteel, US		Telept	ioray	t <del>e</del>	લ ૧૯ <del>√ ૨</del> ૧	- H		Feet.	عند	
Copy of Report to:											
Name: Kurmen	King		E-mail	: KK	Lina	0	0.00	tox.	05		
Company: Graylin		-		none: 9	101	56	<u>.</u> <u>-</u>	027	5%		
Invoice to:	- <u>)</u>		L	د بر ا					<u> </u>		
Name: Mile The	MOLINIA		Addro			e (57)	Ci Lì	GAN	0.05 3.1	1	
	menal Resources LLC	-	Audre	ss: PO Ovra						61	
	and the second se	-	Tolonk	none: G							
E-mail: <u>mt @ rear</u> If sample(s) received past h	nolding time (HT), or if insuffici	 ent HT ra				-1 -1		~ 10	YES	$\mathbf{V}$	
	shall ACZ proceed with reques								NO	-	
	ner instruction. If neither "YES" nor "NO" is indic	ated, ACZ will		th the requeste			HT is expir	ed, and dat	a will be qua	alified	
Are samples for SDWA Cor	npliance Monitoring? forms. Results will be reported	to POL	Yes		N	lo					
Sampler's Name:	•		State:	0.5	7	in cor	10 81	433	Time Z	one #	15
Check box if observe Dayli		ation	otate	00			<u></u>	1 ]	TINC 2		.,
PROJECT INFORMATIO				ANALYS	ES REQ	UESTED	) (attach i	list or use	quote nui	mber)	
Quote #: 8030029			S								
PO#:			line				٢				
Reporting state for compliance	ce testing:		Containers		Pb	658	,124	en t	r)		
Check box if samples include			of C		GL	70 VC					1
SAMPLE IDENTIFICAT	ION DÂTE:TIME	Matrix									
CB-D	09/24/2013	SW	3								
CB-E	09/24/2013	SW	R								
	· · · · · · · · · · · · · · · · · · ·										
or											
ustod. 											
Matrix SW Surface Water	r) · GW (Ground Water) · WW (Waste	Water) · D	W (Drink	ing Water)	· SL (Slu	udge) ·	SO (Soi	I) · OL (0	Dil) · Othe	er (Speci	fy)
් REMARKS											
Matrix SW Surface Water											
I											

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
MAL	9/24/13		
	,	10.0	
		LAC9-25-13 10:09	Dega 20 of 20
EDMAD050 12 12 12	turn with comple Vo	llow Detain for your records	1 age 20 01 20

FRMAD050.12.12.12

White - Return with sample. Yellow - Retain for your records.



December 16, 2013

Report to: Mike Thompson Caldera Mineral Resources LLC P.O. Box 549, 4900 County Road 361 Ouary, CO 81427

cc: Karmen King

Bill to: Mike Thompson Caldera Mineral Resources LLC P.O. Box 549, 4900 County Road 361 Ouary, CO 81427

Project ID: ACZ Project ID: L15777

Mike Thompson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on November 27, 2013. This project has been assigned to ACZ's project number, L15777. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L15777. 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 January 15, 2014. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/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 raw data reports for ten years.

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

Max janice

Max Janicek has reviewed and approved this report.





# ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

## **Caldera Mineral Resources LLC**

Project ID:

Sample ID: CB-A

# Inorganic Analytical Results

ACZ Sample ID:	L15777-01
Date Sampled:	11/26/13 00:00
Date Received:	11/27/13
Sample Matrix:	Surface Water

Inorganic Prep									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date /	Analyst
Cyanide, total	M335.4 - Manual Distillation							12/06/13 15:15	mpl
Cyanide, WAD	SM4500-CN I- distillation							12/10/13 9:28	mla
Total Hot Plate Digestion	M200.2 ICP							12/06/13 11:51	aet
Total Hot Plate Digestion	M200.2 ICP-MS							12/10/13 14:46	las
Total Recoverable Digestion	M200.2 ICP-MS							12/06/13 10:07	las
Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date /	Analys
Aluminum, total recoverable	M200.8 ICP-MS	1	0.041		mg/L	0.001	0.005	12/10/13 4:02	pmo
Arsenic, dissolved	M200.8 ICP-MS	1	0.0005	В	mg/L	0.0002	0.001	12/07/13 4:01	pmo
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0007	В	mg/L	0.0002	0.001	12/10/13 4:02	pmo
Barium, dissolved	M200.7 ICP	1	0.048		mg/L	0.003	0.02	12/05/13 14:42	aet
Beryllium, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	12/05/13 14:42	aet
Boron, dissolved	M200.7 ICP	1	0.02	В	mg/L	0.01	0.05	12/05/13 14:42	aet
Cadmium, dissolved	M200.8 ICP-MS	1	0.0005		mg/L	0.0001	0.0005	12/07/13 4:01	pm
Cadmium, total	M200.8 ICP-MS	1	0.0005		mg/L	0.0001	0.0005	12/12/13 3:21	, pm
Calcium, dissolved	M200.7 ICP	1	103		mg/L	0.2	1	12/05/13 14:42	ael
Chromium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	12/07/13 4:01	pmo
Chromium, total	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	12/12/13 3:21	pmo
Chromium, Trivalent	Calculation (Total - Hexavale	nt)		U	mg/L	0.0005	0.002	12/16/13 9:04	calo
Copper, dissolved	M200.8 ICP-MS	1	0.0012	В	mg/L	0.0005	0.003	12/07/13 4:01	pmo
Copper, total	M200.8 ICP-MS	1	0.0018	В	mg/L	0.0005	0.003	12/12/13 3:21	, pm
Iron, dissolved	M200.7 ICP	1		U	mg/L	0.02	0.05	12/05/13 14:42	ael
Iron, total	M200.7 ICP	1	0.05		mg/L	0.02	0.05	12/06/13 18:23	aet
Lead, dissolved	M200.8 ICP-MS	1	0.0007		mg/L	0.0001	0.0005	12/07/13 4:01	pmo
Lead, total	M200.8 ICP-MS	1	0.0020		mg/L	0.0001	0.0005	12/12/13 3:21	pmo
Magnesium, dissolved	M200.7 ICP	1	2.8		mg/L	0.2	1	12/05/13 14:42	aet
Manganese, dissolved	M200.7 ICP	1	0.048		mg/L	0.005	0.03	12/05/13 14:42	aet
Manganese, total	M200.7 ICP	1	0.053		mg/L	0.005	0.03	12/06/13 18:23	aet
Mercury, total	M245.1 CVAA	1		U	mg/L	0.0002	0.001	12/03/13 12:15	mfn
Nickel, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	12/05/13 14:42	aet
Nickel, total	M200.7 ICP	1		U	mg/L	0.01	0.05	12/06/13 18:23	ael
Selenium, dissolved	M200.8 ICP-MS	1	0.0004		mg/L	0.0001	0.0003	12/07/13 4:01	pm
Silver, dissolved	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	12/07/13 4:01	, pm
Silver, total	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	12/12/13 3:21	, pm
Uranium, dissolved	M200.8 ICP-MS	1	0.0003	В	mg/L	0.0001	0.0005	12/07/13 4:01	, pm
Uranium, total	M200.8 ICP-MS	1	0.0003	В	mg/L	0.0001	0.0005	12/12/13 3:21	pm
Zinc, dissolved	M200.7 ICP	1	0.14		mg/L	0.01	0.05	12/05/13 14:42	ael
Zinc, total	M200.7 ICP	1	0.14		mg/L	0.01	0.05	12/06/13 18:23	ael

* Please refer to Qualifier Reports for details.

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:

Sample ID: CB-A

# Inorganic Analytical Results

ACZ Sample ID: L15777-01 Date Sampled: 11/26/13 00:00 Date Received: 11/27/13 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	56			mg/L	2	20	12/07/13 0:00	khw
Carbonate as CaCO3		1		U		mg/L	2	20	12/07/13 0:00	khw
Hydroxide as CaCO3		1		U		mg/L	2	20	12/07/13 0:00	khw
Total Alkalinity		1	56			mg/L	2	20	12/07/13 0:00	khw
Chloride	SM4500CI-E	1		U		mg/L	1	5	12/09/13 14:34	bsu
Conductivity @25C	SM2510B	1	548			umhos/cm	1	10	12/07/13 15:41	khw
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	12/07/13 2:05	pjb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	12/10/13 16:30	mpb
Dissolved Chromium, Hexavalent	SM3500Cr-B	1		UH	*	mg/L	0.005	0.02	11/27/13 13:38	abm
Hardness as CaCO3	SM2340B - Calculation		269			mg/L	1	7	12/16/13 9:04	calc
Lab Filtration (0.45um filter)	SOPWC050	1							12/05/13 12:08	dcw
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							12/03/13 16:04	mfm
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.18			mg/L	0.02	0.1	12/16/13 9:04	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.18		*	mg/L	0.02	0.1	11/27/13 23:51	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	11/27/13 23:51	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	12/09/13 17:48	mpb
pH (lab)	SM4500H+ B									
pН		1	7.9	Н		units	0.1	0.1	12/07/13 0:00	khw
pH measured at		1	22			С	0.1	0.1	12/07/13 0:00	khw
Residue, Filterable (TDS) @180C	SM2540C	1	390			mg/L	10	20	12/02/13 16:39	dcw
Residue, Non- Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	12/03/13 15:23	abm
Sulfate	D516-02 - Turbidimetric	20	206			mg/L	20	100	12/10/13 14:20	mla
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	12/03/13 11:10	khw

# ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

## **Caldera Mineral Resources LLC**

Project ID:

Sample ID: CB-B

# Inorganic Analytical Results

ACZ Sample ID:	L15777-02
Date Sampled:	11/26/13 00:00
Date Received:	11/27/13
Sample Matrix:	Surface Water

Inorganic Prep									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date A	Analys
Cyanide, total	M335.4 - Manual Distillation		-					12/06/13 15:28	mp
Cyanide, WAD	SM4500-CN I- distillation							12/10/13 9:41	mla
Total Hot Plate Digestion	M200.2 ICP							12/06/13 12:02	ael
Total Hot Plate Digestion	M200.2 ICP-MS							12/10/13 14:56	la
Total Recoverable Digestion	M200.2 ICP-MS							12/06/13 10:16	la
Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date A	Analys
Aluminum, total recoverable	M200.8 ICP-MS	1	0.039		mg/L	0.001	0.005	12/10/13 4:05	pmo
Arsenic, dissolved	M200.8 ICP-MS	1	0.0009	В	mg/L	0.0002	0.001	12/07/13 4:05	pmo
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0010		mg/L	0.0002	0.001	12/10/13 4:05	pmo
Barium, dissolved	M200.7 ICP	1	0.046		mg/L	0.003	0.02	12/05/13 14:45	ael
Beryllium, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	12/05/13 14:45	ael
Boron, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	12/05/13 14:45	ael
Cadmium, dissolved	M200.8 ICP-MS	1	0.0002	В	mg/L	0.0001	0.0005	12/07/13 4:05	pm
Cadmium, total	M200.8 ICP-MS	1	0.0002	В	mg/L	0.0001	0.0005	12/12/13 3:25	, pm
Calcium, dissolved	M200.7 ICP	1	35		mg/L	0.2	1	12/05/13 14:45	ael
Chromium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	12/07/13 4:05	pmo
Chromium, total	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	12/12/13 3:25	, pm
Chromium, Trivalent	Calculation (Total - Hexavale	nt)		U	mg/L	0.0005	0.002	12/16/13 9:04	calo
Copper, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.003	12/07/13 4:05	pm
Copper, total	M200.8 ICP-MS	1	0.0006	В	mg/L	0.0005	0.003	12/12/13 3:25	pm
Iron, dissolved	M200.7 ICP	1		U	mg/L	0.02	0.05	12/05/13 14:45	ael
Iron, total	M200.7 ICP	1	0.04	В	mg/L	0.02	0.05	12/06/13 18:26	ael
Lead, dissolved	M200.8 ICP-MS	1	0.0014		mg/L	0.0001	0.0005	12/07/13 4:05	pmo
Lead, total	M200.8 ICP-MS	1	0.0025		mg/L	0.0001	0.0005	12/12/13 3:25	pm
Magnesium, dissolved	M200.7 ICP	1	2.5		mg/L	0.2	1	12/05/13 14:45	ael
Manganese, dissolved	M200.7 ICP	1	0.020	В	mg/L	0.005	0.03	12/05/13 14:45	ael
Manganese, total	M200.7 ICP	1	0.026	В	mg/L	0.005	0.03	12/06/13 18:26	ael
Mercury, total	M245.1 CVAA	1		U	mg/L	0.0002	0.001	12/03/13 12:17	mfn
Nickel, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	12/05/13 14:45	ael
Nickel, total	M200.7 ICP	1		U	mg/L	0.01	0.05	12/06/13 18:26	ael
Selenium, dissolved	M200.8 ICP-MS	1	0.0003		mg/L	0.0001	0.0003	12/07/13 4:05	pm
Silver, dissolved	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	12/07/13 4:05	pm
Silver, total	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	12/12/13 3:25	pm
Uranium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0001	0.0005	12/07/13 4:05	pm
Uranium, total	M200.8 ICP-MS	1	0.0001	В	mg/L	0.0001	0.0005	12/12/13 3:25	pm
Zinc, dissolved	M200.7 ICP	1	0.10	2	mg/L	0.01	0.05	12/05/13 14:45	ael
			0.10			0.01	0.00		

* Please refer to Qualifier Reports for details.

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:

Sample ID: CB-B

# Inorganic Analytical Results

ACZ Sample ID: L15777-02 Date Sampled: 11/26/13 00:00 Date Received: 11/27/13 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	45			mg/L	2	20	12/07/13 0:00	khw
Carbonate as CaCO3		1		U		mg/L	2	20	12/07/13 0:00	khw
Hydroxide as CaCO3		1		U		mg/L	2	20	12/07/13 0:00	khw
Total Alkalinity		1	45			mg/L	2	20	12/07/13 0:00	khw
Chloride	SM4500CI-E	1		U		mg/L	1	5	12/09/13 14:34	bsu
Conductivity @25C	SM2510B	1	221			umhos/cm	1	10	12/07/13 15:48	khw
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	12/07/13 2:07	pjb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	12/10/13 16:32	mpb
Dissolved Chromium, Hexavalent	SM3500Cr-B	1		UH	*	mg/L	0.005	0.02	11/27/13 13:46	abm
Hardness as CaCO3	SM2340B - Calculation		98			mg/L	1	7	12/16/13 9:04	calc
Lab Filtration (0.45um filter)	SOPWC050	1							12/05/13 12:14	dcw
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							12/03/13 16:05	mfm
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.47			mg/L	0.02	0.1	12/16/13 9:04	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.47		*	mg/L	0.02	0.1	11/27/13 23:52	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	11/27/13 23:52	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	12/09/13 17:49	mpb
pH (lab)	SM4500H+ B									
pН		1	8	Н		units	0.1	0.1	12/07/13 0:00	khw
pH measured at		1	22			С	0.1	0.1	12/07/13 0:00	khw
Residue, Filterable (TDS) @180C	SM2540C	1	130			mg/L	10	20	12/02/13 16:41	dcw
Residue, Non- Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	12/03/13 15:25	abm
Sulfate	D516-02 - Turbidimetric	5	61.3			mg/L	5	25	12/10/13 12:39	mla
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	12/03/13 11:14	khw

# ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

## **Caldera Mineral Resources LLC**

Project ID:

Sample ID: CB-C

# Inorganic Analytical Results

ACZ Sample ID:	L15777-03
Date Sampled:	11/26/13 00:00
Date Received:	11/27/13
Sample Matrix:	Surface Water

Inorganic Prep									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date A	Analyst
Cyanide, total	M335.4 - Manual Distillation							12/06/13 15:35	mpt
Cyanide, WAD	SM4500-CN I- distillation							12/10/13 9:54	mla
Total Hot Plate Digestion	M200.2 ICP							12/06/13 12:13	aet
Total Hot Plate Digestion	M200.2 ICP-MS							12/10/13 15:06	las
Total Recoverable Digestion	M200.2 ICP-MS							12/06/13 10:25	las
Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date A	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	1	0.103		mg/L	0.001	0.005	12/10/13 4:08	pmo
Arsenic, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0002	0.001	12/07/13 4:08	pmc
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0002	В	mg/L	0.0002	0.001	12/10/13 4:08	pmo
Barium, dissolved	M200.7 ICP	1	0.036		mg/L	0.003	0.02	12/05/13 15:01	aet
Beryllium, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	12/05/13 15:01	aeb
Boron, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	12/05/13 15:01	aeb
Cadmium, dissolved	M200.8 ICP-MS	1	0.0010		mg/L	0.0001	0.0005	12/07/13 4:08	pmo
Cadmium, total	M200.8 ICP-MS	1	0.0010		mg/L	0.0001	0.0005	12/12/13 3:28	pmo
Calcium, dissolved	M200.7 ICP	1	24.3		mg/L	0.2	1	12/05/13 15:01	aet
Chromium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	12/07/13 4:08	pmo
Chromium, total	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	12/12/13 3:28	, pmc
Chromium, Trivalent	Calculation (Total - Hexavale	nt)		U	mg/L	0.0005	0.002	12/16/13 9:05	calo
Copper, dissolved	M200.8 ICP-MS	1	0.0029	В	mg/L	0.0005	0.003	12/07/13 4:08	pmo
Copper, total	M200.8 ICP-MS	1	0.0031		mg/L	0.0005	0.003	12/12/13 3:28	pmc
Iron, dissolved	M200.7 ICP	1		U	mg/L	0.02	0.05	12/05/13 15:01	aet
Iron, total	M200.7 ICP	1		U	mg/L	0.02	0.05	12/06/13 18:30	aeb
Lead, dissolved	M200.8 ICP-MS	1	0.0016		mg/L	0.0001	0.0005	12/07/13 4:08	pmc
Lead, total	M200.8 ICP-MS	1	0.0023		mg/L	0.0001	0.0005	12/12/13 3:28	pmc
Magnesium, dissolved	M200.7 ICP	1	1.5		mg/L	0.2	1	12/05/13 15:01	aet
Manganese, dissolved	M200.7 ICP	1	0.008	В	mg/L	0.005	0.03	12/05/13 15:01	aeb
Manganese, total	M200.7 ICP	1	0.007	В	mg/L	0.005	0.03	12/06/13 18:30	aeb
Mercury, total	M245.1 CVAA	1		U	mg/L	0.0002	0.001	12/03/13 12:19	mfm
Nickel, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	12/05/13 15:01	aeb
Nickel, total	M200.7 ICP	1		U	mg/L	0.01	0.05	12/06/13 18:30	aeb
Selenium, dissolved	M200.8 ICP-MS	1	0.0003		mg/L	0.0001	0.0003	12/07/13 4:08	pmo
Silver, dissolved	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	12/07/13 4:08	, pmc
Silver, total	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	12/12/13 3:28	, pmc
Uranium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0001	0.0005	12/07/13 4:08	, pmo
Uranium, total	M200.8 ICP-MS	1		U	mg/L	0.0001	0.0005	12/12/13 3:28	, pmc
Zinc, dissolved	M200.7 ICP	1	0.27		mg/L	0.01	0.05	12/05/13 15:01	aet
Zinc, total	M200.7 ICP	1	0.28		mg/L	0.01	0.05	12/06/13 18:30	aeb

* Please refer to Qualifier Reports for details.

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:

Sample ID: CB-C

# Inorganic Analytical Results

ACZ Sample ID: L15777-03 Date Sampled: 11/26/13 00:00 Date Received: 11/27/13 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	37			mg/L	2	20	12/07/13 0:00	khw
Carbonate as CaCO3		1		U		mg/L	2	20	12/07/13 0:00	khw
Hydroxide as CaCO3		1		U		mg/L	2	20	12/07/13 0:00	khw
Total Alkalinity		1	37			mg/L	2	20	12/07/13 0:00	khw
Chloride	SM4500CI-E	1		U	*	mg/L	1	5	12/09/13 14:34	bsu
Conductivity @25C	SM2510B	1	153			umhos/cm	1	10	12/07/13 15:55	khw
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	12/07/13 2:08	pjb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	12/10/13 16:34	mpb
Dissolved Chromium, Hexavalent	SM3500Cr-B	1		UH	*	mg/L	0.005	0.02	11/27/13 13:54	abm
Hardness as CaCO3	SM2340B - Calculation		67			mg/L	1	7	12/16/13 9:05	calc
Lab Filtration (0.45um filter)	SOPWC050	1							12/05/13 12:19	dcw
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							12/03/13 16:05	i mfm
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.19			mg/L	0.02	0.1	12/16/13 9:05	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.19		*	mg/L	0.02	0.1	11/27/13 23:53	s pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	11/27/13 23:53	s pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	12/09/13 17:50	mpb
pH (lab)	SM4500H+ B									
рН		1	7.9	Н		units	0.1	0.1	12/07/13 0:00	khw
pH measured at		1	22			С	0.1	0.1	12/07/13 0:00	khw
Residue, Filterable (TDS) @180C	SM2540C	1	80			mg/L	10	20	12/02/13 16:44	dcw
Residue, Non- Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	12/03/13 15:26	abm
Sulfate	D516-02 - Turbidimetric	1	35.9			mg/L	1	5	12/10/13 12:29	mla
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	12/03/13 11:17	khw

# ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

## **Caldera Mineral Resources LLC**

Project ID:

Sample ID: CB-D

# Inorganic Analytical Results

ACZ Sample ID:	L15777-04
Date Sampled:	11/26/13 00:00
Date Received:	11/27/13
Sample Matrix:	Surface Water

Parameter         EPA Method         Dilution         Result         Qual         XQ         Units         MDL         PQL         Date         Analyst           Cyanide, total         SM354 - Manual Disullation         12/09/13 15:00         tot         12/09/13 15:00         tot           Cyanide, VAD         SM4000.1 - Identifiation         12/06/13 10:24         12/10/13 10:16         tal         12/10/13 10:34         tal           Total Hot Plate         Digestion         M200.2 ICP-MS         12/06/13 10:24         tal         Analyst           Paramotor         EPA Method         Dilution         Result         Qual         XQ         Units         MDL         PQL         Analyst           Paramotor         EPA Method         Dilution         Result         Qual         XQ         Units         MDL         PQL         Analyst           Paramotor         EPA Method         Dilution         Result         Qual         XQ         Units         MDL         PQL         Analyst           Paramotor         SepAlmanut         M200.8 ICP-MS         1         0.001         mgL         0.001         12/10/13 4:12         pmc           Arsenic, tala         M200.8 ICP-MS         1         0.0029         mgL	Inorganic Prep									
Cyanide, WAD         SM4500-CN I- diskillation         12/10/13 10:01         mit           Total HO Plate         M200.2 LCP-MS         12/10/13 11:01         mit           Digestion         M200.2 LCP         12/06/13 12:25         aet           Total HO Plate         M200.2 LCP-MS         12/06/13 12:25         aet           Digestion         M200.2 LCP-MS         12/06/13 10:34         last           Digestion         M200.2 LCP-MS         12/06/13 10:34         last           Alumirum, total         M200.8 LCP-MS         1         0.001         mg/L         0.002         0.001         12/07/13 4:12         pmc           Asenic, dissolved         M200.8 LCP-MS         1         0.0005         B <mg l<="" td="">         0.002         0.001         12/07/13 4:12         pmc           Asenic, dissolved         M200.8 LCP-MS         1         0.0009         B<mg l<="" td="">         0.001         0.005         12/10/13 4:12         pmc           Asenic, dissolved         M200.7 ICP         1         0.021         mg/L         0.001         0.005         12/05/13 15:04         aet           Bardum, dissolved         M200.7 ICP         1         0.03         mg/L         0.001         0.005         12/05/13 15:04         aet      <t< th=""><th><b>U</b> 1</th><th>EPA Method</th><th>Dilution</th><th>Result</th><th>Qual XQ</th><th>Units</th><th>MDL</th><th>PQL</th><th>Date</th><th>Analyst</th></t<></mg></mg>	<b>U</b> 1	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Total Profes         M200.2 ICP-MS         12/10/13 15:6         das           Digestion         M200.2 ICP         12/06/13 10:25         aet           Digestion         M200.2 ICP-MS         12/06/13 10:25         aet           Total Recoverable         M200.2 ICP-MS         12/06/13 10:25         aet           Metals Analysis         Parameter         EPA Method         Olluton         Result         Mon         Mon         12/07/13 4:12         pmc           Atuminum, total         M200.8 ICP-MS         1         0.007         mg/L         0.0002         0.001         12/10/13 4:12         pmc           Arsenic, dissolved         M200.8 ICP-MS         1         0.0009         B         mg/L         0.0002         0.001         12/10/13 4:12         pmc           Arsenic, dissolved         M200.8 ICP-MS         1         0.0009         B         mg/L         0.0002         0.001         12/10/13 4:12         pmc           Barium, dissolved         M200.8 ICP-MS         1         0.0009         B         mg/L         0.0001         0.001         12/10/13 4:12         pmc           Cadmium, dissolved         M200.7 ICP         1         U         mg/L         0.001         0.001         12/10/13 1:10	Cyanide, total	M335.4 - Manual Distillation							12/09/13 15:00	tcd
Digestion         Digestion         Dispession         Dispession <thdispession< th="">         Dispession         Dispession</thdispession<>	Cyanide, WAD	SM4500-CN I- distillation							12/10/13 10:01	mla
Total PLO Plate Digestion         M200.2 ICP         12/06/13 12:2         att           Digestion         M200.2 ICP-MS         12/06/13 10:3         12/06/13 10:3         1         12/06/13 10:3         Mate           Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate         Mate <t< td=""><td></td><td>M200.2 ICP-MS</td><td></td><td></td><td></td><td></td><td></td><td></td><td>12/10/13 15:16</td><td>las</td></t<>		M200.2 ICP-MS							12/10/13 15:16	las
Total Recoverable Digestion         M200.2 ICP-MS         Iz/06/13 10:34         Is/206/13 10:34         I	Total Hot Plate	M200.2 ICP							12/06/13 12:25	aeb
Parameter         EPA Method         Dilution         Result         Qual         XQ         Units         MDL         POL         Date         Analyst           Alumium, total recoverable         M200.8 (CP-MS         1         0.071         mg/L         0.001         0.005         12/10/13 4:12         pmrc           Arsenic, dissolved         M200.8 (CP-MS         1         0.0009         B         mg/L         0.0002         0.001         12/10/13 4:12         pmrc           Arsenic, total recoverable         M200.7 (CP         1         0.021         mg/L         0.001         0.005         12/10/13 4:12         pmrc           Barium, dissolved         M200.7 (CP         1         0.021         mg/L         0.01         0.05         12/10/13 4:10         pmrc           Cadmium, dissolved         M200.7 (CP         1         0.039         mg/L         0.001         0.0005         12/12/13 3:37         pmrc           Cadmium, dissolved         M200.7 ICP         1         278         mg/L         0.001         0.0005         12/12/13 3:37         pmrc           Calcium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         12/16/13 9:05         calc	Total Recoverable	M200.2 ICP-MS							12/06/13 10:34	las
Aluminum, total recoverable         M200.8 ICP-MS         1         0.071         mg/L         0.001         0.005         12/10/13 4:12         pmc           Arsenic, isolved         M20.8 ICP-MS         1         0.0005         B         mg/L         0.0002         0.001         12/10/13 4:11         pmc           Arsenic, total         M200.8 ICP-MS         1         0.0009         B         mg/L         0.0002         0.001         12/10/13 4:12         pmc           Barium, dissolved         M200.7 ICP         1         0.021         mg/L         0.001         0.005         12/05/13 15:04         aet           Cadmium, dissolved         M200.7 ICP         1         0.03         B         mg/L         0.001         0.005         12/05/13 15:04         aet           Cadmium, dissolved         M200.8 ICP-MS         1         0.0009         mg/L         0.0001         0.0005         12/07/13 4:11         pmc           Cadmium, dissolved         M200.8 ICP-MS         1         0.0009         mg/L         0.0001         0.0005         12/02/13 3:37         pmc           Chromium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         12/12/13 3:37         pmc	Metals Analysis									
recoverable         mg/L         0.0002         0.001         12/07/13 4:11         pmc           Arsenic, total         M20.8 ICP-MS         1         0.0009         B         mg/L         0.0022         0.001         12/10/13 4:12         pmc           Arsenic, total         M20.7 ICP         1         0.021         mg/L         0.003         0.02         12/07/13 4:12         pmc           Barium, dissolved         M20.7 ICP         1         0.021         mg/L         0.001         0.055         12/05/13 15:04         aet           Boron, dissolved         M20.7 ICP         1         0.03         B         mg/L         0.001         0.005         12/05/13 15:04         aet           Cadmium, dissolved         M20.8 ICP-MS         1         0.0009         mg/L         0.001         0.005         12/02/13 4:11         pmc           Cadmium, dissolved         M20.8 ICP-MS         1         0.0009         mg/L         0.001         0.0005         12/12/13 3:37         pmc           Chromium, dissolved         M20.8 ICP-MS         1         U         mg/L         0.0005         0.002         12/17/13 4:11         pmc           Chromium, fivalent         Galcuiation (Total + Hexavalent)         U <td< td=""><td>Parameter</td><td>EPA Method</td><td>Dilution</td><td>Result</td><td>Qual XQ</td><td>Units</td><td>MDL</td><td>PQL</td><td>Date /</td><td>Analyst</td></td<>	Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date /	Analyst
Assenic, Iotal         M200.8 ICP-MS         1         0.0009         B         mg/L         0.0002         0.001         12/10/13 4:12         pmm           Arsenic, Iotal         M200.7 ICP         1         0.021         mg/L         0.003         0.02         12/05/13 15:04         aet           Boron, dissolved         M200.7 ICP         1         0.021         mg/L         0.011         0.05         12/05/13 15:04         aet           Cadmium, dissolved         M200.8 ICP-MS         1         0.0009         mg/L         0.0001         0.0005         12/05/13 15:04         aet           Cadmium, dissolved         M200.8 ICP-MS         1         0.0009         mg/L         0.0001         0.0005         12/07/13 4:11         pmc           Calcium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         12/12/13 3:37         pmc           Chromium, total         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         12/16/13 9:05         calcut           Copper, dissolved         M200.8 ICP-MS         1         0.0019         B         mg/L         0.0005         0.002         12/16/13 8:03         calt           Copper, diso		M200.8 ICP-MS	1	0.071		mg/L	0.001	0.005	12/10/13 4:12	pmc
recoverable         mg/L         0.003         0.02         1/205/13         15.04         aet           Barium, dissolved         M200.7 ICP         1         0.021         mg/L         0.001         0.05         1/205/13         15.04         aet           Born, dissolved         M200.7 ICP         1         0.03         B         mg/L         0.011         0.055         1/205/13         15.04         aet           Cadmium, dissolved         M200.7 ICP         1         0.009         mg/L         0.001         0.0055         1/205/13         15.04         aet           Cadmium, dissolved         M200.8 ICP-MS         1         0.0009         mg/L         0.0001         0.0005         1/21/21/3         3:37         pmc           Chromium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         1/21/13         3:37         pmc           Chromium, Tivalent         Calculation (Total - Hexavalent)         U         mg/L         0.0005         0.002         1/21/13         3:37         pmc           Copper, dissolved         M200.8 ICP-MS         1         0.0019         B         mg/L         0.0005         0.002         1/21/13         3:37 <td< td=""><td>Arsenic, dissolved</td><td>M200.8 ICP-MS</td><td>1</td><td>0.0005</td><td>В</td><td>mg/L</td><td>0.0002</td><td>0.001</td><td>12/07/13 4:11</td><td>pmc</td></td<>	Arsenic, dissolved	M200.8 ICP-MS	1	0.0005	В	mg/L	0.0002	0.001	12/07/13 4:11	pmc
Beryllium, dissolved         M200.7 ICP         1         U         mg/L         0.01         0.05         12/05/13 15:04         aett           Boron, dissolved         M200.7 ICP         1         0.03         B         mg/L         0.011         0.05         12/05/13 15:04         aett           Cadmium, dissolved         M200.8 ICP-MS         1         0.0009         mg/L         0.0001         0.0005         12/07/13 4:11         pmc           Cadimu, dissolved         M200.8 ICP-MS         1         0.0009         mg/L         0.0005         0.002         12/12/13 3:37         pmc           Chromium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         12/12/13 3:37         pmc           Chromium, total         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         12/12/13 3:37         pmc           Copper, dissolved         M200.8 ICP-MS         1         0.0074         mg/L         0.0005         0.003         12/12/13 3:37         pmc           Copper, total         M200.8 ICP-MS         1         0.0074         mg/L         0.005         12/05/13 15:04         aett           Iron, total         M200.7 ICP         1		M200.8 ICP-MS	1	0.0009	В	mg/L	0.0002	0.001	12/10/13 4:12	pmc
Beryllium, dissolved         M200.7 ICP         1         U         mg/L         0.01         0.05         12/05/13 15.04         aet           Boron, dissolved         M200.7 ICP         1         0.03         B         mg/L         0.01         0.05         12/05/13 15.04         aet           Cadmium, dissolved         M200.8 ICP-MS         1         0.0009         mg/L         0.0001         0.0005         12/12/13 3:37         pmc           Calcium, dissolved         M200.8 ICP-MS         1         0.0009         mg/L         0.0005         0.002         12/12/13 3:37         pmc           Chromium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         12/12/13 3:37         pmc           Chromium, total         M200.8 ICP-MS         1         0.0019         B         mg/L         0.0005         0.002         12/12/13 3:37         pmc           Copper, dissolved         M200.8 ICP-MS         1         0.0074         mg/L         0.0005         0.003         12/12/13 3:37         pmc           Copper, dissolved         M200.7 ICP         1         0.17         mg/L         0.0005         12/05/13 15:04         aet           Iron, total         M200.7 I	Barium, dissolved	M200.7 ICP	1	0.021		mg/L	0.003	0.02	12/05/13 15:04	aeb
Boron, dissolved         M200.7 ICP         1         0.03         B         mg/L         0.01         0.05         12/05/13 15:04         aet           Cadmium, dissolved         M200.8 ICP-MS         1         0.0009         mg/L         0.0001         0.0005         12/12/13 3:37         pmc           Cadium, dissolved         M200.8 ICP-MS         1         0.0009         mg/L         0.0005         12/12/13 3:37         pmc           Calcium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         12/12/13 3:37         pmc           Chromium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         12/12/13 3:37         pmc           Chromium, Trivalent         Calculation (Total - Hexavalent)         U         mg/L         0.0005         0.002         12/12/13 3:37         pmc           Copper, dissolved         M200.8 ICP-MS         1         0.0074         mg/L         0.0005         0.003         12/12/13 3:37         pmc           Iron, dissolved         M200.8 ICP-MS         1         0.074         mg/L         0.0005         12/05/13 15:04         aet           Iron, dissolved         M200.7 ICP         1	Beryllium, dissolved	M200.7 ICP	1		U	-	0.01	0.05	12/05/13 15:04	aeb
Cadmium, dissolved         M200.8 ICP-MS         1         0.0009         mg/L         0.0001         0.0005         12/07/13 4:11         pmc           Cadmium, total         M200.8 ICP-MS         1         0.0009         mg/L         0.0001         0.0005         12/12/13 3:37         pmc           Calcium, dissolved         M200.7 ICP         1         278         mg/L         0.20         1         12/05/13 15:04         aet           Chromium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         12/12/13 3:37         pmc           Chromium, Trivalent         Calculation (Total - Hexavalent)         U         mg/L         0.0005         0.002         12/12/13 3:37         pmc           Copper, dissolved         M200.8 ICP-MS         1         0.0074         mg/L         0.0005         0.003         12/07/13 4:11         pmc           Copper, total         M200.7 ICP         1         0.0074         mg/L         0.002         0.003         12/07/13 4:11         pmc           Iron, dissolved         M200.7 ICP         1         0.17         mg/L         0.002         0.05         12/05/13 15:04         aet           Iron, dissolved         M200.7 ICP         1<	Boron, dissolved	M200.7 ICP	1	0.03	В	-	0.01	0.05	12/05/13 15:04	aeb
Cadmium, total         M20.8 ICP-MS         1         0.0009         mg/L         0.0001         0.0005         12/12/13 3:37         pmodeck           Calcium, dissolved         M200.7 ICP         1         278         mg/L         0.2         1         12/05/13 15:04         aet           Chromium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         12/07/13 4:11         pmodeck           Chromium, total         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         12/12/13 3:37         pmodeck           Copper, dissolved         M200.8 ICP-MS         1         0.0019         B         mg/L         0.0005         0.002         12/12/13 3:37         pmodeck           Copper, dissolved         M200.8 ICP-MS         1         0.0074         mg/L         0.0005         0.003         12/12/13 3:37         pmodeck           Iron, dissolved         M200.7 ICP         1         0.17         mg/L         0.02         0.05         12/05/13 15:04         aet           Iron, total         M200.8 ICP-MS         1         0.0001         B         mg/L         0.0001         0.005         12/07/13 4:11         pmodek           Lead, dis	Cadmium, dissolved	M200.8 ICP-MS	1	0.0009		-	0.0001	0.0005	12/07/13 4:11	pmc
Calcium, dissolved         M200.7 ICP         1         278         mg/L         0.2         1         12/05/13 15:04         aett           Chromium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         12/07/13 4:11         pm           Chromium, total         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         12/12/13 3:37         pm           Chromium, Trivalent         Calculation (Total - Hexavalent)         U         mg/L         0.0005         0.002         12/16/13 9:05         calculation           Copper, dissolved         M200.8 ICP-MS         1         0.0019         B         mg/L         0.0005         0.003         12/12/13 3:37         pm           Copper, dissolved         M200.7 ICP         1         0.0074         mg/L         0.02         0.05         12/05/13 15:04         aett           Iron, dissolved         M200.7 ICP         1         0.17         mg/L         0.02         0.05         12/07/13 4:11         pm           Lead, dissolved         M200.8 ICP-MS         1         0.0001         B         mg/L         0.001         0.005         12/05/13 15:04         aett           Magneseiun, dissolved	Cadmium, total	M200.8 ICP-MS	1	0.0009		-	0.0001	0.0005	12/12/13 3:37	, pmc
Chromium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         12/07/13 4:11         pmode           Chromium, total         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         12/12/13 3:37         pmod           Chromium, Trivalent         Calculation (Total - Hexavalent)         U         mg/L         0.0005         0.002         12/12/13 3:37         pmod           Copper, dissolved         M200.8 ICP-MS         1         0.0074         mg/L         0.0005         0.003         12/12/13 3:37         pmod           Copper, dissolved         M200.7 ICP         1         0.0074         mg/L         0.002         0.05         12/05/13 15:04         aet           Iron, dissolved         M200.7 ICP         1         0.17         mg/L         0.0001         0.0005         12/07/13 4:11         pmod           Lead, dissolved         M200.8 ICP-MS         1         0.0001         B         mg/L         0.0001         0.0005         12/07/13 4:11         pmod           Lead, dissolved         M200.7 ICP         1         0.17         mg/L         0.001         0.0005         12/07/13 4:11         pmod           Manganese, dissolved         <	Calcium, dissolved	M200.7 ICP	1	278		-	0.2	1	12/05/13 15:04	aeb
Chromium, total         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         12/12/13 3:37         pmc           Chromium, Trivalent         Calculation (Total - Hexavalent)         U         mg/L         0.0005         0.002         12/16/13 9:05         calculation           Copper, dissolved         M200.8 ICP-MS         1         0.0019         B         mg/L         0.0005         0.003         12/12/13 3:37         pmc           Copper, dissolved         M200.8 ICP-MS         1         0.0074         mg/L         0.005         0.003         12/12/13 3:37         pmc           Iron, dissolved         M200.7 ICP         1         U         mg/L         0.022         0.05         12/06/13 18:33         aett           Lead, dissolved         M200.8 ICP-MS         1         0.0001         B         mg/L         0.001         0.005         12/07/13 4:11         pmc           Lead, dissolved         M200.8 ICP-MS         1         0.0001         B         mg/L         0.0001         0.005         12/12/13 3:37         pmc           Magnesium, dissolved         M200.7 ICP         1         0.0001         mg/L         0.005         0.03         12/05/13 15:04         aet	Chromium, dissolved	M200.8 ICP-MS	1		U	-		0.002	12/07/13 4:11	pmc
Chromium, Trivalent         Calculation (Total - Hexavalent)         U         mg/L         0.0005         0.002         12/16/13         9:05         calc           Copper, dissolved         M200.8 ICP-MS         1         0.0019         B         mg/L         0.0005         0.003         12/07/13         4:11         pmc           Copper, dissolved         M200.8 ICP-MS         1         0.0074         mg/L         0.0005         0.003         12/16/13         9:05         12/05/13         15:04         aet           Iron, dissolved         M200.7 ICP         1         0.17         mg/L         0.02         0.05         12/06/13         18:33         aet           Lead, dissolved         M200.8 ICP-MS         1         0.0001         B         mg/L         0.0001         0.0005         12/07/13         4:11         pmc           Lead, dissolved         M200.8 ICP-MS         1         0.0001         B         mg/L         0.0001         0.0005         12/07/13         4:11         pmc           Lead, total         M200.7 ICP         1         0.101         mg/L         0.0005         0.03         12/05/13         15:04         aet           Manganese, dissolved         M200.7 ICP         1		M200.8 ICP-MS	1			-	0.0005		12/12/13 3:37	, pmc
Copper, dissolved         M200.8 ICP-MS         1         0.0019         B         mg/L         0.0005         0.003         12/07/13 4:11         pmode           Copper, total         M200.8 ICP-MS         1         0.0074         mg/L         0.0005         0.003         12/12/13 3:37         pmod           Iron, dissolved         M200.7 ICP         1         U         mg/L         0.02         0.05         12/05/13 15:04         aet           Iron, total         M200.7 ICP         1         0.17         mg/L         0.02         0.05         12/06/13 18:33         aet           Lead, dissolved         M200.8 ICP-MS         1         0.0001         B         mg/L         0.0001         0.0005         12/12/13 3:37         pmod           Magnesium, dissolved         M200.7 ICP         1         3.4         mg/L         0.001         0.0005         12/12/13 3:37         pmod           Magnaese, dissolved         M200.7 ICP         1         0.101         mg/L         0.02         0.03         12/05/13 15:04         aet           Marganese, dissolved         M200.7 ICP         1         0.104         mg/L         0.0002         0.001         12/05/13 18:33         aet           Marecury, total		Calculation (Total - Hexavale	nt)			-	0.0005	0.002	12/16/13 9:05	calc
Copper, total         M20.8 ICP-MS         1         0.0074         mg/L         0.0005         0.003         12/12/13 3:37         pmot           Iron, dissolved         M200.7 ICP         1         U         mg/L         0.02         0.05         12/05/13 15:04         aett           Iron, total         M200.7 ICP         1         0.17         mg/L         0.02         0.05         12/06/13 18:33         aett           Lead, dissolved         M20.8 ICP-MS         1         0.0001         B         mg/L         0.0001         0.0005         12/07/13 4:11         pmot           Lead, total         M20.8 ICP-MS         1         0.0038         mg/L         0.0001         0.0005         12/12/13 3:37         pmot           Magnesium, dissolved         M200.7 ICP         1         3.4         mg/L         0.005         0.03         12/05/13 15:04         aett           Manganese, total         M200.7 ICP         1         0.104         mg/L         0.005         0.03         12/06/13 18:33         aett           Marcury, total         M245.1 CVAA         1         U         mg/L         0.010         0.05         12/05/13 15:04         aett           Nickel, dissolved         M200.7 ICP		M200.8 ICP-MS	1	0.0019		-	0.0005	0.003		pmc
Iron, dissolved         M200.7 ICP         1         U         mg/L         0.02         0.05         12/05/13 15:04         aeth           Iron, total         M200.7 ICP         1         0.17         mg/L         0.02         0.05         12/06/13 18:33         aeth           Lead, dissolved         M20.8 ICP-MS         1         0.0001         B         mg/L         0.001         0.0005         12/07/13 4:11         pmo           Lead, total         M20.8 ICP-MS         1         0.0038         mg/L         0.001         0.0005         12/12/13 3:37         pmo           Magnesium, dissolved         M200.7 ICP         1         3.4         mg/L         0.22         1         12/05/13 15:04         aeth           Manganese, dissolved         M200.7 ICP         1         0.101         mg/L         0.005         0.03         12/05/13 15:04         aeth           Manganese, total         M200.7 ICP         1         0.104         mg/L         0.005         0.03         12/06/13 18:33         aeth           Mickel, dissolved         M200.7 ICP         1         U         mg/L         0.01         0.05         12/05/13 15:04         aeth           Nickel, total         M200.7 ICP         1		M200.8 ICP-MS	1	0.0074		-	0.0005	0.003	12/12/13 3:37	, pmc
Iron, totalM200.7 ICP10.17mg/L0.020.0512/06/13 18:33aethLead, dissolvedM200.8 ICP-MS10.0001Bmg/L0.00010.000512/07/13 4:11pmodLead, totalM200.8 ICP-MS10.0038mg/L0.00010.000512/12/13 3:37pmodMagnesium, dissolvedM200.7 ICP13.4mg/L0.2112/05/13 15:04aethManganese, totalM200.7 ICP10.101mg/L0.0050.0312/06/13 18:33aethMarganese, totalM200.7 ICP10.104mg/L0.0050.0312/06/13 18:33aethMickel, dissolvedM200.7 ICP10.104mg/L0.00020.00112/03/13 12:21mfmNickel, dissolvedM200.7 ICP1Umg/L0.0110.0512/06/13 18:33aethNickel, dissolvedM200.7 ICP1Umg/L0.0110.0512/06/13 18:33aethNickel, dissolvedM200.8 ICP-MS10.0004mg/L0.0110.0512/06/13 18:33aethSilver, dissolvedM200.8 ICP-MS10.0004mg/L0.0010.00312/07/13 4:11pmcSilver, totalM200.8 ICP-MS10.0005mg/L0.00050.00312/07/13 4:11pmcSilver, totalM200.8 ICP-MS10.0005mg/L0.00050.00312/12/13 3:37pmcSilver, totalM200.8		M200.7 ICP	1		U	-	0.02			aeb
Lead, dissolvedM200.8 ICP-MS10.0001Bmg/L0.00010.000512/07/13 4:11pmdLead, totalM200.8 ICP-MS10.0038mg/L0.00010.000512/12/13 3:37pmdMagnesium, dissolvedM200.7 ICP13.4mg/L0.2112/05/13 15:04aetManganese, dissolvedM200.7 ICP10.101mg/L0.0050.0312/05/13 15:04aetManganese, totalM200.7 ICP10.104mg/L0.0050.0312/05/13 15:04aetManganese, totalM200.7 ICP10.104mg/L0.00020.00112/03/13 12:21mfmNickel, dissolvedM200.7 ICP1Umg/L0.0010.0512/05/13 15:04aetNickel, dissolvedM200.7 ICP1Umg/L0.0010.0512/07/13 4:11pmdNickel, dissolvedM200.7 ICP1Umg/L0.0110.0512/07/13 4:11pmdNickel, dissolvedM200.7 ICP1Umg/L0.0110.0512/07/13 4:11pmdSilver, dissolvedM200.8 ICP-MS10.0004mg/L0.0010.00312/07/13 4:11pmdSilver, totalM200.8 ICP-MS1Umg/L0.00050.00312/12/13 3:37pmdSilver, totalM200.8 ICP-MS10.0005mg/L0.00010.00512/07/13 4:11pmdUranium, dissolvedM200.8 ICP-MS<		M200.7 ICP		0.17		-				aeb
Lead, totalM200.8 ICP-MS10.0038mg/L0.00010.000512/12/133:37pm/dMagnesium, dissolvedM200.7 ICP13.4mg/L0.2112/05/1315:04aetManganese, dissolvedM200.7 ICP10.101mg/L0.0050.0312/05/1315:04aetManganese, totalM200.7 ICP10.101mg/L0.0050.0312/06/1318:33aetMarcury, totalM245.1 CVAA1Umg/L0.00020.00112/07/1312:21mfmNickel, dissolvedM200.7 ICP1Umg/L0.010.0512/05/1315:04aetNickel, dissolvedM200.7 ICP1Umg/L0.0010.00312/07/1312:21mfmNickel, totalM200.7 ICP1Umg/L0.0110.0512/06/1318:33aetSelenium, dissolvedM200.7 ICP10.0004mg/L0.0010.00312/07/134:11pm/dSilver, dissolvedM200.8 ICP-MS10.0004mg/L0.00050.000312/12/133:37pm/dSilver, totalM200.8 ICP-MS10.0005mg/L0.00010.000512/07/134:11pm/dSilver, totalM200.8 ICP-MS10.0005mg/L0.00010.000512/12/133:37pm/dUranium, dissolvedM200.8 ICP-MS10.0006mg/L0.0001		M200.8 ICP-MS	1	0.0001	В	-	0.0001			pmc
Magnesium, dissolvedM200.7 ICP13.4mg/L0.2112/05/13 15:04aetManganese, dissolvedM200.7 ICP10.101mg/L0.0050.0312/05/13 15:04aetManganese, totalM200.7 ICP10.104mg/L0.0050.0312/06/13 18:33aetMercury, totalM245.1 CVAA1Umg/L0.00020.00112/03/13 12:21mfmNickel, dissolvedM200.7 ICP1Umg/L0.010.0512/05/13 15:04aetNickel, totalM200.7 ICP1Umg/L0.010.0512/05/13 15:04aetNickel, totalM200.7 ICP1Umg/L0.010.0512/06/13 18:33aetSelenium, dissolvedM200.8 ICP-MS10.0004mg/L0.00010.000312/07/13 4:11pmcSilver, totalM200.8 ICP-MS10.0005mg/L0.00050.000312/12/13 3:37pmcUranium, dissolvedM200.8 ICP-MS10.0005mg/L0.00010.000512/07/13 4:11pmcUranium, totalM200.8 ICP-MS10.0006mg/L0.00010.000512/12/13 3:37pmcZinc, dissolvedM200.8 ICP-MS10.0006mg/L0.00010.000512/12/13 3:37pmcZinc, dissolvedM200.7 ICP10.20mg/L0.010.0512/12/13 15:04aet		M200.8 ICP-MS				-				pmc
Manganese, dissolved       M200.7 ICP       1       0.101       mg/L       0.005       0.03       12/05/13 15:04       aeth         Manganese, total       M200.7 ICP       1       0.104       mg/L       0.005       0.03       12/06/13 18:33       aeth         Mercury, total       M245.1 CVAA       1       U       mg/L       0.002       0.001       12/05/13 15:04       aeth         Nickel, dissolved       M200.7 ICP       1       U       mg/L       0.002       0.001       12/05/13 15:04       aeth         Nickel, dissolved       M200.7 ICP       1       U       mg/L       0.01       0.05       12/05/13 15:04       aeth         Nickel, total       M200.7 ICP       1       U       mg/L       0.01       0.05       12/05/13 18:33       aeth         Selenium, dissolved       M200.8 ICP-MS       1       0.0004       mg/L       0.001       0.003       12/07/13 4:11       pmd         Silver, total       M200.8 ICP-MS       1       U       mg/L       0.0005       0.0003       12/07/13 4:11       pmd         Silver, total       M200.8 ICP-MS       1       0.0005       mg/L       0.0001       0.0005       12/07/13 4:11       pmd		M200.7 ICP	1	3.4		-	0.2			aeb
Manganese, total         M200.7 ICP         1         0.104         mg/L         0.005         0.03         12/06/13 18:33         aeth           Mercury, total         M245.1 CVAA         1         U         mg/L         0.0002         0.001         12/03/13 12:21         mfm           Nickel, dissolved         M200.7 ICP         1         U         mg/L         0.01         0.05         12/05/13 15:04         aeth           Nickel, total         M200.7 ICP         1         U         mg/L         0.01         0.05         12/05/13 15:04         aeth           Nickel, total         M200.7 ICP         1         U         mg/L         0.01         0.05         12/06/13 18:33         aeth           Selenium, dissolved         M200.8 ICP-MS         1         0.0004         mg/L         0.001         0.003         12/07/13 4:11         pmc           Silver, total         M200.8 ICP-MS         1         U         mg/L         0.0005         0.0003         12/07/13 4:11         pmc           Uranium, dissolved         M200.8 ICP-MS         1         0.0005         mg/L         0.0001         0.0005         12/07/13 4:11         pmc           Uranium, dissolved         M200.8 ICP-MS         1 <td< td=""><td>•</td><td></td><td>1</td><td>0.101</td><td></td><td>-</td><td></td><td>0.03</td><td></td><td>aeb</td></td<>	•		1	0.101		-		0.03		aeb
Mercury, total         M245.1 CVAA         1         U         mg/L         0.0002         0.001         12/03/13         12:21         mfm           Nickel, dissolved         M200.7 ICP         1         U         mg/L         0.01         0.05         12/05/13         15:04         aeth           Nickel, total         M200.7 ICP         1         U         mg/L         0.01         0.05         12/05/13         18:33         aeth           Selenium, dissolved         M200.8 ICP-MS         1         0.0004         mg/L         0.0001         0.0003         12/07/13         4:11         pmd           Silver, dissolved         M200.8 ICP-MS         1         0.0004         mg/L         0.00005         0.0003         12/07/13         4:11         pmd           Silver, total         M200.8 ICP-MS         1         U         mg/L         0.00005         0.0003         12/07/13         4:11         pmd           Silver, total         M200.8 ICP-MS         1         U         mg/L         0.0001         0.0005         12/07/13         4:11         pmd           Uranium, dissolved         M200.8 ICP-MS         1         0.0005         mg/L         0.0001         0.0005         12/07/13	-		1	0.104		-	0.005	0.03	12/06/13 18:33	aeb
Nickel, dissolved         M200.7 ICP         1         U         mg/L         0.01         0.05         12/05/13 15:04         aeth           Nickel, total         M200.7 ICP         1         U         mg/L         0.01         0.05         12/05/13 15:04         aeth           Nickel, total         M200.7 ICP         1         U         mg/L         0.01         0.05         12/06/13 18:33         aeth           Selenium, dissolved         M200.8 ICP-MS         1         0.0004         mg/L         0.0001         0.0003         12/07/13 4:11         pmc           Silver, dissolved         M200.8 ICP-MS         1         U         mg/L         0.00005         0.0003         12/07/13 4:11         pmc           Silver, total         M200.8 ICP-MS         1         U         mg/L         0.00005         0.0003         12/12/13 3:37         pmc           Uranium, dissolved         M200.8 ICP-MS         1         0.0005         mg/L         0.0001         0.0005         12/07/13 4:11         pmc           Uranium, total         M200.8 ICP-MS         1         0.0005         mg/L         0.0001         0.0005         12/07/13 4:11         pmc           Uranium, total         M200.8 ICP-MS         1	-	M245.1 CVAA			U	-				mfm
Nickel, total         M200.7 ICP         1         U         mg/L         0.01         0.05         12/06/13 18:33         aeth           Selenium, dissolved         M200.8 ICP-MS         1         0.0004         mg/L         0.0001         0.0003         12/07/13 4:11         pmod           Silver, dissolved         M200.8 ICP-MS         1         U         mg/L         0.00005         0.0003         12/07/13 4:11         pmod           Silver, total         M200.8 ICP-MS         1         U         mg/L         0.00005         0.0003         12/07/13 4:11         pmod           Silver, total         M200.8 ICP-MS         1         U         mg/L         0.00005         0.0003         12/12/13 3:37         pmod           Uranium, dissolved         M200.8 ICP-MS         1         0.0005         mg/L         0.0001         0.0005         12/07/13 4:11         pmod           Uranium, total         M200.8 ICP-MS         1         0.0005         mg/L         0.0001         0.0005         12/07/13 4:11         pmod           Uranium, total         M200.8 ICP-MS         1         0.0006         mg/L         0.0001         0.0005         12/07/13 4:11         pmod           Zinc, dissolved         M200.7 ICP	•	M200.7 ICP	1			-	0.01	0.05		aeb
Selenium, dissolved         M200.8 ICP-MS         1         0.0004         mg/L         0.0001         0.0003         12/07/13 4:11         pmc           Silver, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.0003         12/07/13 4:11         pmc           Silver, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.0003         12/07/13 4:11         pmc           Silver, total         M200.8 ICP-MS         1         U         mg/L         0.0005         0.0003         12/12/13 3:37         pmc           Uranium, dissolved         M200.8 ICP-MS         1         0.0005         mg/L         0.0001         0.0005         12/07/13 4:11         pmc           Uranium, total         M200.8 ICP-MS         1         0.0005         mg/L         0.0001         0.0005         12/07/13 4:11         pmc           Uranium, total         M200.8 ICP-MS         1         0.0006         mg/L         0.0001         0.0005         12/07/13 4:11         pmc           Zinc, dissolved         M200.7 ICP         1         0.20         mg/L         0.01         0.05         12/05/13 15:04         aet	,	M200.7 ICP				-				aeb
Silver, dissolved         M200.8 ICP-MS         1         U         mg/L         0.00005         0.0003         12/07/13 4:11         pmd           Silver, total         M200.8 ICP-MS         1         U         mg/L         0.00005         0.0003         12/07/13 4:11         pmd           Uranium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0001         0.0005         12/07/13 4:11         pmd           Uranium, total         M200.8 ICP-MS         1         0.0005         mg/L         0.0001         0.0005         12/07/13 4:11         pmd           Uranium, total         M200.8 ICP-MS         1         0.0006         mg/L         0.0001         0.0005         12/07/13 4:11         pmd           Zinc, dissolved         M200.7 ICP         1         0.20         mg/L         0.001         0.005         12/05/13 15:04         aeth		M200.8 ICP-MS		0.0004		•				pmc
Silver, total         M200.8 ICP-MS         1         U         mg/L         0.00005         0.0003         12/12/13         3:37         pmod           Uranium, dissolved         M200.8 ICP-MS         1         0.0005         mg/L         0.0001         0.0005         12/07/13         4:11         pmod           Uranium, total         M200.8 ICP-MS         1         0.0006         mg/L         0.0001         0.0005         12/12/13         3:37         pmod           Zinc, dissolved         M200.7 ICP         1         0.20         mg/L         0.01         0.05         12/05/13         15:04         aether					U					•
Uranium, dissolved         M200.8 ICP-MS         1         0.0005         mg/L         0.0001         0.0005         12/07/13 4:11         pmc           Uranium, total         M200.8 ICP-MS         1         0.0006         mg/L         0.0001         0.0005         12/12/13 3:37         pmc           Zinc, dissolved         M200.7 ICP         1         0.20         mg/L         0.01         0.05         12/05/13 15:04         aet										
Uranium, total         M200.8 ICP-MS         1         0.0006         mg/L         0.0001         0.0005         12/12/13         3:37         pmc           Zinc, dissolved         M200.7 ICP         1         0.20         mg/L         0.01         0.05         12/05/13         15:04         aeb				0.0005	-	-				
Zinc, dissolved M200.7 ICP 1 0.20 mg/L 0.01 0.05 12/05/13 15:04 aet						-				
·,····										aeb
	Zinc, total	M200.7 ICP	1	0.22		mg/L	0.01	0.05	12/06/13 18:33	aeb

* Please refer to Qualifier Reports for details.

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:

Sample ID: CB-D

# Inorganic Analytical Results

ACZ Sample ID: L15777-04 Date Sampled: 11/26/13 00:00 Date Received: 11/27/13 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	46			mg/L	2	20	12/07/13 0:00	khw
Carbonate as CaCO3		1		U		mg/L	2	20	12/07/13 0:00	khw
Hydroxide as CaCO3		1		U		mg/L	2	20	12/07/13 0:00	khw
Total Alkalinity		1	46			mg/L	2	20	12/07/13 0:00	khw
Chloride	SM4500CI-E	1	1	В	*	mg/L	1	5	12/09/13 14:54	bsu
Conductivity @25C	SM2510B	1	1240			umhos/cm	1	10	12/07/13 16:03	8 khw
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	12/10/13 15:46	6 mpb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	12/10/13 16:35	i mpb
Dissolved Chromium, Hexavalent	SM3500Cr-B	1		UH	*	mg/L	0.005	0.02	11/27/13 13:57	abm abm
Hardness as CaCO3	SM2340B - Calculation		709			mg/L	1	7	12/16/13 9:05	calc
Lab Filtration (0.45um filter)	SOPWC050	1							12/07/13 10:55	id id
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							12/03/13 16:05	5 mfm
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2			U		mg/L	0.02	0.1	12/16/13 9:05	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.02	0.1	11/27/13 23:55	i pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	11/27/13 23:55	i pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	12/09/13 17:51	mpb
pH (lab)	SM4500H+ B									
pН		1	8	Н		units	0.1	0.1	12/07/13 0:00	khw
pH measured at		1	22			С	0.1	0.1	12/07/13 0:00	khw
Residue, Filterable (TDS) @180C	SM2540C	1	1050			mg/L	10	20	12/02/13 16:47	dcw
Residue, Non- Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	12/03/13 15:27	'abm
Sulfate	D516-02 - Turbidimetric	20	676		*	mg/L	20	100	12/10/13 13:08	8 mla
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	12/03/13 11:20	) khw

# ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

## **Caldera Mineral Resources LLC**

Project ID:

Sample ID: CB-E

# Inorganic Analytical Results

ACZ Sample ID:	L15777-05
Date Sampled:	11/26/13 00:00
Date Received:	11/27/13
Sample Matrix:	Surface Water

Inorganic Prep									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation							12/09/13 15:00	tcd
Cyanide, WAD	SM4500-CN I- distillation							12/10/13 10:07	mla
Total Hot Plate Digestion	M200.2 ICP-MS							12/10/13 15:27	las
Total Hot Plate Digestion	M200.2 ICP							12/06/13 12:36	aeb
Total Recoverable Digestion	M200.2 ICP-MS							12/06/13 10:43	las
Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	1	0.021		mg/L	0.001	0.005	12/10/13 4:15	pmc
Arsenic, dissolved	M200.8 ICP-MS	1	0.0006	В	mg/L	0.0002	0.001	12/07/13 4:14	pmc
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0009	В	mg/L	0.0002	0.001	12/10/13 4:15	pmc
Barium, dissolved	M200.7 ICP	1	0.020		mg/L	0.003	0.02	12/05/13 15:07	aeb
Beryllium, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	12/05/13 15:07	aeb
Boron, dissolved	M200.7 ICP	1	0.03	В	mg/L	0.01	0.05	12/05/13 15:07	aeb
Cadmium, dissolved	M200.8 ICP-MS	1	0.0008		mg/L	0.0001	0.0005	12/07/13 4:14	pmc
Cadmium, total	M200.8 ICP-MS	1	0.0008		mg/L	0.0001	0.0005	12/12/13 3:41	pmc
Calcium, dissolved	M200.7 ICP	1	276		mg/L	0.2	1	12/05/13 15:07	aeb
Chromium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	12/07/13 4:14	pmc
Chromium, total	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	12/12/13 3:41	pmc
Chromium, Trivalent	Calculation (Total - Hexavaler	nt)		U	mg/L	0.0005	0.002	12/16/13 9:05	calc
Copper, dissolved	M200.8 ICP-MS	1	0.0018	В	mg/L	0.0005	0.003	12/07/13 4:14	pmc
Copper, total	M200.8 ICP-MS	1	0.0076		mg/L	0.0005	0.003	12/12/13 3:41	, pmc
Iron, dissolved	M200.7 ICP	1		U	mg/L	0.02	0.05	12/05/13 15:07	aeb
Iron, total	M200.7 ICP	1	0.19		mg/L	0.02	0.05	12/06/13 18:36	aeb
Lead, dissolved	M200.8 ICP-MS	1	0.0001	В	mg/L	0.0001	0.0005	12/07/13 4:14	pmc
Lead, total	M200.8 ICP-MS	1	0.0047		mg/L	0.0001	0.0005	12/12/13 3:41	pmc
Magnesium, dissolved	M200.7 ICP	1	3.4		mg/L	0.2	1	12/05/13 15:07	aeb
Manganese, dissolved	M200.7 ICP	1	0.100		mg/L	0.005	0.03	12/05/13 15:07	aeb
Manganese, total	M200.7 ICP	1	0.110		mg/L	0.005	0.03	12/06/13 18:36	aeb
Mercury, total	M245.1 CVAA	1		U	mg/L	0.0002	0.001	12/03/13 12:28	mfm
Nickel, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	12/05/13 15:07	aeb
Nickel, total	M200.7 ICP	1		U	mg/L	0.01	0.05	12/06/13 18:36	aeb
Selenium, dissolved	M200.8 ICP-MS	1	0.0004		mg/L	0.0001	0.0003	12/07/13 4:14	pmc
Silver, dissolved	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	12/07/13 4:14	pmc
Silver, total	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	12/12/13 3:41	pmc
Uranium, dissolved	M200.8 ICP-MS	1	0.0005		mg/L	0.0001	0.0005	12/07/13 4:14	pmc
Uranium, total	M200.8 ICP-MS	1	0.0006		mg/L	0.0001	0.0005	12/12/13 3:41	pmc
Zinc, dissolved	M200.7 ICP	1	0.17		mg/L	0.01	0.05	12/05/13 15:07	aeb
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* Please refer to Qualifier Reports for details.

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:

Sample ID: CB-E

# Inorganic Analytical Results

ACZ Sample ID: L15777-05 Date Sampled: 11/26/13 00:00 Date Received: 11/27/13 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	46			mg/L	2	20	12/07/13 0:00	khw
Carbonate as CaCO3		1		U		mg/L	2	20	12/07/13 0:00	khw
Hydroxide as CaCO3		1		U		mg/L	2	20	12/07/13 0:00	khw
Total Alkalinity		1	46			mg/L	2	20	12/07/13 0:00	khw
Chloride	SM4500CI-E	1	1	В	*	mg/L	1	5	12/09/13 14:54	l bsu
Conductivity @25C	SM2510B	1	1240			umhos/cm	1	10	12/07/13 16:10	) khw
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	12/10/13 15:48	3 mpb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	12/10/13 16:36	6 mpb
Dissolved Chromium, Hexavalent	SM3500Cr-B	1		UH	*	mg/L	0.005	0.02	11/27/13 13:59	) abm
Hardness as CaCO3	SM2340B - Calculation		704			mg/L	1	7	12/16/13 9:05	calc
Lab Filtration (0.45um filter)	SOPWC050	1							12/07/13 10:58	3 id
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							12/03/13 16:06	6 mfm
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2			U		mg/L	0.02	0.1	12/16/13 9:05	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.02	0.1	11/27/13 23:56	6 pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.01	0.05	11/27/13 23:56	6 pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	12/09/13 17:52	2 mpb
pH (lab)	SM4500H+ B									
рН		1	8	Н		units	0.1	0.1	12/07/13 0:00	khw
pH measured at		1	22			С	0.1	0.1	12/07/13 0:00	khw
Residue, Filterable (TDS) @180C	SM2540C	1	1050			mg/L	10	20	12/03/13 16:22	2 mss3
Residue, Non- Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	12/03/13 15:29	) abm
Sulfate	D516-02 - Turbidimetric	20	705		*	mg/L	20	100	12/10/13 13:08	3 mla
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	12/03/13 11:24	ł khw



Project ID: Sample ID: CNTB072913-2

# Inorganic Analytical Results

ACZ Sample ID:	L15777-06
Date Sampled:	11/26/13 00:00
Date Received:	11/27/13
Sample Matrix:	Surface Water

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation								12/09/13 15:01	tcd
Cyanide, WAD	SM4500-CN I- distillation		-						12/10/13 10:14	mla
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	12/10/13 15:49	mpb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	12/10/13 16:36	mpb



# Inorganic Reference

Found       Value of the OC Type of interest         Limit       Upper limit for RPD, n %,         Lower       Lower Recovery Limit, in % (except for LCSS, mg/Kg)         MDL       Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.         PCNUSCM       A number assigned to reagent/sitandards to trace to the manufacturer's certificate of analysis         PCN       Practical Quantitation Limit. typically 5 times the MDL.         QC       True Value of the Control Sample or the amount added to the Spike         Refere       Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)         Sample       Value of the Sample or interest         Sample       Value of the Sample or interest         Sample       Value of the Sample or interest         Sample Vse       Losoratory Control Sample - Water Duplicate         Analytical Spike (Post Digestion)       LCSWD       Laboratory Fortified Blank         CCC       Continuing Calibration Verification standard       LFM       Laboratory Fortified Marix         CCK       Continuing Calibration Verification standard       MSD       Matrix Spike         CLSA       Initial Calibration Verification standard       LFM       Laboratory Fortified Marix         CCK       Continuing Calibration Standard       LFM       Laboratory Reagent B	Patah	Explanations		
Luni Upper limit for RPD, n %. Lower Recovery Limit, in % (except for LCSS, mg/Kg) Lower Recovery Limit, in % (except for LCSS, mg/Kg) RCW Practical Quantitation Unit. Systep 8 sites the to the manufacturer's certificate of analysis PCW2KP Practical Quantitation Unit. Typical 9% times the MDL. QC True Value of the Control Sample or the amount added to the Spike Rec Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg) Rec Recovered amount of the true value or spike added in % (except for LCSS, mg/Kg) Rec Recovered amount of the true value or spike added in % (except for LCSS, mg/Kg) Rec Recovered amount of the true value or spike added in % (except for LCSS, mg/Kg) Sample Value of the Sample or Interest PCM Particle Percent Difference, calculation used for Dipclicate C Types Upper Upper Recovery Limit, in % (except for LCSS, mg/Kg) Sample Value of the Sample or Interest PCM Particle Spike (Post Digestion) LCSW Laboratory Control Sample - Valuer Others AS Analytical Spike (Post Digestion) Duplcate LFB Laboratory Forfited Matrix CCC C Continuing Calibration Blank LFM Laboratory Forfited Matrix CCC C Continuing Calibration Standard LFM Laboratory Forfited Matrix CCC C Continuing Calibration Standard KCSA Inter-element Correction Standard MSD Matrix Spike Duplcate LCSS Laboratory Control Sample - Sol M PBW Prep Blank - Matrix Spike Duplcate LCSS Laboratory Control Sample - Sol M PBW Prep Blank - Matrix Spike PCM PARCEMAND PAR	Batch	A distinct set of samples analyzed at a specific time		
Lower Roovery Link, in % (except for LCSS, mg/Kg)   MOL Method Detection Link. Same as Minimum Reporting Link. Allows for instrument and annual fluctuations // Allows for instrument and annual fluctuation Allows for instrument and annual fluctuations // Allows for instrument and annual fluctuation allows for the instrument and annual fluctuation // Allows for instrument and annual fluctuation // Allows for instrument and annual fluctuation // Allows				
MoL       Method Delection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.         PCN SCN       A number assigned to reagents standards to trace to the manufacturer's certificate of analysis         PCN Practical Quantitation Unit. typically Stime at the MDL.       Recovered amount of the true value or syste added, mik (scopet for LCSS, mg/Kg)         Report Vere       Upper Recovery Limit, ni % (scopet for LCSS, mg/Kg)         Sample Value of the Sample of interest       Laboratory Control Sample - Water Duplicate         Sample Value of the Sample of Digetsion Duplicate       LFB       Laboratory Fortified Blank         CGB       Continuing Calibration Blank       LFM       Laboratory Fortified Matrix         CGV       Continuing Calibration Verification standard       LFMD       Laboratory Fortified Matrix         CGV       Continuing Calibration Verification standard       LFMD       Laboratory Fortified Matrix         CGSD       Laboratory Control Sample - Sol       PRP       Reserve         LCSSU       Laboratory Control Sample - Sol       PRP       Reserve         LCSSU       Laboratory Control Sample - Sol       PRP       Reserve       Reserve         LCSSU       Laboratory Control Sample - Sol       PRP       Reserve       Reserve       Reserve       Reserve       Reserve       Reserve       Reserve       Re		••		
PCNSCM       A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis         PQL       Practical Quantitation Limit, typically 5 times the MDL.         QC       Tue Value of the Control Sample of the anount added to the Spike         Rec       Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)         RPD       Relative Percent Difference, calculation used for Duplicate QC Types         Upper Recovery Limit, in % (except for LCSS, mg/Kg)       Laboratory Control Sample - Water Duplicate         AS       Analytical Spike (Post Digestion)       LCSWD       Laboratory Fortified Matrix         CCW       Continuing Calibration Blank       LFM       Laboratory Fortified Matrix         CCW       Continuing Calibration Vertification standard       LFM       Laboratory Fortified Matrix         CV       Continuing Calibration Standard       MSD       Matrix Spike Duplicate         LCSA       Laboratory Control Sample - Soil Duplicate       RB       Laboratory Fortified Matrix         LCSA       Laboratory Control Sample - Soil Duplicate       RB       Laboratory Control Sample - Soil Duplicate         LCSA       Laboratory Control Sample - Soil Duplicate       PGV       Practical Quantitation Vertification standard         LCSA       Laboratory Control Sample - Soil Duplicate       PGV       Practical Quantitation Vertificatio				
PQL       Practical Quantitation Limit, typically 5 times the MDL,         QC       True Value of the Control Sample or the amount added to the Splike         Rec       Recovered amount of the true value or splike added, in % (except for LCSS, mg/Kg)         RPD       Relative Percent Difference, calculation used for Duplicate QC Types         Upper       Upper       Upper Govered amount of the true value or splike added, in % (except for LCSS, mg/Kg)         Sample       Value of the Sample of Interest         Sample Types       Laboratory Fortified Blank         CC4       Continuing Calibration Blank       LFM         Laboratory Fortified Matrix Duplicate       LFB       Laboratory Fortified Matrix Duplicate         CC5       Continuing Calibration Blank       LFB       Laboratory Fortified Matrix Duplicate         CC6       Continuing Calibration standard       MSD       Matrix Splike         CC5       Laboratory Control Sample Soli       PSP       Prep Blank. Solite         CC5       Laboratory Control Sample - Soli       PBW       Prep Blank. Water         CC5       Laboratory Control Sample - Water       SDL       Serial Dilution         Sample Type Explanations       Verifies the accuracy of the method, including the prep procedure.       Control Sample - Water         CC5       Laboratory Control Sample - Verifies the accurac				
QC       True Value of the Control Sample or the amount added to the Spike         Rec       Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)         PRD       Relative Parcent Difference, scialulation used for Duplicate OC Tryes         Sample       Value of the Sample of interest         Sample Trype       Value of the Sample of interest         Sample Trype       Laboratory Control Sample - Water Duplicate         AS       Analytical Spike (Post Digestion)         AS       Analytical Spike (Post Digestion) Duplicate       LFB         Laboratory Fortified Matrix       Low       Laboratory Fortified Matrix         CCC       Continuing Calibration Verification standard       LFM       Laboratory Fortified Matrix         CCK       Continuing Calibration Verification standard       MSD       Matrix Spike         LCSM       Initial Calibration Nerification standard       MSD       Matrix Spike         LCSM       Laboratory Control Sample - Soil Duplicate       PQV       Prep Blank. Vater         LCSM       Laboratory Control Sample - Soil Duplicate       PQV       Prep Caluantiation Verification standard         LCSW       Laboratory Control Sample - Soil Duplicate       PQV       Prep Caluantiation Verification standard         LCSW       Laboratory Control Sample - Soil Duplicate       PQV <td></td> <td></td> <td>iufacturer's certific</td> <td>ate of analysis</td>			iufacturer's certific	ate of analysis
Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)         RPD       Relative Percent Difference, adulation used for Duplicate OC Types         Sample       Value of the Sample of Interest         Sample       Value of the Sample of Interest         Sample       Laboratory Control Sample - Water Duplicate         AS       Analytical Spike (Post Digestion) Duplicate       LFB         Laboratory Fortified Matrix       Laboratory Fortified Matrix         CCV       Continuing Calibration Blank       LFB         Laboratory Fortified Matrix       Laboratory Fortified Matrix         CV       Continuing Calibration standard       MSD         LCSS       Laboratory Control Sample - Sol       Laboratory Reagent Blank         LCSS       Laboratory Control Sample - Sol       MST         LCSS       Laboratory Control Sample - Sol       PBW         LCSS       Laboratory Control Sample - Sol       PBW         LCSS       Laboratory Control Sample - Sol       PBW         LCSS       Laboratory Control Sample - Sol       Sol         LCSS <td></td> <td></td> <td><b>.</b></td> <td></td>			<b>.</b>	
RFD       Relative Percent Difference, calculation used for Duplicate QC Types         Upper       Upper Recovery Limit, in % (except for LCSS, mg/Kg)         Sample       Value of the Sample of interest         Sample       Analytical Spike (Post Digestion)       LCSWD       Laboratory Fortified Blank         CCC       Continuing Calibration Blank       LFM       Laboratory Fortified Matrix         CCK       Continuing Calibration Verification standard       LFM       Laboratory Fortified Matrix Duplicate         LPS       Initial Calibration Verification standard       MSD       Matrix Spike         LCSA       Initial Calibration Verification standard       LSA       MSD       Matrix Spike         LCSA       Laboratory Control Sample - Valer       SDL       Serial Dilution         Standard       Verifies tha there is no or minimal contamination in the pree procedure.			•	
Upper       Upper Recovery Limit, in % (except for LCSS, mg/Kg)         Sample       Value of the Sample of interest         Sample       Value of the Sample of interest         Sample       Loss of the Sample of interest         Sample       Loss of the Sample of interest         AS       Analytical Spike (Post Digestion) Duplicate       LFB         Laboratory Fortified Matrix       CCC         CCCH       Continuing Calibration Verification standard       LFM         Laboratory Fortified Matrix       CCC         CCH       Continuing Calibration Verification standard       LRB       Laboratory Fortified Matrix         CV       Initial Calibration Verification standard       A plus B solutions       PBS       Prep Blank - Soil         LCSS       Laboratory Control Sample - Soil       PBW       Prep Blank - Voaler       LCSW         LCSSV       Laboratory Control Sample - Valer       SDL       Serial Dilution         Sample Type Explanations       Verifies that there is no or minimal contamination in the prep method or calibration procedure.       Control Sample - Water         Splees/Fortified Matrix       Verifies the accuracy of the method, including the prep procedure.       Control Sample - Water         Splees/Fortified Matrix       Verifies the accuracy of the method, including the prep procedure.       Control Sample -		•		/Kg)
Sample       Value of the Sample of interest         Sample Types       AS       Analytical Spike (Post Digestion) Duplicate       LFB       Laboratory Control Sample - Water Duplicate         CB       Continuing Calibration Blank       LFM       Laboratory Fortified Matrix         CCW       Continuing Calibration Verification standard       LFM       Laboratory Fortified Matrix         CVC       Continuing Calibration Verification standard       MS       Matrix Spike         UP       Sample Duplicate       LRB       Laboratory Fortified Matrix         CSA       Initial Calibration Verification standard       MSD       Matrix Spike Duplicate         (CSA       Initial Calibration Verification standard       MSD       Matrix Spike Duplicate         (CSA       Initial Calibration Verification standard       MSD       Matrix Spike Duplicate         (CSA       Initial Calibration Verification standard       MSD       Matrix Spike Duplicate         (CSAB       Laboratory Control Sample - Soil       Duplicate       PQV       Prep Blank - Soil         (CSAB       Laboratory Control Sample - Water       SDL       Serial Dilution         Sample Type Explanations       Verifies the accuracy of the method, including the prep procedure.       Duplicates       Verifies the accuracy of the method, including the prep procedure.			Types	
AS       Analytical Spike (Post Digestion)       LGSWD       Laboratory Control Sample - Water Duplicate         ASD       Analytical Spike (Post Digestion) Duplicate       LFB       Laboratory Fortified Blank         CCB       Continuing Calibration Blank       LFM       Laboratory Fortified Matrix         CCV       Continuing Calibration Verification standard       LFM       Laboratory Fortified Matrix         DUP       Sample Duplicate       LRB       Laboratory Fortified Matrix       Duplicate         LCS       Inter-element Correction Standard - A plus B solutions       PBS       Prep Blank - Soli       CSS         LCSS       Laboratory Control Sample - Soli       PBW       Prep Blank - Soli       LSSSD         LCSS       Laboratory Control Sample - Soli Duplicate       PQV       Practical Quantitation Verification standard         LCSW       Laboratory Control Sample - Soli Duplicate       PQV       Prep Blank - Water       Soli Solitory         Sample Type Explanations       Econtrol Samples       Verifies the accuracy of the method, including the prep procedure.       Duplicates         Spikes/Fortified Matrix       Determines sample matrix interferences, if any.       Standard       Verifies the accuracy of the method, including the prep procedure.         Uplicates       Verifies the accuracy of the dine trepretiverestod.       U       T				
AS       Analytical Spike (Post Digestion)       LGSWD       Laboratory Control Sample - Water Duplicate         ASD       Analytical Spike (Post Digestion) Duplicate       LFB       Laboratory Fortified Blank         CCB       Continuing Calibration Blank       LFM       Laboratory Fortified Matrix         CCV       Continuing Calibration Verification standard       LFM       Laboratory Fortified Matrix         DUP       Sample Duplicate       LRB       Laboratory Fortified Matrix       Duplicate         LCS       Inter-element Correction Standard - A plus B solutions       PBS       Prep Blank - Soli       CSS         LCSS       Laboratory Control Sample - Soli       PBW       Prep Blank - Soli       LSSSD         LCSS       Laboratory Control Sample - Soli Duplicate       PQV       Practical Quantitation Verification standard         LCSW       Laboratory Control Sample - Soli Duplicate       PQV       Prep Blank - Water       Soli Solitory         Sample Type Explanations       Econtrol Samples       Verifies the accuracy of the method, including the prep procedure.       Duplicates         Spikes/Fortified Matrix       Determines sample matrix interferences, if any.       Standard       Verifies the accuracy of the method, including the prep procedure.         Uplicates       Verifies the accuracy of the dine trepretiverestod.       U       T	Sample Tv	nes		
ASD       Analytical Spike (Post Digestion) Duplicate       LFB       Laboratory Fortified Blank         CCB       Continuing Calibration Blank       LFM       Laboratory Fortified Matrix Duplicate         CV       Continuing Calibration Verification standard       LFMD       Laboratory Fortified Matrix Duplicate         DJP       Sample Duplicate       LRB       Laboratory Fortified Matrix Duplicate         Initial Calibration Verification standard       MSD       Matrix Spike         ICV       Initial Calibration Verification standard       MSD       Matrix Spike         ICV       Initial Calibration Verification standard       Apus B solutions       PBS       Prep Blank. Soil         ICSAB       Inter-element Correction Standard - A plus B solutions       PBS       Prep Blank. Water         LCSSU       Laboratory Control Sample - Soil       PBW       Prep Blank. Water         LCSW       Laboratory Control Sample - Soil Duplicate       PQV       Practical Quantitation Verification standard         LCSW       Laboratory Control Sample - Soil Duplicate       SDL       Serial Diution         Sample Type Explanations       Verifies the accuracy of the method, including the prep procedure.       Duplicates       Verifies the accuracy of the method, including the prep procedure.         Duplicates       Verifies the value bid ontertory defined negative			LCSWD	Laboratory Control Sample - Water Duplicate
CCB       Continuing Calibration Blank       LFM       Laboratory Fortified Matrix         CCV       Continuing Calibration Verification standard       LFMD       Laboratory Reagent Blank         IDJP       Sample Duplicate       LRB       Laboratory Reagent Blank         ICB       Initial Calibration Verification standard       MS       Matrix Spike         ICV       Initial Calibration Verification standard - Apus B solutions       PBS       Prep Blank - Soil         ICSS       Laboratory Control Sample - Soil       PBW       Prep Blank - Water         LCSSD       Laboratory Control Sample - Soil       PBW       Prep Blank - Water         SSDE       Laboratory Control Sample - Soil Duplicate       PQV       Practical Quantitation Verification standard         LCSSD       Laboratory Control Sample - Soil Duplicate       PQV       Practical Quantitation Verification standard         LCSS       Laboratory Control Sample - Soil Duplicate       PQV       Practical Quantitation procedure.         Control Samples       Verifies that there is no or minimal contamination in the prep method or calibration procedure.       Control Sample Soil         Spikes/Fortified Matrix       Determines sample matrix interferences, if any.       Standard       Verifies the validity of the calibration.         Couldifiers (Cual       Analyte concentration detected at a value betw				
CCV       Continuing Calibration Verification standard       LFMD       Laboratory Fortified Matrix Duplicate         DVP       Sample Duplicate       LRB       Laboratory Reagent Blank         (C8       Initial Calibration Standard       MSD       Matrix Spike         (CV       Initial Calibration Verification standard       MSD       Matrix Spike       Uplicate         (CSAB       Inter-element Correction Standard - A plus B solutions       PBS       Prep Blank - Soil         LCSSD       Laboratory Control Sample - Soil       Duplicate       PQV       Prep Blank - Water         CSSW       Laboratory Control Sample - Soil Duplicate       PQV       Prep Blank - Water         CSW       Laboratory Control Sample - Soil Duplicate       PQV       Prep Blank - Water         SDL       Serial Dilution       Serial Dilution       Serial Dilution         Standard       Verifies the accuracy of the method, including the prep procedure.         Control Samples       Verifies the accuracy of the calibration.       Serial Dilution         Standard       Verifies the validity of the calibration.       Laboratory Control Sample - Water         Coullified Matrix       Determines sample matrix interferences, if any.       Standard       Verifies the validity of the calibration.         Coullicates       Ver				
DUP       Sample Duplicate       LRB       Laboratory Reagent Blank         ICB       Initial Calibration Blank       MS       Matrix Spike Duplicate         ICV       Initial Calibration Standard       MSD       Matrix Spike Duplicate         ICSAB       Inter-element Correction Standard - A plus B solutions       PBS       Prep Blank - Soli         ICSSA       Laboratory Control Sample - Soli       PBW       Prep Blank - Water         ICSW       Laboratory Control Sample - Soli Duplicate       PQV       Practical Quanitation Verification standard         ICSW       Laboratory Control Sample - Water       SDL       Serial Dlution         Sample Type Explanations       Verifies the 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 accuracy of the instrument and/or method.         Spikes/Fortified Matrix       Determines sample matrix interferences, if any.         Standard       Verifies the validity of the calibration.         Coallfoor       Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.         H       Analyte concentration detected at a value between MDL and PQL. The associated value.       The associated value is either the sample quantitation of inorganic Substa				•
I/CB       Initial Calibration Blank       MS       Matrix Spike         I/CV       Initial Calibration Verification standard       MSD       Matrix Spike Duplicate         I/CSAB       Inter-element Correction Standard - A plus B solutions       PBS       Prep Blank - Soil         LCSS       Laboratory Control Sample - Soil Duplicate       PQV       Practical Quantitation Verification standard         LCSW       Laboratory Control Sample - Soil Duplicate       PQV       Practical Quantitation Verification standard         LCSW       Laboratory Control Sample - Soil Duplicate       PQV       Practical Quantitation Verification standard         LCSW       Laboratory Control Sample - Soil Duplicate       PQV       Practical Quantitation Verification standard         Samples       Verifies the accuracy of the method, including the prep procedure.       Control Samples       Verifies the accuracy of the method, including the prep procedure.         Duplicates       Verifies the accuracy of the calibration.       Zourifier (Qual)       E         Z Cualifier (Qual)       E       Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.         H       Analyte concentration detected at a value between MDL and PQL. The associated value.       The associated value is analyzed for, but was not detected above the level of the associated value.         U       The material was a		-		
I/CV       Initial Calibration Verification standard       MSD       Matrix Spike Duplicate         I/CSAB       Inter-element Correction Standard - A plus B solutions       PBS       Prep Blank - Soil         LCSS       Laboratory Control Sample - Soil       PBW       Prep Blank - Soil         LCSW       Laboratory Control Sample - Soil Duplicate       PQV       Practical Quantitation Verification standard         LCSW       Laboratory Control Sample - Water       SDL       Serial Dilution         Sample Type Explanations         Blanks       Verifies the accuracy of the method, including the prep procedure.         Duplicates       Verifies the accuracy of the instrument and/or method.         Spikes/Fortified Matrix       Determines sample matrix interferences, if any.         Standard       Verifies the validity of the calibration.         Califies Coult         B       Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.         H       Analysis exceeded method hold time. PH is a field test with an immediate hold time.         L       Target analyzed for, but was not detected above the level of the associated value.         The associated value is either the sample quantitation limit or the sample detection limit.         Califies 4600(Rr.93-100. Methods for the Determination of Inorganic Substances in Envi				
Inter-element Correction Standard - A plus B solutions       PBS       Prep Blank - Soil         LCSS       Laboratory Control Sample - Soil       PBW       Prep Blank - Water         LCSW       Laboratory Control Sample - Soil Duplicate       PQV       Practical Quantitation Verification standard         LCSW       Laboratory Control Sample - Water       SDL       Serial Dilution         Samples       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.         Z Outlifes (Cuel)       Analysis exceeded method hold time. PI is a field test with an immediate hold time.         L       Target analyte response was below the laboratory defined negative threshold.         U       The associated value is either the sample quantitation limit or the sample detection limit.         the associated value is either the sample quantitation for longanic Substances in Environmental Samples, August 1993.         (2)       EPA 600/R-94-111. Methods for Evaluating Solid Waste.         (3)       EPA 600/R-94-111. Methods for the Determination of Mates in Environmental Samples - Supplement I,				
LCSS       Laboratory Control Sample - Soil       PBW       Prep Blank - Water         LCSSD       Laboratory Control Sample - Soil Duplicate       PQV       Practical Quantitation Verification standard         LCSW       Laboratory Control Sample - Water       SDL       Serial Dilution         Sample Type Explanations       Serial Dilution       Serial Dilution         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.         Z Qualifiers (Qual)       Educoncentration detected at a value between MDL and PQL. The associated value is an estimated quantity.         H       Analysic exceeded method hold time. PH is a field test with an immediate hold time.         L       Target analyte response was below the laboratory defined negative threshold.         U       The material was analyzed for, but was not detected above the level of the associated value.         The associated value is either the sample quantitation film organic Substances in Environmental Samples, August 1993.         (2)       EPA 600/R-93-100. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.         (4)       EPA 600/R-94-111. Methods for the Determination of Metal				
LCSSD       Laboratory Control Sample - Soil Duplicate       PQV       Practical Quantitation Verification standard         LCSW       Laboratory Control Sample - Water       SDL       Serial Dilution         Sample Type Explanations       Verifies the accuracy of the method, including the prep procedure.         Control Samples       Verifies the accuracy of the method, including the prep procedure.         Duplicates       Verifies the accuracy of the method, including the prep procedure.         Spikes/Fortified Matrix       Determines sample matrix interferences, if any.         Standard       Verifies the validity of the calibration.         ZOULIFIER       Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.         H       Analysis exceeded method hold time. PH is a field test with an immediate hold time.         L       Target analyte response was below the laboratory defined negative threshold.         U       The material was analyzed for, but was not detected above the level of the associated value.         The associated value is either the sample quantitation inmit or the sample detection limit.         the Associated value is of the Determination of Metas in Environmental Samples, August 1993.         (2)       EPA 600/R-93-100. Methods for the Determination of Metas in Environmental Samples - Supplement 1, May 1994.         (3)       EPA S00/R-94-111. Methods for the Determination of Matas in Environmen				•
LCSW       Laboratory Control Sample - Water       SDL       Serial Dilution         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.         Z Qualifiers (Qual)       Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.         H       Analysis exceeded method hold time. pH is a field test with an immediate hold time.         L       Target analyte response was below the laboratory defined negative threshold.         U       The material was analyzed for, but was not detected above the level of the associated value.         The associated value is either the sample quantitation limit or the sample detection limit.         the Associated value is either the Determination of Inorganic Substances in Environmental Samples, August 1993.         (2)       EPA 600/R-93-100. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.         (3)       EPA 600/R-93-101. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.         (4)       EPA 800/R-94-11				•
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.         Zoualifiers (Qual)       B         B       Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.         H       Analysis exceeded method hold time. PH is a field test with an immediate hold time.         L       Target analyte response was below the laboratory defined negative threshold.         U       The material was analyzed for, but was not detected above the level of the associated value.         The associated value is either the sample quantitation limit or the sample detection limit.         the Acferences         (1)       EPA 600/R-93-100. Methods for Chemical Analysis of Water and Wastes, March 1983.         (2)       EPA 600/R-93-100. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.         (4)       EPA SW-846. Test Methods for Evaluating Solid Waste.         (5)       Standard Methods for the Examination of Water and Wastewater.         mment		, , ,		
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<ul> <li>(4) EPA SW-846. Test Methods for Evaluating Solid Waste.</li> <li>(5) Standard Methods for the Examination of Water and Wastewater.</li> <li>(6) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.</li> <li>(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.</li> <li>(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.</li> <li>(4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.</li> <li>(5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.</li> </ul>	Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1)	Imples       Verifies the accuracy of the method, Verifies the precision of the instrume Determines sample matrix interferen Verifies the validity of the calibration         (Qual)       Implementation         Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined nee The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or         nces         EPA 600/4-83-020. Methods for Chemical Analysis of Water	including the prep ent and/or method. icces, if any. PQL. The associat n immediate hold t gative threshold. In level of the associat the sample detect and Wastes, Marc	ted value is an estimated quantity. ime. pciated value. ion limit.
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mments         (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.         (4)       An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.         (5)       If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.	Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3)	nples       Verifies the accuracy of the method, Verifies the precision of the instrume Determines sample matrix interferen Verifies the validity of the calibration.         (Qual)       Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined new The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or         nces         EPA 600/R-83-020. Methods for Chemical Analysis of Water EPA 600/R-94-111. Methods for the Determination of Metals	including the prep ent and/or method. Icces, if any. PQL. The associat n immediate hold t gative threshold. Ie level of the assoc the sample detect and Wastes, Marc hic Substances in	ted value is an estimated quantity. ime. ciated value. ion limit. ch 1983. Environmental Samples, August 1993.
<ol> <li>QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.</li> <li>Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.</li> <li>Animal matrices for Inorganic analyses are reported on an "as received" basis.</li> <li>An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.</li> <li>If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.</li> </ol>	Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4)	mples       Verifies the accuracy of the method, Verifies the precision of the instrume Determines sample matrix interferer Verifies the validity of the calibration.         (Qual)       Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined new The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or         nces       EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-94-111. Methods for the Determination of Inorgan EPA SW-846. Test Methods for Evaluating Solid Waste.	including the prep ent and/or method. Inces, if any. PQL. The associat in immediate hold to gative threshold. The level of the association the sample detect and Wastes, Marc nic Substances in in Environmental s	ted value is an estimated quantity. ime. ciated value. ion limit. ch 1983. Environmental Samples, August 1993.
<ol> <li>Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.</li> <li>Animal matrices for Inorganic analyses are reported on an "as received" basis.</li> <li>An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.</li> <li>If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.</li> </ol>	Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5)	mples       Verifies the accuracy of the method, Verifies the precision of the instrume Determines sample matrix interferer Verifies the validity of the calibration.         (Qual)       Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined new The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or         nces       EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-94-111. Methods for the Determination of Inorgan EPA SW-846. Test Methods for Evaluating Solid Waste.	including the prep ent and/or method. Inces, if any. PQL. The associat in immediate hold to gative threshold. The level of the association the sample detect and Wastes, Marc nic Substances in in Environmental s	ted value is an estimated quantity. ime. ciated value. ion limit. ch 1983. Environmental Samples, August 1993.
<ul> <li>Animal matrices for Inorganic analyses are reported on an "as received" basis.</li> <li>An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.</li> <li>If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.</li> </ul>	Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments	nples       Verifies the accuracy of the method, Verifies the precision of the instrume Determines sample matrix interferer Verifies the validity of the calibration.         (Qual)       Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined nee The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or nces         EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteway	including the prep ent and/or method. Icces, if any. PQL. The association immediate hold to gative threshold. Ie level of the association the sample detect and Wastes, Marco nic Substances in in Environmental stater.	ted value is an estimated quantity. ime. inciated value. ion limit. th 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
<ul> <li>(4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.</li> <li>(5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.</li> </ul>	Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments (1)	mples       Verifies the accuracy of the method, Verifies the precision of the instrume Determines sample matrix interferen Verifies the validity of the calibration         (Qual)       Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with an Target analyte response was below the laboratory defined ney The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or         nces         EPA 600/R-93-100.       Methods for Chemical Analysis of Water EPA 600/R-94-111.         EPA SW-846.       Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward         QC results calculated from raw data.       Results may vary slight	including the prep ent and/or method. ices, if any. PQL. The associal n immediate hold to gative threshold. ie level of the association the sample detect and Wastes, Marchic substances in in Environmental stater.	ted value is an estimated quantity. ime. inciated value. ion limit. in 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
<ul><li>(5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.</li></ul>	Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments (1) (2)	nples       Verifies the accuracy of the method, Verifies the precision of the instrume Determines sample matrix interferer Verifies the validity of the calibration.         (Qual)       Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined new The material was analyzed for, but was not detected above the The associated value is either the sample quantitation limit or         nces       EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteward QC results calculated from raw data. Results may vary slighth Soil, Sludge, and Plant matrices for Inorganic analyses are results	including the prep ent and/or method. icces, if any. PQL. The associat n immediate hold to gative threshold. ie level of the association the sample detect and Wastes, Marc nic Substances in in Environmental st ater.	ted value is an estimated quantity. ime. inciated value. ion limit. in 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
(5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.	Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments (1) (2) (3)	nples       Verifies the accuracy of the method, Verifies the precision of the instrume Determines sample matrix interferer Verifies the validity of the calibration.         (Qual)       Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or         nces       EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteway         QC results calculated from raw data. Results may vary slight Soil, Sludge, and Plant matrices for Inorganic analyses are re Animal matrices for Inorganic analyses are reported on an "as	including the prep ent and/or method. icces, if any. PQL. The associat n immediate hold to gative threshold. ie level of the association the sample detect and Wastes, March nic Substances in in Environmental ater.	e procedure. ted value is an estimated quantity. ime. tociated value. ion limit. th 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. alues are used in the calculations. eight basis.
For a complete list of ACZ's Extended Qualifiers, please click: <u>http://www.acz.com/public/extquallist.pdf</u>	Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments (1) (2) (3)	nples       Verifies the accuracy of the method, Verifies the precision of the instrume Determines sample matrix interferer Verifies the validity of the calibration.         (Qual)       Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or         nces       EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteway         QC results calculated from raw data. Results may vary slightl Soil, Sludge, and Plant matrices for Inorganic analyses are re Animal matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended	including the prep ent and/or method. icces, if any. PQL. The associat n immediate hold to gative threshold. ie level of the association the sample detect and Wastes, March nic Substances in in Environmental ater.	e procedure. ted value is an estimated quantity. ime. tociated value. ion limit. th 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. alues are used in the calculations. eight basis.
For a complete list of ACZ's Extended Qualifiers, please click: <u>http://www.acz.com/public/extquallist.pdf</u>	Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments (1) (2) (3) (4) (3) (4)	nples       Verifies the accuracy of the method, Verifies the precision of the instrume Determines sample matrix interferen Verifies the validity of the calibration.         (Qual)       Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with at Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or         nces       EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteway         QC results calculated from raw data. Results may vary slightl Soil, Sludge, and Plant matrices for Inorganic analyses are re Animal matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended associated with the result.	including the prepent and/or method. Inces, if any. PQL. The association in immediate hold to gative threshold. The level of the association the sample detect and Wastes, March nic Substances in in Environmental stater.	ted value is an estimated quantity. ime. beciated value. ion limit. th 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. bight basis. ertification qualifier
	Duplicates Spikes/Fort Standard Z Qualifiers B H L U U thod Refere (1) (2) (3) (4) (5) mments (1) (2) (3) (4) (3) (4)	nples       Verifies the accuracy of the method, Verifies the precision of the instrume Determines sample matrix interferen Verifies the validity of the calibration.         (Qual)       Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with at Target analyte response was below the laboratory defined neg The material was analyzed for, but was not detected above th The associated value is either the sample quantitation limit or         nces       EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wasteway         QC results calculated from raw data. Results may vary slightl Soil, Sludge, and Plant matrices for Inorganic analyses are re Animal matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended associated with the result.	including the prepent and/or method. Inces, if any. PQL. The association in immediate hold to gative threshold. Is level of the association the sample detect and Wastes, March nic Substances in in Environmental stater. y if the rounded va ported on a dry we is received " basis. qualifier and/or ce PQL is the reporting	ted value is an estimated quantity. ime. biciated value. ion limit. th 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. alues are used in the calculations. bight basis. ertification qualifier ng limit.

REP001.09.12.01


# Inorganic QC Summary

## **Caldera Mineral Resources LLC**

-	03			B - Titration		-							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
NG356078													
VG356078PBW1	PBW	12/07/13 15:04				6.9	mg/L		-20	20			
NG356078LCSW2	LCSW	12/07/13 15:17	WC131126-	820.0001		777.5	mg/L	94.8	90	110			
_15788-02DUP	DUP	12/07/13 16:36			76	73.1	mg/L				3.9	20	
WG356078LCSW5	LCSW	12/07/13 18:20	WC131126-	820.0001		797.9	mg/L	97.3	90	110			
WG356078PBW2	PBW	12/07/13 18:28				3.1	mg/L		-20	20			
WG356078LCSW8	LCSW	12/07/13 21:31	WC131126-	820.0001		787.5	mg/L	96	90	110			
WG356078PBW3	PBW	12/07/13 21:39				2.3	mg/L		-20	20			
WG356078LCSW11	LCSW	12/08/13 1:00	WC131126-	820.0001		794.3	mg/L	96.9	90	110			
WG356078PBW4	PBW	12/08/13 1:09				2.5	mg/L		-20	20			
WG356078LCSW14	LCSW	12/08/13 4:26	WC131126-	820.0001		813.1	mg/L	99.2	90	110			
Aluminum, total r	ecover	able	M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG356148													
WG356148ICV	ICV	12/10/13 3:17	MS131202-2	.1		.0989	mg/L	98.9	90	110			
WG356148ICB	ICB	12/10/13 3:20	MO101202 2			.0000 U	mg/L	00.0	-0.003	0.003			
WG356003LRB	LRB	12/10/13 3:23				U	mg/L		-0.0022	0.0022			
WG356003LFB	LFB	12/10/13 3:23	MS131118-2	.050055		.0499	mg/L	99.7	-0.0022	115			
_15725-01LFM	LFM	12/10/13 3:43	MS131118-2	.050055	.028	.0746	mg/L	93.1	70	130			
_15725-01LFMD		12/10/13 3:46	MS131118-2	.050055	.020	.0756		95.1	70	130	1.33	20	
L15855-05LFM		12/10/13 3:40	MS131118-2	.050055	.028	.1091	mg/L		70	130	1.55	20	
L15855-05LFMD		12/10/13 4:44	MS131118-2 MS131118-2	.050055	.054	.1091	mg/L mg/L	110.1 92.3	70 70	130	8.5	20	
					.001	.1002	iiig/E	02.0	10	100	0.0	20	
Arsenic, dissolve			M200.8 IC										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355999													
WG355999ICV	ICV	12/07/13 3:04	MS131202-2	.05		.05233	mg/L	104.7	90	110			
WG355999ICB	ICB	12/07/13 3:07				U	mg/L		-0.0006	0.0006			
WG355999LFB	LFB	12/07/13 3:10	MS131118-2	.05005		.04927	mg/L	98.4	85	115			
L15800-04AS	AS	12/07/13 4:37	MS131118-2	.05005	.0003	.05679	mg/L	112.9	70	130			
_15800-04ASD	ASD	12/07/13 4:40	MS131118-2	.05005	.0003	.0554	mg/L	110.1	70	130	2.48	20	
Arsenic, total rec	overabl	le	M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG356148													
NG356148ICV	ICV	12/10/13 3:17	MS131202-2	.05		.05338	mg/L	106.8	90	110			
WG356148ICB	ICB	12/10/13 3:20				U	mg/L		-0.0006	0.0006			
NG356003LRB	LRB	12/10/13 3:23				U	mg/L		-0.00044	0.00044			
NG356003LFB	LFB	12/10/13 3:27	MS131118-2	.05005		.05075	mg/L	101.4	85	115			
_15725-01LFM	LFM	12/10/13 3:43	MS131118-2	.05005	.0006	.05084	mg/L	100.4	70	130			
_15725-01LFMD	LFMD	12/10/13 3:46	MS131118-2	.05005	.0006	.05177	mg/L	102.2	70	130	1.81	20	
	LFM	12/10/13 4:41	MS131118-2	.05005	.0015	.05205	mg/L	101	70	130			
_15855-05LFM		12/10/10 1.11		.00000	.0010	.00200	mg/L						



			M200.7 IC	•									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355942													
WG355942ICV	ICV	12/05/13 13:20	II131113-1	2		1.9827	mg/L	99.1	95	105			
WG355942ICB	ICB	12/05/13 13:26				U	mg/L		-0.009	0.009			
WG355942LFB	LFB	12/05/13 13:39	II131119-3	.5		.4972	mg/L	99.4	85	115			
L15777-02AS	AS	12/05/13 14:54	II131119-3	.5	.046	.5462	mg/L	100	85	115			
L15777-02ASD	ASD	12/05/13 14:57	II131119-3	.5	.046	.5482	mg/L	100.4	85	115	0.37	20	
Beryllium, diss	olved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355942													
WG355942ICV	ICV	12/05/13 13:20	II131113-1	2		1.964	mg/L	98.2	95	105			
WG355942ICB	ICB	12/05/13 13:26				U	mg/L		-0.03	0.03			
WG355942LFB	LFB	12/05/13 13:39	II131119-3	.5		.506	mg/L	101.2	85	115			
L15777-02AS	AS	12/05/13 14:54	II131119-3	.5	U	.501	mg/L	100.2	85	115			
L15777-02ASD	ASD	12/05/13 14:57	II131119-3	.5	U	.505	mg/L	101	85	115	0.8	20	
Boron, dissolv	ed		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355942													
WG355942ICV	ICV	12/05/13 13:20	1131113-1	2		2.05	mg/L	102.5	95	105			
WG355942ICB	ICB	12/05/13 13:26		-		U	mg/L	102.0	-0.03	0.03			
WG355942LFB	LFB	12/05/13 13:39	II131119-3	.5005		.521	mg/L	104.1	85	115			
L15777-02AS	AS	12/05/13 14:54	1131119-3	.5005	U	.524	mg/L	104.7	85	115			
L15777-02ASD	ASD	12/05/13 14:57	II131119-3	.5005	U	.53	mg/L	105.9	85	115	1.14	20	
Cadmium, diss	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355999													
WG355999ICV	ICV	12/07/13 3:04	MS131202-2	.05		.04874	mg/L	97.5	90	110			
WG355999ICB	ICB	12/07/13 3:07	10101202-2	.00		.04074 U	mg/L	57.5	-0.0003	0.0003			
WG355999LFB	LFB	12/07/13 3:10	MS131118-2	.0501		.04993	mg/L	99.7	-0.0003	115			
L15800-04AS	AS	12/07/13 4:37	MS131118-2	.0501	.0065	.05909	mg/L	105	70	130			
L15800-04ASD	ASD	12/07/13 4:40	MS131118-2	.0501	.0065	.05738	mg/L	101.6	70	130	2.94	20	
Cadmium, tota	1		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
	51												
WG356307		10/10/10 0.56	M6131000 0	05		.05032	ma/l	100.6	00	110			
WG356307ICV	ICV	12/12/13 2:56	MS131202-2	.05			mg/L	100.0	90				
WG356307ICB	ICB	12/12/13 2:59				U	mg/L		-0.0003	0.0003			
WG356154LRB	LRB	12/12/13 3:02	M0404440.0	0504		U	mg/L	100 5	-0.00022	0.00022			
WG356154LFB	LFB	12/12/13 3:05	MS131118-2	.0501	0000	.05034	mg/L	100.5	85	115			
L15800-01LFM	LFM	12/12/13 3:47	MS131118-2	.0501	.0036	.0532	mg/L	99	70	130	0.00	00	
L15800-01LFMD	LFMD	12/12/13 3:50	MS131118-2	.0501	.0036	.05341	mg/L	99.4	70	130	0.39	20	



# Inorganic QC Summary

#### **Caldera Mineral Resources LLC**

Calcium, dissolve	ed		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355942													
WG355942ICV	ICV	12/05/13 13:20	II131113-1	100		98.87	mg/L	98.9	95	105			
WG355942ICB	ICB	12/05/13 13:26				U	mg/L		-0.6	0.6			
WG355942LFB	LFB	12/05/13 13:39	ll131119-3	68.00225		69.58	mg/L	102.3	85	115			
L15777-02AS	AS	12/05/13 14:54	ll131119-3	68.00225	35	102.5	mg/L	99.3	85	115			
L15777-02ASD	ASD	12/05/13 14:57	II131119-3	68.00225	35	104.1	mg/L	101.6	85	115	1.55	20	
Chloride			SM45000	CI-E									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG356125													
WG356125ICB	ICB	12/09/13 9:37				U	mg/L		-3	3			
WG356125ICV	ICV	12/09/13 9:37	WI130722-5	54.945		57.4	mg/L	104.5	90	110			
WG356125LFB1	LFB	12/09/13 14:33	WI131010-1	30		31.9	mg/L	106.3	90	110			
L15765-02AS	AS	12/09/13 14:33	WI131010-1	30	22	52.5	mg/L	101.7	90	110			
L15765-03DUP	DUP	12/09/13 14:33			17	17.4	mg/L				2.3	20	
L15777-04AS	AS	12/09/13 14:54	WI131010-1	30	1	36.2	mg/L	117.3	90	110			Ν
L15777-05DUP	DUP	12/09/13 14:54			1	1.2	mg/L				18.2	20	R
WG356125LFB2	LFB	12/09/13 16:03	WI131010-1	30		33	mg/L	110	90	110			
Chromium, disso	lved		M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355999													
WG355999ICV	ICV	12/07/13 3:04	MS131202-2	.05		.04915	mg/L	98.3	90	110			
WG3559991CB	ICB	12/07/13 3:07				U	mg/L		-0.0015	0.0015			
WG355999LFB	LFB	12/07/13 3:10	MS131118-2	.05005		.05034	mg/L	100.6	85	115			
L15800-04AS	AS	12/07/13 4:37	MS131118-2	.05005	.0007	.05088	mg/L	100.3	70	130			
L15800-04ASD	ASD	12/07/13 4:40	MS131118-2	.05005	.0007	.05088	mg/L	100.3	70	130	0	20	
Chromium, total			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG356307													
WG356307ICV	ICV	12/12/13 2:56	MS131202-2	.05		.05016	mg/L	100.3	90	110			
WG356307ICB	ICB	12/12/13 2:59	MO101202 2	.00		.00010 U	mg/L	100.0	-0.0015	0.0015			
WG356154LRB	LRB	12/12/13 3:02				U	mg/L		-0.0013	0.0013			
WG356154LFB	LFB	12/12/13 3:02	MS131118-2	.05005		.0501	mg/L	100.1	85	115			
L15800-01LFM	LFM	12/12/13 3:47	MS131118-2	.05005	.0006	.04948	mg/L	97.7	70	130			
L15800-01LFMD	LFMD	12/12/13 3:50	MS131118-2	.05005	.0006	.04947	mg/L	97.6	70	130	0.02	20	
Conductivity @2	5C		SM2510E	3									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG356078													
WG356078LCSW1	LCSW	12/07/13 15:05	PCN42442	1408.8		1436.6	umhos/cm	102	90	110			
L15788-02DUP	DUP	12/07/13 16:36	1 01172772	1-10.0	6270	6260	umhos/cm	102	50	110	0.2	20	
WG356078LCSW4	LCSW	12/07/13 18:08	PCN42442	1408.8	0210	1412		100.2	90	110	0.2	20	
WG356078LCSW7	LCSW	12/07/13 18:08	PCN42442 PCN42442	1408.8			umhos/cm	99.3	90 90	110			
WG356078LCSW10		12/08/13 0:48	PCN42442 PCN42442	1408.8			umhos/cm	99.3 98.3	90 90	110			
WG356078LCSW13		12/08/13 4:13	PCN42442	1408.8			umhos/cm	97.7	90	110			



Copper, dissolv	ed		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355999													
WG355999ICV	ICV	12/07/13 3:04	MS131202-2	.05		.04893	mg/L	97.9	90	110			
WG355999ICB	ICB	12/07/13 3:07				U	mg/L		-0.0015	0.0015			
WG355999LFB	LFB	12/07/13 3:10	MS131118-2	.05005		.04954	mg/L	99	85	115			
L15800-04AS	AS	12/07/13 4:37	MS131118-2	.05005	.0345	.08426	mg/L	99.4	70	130			
L15800-04ASD	ASD	12/07/13 4:40	MS131118-2	.05005	.0345	.0844	mg/L	99.7	70	130	0.17	20	
Copper, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG356307													
WG356307ICV	ICV	12/12/13 2:56	MS131202-2	.05		.04972	mg/L	99.4	90	110			
WG356307ICB	ICB	12/12/13 2:59				U	mg/L		-0.0015	0.0015			
WG356154LRB	LRB	12/12/13 3:02				U	mg/L		-0.0011	0.0011			
WG356154LFB	LFB	12/12/13 3:05	MS131118-2	.05005		.04994	mg/L	99.8	85	115			
L15800-01LFM	LFM	12/12/13 3:47	MS131118-2	.05005	.0181	.06606	mg/L	95.8	70	130			
L15800-01LFMD	LFMD	12/12/13 3:50	MS131118-2	.05005	.0181	.06588	mg/L	95.5	70	130	0.27	20	
Cyanide, total			M335.4 - 0	Colorimeti	ric w/ distil	lation							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG356072													
WG356072ICV	ICV	12/07/13 1:13	WI131202-6	.3		.2972	mg/L	99.1	90	110			
WG356072ICB	ICB	12/07/13 1:14				U	mg/L		-0.003	0.003			
WG356074													
WG356038LRB	LRB	12/07/13 1:49				U	mg/L		-0.003	0.003			
WG356038LFB	LFB	12/07/13 1:50	WI131202-2	.2		.2005	mg/L	100.3	90	110			
L15768-03DUP	DUP	12/07/13 2:04			U	U	mg/L				0	20	F
L15777-01LFM	LFM	12/07/13 2:06	WI131202-2	.2	U	.2018	mg/L	100.9	90	110			
WG356204													
WG356204ICV	ICV	12/10/13 15:42	WI131202-6	.3		.2961	mg/L	98.7	90	110			
WG356204ICB	ICB	12/10/13 15:43				U	mg/L		-0.003	0.003			
WG356130LRB	LRB	12/10/13 15:44				U	mg/L		-0.003	0.003			
WG356130LFB	LFB	12/10/13 15:45	WI131202-2	.2		.1966	mg/L	98.3	90	110			
L15777-04DUP	DUP	12/10/13 15:47			U	U	mg/L				0	20	R
L15777-05LFM	LFM	12/10/13 15:48	WI131202-2	.2	U	.1873	mg/L	93.7	90	110			
Cyanide, WAD			SM4500-0	CN I-Color	imetric w/	distillatio	on						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG356209													
WG356156LRB	LRB	12/10/13 16:29				U	mg/L		-0.003	0.003			
WG356156LFB	LFB	12/10/13 16:29	WI131202-4	.2		.1967	mg/L	98.4	90	110			
L15777-01DUP	DUP	12/10/13 16:31	• •••• •	-	U	U	mg/L				0	20	F
	-				-	-	5				-		-



# Inorganic QC Summary

#### **Caldera Mineral Resources LLC**

Dissolved Chron	nium, H	exavalent	SM3500C	r-B									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355604													
WG355604ICV	ICV	11/27/13 13:10	WC130531-	.05		.0543	mg/L	108.6	90	110			
WG355604ICB	ICB	11/27/13 13:12				U	mg/L		-0.015	0.015			
WG355604LFB	LFB	11/27/13 13:15	WC130523-	.05		.0525	mg/L	105	90	110			
L15777-02AS	AS	11/27/13 13:49	WC130523-	.05	U	.052	mg/L	104	90	110			
L15777-02DUP	DUP	11/27/13 13:51			U	U	mg/L				0	20	RA
L15777-05AS	AS	11/27/13 14:02	WC130523-	.05	U	.0513	mg/L	102.6	90	110			
L15777-05DUP	DUP	11/27/13 14:04			U	U	mg/L				0	20	RA
Iron, dissolved			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355942													
WG355942ICV	ICV	12/05/13 13:20	II131113-1	2		2.025	mg/L	101.3	95	105			
WG355942ICB	ICB	12/05/13 13:26				U	mg/L		-0.06	0.06			
WG355942LFB	LFB	12/05/13 13:39	II131119-3	1.0014		1.04	mg/L	103.9	85	115			
L15777-02AS	AS	12/05/13 14:54	II131119-3	1.0014	U	1.027	mg/L	102.6	85	115			
L15777-02ASD	ASD	12/05/13 14:57	II131119-3	1.0014	U	1.035	mg/L	103.4	85	115	0.78	20	
Iron, total			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG356050													
WG356050ICV	ICV	12/06/13 17:11	1131111-1	2		1.962	mg/L	98.1	95	105			
WG356050ICB	ICB	12/06/13 17:17		_		U	mg/L		-0.06	0.06			
WG356006LRB	LRB	12/06/13 17:30				U	mg/L		-0.044	0.044			
WG356006LFB	LFB	12/06/13 17:33	II131119-3	1.0014		.976	mg/L	97.5	85	115			
L15800-01LFM	LFM	12/06/13 18:49	1131119-3	1.0014	.38	1.278	mg/L	89.7	70	130			
L15800-01LFMD	LFMD	12/06/13 18:52	II131119-3	1.0014	.38	1.281	mg/L	90	70	130	0.23	20	
Lead, dissolved			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355999													
WG355999ICV	ICV	12/07/13 3:04	MS131202-2	.05		.04998	mg/L	100	90	110			
WG355999ICB	ICB	12/07/13 3:07	WIG 101202-2	.00		.0 <del>4</del> 930	mg/L	100	-0.0003	0.0003			
WG355999LFB	LFB	12/07/13 3:10	MS131118-2	.05005		.05008	mg/L	100.1	-0.0003	115			
L15800-04AS	AS	12/07/13 4:37	MS131118-2	.05005	U	.05008	mg/L	100.1	70	130			
L15800-04ASD	ASD	12/07/13 4:40	MS131118-2	.05005	U	.0514	mg/L	102.7	70	130	0.78	20	
Lead, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG356307													
WG356307ICV	ICV	12/12/13 2:56	MS131202-2	.05		.05153	mg/L	103.1	90	110			
WG356307IC8	ICB	12/12/13 2:59	WIG 101202-2	.00		.05155 U	mg/L	105.1	-0.0003	0.0003			
	LRB					U	•		-0.0003	0.0003			
WG356154LRB		12/12/13 3:02	MC121110 0	05005			mg/L	00.0					
WG356154LFB		12/12/13 3:05	MS131118-2	.05005	0004	.05002	mg/L	99.9 00.5	85 70	115 130			
L15800-01LFM		12/12/13 3:47	MS131118-2	.05005	.0001	.0499	mg/L	99.5 00.4		130 120	0.40	20	
L15800-01LFMD	LFMD	12/12/13 3:50	MS131118-2	.05005	.0001	.04984	mg/L	99.4	70	130	0.12	20	



# Inorganic QC Summary

#### **Caldera Mineral Resources LLC**

Magnesium, dis	solved		M200.7	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355942													
WG355942ICV	ICV	12/05/13 13:20	ll131113-1	100		97.24	mg/L	97.2	95	105			
WG355942ICB	ICB	12/05/13 13:26				U	mg/L		-0.6	0.6			
WG355942LFB	LFB	12/05/13 13:39	II131119-3	49.99695		48.88	mg/L	97.8	85	115			
L15777-02AS	AS	12/05/13 14:54	II131119-3	49.99695	2.5	50.84	mg/L	96.7	85	115			
L15777-02ASD	ASD	12/05/13 14:57	II131119-3	49.99695	2.5	51.85	mg/L	98.7	85	115	1.97	20	
Manganese, dis	solved		M200.7	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355942													
WG355942ICV	ICV	12/05/13 13:20	ll131113-1	2		1.9672	mg/L	98.4	95	105			
WG355942ICB	ICB	12/05/13 13:26		-		U	mg/L		-0.015	0.015			
WG355942LFB	LFB	12/05/13 13:39	II131119-3	.501		.5068	mg/L	101.2	85	115			
L15777-02AS	AS	12/05/13 14:54	II131119-3	.501	.02	.5222	mg/L	100.2	85	115			
L15777-02ASD	ASD	12/05/13 14:57	ll131119-3	.501	.02	.5247	mg/L	100.7	85	115	0.48	20	
		12/00/10 110/			.02	.02.11					0.10		
Manganese, tota		Anglungal	M200.7	-	Osmula	E a constal	1 heite	Dec	1		000	1 : :4	Qual
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG356050													
WG356050ICV	ICV	12/06/13 17:11	II131111-1	2		1.94	mg/L	97	95	105			
WG356050ICB	ICB	12/06/13 17:17				U	mg/L		-0.015	0.015			
WG356006LRB	LRB	12/06/13 17:30				U	mg/L		-0.011	0.011			
WG356006LFB	LFB	12/06/13 17:33	ll131119-3	.501		.4728	mg/L	94.4	85	115			
L15800-01LFM	LFM	12/06/13 18:49	ll131119-3	.501	6.53	6.897	mg/L	73.3	70	130			
L15800-01LFMD	LFMD	12/06/13 18:52	II131119-3	.501	6.53	6.911	mg/L	76	70	130	0.2	20	
Mercury, total			M245.1	CVAA									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355685													
WG355685ICV	ICV	12/03/13 11:38	ll131118-6	.005025		.00507	mg/L	100.9	95	105			
WG355685ICB	ICB	12/03/13 11:40				U	mg/L		-0.0002	0.0002			
WG355685LRB	LRB	12/03/13 11:42				U	mg/L		-0.00044	0.00044			
WG355685LFB	LFB	12/03/13 11:45	ll131118-4	.002002		.00199	mg/L	99.4	85	115			
L15745-01LFM	LFM	12/03/13 11:54	ll131118-4	.002002	U	.00196	mg/L	97.9	85	115			
L15745-01LFMD	LFMD	12/03/13 11:56	II131118-4	.002002	U	.00198	mg/L	98.9	85	115	1.02	20	
L15777-04LFM	LFM	12/03/13 12:23	ll131118-4	.002002	U	.00201	mg/L	100.4	85	115			
L15777-04LFMD	LFMD	12/03/13 12:25	1131118-4	.002002	U	.00198	mg/L	98.9	85	115	1.5	20	
Nickel, dissolve	d		M200.7	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355942													
WG355942ICV	ICV	12/05/13 13:20	II131113-1	2		2.05	mg/L	102.5	95	105			
WG355942ICB	ICB	12/05/13 13:26				U	mg/L		-0.03	0.03			
WG355942LFB	LFB	12/05/13 13:39	II131119-3	.5		.503	mg/L	100.6	85	115			
		12/05/13 14:54	II131119-3	.5	U	.496	mg/L	99.2	85	115			
L15777-02AS	AS				0	.400	mg/L	00.2	00				



NG356050         NG         NG356050           WG356050         ICV         12/06/13 17:11         III3111-1         2         2.028         mg/L         101.4         95         105           WG356050         ICB         12/06/13 17:30         U         mg/L         -0.03         0.03           WG356050         ICB         12/06/13 17:30         U         mg/L         -0.02         0.022         0.022           WG356050         ICB         12/06/13 17:30         III31119-3         .5         .07         .552         mg/L         96.6         70         130         0.36         20           Nitrate/Nitrite as N, dissorved         M353.2 - Automated Cadmium         Reduction	Nickel, total			M200.7 IC	P									
NG3880800CV       ICV       1206/13 17:11       III3111-1       2       2.028       mgL       101.4       95       105         III       NG38808000000000000000000000000000000000	ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG398690CB         CB         1206/13 17.30         UI         mgL         5.0         0.02         0.022         0.02           WG39600LPL         LFB         1206/13 17.30         III31119-3         .5         .77         mgL         96.6         85         115	WG356050													
NG38800LRB         LRB         1200/13 17.30         III31119-3         .5         .478         mgL         96.6         858         15         .5         .5         .77         .552         mgL         96.6         70         130         .3         .5         .77         .552         mgL         96.6         70         130         .0.36         20.5           L1580-01LPM         LFN         1200/13 18.52         I131119-3         .5         .07         .554         mgL         96.6         70         130         .0.36         2.01           NETATE/NITTO B         Analyzed         PCN/SCN         QC         Sample         Found         Units         Rec         Lower         Lower         RPD         LmIt         Quality           WG3556301CV         ICV         11/27/13 23.20         W13015-1         2.416         2.375         mgL         10.8         90         110         .         V         V         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100	WG356050ICV	ICV	12/06/13 17:11	ll131111-1	2		2.028	mg/L	101.4	95	105			
NG356008LFB         LFB         1206/13 17.33         III 3119-3         .5         .07         .55         mpL         96.6         85         115           L1800-0LFM         LFM         120813 18-28         III 3119-3         .5         .07         .55         mgL         96.4         70         130         .0.6         20           L1800-0LFM         LFM         120813 18-28         III 3119-3         .5         .07         .55         mgL         96.4         70         130         .0.6         20           NTATE/NIFITE as N         JESO-01FM         Mass 2- Automated Cadmium         Reduction         100         0.06         0.07         .55         mgL         96.4         70         100         0.0         0.0         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100	WG356050ICB	ICB	12/06/13 17:17				U	mg/L		-0.03	0.03			
L15800-01LFM       LFM       12061318.40       III 31119-3       .5       .07       .552       mgL       96.4       70       130       .0.8       2000         NITATE/NITTE as N, dissolved       M353.2 - Automate Cambra       Reduction       Reduction <td>WG356006LRB</td> <td>LRB</td> <td>12/06/13 17:30</td> <td></td> <td></td> <td></td> <td>U</td> <td>mg/L</td> <td></td> <td>-0.022</td> <td>0.022</td> <td></td> <td></td> <td></td>	WG356006LRB	LRB	12/06/13 17:30				U	mg/L		-0.022	0.022			
Lisbou-01LPMDLPMD1200/1318.52II13119-3.5.07.58mgL08.8701300.3620NITALE/NITHE as NUESSENITALE/NITHE as NUESSEAD353.2 - AULTMETE Cachillue TextusAD353.2 - AULTMETE Cachillue TextusWG35650000ICV11/27/13 23.20WI131015-12.4162.375mgL08.3.00110.5.5.5WG35650000ICV11/27/13 23.24WI13016-32.192.300mgL101.9.00110.5.5.5INTRY 132 ALWI13016-32.192.300mgL101.9.00110.5.6.5NITHE as NUESSEVITHE as NUESSE </td <td>WG356006LFB</td> <td>LFB</td> <td>12/06/13 17:33</td> <td>II131119-3</td> <td>.5</td> <td></td> <td>.478</td> <td>mg/L</td> <td>95.6</td> <td>85</td> <td>115</td> <td></td> <td></td> <td></td>	WG356006LFB	LFB	12/06/13 17:33	II131119-3	.5		.478	mg/L	95.6	85	115			
Nitrate/Nitrite as N, dissected         M353.2 - Automated Cadmium Reduction           ACZ ID         Type         Analyzed         PCN/SCN         QC         Sample         Found         Units         Rec         Lower         Upper         RPD         Limit         Qual           WG356530         ICV         11/27/13 23.20         W1131015-1         2.416         2.375         mg/L         -0.06         0.06         0         0         20         F           WG3565301CB         ICB         11/27/13 23.24         W130816-3         2         2.037         mg/L         101.9         90         110         -         -         0         20         F           VIS356301CB         ILB         11/27/13 23.44         W130816-3         2         1.9         2.309         mg/L         10.6         90         110         -         -         0         20         F           Nitrite as N, dissected         MG356301CP         Itz7/13 23.44         W13015-1         6.09         Sample         Found         Unts         Rac         Lower         Upper         RPD         Limit         Qual           WG3565301CP         ICB         11/27/13 23.24         W130816-3         1         U         Mg/L </td <td>L15800-01LFM</td> <td>LFM</td> <td>12/06/13 18:49</td> <td>II131119-3</td> <td>.5</td> <td>.07</td> <td>.552</td> <td>mg/L</td> <td>96.4</td> <td>70</td> <td>130</td> <td></td> <td></td> <td></td>	L15800-01LFM	LFM	12/06/13 18:49	II131119-3	.5	.07	.552	mg/L	96.4	70	130			
Column Colum Column Colum Column Column Column Column Column Column Column Co	L15800-01LFMD	LFMD	12/06/13 18:52	II131119-3	.5	.07	.554	mg/L	96.8	70	130	0.36	20	
Normal         Normal         Normal         Normal         Normal         Normal         Normal           WG356630CV         ICV         11/27/13 23:20         W130115-1         2.416         2.375         mg/L         98.3         90         110         100           WG356630CB         ICP         11/27/13 23:25         W130816-3         2         2.037         mg/L         101         90         110         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101         101	Nitrate/Nitrite as	N, disse	olved	M353.2 - /	Automate	d Cadmiur	n Reduc	tion						
NY 0355630(CV       ICV       11/27/13 23:20       W131016-1       2.416       2.375       mg/L       96.3       90       110       101         WG355630(CFB       LFB       11/27/13 23:22       W130816-3       2       2.037       mg/L       101.9       90       110       0       20       R         IL15773-04-DUP       DUP       11/27/13 23:40       W130816-3       2       2.09       mg/L       106       90       110       0       20       R         NItrite as N, dissecture       M353.2 - Automated Cadmium       Reductor       Cower       Upper       RPD       Limit       Qual         WG355630       V       11/27/13 23:20       W1131015-1       609       .592       mg/L       100.9       90       110       V       V       V       V       N       N       V       110       V       V       V       V       V       V       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N       N <td>ACZ ID</td> <td>Туре</td> <td>Analyzed</td> <td>PCN/SCN</td> <td>QC</td> <td>Sample</td> <td>Found</td> <td>Units</td> <td>Rec</td> <td>Lower</td> <td>Upper</td> <td>RPD</td> <td>Limit</td> <td>Qual</td>	ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
NG355630ICB       ICB       11/27/13 23:22       W130816-3       2       2.037       mgL       101.9       90       110         L15773-034.DUP       DU       11/27/13 23:24       W130816-3       2       1.9       2.309       mgL       106       90       110	WG355630													
NG355630ICB       ICB       11/27/13 23:22       W130816-3       2       2.037       mg/L       10.9       90       110         L15773-04DUP       DU       11/27/13 23:48       W130816-3       2       1.037       90       110       0       20       F         L15773-04DUP       DU       11/27/13 23:48       W130816-3       2       1.0       U       U       mg/L       106       90       110       .0       20       F         Nitrite as N, dissource       M353.2 - Automated Cadmium Reduction         Ac2 ID       Type       Analyzed       PCN/SCN       QC       Sample       Found       Units       Rec       Lower       Upper       RPD       Limit       Qual         WG3565300CV       ICV       11/27/13 23:20       W130816-3       1       100       mg/L       -0.03       0.03       w03       S65       110       .       K       K       K       K       K       K       K       K       K       K       K       K       K       K       K       K       K       K       K       K       K       K       K       K       K       K       K       K       <	WG355630ICV	ICV	11/27/13 23:20	WI131015-1	2.416		2.375	mg/L	98.3	90	110			
NG355630LFB       LFB       11/27/13 23:25       W1130816-3       2       2.037       mgL       101.9       90       110          L15773-03AS       AS       11/27/13 23:44       W1130816-3       2        100       90       110       0       20       R         NItrite as N, dissource       M353.2 - Automated Cadmium Reduction         ACZ ID       Type       Analyzad       PCN/SCN       QC       Sample       Four       Units       Rec       Lower       Upper       RP       Limit       Qual         WG3565300/CV       ICV       11/27/13 23:20       W1131015-1       .609       .592       mgL       100.9       90       110         No       No       No        No       No       No        No       No        No       No        No       No        No       No        No       No        No        No        No        No        No        No        No        No        No        No	WG355630ICB	ICB									0.06			
L1577-03AS       AS       11/27/13 23:44       W1130816-3       2       .19       2.309       mg/L       106       90       110       0       20       R         Nitrite as N, dissolved       M353.2 - Automated Cadmium Reduction         AC2 ID       Type       Analyzed       PCN/SCN       QC       Sample       Found       Units       Rec       Low       Upper       RPD       Limit       Out         MG356300CV       ICV       11/27/13 23:20       W1131015-1       .609       .592       mg/L       97.2       90       110       .       .       .       .       .003       0.03	WG355630LFB			WI130816-3	2			•	101.9					
L15773-04DUP       DUP       11/27/13 23:46       U       U       mgl.       0       20       20       R         Nitrite as N, dissove       M353.2 - Automated Cadmium Reduction         ACZ ID       Type       Analyzed       PCN/SCN       QC       Sample       Found       Units       Rec       Lower       Upper       RPD       Limit       Qual         WG3556300CB       ICK       11/27/13 23:20       WI131015-1       .609       .592       mgl.       97.2       90       110	L15773-03AS					.19		•						
AC2 ID         Type         Analyzed         PCN/SCN         QC         Sample         Found         Units         Rec         Lower         Upper         RPD         Limit         Qual           WG3556300         WG3556300CV         ICV         11/27/13 23:20         WI131015-1         .609         .592         mg/L         97.2         90         110	L15773-04DUP	DUP	11/27/13 23:46			U		•				0	20	RA
WG355630         WI127/13 23:25         WI130816-3         1         1.009         mg/L         100.9         90         110         M           L15773-03AS         AS         11/27/13 23:26         WI130816-3         1         U         1.122         mg/L         112.2         90         110         M           L15773-04DUP         DUP         11/27/13 23:46         WI130816-3         1         U         mg/L         100.9         90         110         M           Nitrogen, ammonia         M350.1 - Automated Phenate          U         mg/L         100.7         90         110         W         WG356136         WG356136         U         mg/L         90.75         0.15         WG356136         WG356136         U         mg/L         98.8         90         110         WG356136         U         MG356136         U         1	Nitrite as N, disso	olved		M353.2 - /	Automate	d Cadmiur	n Reduc	tion						
WG355630ICV       ICV       11/27/13 23:20       WI131015-1       .609       .592       mg/L       97.2       90       110         WG355630ICB       ICB       11/27/13 23:22       WI130816-3       1       1.009       mg/L       10.9       90       110	ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355630ICV       ICV       11/27/13 23:20       WI131015-1       .609       .592       mg/L       97.2       90       110         WG355630ICB       ICB       11/27/13 23:22       WI130816-3       1       1.009       mg/L       10.9       90       110	WG355630													
WG355630ICB       ICB       11/27/13 23:22       WI30816-3       1       I.009       mg/L       100.9       90       110         L15773-03AS       AS       11/27/13 23:25       WI130816-3       1       U       1.122       90       110       M         L15773-03AS       AS       11/27/13 23:44       WI130816-3       1       U       1.122       mg/L       112.2       90       110       M         L15773-03AS       AS       11/27/13 23:46       WI30816-3       1       U       1.122       mg/L       112.2       90       110       M       M         L15773-04DUP       DUP       11/27/13 23:46       WI30816-3       1       U       mg/L       112.2       90       110       M       M         Nitrogen, ammonia       M350.1 - Automated Phenate       M       U       mg/L       100.7       90       110       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M		ICV	11/27/13 23:20	W/131015-1	609		502	ma/l	07.2	90	110			
WG355630LFB       LFB       11/27/13 23:25       WI130816-3       1       1.009       mg/L       100.9       90       110       N         L15773-03AS       AS       11/27/13 23:44       WI130816-3       1       U       1.122       mg/L       112.2       90       110       N         L15773-04DUP       DUP       11/27/13 23:46       WI130816-3       1       U       1.122       mg/L       112.2       90       110       N       N         Nitrogen, ammotic       M350.1 - Automated Phenate       PCN/SCN       QC       Sample       Found       Units       Rec       Lower       Upper       RPD       Limit       Qual         WG356136       ICB       12/09/13 17:05       WI131021-1       1.003       1.011       mg/L       -0.15       0.15 <t< td=""><td></td><td></td><td></td><td>WI131013-1</td><td>.009</td><td></td><td></td><td></td><td>57.2</td><td></td><td></td><td></td><td></td><td></td></t<>				WI131013-1	.009				57.2					
L15773-03AS         AS         11/27/13 23:44         WI130816-3         1         U         1.122         mg/L         112.2         90         110         N         N           L15773-04DUP         DUP         11/27/13 23:46         WI30816-3         1         U         U         mg/L         112.2         90         110         0         20         R           Nitrogen, ammolization         M350.1 - Automated Phenate         Found         Units         Rec         Lower         Upper         RPD         Limit         Qual           WG356136         V         12/09/13 17:08         W131021-1         1.003         1.01         mg/L         100.7         90         110         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V         V				W/1120816 3	1			•	100.0					
L15773-04DUP       DUP       11/27/13 23:46       U       U       U       mg/L       0       20       20       R         Nitrogen, amm-i       M350.1 - Automated Phenate         ACZ ID       Type       Analyzed       PCN/SCN       QC       Sample       Found       Units       Rec       Lower       Upper       RPD       Linit       Qual         WG356136       CV       12/09/13 17:05       W1131021-1       1.003       1.01       mg/L       100.7       90       110       Image: Colspan="4">Colspan="4">Colspan="4">Colspan="4">Colspan="4">Colspan="4">Colspan=4000000000000000000000000000000000000														M1
Nitrogen, ammonia         M350.1 - Automated Phenate           ACZ ID         Type         Analyzed         PCN/SCN         QC         Sample         Found         Units         Rec         Lower         Upper         RPD         Limit         Qual           WG356136I         WG356136ICV         ICV         12/09/13         17:05         WI131021-1         1.003         1.01         mg/L         -0.15         0.15	L15773-04DUP			WI150010-5					112.2	90	110	0	20	RA
ACZ ID         Type         Analyzed         PCN/SCN         QC         Sample         Found         Units         Rec         Lower         Upper         RPD         Limit         Qual           WG356136         WG356136         U         100.7         90         110         WG356136         0.01         mg/L         -0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.10         10.10         10.10         110         1.15         0.15         0.10         1.15         0.15         0.10         1.15         1.15         1.15         1.15         1.15         1.15         20         WG356078LCSW3         LCSW         12/07/13 16:36 <td>Nitrogen ammon</td> <td>ia</td> <td></td> <td>M350 1 - /</td> <td>Automate</td> <td>d Phenate</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Nitrogen ammon	ia		M350 1 - /	Automate	d Phenate								
WG3561361CV       ICV       12/09/13 17:05       WI131021-1       1.003       1.01       mg/L       100.7       90       110         WG3561361CB       ICB       12/09/13 17:08       U       mg/L       -0.15       0.15       0.15         WG3561361CB1       LFB       12/09/13 17:09       WI121218-3       1       .988       mg/L       98.8       90       110         WG3561361CFB2       LFB       12/09/13 17:40       WI121218-3       1       .018       mg/L       101.8       90       110         L15770-03DUP       DUP       12/09/13 17:45       .09       .093       mg/L       106.9       90       110         L15770-02AS       AS       12/09/13 18:01       WI121218-3       1       U       1.069       mg/L       106.9       90       110	ACZ ID		Analyzed					Units	Rec	Lower	Upper	RPD	Limit	Qual
WG3561361CV       ICV       12/09/13 17:05       WI131021-1       1.003       1.01       mg/L       100.7       90       110         WG3561361CB       ICB       12/09/13 17:08       U       mg/L       -0.15       0.15       0.15         WG3561361CB1       LFB       12/09/13 17:09       WI121218-3       1       .988       mg/L       98.8       90       110         WG3561361CFB2       LFB       12/09/13 17:40       WI121218-3       1       .018       mg/L       101.8       90       110         L15770-03DUP       DUP       12/09/13 17:45       .09       .093       mg/L       106.9       90       110         L15770-02AS       AS       12/09/13 18:01       WI121218-3       1       U       1.069       mg/L       106.9       90       110	WG356136													
WG356136ICB       ICB       12/09/13 17:08       U       mg/L       -0.15       0.15       0.15         WG356136LFB1       LFB       12/09/13 17:09       WI121218-3       1       .988       mg/L       98.8       90       110         WG356136LFB2       LFB       12/09/13 17:40       WI121218-3       1       1.018       mg/L       101.8       90       110         L15770-02AS       AS       12/09/13 17:45       .09       .09       mg/L       106.9       90       110         L15770-02AS       AS       12/09/13 18:01       WI121218-3       1       U       1.069       mg/L       106.9       90       110         PH (lab)       SM4500H+ B       SM4500H+ B       SM4500H+ B       Image: Constant B			12/00/12 17:05	W/121021 1	1 002		1 0 1	ma/l	100 7	00	110			
WG356136LFB1       LFB       12/09/13 17:09       WI121218-3       1       .988       mg/L       98.8       90       110         WG356136LFB2       LFB       12/09/13 17:40       WI121218-3       1       1.018       mg/L       101.8       90       110         L15770-03DUP       DUP       12/09/13 17:40       WI121218-3       1       0.9       .093       mg/L       106.9       90       110       3.3       20       F         L15770-02AS       AS       12/09/13 18:01       WI121218-3       1       U       1.069       mg/L       106.9       90       110       3.3       20       F         pH (lab)       SM4500H+ B         WG356078L       Type       Analyzed       PCN/SCN       QC       Sample       Found       Units       Rec       Lower       Upper       RPD       Limit       Qual         WG356078LCSW3       LCSW       12/07/13 15:20       PCN41777       6       6.03       units       100.5       5.9       6.1       1.5       20         WG356078LCSW3       LCSW       12/07/13 18:23       PCN41777       6       6.05       units       100.8       5.9       6.1       1.5       20 </td <td></td> <td></td> <td></td> <td>WI131021-1</td> <td>1.005</td> <td></td> <td></td> <td>-</td> <td>100.7</td> <td></td> <td></td> <td></td> <td></td> <td></td>				WI131021-1	1.005			-	100.7					
WG356136LFB2       LFB       12/09/13 17:40       WI121218-3       1       1.018       mg/L       101.8       90       110         L15770-03DUP       DUP       12/09/13 17:45       .09       .093       mg/L       .09       .093       mg/L       .069       .010.9       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0       .001.0				14/1101010 0	1			-	00 0					
L15770-03DUP       DUP       12/09/13 17:45       .09       .093       mg/L       3.3       20       R         L15770-02AS       AS       12/09/13 18:01       WI121218-3       1       U       1.069       mg/L       106.9       90       110       100       100       90       110       100       100       90       110       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       <								•						
L15770-02AS       AS       12/09/13 18:01       WI121218-3       1       U       1.069       mg/L       106.9       90       110         pH (lab)       SM4500H+ B       SM4500H+ B       SM4500H+ B       SM4500H+ B       Rec       Lower       Upper       RPD       Limit       Qual         WG356078       V000000000000000000000000000000000000				VV1121210-3	I	00		•	101.0	90	110	2.2	20	RA
SM4500H+ B         ACZ ID       Type       Analyzed       PCN/SCN       QC       Sample       Found       Units       Rec       Lower       Upper       RPD       Limit       Qual         WG356078L       UPP       12/07/13 15:20       PCN41777       6       6.03       units       100.5       5.9       6.1       1.5       20         WG356078LCSW3       LCSW       12/07/13 16:36       PCN41777       6       6.05       units       100.8       5.9       6.1       1.5       20         WG356078LCSW6       LCSW       12/07/13 16:36       PCN41777       6       6.05       units       100.8       5.9       6.1       1.5       20         WG356078LCSW6       LCSW       12/07/13 18:23       PCN41777       6       6.05       units       100.8       5.9       6.1         WG356078LCSW9       LCSW       12/07/13 21:34       PCN41777       6       6.05       units       100.8       5.9       6.1         WG356078LCSW12       LCSW       12/08/13 1:04       PCN41777       6       6.05       units       100.8       5.9       6.1				WI121218-3	1			-	106.9	90	110	3.3	20	Г\ <del>/</del>
ACZ ID         Type         Analyzed         PCN/SCN         QC         Sample         Found         Units         Rec         Lower         Upper         RPD         Limit         Qual           WG356078         WG356078LCSW3         LCSW         12/07/13 15:20         PCN41777         6         6.03         units         100.5         5.9         6.1         1.5         20           UG356078LCSW3         LCSW         12/07/13 16:36         6         5.91         units         100.8         5.9         6.1         1.5         20           WG356078LCSW6         LCSW         12/07/13 18:23         PCN41777         6         6.05         units         100.8         5.9         6.1           WG356078LCSW9         LCSW         12/07/13 21:34         PCN41777         6         6.05         units         100.8         5.9         6.1           WG356078LCSW12         LCSW         12/08/13 1:04         PCN41777         6         6.05         units         100.8         5.9         6.1					+ R									
WG356078LCSW3       LCSW       12/07/13       15:20       PCN41777       6       6.03       units       100.5       5.9       6.1         L15788-02DUP       DUP       12/07/13       16:36       6       5.91       units       100.8       5.9       6.1         WG356078LCSW6       LCSW       12/07/13       16:36       6       5.91       units       100.8       5.9       6.1         WG356078LCSW6       LCSW       12/07/13       18:23       PCN41777       6       6.05       units       100.8       5.9       6.1         WG356078LCSW9       LCSW       12/07/13       21:34       PCN41777       6       6.05       units       100.8       5.9       6.1         WG356078LCSW12       LCSW       12/08/13       1:04       PCN41777       6       6.05       units       100.8       5.9       6.1		Type	Analyzed			Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG356078LCSW3       LCSW       12/07/13 15:20       PCN41777       6       6.03       units       100.5       5.9       6.1         L15788-02DUP       DUP       12/07/13 16:36       6       5.91       units       100.5       5.9       6.1         WG356078LCSW6       LCSW       12/07/13 18:23       PCN41777       6       6.05       units       100.8       5.9       6.1         WG356078LCSW9       LCSW       12/07/13 21:34       PCN41777       6       6.05       units       100.8       5.9       6.1         WG356078LCSW12       LCSW       12/08/13 1:04       PCN41777       6       6.05       units       100.8       5.9       6.1			,								oppos			
L15788-02DUP       DUP       12/07/13 16:36       6       5.91       units       1.5       20         WG356078LCSW6       LCSW       12/07/13 18:23       PCN41777       6       6.05       units       100.8       5.9       6.1         WG356078LCSW9       LCSW       12/07/13 21:34       PCN41777       6       6.05       units       100.8       5.9       6.1         WG356078LCSW12       LCSW       12/08/13 1:04       PCN41777       6       6.05       units       100.8       5.9       6.1			10/07/10 15:00	DCN/4777	e		6.02	unite.	100 F	5.0	6 1			
WG356078LCSW6         LCSW         12/07/13         18:23         PCN41777         6         6.05         units         100.8         5.9         6.1           WG356078LCSW9         LCSW         12/07/13         21:34         PCN41777         6         6.05         units         100.8         5.9         6.1           WG356078LCSW9         LCSW         12/07/13         21:34         PCN41777         6         6.05         units         100.8         5.9         6.1           WG356078LCSW12         LCSW         12/08/13         1:04         PCN41777         6         6.05         units         100.8         5.9         6.1				run41///	0	6			100.5	5.9	0.1	1 5	20	
WG356078LCSW9         LCSW         12/07/13         21:34         PCN41777         6         6.05         units         100.8         5.9         6.1           WG356078LCSW12         LCSW         12/08/13         1:04         PCN41777         6         6.05         units         100.8         5.9         6.1				DCN/4777	C	Ø			100.0	E 0	6.4	1.5	20	
WG356078LCSW12 LCSW 12/08/13 1:04 PCN41777 6 6.05 units 100.8 5.9 6.1														
wG356078LCSW15_LCSW12/08/13 4:29_PCN41777_666.06units_1015.96.1														
	WG356078LCSW15	LUSW	12/08/13 4:29	PGN41///	6		6.06	units	101	5.9	6.1			



Residue, Filterat	ole (TDS	) @180C	SM2540C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355700													
WG355700PBW	PBW	12/02/13 16:00				U	mg/L		-20	20			
WG355700LCSW	LCSW	12/02/13 16:02	PCN44257	260		244	mg/L	93.8	80	120			
L15785-04DUP	DUP	12/02/13 17:00			1550	1576	mg/L				1.7	10	
WG355806													
WG355806PBW	PBW	12/03/13 16:15				U	mg/L		-20	20			
WG355806LCSW	LCSW	12/03/13 16:16	PCN44257	260		246	mg/L	94.6	80	120			
L15848-03DUP	DUP	12/03/13 16:34			190	198	mg/L				4.1	10	
Residue, Non-Fi	terable	(TSS) @105C	SM2540D										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355790													
WG355790PBW	PBW	12/03/13 15:20				U	mg/L		-15	15			
WG355790LCSW	LCSW	12/03/13 15:21	PCN44257	160		149	mg/L	93.1	80	120			
L15844-04DUP	DUP	12/03/13 15:35			13	11	mg/L				16.7	10	RA
Selenium, disso	lved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355999													
WG355999ICV	ICV	12/07/13 3:04	MS131202-2	.05		.05077	ma/l	101.5	90	110			
WG355999ICB	ICB	12/07/13 3:04	1013131202-2	.05		.03077 U	mg/L mg/L	101.5	-0.0003	0.0003			
WG355999LFB	LFB	12/07/13 3:10	MS131118-2	.05005		.05087	mg/L	101.6	85	115			
L15800-04AS	AS	12/07/13 4:37	MS131118-2	.05005	.0002	.05745	mg/L	114.4	70	130			
L15800-04ASD	ASD	12/07/13 4:40	MS131118-2	.05005	.0002	.0572	mg/L	113.9	70	130	0.44	20	
Silver, dissolved	1		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG255000													
WG355999		40/07/40 0.04	M0404000 0	00000		04040		00.7	00	110			
WG355999ICV	ICV ICB	12/07/13 3:04	MS131202-2	.02002		.01816 U	mg/L	90.7	90 -0.00015	110 0.00015			
WG355999ICB WG355999LFB	LFB	12/07/13 3:07 12/07/13 3:10	MS131118-2	.01001		.009291	mg/L	92.8	-0.00015	115			
L15800-04AS	AS	12/07/13 3:10	MS131118-2 MS131118-2	.01001	U	.009291	mg/L	92.8 86.8	85 70	130			
L15800-04ASD	ASD	12/07/13 4:40	MS131118-2	.01001	U	.008428	mg/L mg/L	84.2	70	130	3.1	20	
Silver, total			M200.8 IC				5				-		
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG356307		40/40/40 0 50	M0404000 C	00000		0404		05.4	66	440			
WG356307ICV	ICV	12/12/13 2:56	MS131202-2	.02002		.0191	mg/L	95.4	90	110			
WG356307ICB	ICB	12/12/13 2:59				U	mg/L		-0.00015	0.00015			
WG356154LRB	LRB	12/12/13 3:02	MOLOCICO	04004		U	mg/L	oc /	-0.00011	0.00011			
WG356154LFB	LFB	12/12/13 3:05	MS131118-2	.01001		.008845	mg/L	88.4	85	115			
L15800-01LFM	LFM	12/12/13 3:47	MS131118-2	.01001	U	.008529	mg/L	85.2	70	130	0.00	00	
L15800-01LFMD	LFMD	12/12/13 3:50	MS131118-2	.01001	U	.008502	mg/L	84.9	70	130	0.32	20	



# Inorganic QC Summary

#### Caldera Mineral Resources LLC

Sulfate			D516-02 ·	- Turbidime	etric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG356170													
WG356170ICB	ICB	12/10/13 12:17				U	mg/L		-3	3			
WG356170ICV	ICV	12/10/13 12:17	WI131127-2	20		20	mg/L	100	90	110			
WG356170LFB	LFB	12/10/13 12:58	WI131010-2	9.99		10.3	mg/L	103.1	90	110			
L15777-04DUP	DUP	12/10/13 13:08			676	702	mg/L				3.8	20	
L15777-05AS	AS	12/10/13 13:08	SO4TURB20	10	705	647	mg/L	-580	90	110			М3
WG356169													
WG356169ICB	ICB	12/10/13 12:17				U	mg/L		-3	3			
WG356169ICV	ICV	12/10/13 12:17	WI131127-2	20		20	mg/L	100	90	110			
WG356169LFB	LFB	12/10/13 12:25	WI131010-2	9.99		10.2	mg/L	102.1	90	110			
L15766-02AS	AS	12/10/13 12:35	SO4TURB5	10	141	152	mg/L	110	90	110			
L15765-05DUP	DUP	12/10/13 12:39			343	341	mg/L				0.6	20	
Sulfide as S			SM4500S	2-D									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355743													
WG355743ICV	ICV	12/03/13 10:50	WC131202-	.328		.335	mg/L	102.1	90	110			
WG355743ICB	ICB	12/03/13 10:53				U	mg/L		-0.06	0.06			
WG355743LFB	LFB	12/03/13 10:56	WC131202-	.2533333		.3	mg/L	118.4	80	120			
L15810-02AS	AS	12/03/13 11:41	WC131202-	.2533333	U	.044	mg/L	17.4	75	125			M2
L15810-02DUP	DUP	12/03/13 11:44			U	U	mg/L				0	20	RA
Uranium, dissol	ved		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355999													
WG355999ICV	ICV	12/07/13 3:04	MS131202-2	.05		.05071	mg/L	101.4	90	110			
WG355999ICB	ICB	12/07/13 3:07				U	mg/L		-0.0003	0.0003			
WG355999LFB	LFB	12/07/13 3:10	MS131118-2	.05		.05103	mg/L	102.1	85	115			
L15800-04AS	AS	12/07/13 4:37	MS131118-2	.05	.0009	.05261	mg/L	103.4	70	130			
L15800-04ASD	ASD	12/07/13 4:40	MS131118-2	.05	.0009	.05295	mg/L	104.1	70	130	0.64	20	
Uranium, total			M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG356307													
WG356307ICV	ICV	12/12/13 2:56	MS131202-2	.05		.05147	mg/L	102.9	90	110			
WG356307ICB	ICB	12/12/13 2:59				U	mg/L		-0.0003	0.0003			
WG356154LRB	LRB	12/12/13 3:02				U	mg/L		-0.00022	0.00022			
WG356154LFB	LFB	12/12/13 3:05	MS131118-2	.05		.05047	mg/L	100.9	85	115			
L15800-01LFM	LFM	12/12/13 3:47	MS131118-2	.05	.0006	.05206	mg/L	102.9	70	130			



Zinc, dissolved			M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG355942													
WG355942ICV	ICV	12/05/13 13:20	II131113-1	2		1.921	mg/L	96.1	95	105			
WG355942ICB	ICB	12/05/13 13:26				U	mg/L		-0.03	0.03			
WG355942LFB	LFB	12/05/13 13:39	II131119-3	.5		.498	mg/L	99.6	85	115			
L15777-02AS	AS	12/05/13 14:54	II131119-3	.5	.1	.579	mg/L	95.8	85	115			
L15777-02ASD	ASD	12/05/13 14:57	II131119-3	.5	.1	.588	mg/L	97.6	85	115	1.54	20	
Zinc, total			M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG356050													
WG356050ICV	ICV	12/06/13 17:11	II131111-1	2		1.904	mg/L	95.2	95	105			
WG356050ICB	ICB	12/06/13 17:17				U	mg/L		-0.03	0.03			
WG356006LRB	LRB	12/06/13 17:30				U	mg/L		-0.022	0.022			
WG356006LFB	LFB	12/06/13 17:33	II131119-3	.5		.484	mg/L	96.8	85	115			
L15800-01LFM	LFM	12/06/13 18:49	II131119-3	.5	.31	.778	mg/L	93.6	70	130			
L15800-01LFMD	LFMD	12/06/13 18:52	II131119-3	.5	.31	.78	mg/L	94	70	130	0.26	20	



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#### **Caldera Mineral Resources LLC**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L15777-01	WG356074	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG356209	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG355604	Dissolved Chromium, Hexavalent	SM3500Cr-B	Н3	Sample was received and analyzed past holding time.
			SM3500Cr-B	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG355630	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG356136	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG355790	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG355743	Sulfide as S	SM4500S2-D	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L15777-02	WG356074	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG356209	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG355604	Dissolved Chromium, Hexavalent	SM3500Cr-B	H3	Sample was received and analyzed past holding time.
			SM3500Cr-B	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG355630	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG356136	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG355790	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG355743	Sulfide as S	SM4500S2-D	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).



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#### **Caldera Mineral Resources LLC**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L15777-03	WG356125	Chloride	SM4500CI-E	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG356074	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG356209	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG355604	Dissolved Chromium, Hexavalent	SM3500Cr-B	H3	Sample was received and analyzed past holding time.
			SM3500Cr-B	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG355630	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG356136	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG355790	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG355743	Sulfide as S	SM4500S2-D	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).



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#### **Caldera Mineral Resources LLC**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L15777-04	WG356125	Chloride	SM4500CI-E	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG356204	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG356209	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG355604	Dissolved Chromium, Hexavalent	SM3500Cr-B	H3	Sample was received and analyzed past holding time.
			SM3500Cr-B	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG355630	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG356136	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG355790	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG356170	Sulfate	D516-02 - Turbidimetric	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG355743	Sulfide as S	SM4500S2-D	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).



2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

#### **Caldera Mineral Resources LLC**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L15777-05	WG356125	Chloride	SM4500CI-E	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG356204	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG356209	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG355604	Dissolved Chromium, Hexavalent	SM3500Cr-B	H3	Sample was received and analyzed past holding time.
			SM3500Cr-B	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG355630	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG356136	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG355790	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG356170	Sulfate	D516-02 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG355743	Sulfide as S	SM4500S2-D	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L15777-06	WG356204	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG356209	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

ACZ	Laboratories, In	С.
2773 Downhill Drive	<b>ACZ Laboratories, Inc.</b> 73 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493	

Project ID: Sample ID: CB-A ACZ Sample ID: L15777-01 Date Sampled: 11/26/13 0:00 Date Received: 11/27/13 Sample Matrix: Surface Water

# Oil & Grease, Total Recoverable

Workgroup:	WG356115								
Analyst:	RJV								
Extract Date:									
Analysis Date:	12/09/13 13:47								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.02	*	mg/L	2.04	10.2

ACZ	Laboratories, In	С.
2773 Downhill Drive	<b>ACZ Laboratories, Inc.</b> 73 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493	

Project ID: Sample ID: CB-B ACZ Sample ID: L15777-02 Date Sampled: 11/26/13 0:00 Date Received: 11/27/13 Sample Matrix: Surface Water

# Oil & Grease, Total Recoverable

Workgroup:	WG356115								
Analyst:	RJV								
Extract Date:									
Analysis Date:	12/09/13 14:05								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.02	*	mg/L	2.04	10.2

ACZ	Laboratories, Ir	IC.
2773 Downhill Drive	Steamboat Springs, CO 80487	(800) 334-5493

Project ID: Sample ID: CB-C ACZ Sample ID: L15777-03 Date Sampled: 11/26/13 0:00 Date Received: 11/27/13 Sample Matrix: Surface Water

# Oil & Grease, Total Recoverable

Workgroup:	WG356115								
Analyst:	RJV								
Extract Date:									
Analysis Date:	12/09/13 14:22								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.02	*	mg/L	2.04	10.2

ACZ	Laboratories, Ir	IC.
2773 Downhill Drive	Steamboat Springs, CO 80487	(800) 334-5493

Project ID: Sample ID: CB-D ACZ Sample ID: L15777-04 Date Sampled: 11/26/13 0:00 Date Received: 11/27/13 Sample Matrix: Surface Water

# Oil & Grease, Total Recoverable

Workgroup:	WG356115								
Analyst:	RJV								
Extract Date:									
Analysis Date:	12/09/13 14:40								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.02	*	mg/L	2.04	10.2

ACZ	Laboratories, In	С.
2773 Downhill Drive	<b>ACZ Laboratories, Inc.</b> 73 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493	

Project ID: Sample ID: CB-E ACZ Sample ID: L15777-05 Date Sampled: 11/26/13 0:00 Date Received: 11/27/13 Sample Matrix: Surface Water

# Oil & Grease, Total Recoverable

Workgroup:	WG356115								
Analyst:	RJV								
Extract Date:									
Analysis Date:	12/09/13 14:57								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.01	*	mg/L	2.02	10.1



Organic Reference

Batch	Explanations	2	
atcn Found	A distinct set of samples analyzed at a specific time Value of the QC Type of interest	5	
imit	Upper limit for RPD, in %.	(Ka)	
ower	Lower Recovery Limit, in % (except for LCSS, mg/	Kg)	
CL	Lower Control Limit	ting Limit Allows for instrum	cont and annual fluctuations
MDL	Method Detection Limit. Same as Minimum Report	-	
PCN/SCN	A number assigned to reagents/standards to trace		
PQL	Practical Quantitation Limit, typically 5 times the MI		
2C	True Value of the Control Sample or the amount ad		
Rec	Amount of the true value or spike added recovered		/Kg)
RPD Inner	Relative Percent Difference, calculation used for Di		
lpper ICI	Upper Recovery Limit, in % (except for LCSS, mg/	ny)	
ICL Sampla	Upper Control Limit		
Sample	Value of the Sample of interest		
ample Ty	pes		
SURR	Surrogate	LFM	Laboratory Fortified Matrix
VTS	Internal Standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
CSS	Laboratory Control Sample - Soil	MS/MSD	Matrix Spike/Matrix Spike Duplicate
CSW	Laboratory Control Sample - Water	PBS	Prep Blank - Soil
FB	Laboratory Cartified Diank		
	Laboratory Fortified Blank	PBW	Prep Blank - Water
		PBW	Prep Blank - Water
	pe Explanations		Prep Blank - Water
ample Ty	pe Explanations Verifies that there is no or		e prep method or calibration procedure.
ample Ty lanks	pe Explanations Verifies that there is no or mples Verifies the accuracy of th	minimal contamination in th	e prep method or calibration procedure.
ample Typ lanks control Sar ouplicates	pe Explanations Verifies that there is no or mples Verifies the accuracy of th	minimal contamination in th e method, including the prep e instrument and/or method	e prep method or calibration procedure.
ample Typ lanks control Sar puplicates pikes/Fort	pe Explanations Verifies that there is no or mples Verifies the accuracy of th Verifies the precision of th tified Matrix Determines sample matrix	minimal contamination in th e method, including the prep e instrument and/or method	e prep method or calibration procedure.
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ample Typ Ianks Control Sar Duplicates Spikes/Fort Qualifiers	pe Explanations         mples       Verifies that there is no or         weifies the accuracy of th         Verifies the precision of th         Utified Matrix         Determines sample matrix         (Qual)         Analyte concentration detected at a value between	minimal contamination in th e method, including the prep e instrument and/or method k interferences, if any. MDL and PQL. The associa	e prep method or calibration procedure. o procedure.
ample Typ Ianks Control Sar Ouplicates Epikes/Fort Qualifiers	pe Explanations         weifies that there is no or         mples       Verifies the accuracy of th         Verifies the precision of th         tified Matrix       Determines sample matrix         (Qual)         Analyte concentration detected at a value between         Analyte concentration is estimated due to result excent accuracy of the set of the precision of the	minimal contamination in th e method, including the prep e instrument and/or method k interferences, if any. MDL and PQL. The associa ceeding calibration range.	te prep method or calibration procedure.
ample Typ Ianks Control Sar Duplicates Spikes/Fort Qualifiers	pe Explanations         weifies that there is no or         nples       Verifies the accuracy of th         Verifies the precision of th         Utified Matrix       Determines sample matrix         (Qual)         Analyte concentration detected at a value between         Analyte concentration is estimated due to result exc         Analysis exceeded method hold time. pH is a field	minimal contamination in th e method, including the prep e instrument and/or method c interferences, if any. MDL and PQL. The associa ceeding calibration range. test with an immediate hold	time.
ample Typ Ianks Control Sar Ouplicates Epikes/Fort Qualifiers	pe Explanations         weifies that there is no or         mples       Verifies the accuracy of th         Verifies the precision of th         Utified Matrix       Determines sample matrix         (Qual)         Analyte concentration detected at a value between         Analyte concentration is estimated due to result exit         Analysis exceeded method hold time. pH is a field         Analyte concentration detected at a value between	minimal contamination in th e method, including the pre- e instrument and/or method c interferences, if any. MDL and PQL. The associa ceeding calibration range. test with an immediate hold MDL and PQL. The associa	time.
ample Tyj lanks control Sar buplicates pikes/Fort Qualifiers	pe Explanations         weifies that there is no or         mples       Verifies the accuracy of th         Verifies the precision of th         Utified Matrix       Determines sample matrix         (Qual)         Analyte concentration detected at a value between         Analyte concentration is estimated due to result exit         Analyte concentration detected at a value between         Analyte concentration detected at a value between         Target analyte response was below the laboratory of	minimal contamination in th e method, including the pre- e instrument and/or method k interferences, if any. MDL and PQL. The associa ceeding calibration range. test with an immediate hold MDL and PQL. The associa defined negative threshold.	te prep method or calibration procedure. p procedure.
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ample Tyj Janks Control Sar Juplicates Jpikes/Fort Qualifiers J J J J J J J J J J J J J J J J J J J	pe Explanations         Verifies that there is no or         mples       Verifies the accuracy of th         Verifies the precision of th         tified Matrix       Determines sample matrix         (Qual)         Analyte concentration detected at a value between         Analyte concentration is estimated due to result exit         Analyte concentration detected at a value between         Target analyte response was below the laboratory of         The material was analyzed for, but was not detected         The associated value is either the sample quantitat         nces         EPA 600/4-83-020. Methods for Chemical Analysis         EPA 600/4-90/020. Methods for the Determination         EPA 600/R-92/129. Methods for the Determination         EPA 600/R-92/129. Methods for Evaluating Solid W	minimal contamination in the e method, including the prep e instrument and/or method c interferences, if any. MDL and PQL. The associa ceeding calibration range. test with an immediate hold MDL and PQL. The associa defined negative threshold. Id above the level of the ass tion limit or the sample detect s of Water and Wastes, Mar- of Organic Compounds in D o of Organic Compounds in D Vaste.	e prep method or calibration procedure. p procedure.
ample Tyr lanks control Sar puplicates ipikes/Fort Qualifiers ) 1 od Refere 1) 2) 3) 4)	pe Explanations         Verifies that there is no or         mples       Verifies the accuracy of th         Verifies the precision of th         tified Matrix       Determines sample matrix         (Qual)         Analyte concentration detected at a value between         Analyte concentration is estimated due to result exit         Analyte concentration detected at a value between         Target analyte response was below the laboratory of         The material was analyzed for, but was not detected         The associated value is either the sample quantitat         nces         EPA 600/4-83-020. Methods for Chemical Analysis         EPA 600/4-90/020. Methods for the Determination         EPA 600/R-92/129. Methods for the Determination         EPA 600/R-92/129. Methods for Evaluating Solid W	minimal contamination in the e method, including the prep e instrument and/or method c interferences, if any. MDL and PQL. The associa ceeding calibration range. test with an immediate hold MDL and PQL. The associa defined negative threshold. Id above the level of the ass tion limit or the sample detect s of Water and Wastes, Mar- of Organic Compounds in D o of Organic Compounds in D Vaste.	e prep method or calibration procedure. p procedure.
ample Tyr Janks Control Sar Juplicates ipikes/Fort Qualifiers ) 1 od Refere 1) 2) 3) 4) 5) ments 1)	pe Explanations         Verifies that there is no or         mples       Verifies the accuracy of th         Verifies the precision of th         tified Matrix       Determines sample matrix         (Qual)         Analyte concentration detected at a value between         Analyte concentration is estimated due to result exit         Analyte concentration detected at a value between         Target analyte response was below the laboratory of         The material was analyzed for, but was not detected         The associated value is either the sample quantitat         nces         EPA 600/4-83-020. Methods for Chemical Analysis         EPA 600/4-90/020. Methods for the Determination         EPA 600/R-92/129. Methods for the Determination         EPA 600/R-92/129. Methods for Evaluating Solid W	minimal contamination in the e method, including the prep e instrument and/or method k interferences, if any. MDL and PQL. The associat ceeding calibration range. test with an immediate hold MDL and PQL. The associat defined negative threshold. Id above the level of the ass tion limit or the sample detect s of Water and Wastes, Mar- of Organic Compounds in E of Organic Compounds in E vaste. Id Wastewater.	e prep method or calibration procedure. p procedure. ted value is an estimated quantity. time. ted value is an estimated quantity. ociated value. ction limit. ch 1983. Drinking Water (I), July 1990. Drinking Water (II), July 1990.
ample Tyr lanks control Sar uplicates ipikes/Fort Qualifiers ) 1 od Refere 1) 2) 3) 4) 5)	pe Explanations       Verifies that there is no or         mples       Verifies the accuracy of th         Verifies the precision of th       Verifies the precision of th         tified Matrix       Determines sample matrix         (Qual)       Analyte concentration detected at a value between         Analyte concentration is estimated due to result exit         Analyte concentration detected at a value between         Analyte concentration detected at a value between         Target analyte response was below the laboratory of         The material was analyzed for, but was not detected         The associated value is either the sample quantitation         PEA 600/4-83-020. Methods for Chemical Analysis         EPA 600/4-90/020. Methods for the Determination         EPA 600/4-92/129. Methods for Evaluating Solid W         Standard Methods for the Examination of Water an         QC results calculated from raw data. Results may         Excluding Oil & Grease, solid & biological matrices	minimal contamination in th e method, including the prep e instrument and/or method c interferences, if any. MDL and PQL. The associa ceeding calibration range. test with an immediate hold MDL and PQL. The associa defined negative threshold. Id above the level of the ass tion limit or the sample detect s of Water and Wastes, Marr of Organic Compounds in D of Organic Compounds in D vaste. Id Wastewater.	e prep method or calibration procedure. p procedure. ted value is an estimated quantity. time. ted value is an estimated quantity. ociated value. ction limit. ch 1983. Drinking Water (I), July 1990. Drinking Water (II), July 1990. Prinking Water (II), July 1990.
ample Tyr Janks Control Sar Juplicates ipikes/Fort Qualifiers ) 1 od Refere 1) 2) 3) 4) 5) ments 1)	pe Explanations       Verifies that there is no or         mples       Verifies the accuracy of th         Verifies the precision of th       Verifies the precision of th         tified Matrix       Determines sample matrix         (Qual)       Analyte concentration detected at a value between         Analyte concentration is estimated due to result exit         Analyte concentration detected at a value between         Target analyte response was below the laboratory of         The material was analyzed for, but was not detected         The associated value is either the sample quantitat         nces         EPA 600/4-83-020. Methods for Chemical Analysis         EPA 600/4-90/020. Methods for the Determination         EPA 600/4-92/129. Methods for Evaluating Solid W         Standard Methods for the Examination of Water an         QC results calculated from raw data. Results may	minimal contamination in th e method, including the prep e instrument and/or method c interferences, if any. MDL and PQL. The associa ceeding calibration range. test with an immediate hold MDL and PQL. The associa defined negative threshold. Id above the level of the ass tion limit or the sample detect s of Water and Wastes, Marr of Organic Compounds in D of Organic Compounds in D vaste. Id Wastewater.	e prep method or calibration procedure o procedure. Ited value is an estimated quantity. time. Ited value is an estimated quantity. ociated value. Ction limit. ch 1983. Drinking Water (I), July 1990. Drinking Water (II), July 1990.
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For a complete list of ACZ's Extended Qualifiers, please click:

http://www.acz.com/public/extquallist.pdf



# ACZ Project ID: L15777

# Oil & Grease, Total Recoverable

1664A - Gravimetric

WG356115

LCSW	Sample ID:	WG356115LCSW	/	PCN/S	CN: OP13	31202-2		Analy	/zed:	12/09	/13 16:42
Compound		QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE		40		38.5	mg/L	96.3	78	114			
LCSWD	Sample ID:	WG356115LCSW	/D	PCN/S	CN: OP13	31202-2		Analy	/zed:	12/09	/13 17:00
Compound		QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE		40		38.1	mg/L	95.3	78	114	1	18	
PBW	Sample ID:	WG356115PBW						Analy	/zed:	12/09	/13 13:30
Compound		QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE				U	mg/L		-5	5			



(800) 334-5493

# Organic Extended Qualifier Report

#### **Caldera Mineral Resources LLC**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L15777-01	WG356115	Oil and Grease	1664A - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.
L15777-02	WG356115	Oil and Grease	1664A - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.
L15777-03	WG356115	Oil and Grease	1664A - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.
L15777-04	WG356115	Oil and Grease	1664A - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.
L15777-05	WG356115	Oil and Grease	1664A - Gravimetric	Q9	Insufficient sample received to meet method QC requirements.



ACZ Project ID: L15777

Wet Chemistry

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

Sulfide as S

SM4500S2-D

**ALIA Laboratories, Inc.** 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

#### **Caldera Mineral Resources LLC**

# Sample Receipt

ACZ Project ID: L15777 Date Received: 11/27/2013 11:04 Received By: mtb Date Printed: 11/27/2013

Receipt Verification			
	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			Х
2) Is the Chain of Custody or other directive shipping papers present?	Х		
3) Does this project require special handling procedures such as CLP protocol?			Х
4) Are any samples NRC licensable material?			Х
5) If samples are received past hold time, proceed with requested short hold time analyses?	Х		
6) Is the Chain of Custody complete and accurate?	Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the samples?	Х		
A change was made in the sample information section prior to ACZ custody.			
Samples/Containers			
	YES	NO	NA
8) Are all containers intact and with no leaks?	Х		
9) Are all labels on containers and are they intact and legible?	Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time?	Х		
11) For preserved bottle types, was the pH checked and within limits?	Х		
12) Is there sufficient sample volume to perform all requested work?	Х		
13) Is the custody seal intact on all containers?			Х
14) Are samples that require zero headspace acceptable?			Х
15) Are all sample containers appropriate for analytical requirements?	Х		
16) Is there an Hg-1631 trip blank present?			Х
17) Is there a VOA trip blank present?			Х
18) Were all samples received within hold time?		Х	

Some parameters were received past hold time.

**Chain of Custody Related Remarks** 

# **Client Contact Remarks**

# **Shipping Containers**

Cooler Id	Temp (°C)	Rad ( $\mu$ R/Hr)
2985	1.9	13
4217	4.3	15

Custody Seal Intact? _ _ _ _ _ _ _ _____ N/A Yes

#### Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

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



ACZ Project ID: L15777 Date Received: 11/27/2013 11:04 Received By: mtb Date Printed: 11/27/2013

2773 Downhill Drive Steamboat Report to: Name: Mike Thomp Company: Caldera Mine E-mail: Mt @ rearc Copy of Report to: Name: Karwin	rod Resources LLC		Addre							
Company: Caldera Mine E-mail: Mt @ rearc Copy of Report to:	vol Resources LLC		Addre							
Company: Caldera Mine E-mail: Mt @ rearc Copy of Report to:	vol Resources LLC	1		ess:	20 B	5X 57	19 49	700 Ca	ocinty Re	ad 31
Copy of Report to:	lonstel. us							- 8142		
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	King		E-mai	il:	١٢	Kind		A & D &	יט, אנק	5
Company:			Telep	hone:	( -	170)	569	E C	DX, US	
Invoice to:				d - 1 - 1	1					
Name: Wike Thom	MPSCH		Addre	ess PC	2 Bo	У 544	2 -11	700 C	ovintyr	- A 3
Name: Mike Thom Company: Calderaw	MINELE   RESOLUTION LL	1	OU	rav	<u> </u>	$\frac{2}{10}$	<u>, ,</u>	7- 7-	<u></u>	-VICT
E-mail: Mt. P. reard			Telep	hone:	19	70)	426	,-21	734	
If sample(s) received past hold	ing time (HT), or if insuffici		mains	to com	plete				YES L	~
analysis before expiration, sha If "NO" then ACZ will contact client for further ins							<b></b>			
Are samples for SDWA Compli		ated, ACZ WII	Yes	ith the requ	lested anal	No No	r HT is expi	red, and data	will be qualified	d
If yes, please include state form	ns. Results will be reported	to PQL	for Cole	orado.	J					
Sampler's Name:	Sampler's site Inform	nation	State:	20	>	_Zip co	de_ <i>31</i>	427	Time Zon	e m
Check box if observe Daylight	Savings Time									•
PROJECT INFORMATION				ANA	YSES R	EQUESTE	D (attach i	ist or use	quote numb	er)
Quote #: ろひろひ414	·		ers						0	
PO#:			tain			ple	a 81	18	fer	
Reporting state for compliance te			Containers			45>	a se h c	551	5	
Check box if samples include NR SAMPLE IDENTIFICATION		Matrix	of				F			
CB~A	11/26/2013		** \S							
CB-B	11/26/2013	<u>SU</u> SU	18 IS	<u> </u>		+				
CB-C	11/24/2013	50	8			<u> </u>				-+
CB-D	11/26/3013	50	8							
CB-E	11/24/2013	SN	8 V							
ciB=F	11/26/2013	500	3	- 10	K	1			· · · · ·	
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FRMAD050.12.12.12

White - Return with sample. Yello

e. Yellow - Retain for your records.



February 17, 2014

Report to: Mike Thompson Caldera Mineral Resources LLC P.O. Box 549, 4900 County Road 361 Ouary, CO 81427

cc: Karmen King

Bill to: Mike Thompson Caldera Mineral Resources LLC P.O. Box 549, 4900 County Road 361 Ouary, CO 81427

Project ID: ACZ Project ID: L16679

Mike Thompson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on February 04, 2014. This project has been assigned to ACZ's project number, L16679. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L16679. 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 March 19, 2014. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/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 raw data reports for ten years.

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

Max janicele

Max Janicek has reviewed and approved this report.





# ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

## **Caldera Mineral Resources LLC**

Project ID:

Sample ID: CB-A

# Inorganic Analytical Results

ACZ Sample ID:	L16679-01
Date Sampled:	01/31/14 00:00
Date Received:	02/04/14
Sample Matrix:	Surface Water

Parameter         EPA Method         Dilution         Result         Qual         XQ         Units         MDL         PQL         Date         Analyst           Cyanide, UAB         SM400-ANI- adelilation         02/10/14 10:24         ms20         20/0714 10:24         ms20         20/0714 16:26         mph           Total Ho Plate         M20.2 ICP         M20.2 ICP         02/0714 16:26         mpl         02/0714 16:33         aeb           Total Ho Plate         M20.2 ICP-MS         02/0714 16:33         aeb         02/0714 16:24         ms2         02/06/14 14:20         las         mse         02/06/14 14:20         las         mse         02/06/14 14:20         las         mse         02/06/14 14:20         las         mse         mse         0.001         0.005         02/06/14 14:20         las         mse         mse         mse         0.001         0.002         0.001         02/06/14 14:20         las         mse         mse         mse         0.001         02/06/14 14:20         las         mse         mse         mse         0.001         0.005         02/07/14 10:24         ms         mse	Inorganic Prep									
Oyanide, WAD         SM4500-CN I- distillation         02/07/14 16.26         mpb           Total I-D Plate         M200.2 ICP         02/06/14 18.33         ab           Digestion         M200.2 ICP-MS         02/06/14 18.33         ab           Total I-D Plate         M200.2 ICP-MS         02/06/14 18.33         ab           Digestion         M200.2 ICP-MS         02/06/14 18.20         b2/06/14 18.20         las           Metals Analysis         Paramotor         PA Mathod         Dilution         Result         Qual         X2         Vnits         MDL         PQL         Analysis           Arsenic, dissolved         M20.8 ICP-MS         1         0.012         mg/L         0.0002         0.001         02/06/14 14:20         las           Arsenic, dissolved         M20.0 RCP-MS         1         0.012         mg/L         0.0002         0.001         02/06/14 14:20         las           Barrium, dissolved         M20.0 RCP-MS         1         0.0012         mg/L         0.001         0.005         02/12/14 0.11         mg/L         las           Barrium, dissolved         M200.7 ICP         1         0.04         mg/L         0.001         0.005         02/12/14 0.11         mg/L         0.002         02/12/14 0.11<	Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Total Hot Plate Digestion Total Hot Plate Digestion Total Hot Plate Digestion Total Hot Plate         M200.2 ICP-MS         02/11/14 14:20         asb Digestion Total Hot Plate           M200.2 ICP-MS         M200.2 ICP-MS         02/05/14 18:06         lass Digestion           Metals Analysis         M200.2 ICP-MS         02/05/14 18:06         lass Digestion           Metals Analysis         MEdas Analysis         1         0.013         mg/L         0.001         0.005         62/06/14 14:20         lass Digestion           Metals Analysis         1         0.013         mg/L         0.002         0.001         0/210/14 14:20         lass Digestion           Materiary List         M200.8 ICP-MS         1         0.013         mg/L         0.002         0.001         0/210/14 14:20         lass Digestion           Materiary List         M200.8 ICP-MS         1         0.0012         mg/L         0.001         0.002         0/21/21/4 0.01         msh Arsenic, total           Materiary List         M200.8 ICP-MS         1         0.004         mg/L         0.001         0.005         0/21/21/4 0.01         msh           Arsenic, dissolved         M200.8 ICP-MS         1         0.0008         mg/L         0.001         0.005         0/21/21/4 0.01         msh	Cyanide, total	M335.4 - Manual Distillation							02/10/14 10:24	mss2
Digestion Digestion         Digestion         Digestion         Digestion         Digestion           Total Hot Pite Digestion         N200.2 ICP-MS         Dilution         Result         Value         N200.2 ICP-MS         Dilution         Result         Number	Cyanide, WAD	SM4500-CN I- distillation							02/07/14 16:26	mpb
Total Plate Digestion         M200.2 ICP-MS         02/11/14 14.20         las           Digestion         M200.2 ICP-MS         02/05/14 18:06         las           Digestion         M200.2 ICP-MS         02/05/14 18:06         las           Metals Analysis         E         M200.8 ICP-MS         1         0.013         mg/L         0.001         0.005         02/06/14 14:20         las           Ansenic, dissolved         M200.8 ICP-MS         1         0.012         mg/L         0.0002         0.001         02/06/14 14:20         las           Arsenic, dissolved         M200.8 ICP-MS         1         0.012         mg/L         0.0002         0.001         0.202/12/14 0.01         msh           Arsenic, dissolved         M200.7 ICP         1         0.012         mg/L         0.001         0.005         02/12/14 11:34         ijc           Beryllium, dissolved         M200.7 ICP         1         0.04         B         mg/L         0.011         0.05         02/12/14 0:01         msh           Cadmium, dissolved         M200.7 ICP         1         0.04         B         mg/L         0.001         0.005         02/12/14 0:01         msh           Cadmium, dissolved         M200.7 ICP         1 <t< td=""><td>Total Hot Plate</td><td>M200.2 ICP</td><td></td><td></td><td></td><td></td><td></td><td></td><td>02/05/14 18:33</td><td>aeb</td></t<>	Total Hot Plate	M200.2 ICP							02/05/14 18:33	aeb
Total Recoverable Digestion         M200.2 ICP-MS         Iss         02/06/14 18:06         Iss           Parameter         EPA Method         Didution         Result         Qual         XQ         Units         MDL         PQL         Date         Analyst           Parameter         EPA Method         Didution         Result         Qual         XQ         Units         MDL         PQL         Date         Analyst           Aluminum, total recoverable         M200.8 ICP-MS         1         0.013         mgL         0.0002         0.001         02/16/14 14:32         Iss           Arsenic, total recoverable         M200.8 ICP-MS         1         0.019         B         mgL         0.003         0.02         02/12/14 0:01         msh           Barium, dissolved         M200.7 ICP         1         0.04         B         mg/L         0.011         0.05         02/12/14 11:34         ijic           Cadmium, dissolved         M200.8 ICP-MS         1         0.006         mg/L         0.001         0.0005         0.021 2/12/14 0:01         msh           Cadmium, dissolved         M200.8 ICP-MS         1         0.0008         mg/L         0.001         0.0005         0.020         02/12/14 11:34         ijc <td>Total Hot Plate</td> <td>M200.2 ICP-MS</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>02/11/14 14:20</td> <td>las</td>	Total Hot Plate	M200.2 ICP-MS							02/11/14 14:20	las
Parameter         EPA Method         Dilution         Result         Qual         XQ         Units         MDL         PQL         Date         Analyst           Alumium, total recoverable         M200.8 (CP-MS         1         0.013         mg/L         0.001         0.005         02/06/14 14:20         lass           Arsenic, dissolved         M200.8 (CP-MS         1         0.0012         mg/L         0.0002         0.001         02/06/14 14:20         lass           Barium, dissolved         M200.7 (CP         1         0.019         B         mg/L         0.001         0.005         02/12/14 11:34         ijc           Beryllium, dissolved         M200.7 (CP         1         0.04         B         mg/L         0.001         0.005         02/12/14 11:34         ijc           Cadmium, dissolved         M200.7 (CP         1         0.04         B         mg/L         0.001         0.0005         02/12/14 11:34         ijc           Cadmium, dissolved         M200.8 (CP-MS         1         0.0009         mg/L         0.001         0.0005         02/12/14 11:34         jjc           Calchum, dissolved         M200.8 (CP-MS         1         0.0009         mg/L         0.0005         0.002         02/17/14 1	Total Recoverable Digestion	M200.2 ICP-MS							02/05/14 18:06	las
Aluminum, total         M200.8 ICP-MS         1         0.013         mg/L         0.001         0.005         02/06/14 14:20         ias           Arsenic, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0002         0.001         02/12/14 0:01         msh           Arsenic, dissolved         M200.7 ICP         1         0.019         B         mg/L         0.001         0.02         0.2/12/14 11:34         ijc           Barium, dissolved         M200.7 ICP         1         0.04         B         mg/L         0.001         0.005         02/12/14 11:34         ijc           Cadmium, dissolved         M200.8 ICP-MS         1         0.008         mg/L         0.001         0.0005         02/12/14 11:34         ijc           Cadmium, dissolved         M200.8 ICP-MS         1         0.0008         mg/L         0.0001         0.0005         02/12/14 11:34         ijc           Cadmium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         02/12/14 11:34         ijc           Chromium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         02/12/14 11:34         ijc           Chromium,	Metals Analysis									
recoverable         u         mg/L         0.0002         0.001         02/12/14 0:01         msh           Arsenic, total         M20.8 ICP-MS         1         0.0012         mg/L         0.002         0.001         02/08/14 14:20         lass           Barium, dissolved         M20.7 ICP         1         0.019         B         mg/L         0.001         0.005         02/12/14 11:34         ijc           Beryllium, dissolved         M20.7 ICP         1         0.04         B         mg/L         0.001         0.005         02/12/14 11:34         ijc           Cadmium, total         M20.8 ICP-MS         1         0.008         mg/L         0.0001         0.0005         02/12/14 11:34         ijc           Cadmium, total         M20.8 ICP-MS         1         0.0008         mg/L         0.0010         0.0005         02/12/14 11:34         ijc           Cadmium, total         M20.8 ICP-MS         1         0.0008         mg/L         0.0001         0.0005         0.002         02/12/14 11:69         mg/L           Chromium, Tixtelnt         Actovation (Total + Heavalent)         U         mg/L         0.0005         0.002         02/12/14 11:34         ijc           Copper, dissolved         M20.8 ICP-MS	Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Arsenic, total         M20.8 ICP-MS         1         0.0012         mg/L         0.0002         0.001         02/06/14 14:20         lass recoverable           Barium, dissolved         M200.7 ICP         1         0.019         B         mg/L         0.001         0.005         02/12/14 11:34         ijc           Boron, dissolved         M200.7 ICP         1         0.04         B         mg/L         0.011         0.05         02/12/14 11:34         ijc           Cadmium, dissolved         M200.8 ICP-MS         1         0.0008         mg/L         0.0001         0.0005         02/12/14 0:01         msh           Cadmium, dissolved         M200.8 ICP-MS         1         0.0009         mg/L         0.0001         0.0005         02/12/14 0:01         msh           Chromium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         02/17/14 0:01         msh           Chromium, Trivalent         Calculation (Total - Hexavalent)         U         mg/L         0.0005         0.002         02/17/14 11:34         ijc           Copper, dissolved         M200.8 ICP-MS         1         0.0009         B         mg/L         0.0005         0.002         02/17/14 11:35         calculation (To	Aluminum, total recoverable	M200.8 ICP-MS	1	0.013		mg/L	0.001	0.005	02/06/14 14:20	las
recoverable       M200.7 ICP       1       0.019       B       mg/L       0.011       0.05       02/12/14 11:34       ijic         Beryllium, dissolved       M200.7 ICP       1       0.04       B       mg/L       0.01       0.05       02/12/14 11:34       ijic         Boron, dissolved       M200.7 ICP       1       0.04       B       mg/L       0.001       0.005       02/12/14 11:34       ijic         Cadmium, dissolved       M200.8 ICP-MS       1       0.0009       mg/L       0.0001       0.0005       02/12/14 11:34       ijic         Calcium, dissolved       M200.8 ICP-MS       1       0.0009       mg/L       0.0005       0.022       02/12/14 11:34       ijic         Chromium, total       M200.8 ICP-MS       1       U       mg/L       0.0005       0.002       02/12/14 11:34       ijic         Chromium, Trivalent       Calcium, dissolved       M200.8 ICP-MS       1       U       mg/L       0.0005       0.002       02/12/14 11:34       ijic         Copper, total       M200.8 ICP-MS       1       0.0009       B       mg/L       0.0005       0.003       02/12/14 11:34       ijic         Iron, dissolved       M200.7 ICP       1       0.199	Arsenic, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0002	0.001	02/12/14 0:01	msh
Beryllium, dissolved         M200.7 ICP         1         U         mg/L         0.01         0.05         02/12/14 11:34         jic           Boron, dissolved         M200.7 ICP         1         0.04         B         mg/L         0.01         0.05         02/12/14 11:34         jic           Cadmium, dissolved         M200.8 ICP-MS         1         0.0009         mg/L         0.0001         0.0005         02/12/14 0:01         msh           Cadmium, dissolved         M200.8 ICP-MS         1         0.0009         mg/L         0.0005         0.021/2/14 11:34         jic           Chromium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         02/12/14 11:34         jic           Chromium, total         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         02/17/14 14:59         calc           Copper, dissolved         M200.8 ICP-MS         1         0.0009         B         mg/L         0.0005         0.003         02/12/14 0:01         msh           Copper, total         M200.8 ICP-MS         1         0.0009         B         mg/L         0.0005         0.003         02/12/14 11:34         jic           Iron, dissolved<	Arsenic, total recoverable	M200.8 ICP-MS	1	0.0012		mg/L	0.0002	0.001	02/06/14 14:20	las
Boron, dissolved         M200.7 ICP         1         0.04         B         mg/L         0.01         0.05         02/12/14 11:34         jjjc           Cadmium, dissolved         M200.8 ICP-MS         1         0.0008         mg/L         0.0001         0.0005         02/12/14 11:34         jjc           Cadmium, dissolved         M200.8 ICP-MS         1         0.0009         mg/L         0.001         0.0005         02/12/14 11:34         jjc           Chromium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         02/12/14 11:34         jjc           Chromium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         02/12/14 0101         msh           Chromium, Trivalent         Calculation (Total - Hexavalent)         U         mg/L         0.0005         0.002         02/13/14 21:16         pmc           Copper, dissolved         M200.8 ICP-MS         1         0.0040         mg/L         0.0005         0.003         02/13/14 21:16         pmc           Iron, dissolved         M200.7 ICP         1         U         mg/L         0.0005         0.003         02/12/14 11:34         jjc           Iron, total	Barium, dissolved	M200.7 ICP	1	0.019	В	mg/L	0.003	0.02	02/12/14 11:34	jjc
Boron, dissolved         M200.7 ICP         1         0.04         B         mg/L         0.01         0.05         02/12/14 11:34         jjc           Cadmium, dissolved         M200.8 ICP-MS         1         0.0008         mg/L         0.0001         0.0005         02/12/14 0101         msh           Cadmium, dissolved         M200.8 ICP-MS         1         0.0009         mg/L         0.0005         0.002         02/12/14 11:34         jjc           Calcium, dissolved         M200.8 ICP-MS         1         289         mg/L         0.0005         0.002         02/12/14 011         msh           Chromium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         02/12/14 011         msh           Copper, dissolved         M200.8 ICP-MS         1         0.0009         B         mg/L         0.0005         0.002         02/12/14 011         msh           Copper, dissolved         M200.8 ICP-MS         1         0.0040         mg/L         0.0005         0.003         02/12/14 011         msh           Copper, dissolved         M200.7 ICP         1         0.19         mg/L         0.0005         0.005         02/12/14 11:34         jjc           Iron, diss	Beryllium, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	02/12/14 11:34	jjc
Cadmium, dissolved         M200.8 ICP-MS         1         0.0008         mg/L         0.0001         0.0005         02/12/14 0:01         msh           Cadmium, total         M200.8 ICP-MS         1         0.0009         mg/L         0.0001         0.0005         02/12/14 0:01         msh           Calcium, dissolved         M200.7 ICP         1         289         mg/L         0.1         0.5         02/12/14 0:01         msh           Chromium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         02/12/14 0:01         msh           Chromium, total         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         02/13/14 21:16         proc           Copper, dissolved         M200.8 ICP-MS         1         0.0009         B         mg/L         0.0005         0.002         02/13/14 21:16         proc           Iron, dissolved         M200.8 ICP-MS         1         0.0009         B         mg/L         0.002         0.003         02/12/14 0:01         msh           Lead, dissolved         M200.7 ICP         1         0.19         mg/L         0.002         0.005         0.003         02/12/14 11:34         jic	Boron, dissolved	M200.7 ICP	1	0.04	В	mg/L	0.01	0.05	02/12/14 11:34	jjc
Calcium, dissolved         M200.7 ICP         1         289         mg/L         0.1         0.5         02/12/14 11:34         jjc           Chromium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         02/12/14 0:01         msh           Chromium, total         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         02/13/14 21:16         pmc           Chromium, Trivalent         Calculation (Total - Hexavalent)         U         mg/L         0.0005         0.003         02/17/14 14:59         calculation (Total - Hexavalent)         U         mg/L         0.0005         0.003         02/17/14 14:59         calculation (Total - Hexavalent)         U         mg/L         0.0005         0.003         02/17/14 14:59         calculation (Total - Hexavalent)         U         mg/L         0.0005         0.003         02/17/14 14:59         calculation (Total - Hexavalent)         Total         Disolved         M20.8 ICP-MS         1         0.0040         mg/L         0.005         0.003         02/17/14 11:34         ijc           Iron, total         M200.7 ICP         1         0.19         mg/L         0.02         0.05         0.03         02/12/14 11:34         ijc           Magases	Cadmium, dissolved	M200.8 ICP-MS	1	0.0008		mg/L	0.0001	0.0005	02/12/14 0:01	msh
Calcium, dissolved         M200.7 ICP         1         289         mg/L         0.1         0.5         02/12/14 11:34         jjo           Chromium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         02/12/14 0:01         msh           Chromium, total         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         02/13/14 21:16         pmc           Chromium, Trivalent         Calculation (Total - Hexavalent)         U         mg/L         0.0005         0.002         02/17/14 14:59         calculation (Total - Hexavalent)         U         mg/L         0.0005         0.003         02/12/14 0:01         msh           Copper, dissolved         M200.8 ICP-MS         1         0.0040         mg/L         0.0005         0.003         02/12/14 11:34         jjo           Iron, dissolved         M200.7 ICP         1         U         mg/L         0.02         0.05         02/06/14 15:46         aeb           Lead, dissolved         M200.8 ICP-MS         1         0.0046         mg/L         0.0001         0.005         02/12/14 11:34         jjo           Magnese, total         M200.7 ICP         1         3.4         mg/L         0.005 <t< td=""><td>Cadmium, total</td><td>M200.8 ICP-MS</td><td>1</td><td>0.0009</td><td></td><td>mg/L</td><td>0.0001</td><td>0.0005</td><td>02/13/14 21:16</td><td>pmc</td></t<>	Cadmium, total	M200.8 ICP-MS	1	0.0009		mg/L	0.0001	0.0005	02/13/14 21:16	pmc
Chromium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         02/12/14 0:01         msh           Chromium, total         M200.8 ICP-MS         1         U         mg/L         0.0005         0.002         02/13/14 21:16         pmc           Chromium, Trivalent         Calculation (Total - Hexavalent)         U         mg/L         0.0005         0.002         02/17/14 14:59         calc           Copper, dissolved         M200.8 ICP-MS         1         0.0009         B         mg/L         0.0005         0.003         02/12/14 0:01         msh           Copper, dissolved         M200.7 ICP         1         0.0040         mg/L         0.002         0.05         02/16/14 1:34         jjc           Iron, total         M200.7 ICP         1         0.19         mg/L         0.0001         0.0055         02/12/14 0:01         msh           Lead, dissolved         M200.7 ICP         1         0.190         mg/L         0.0001         0.0055         02/13/14 21:16         pmc           Maganese, dissolved         M200.7 ICP         1         0.115         mg/L         0.0011         0.005         0.21/21/14 11:34         jjc           Maganese, total         M200.7	Calcium, dissolved	M200.7 ICP	1	289		mg/L	0.1	0.5	02/12/14 11:34	jjc
Chromium, Trivalent         Calculation (Total - Hexavalent)         U         mg/L         0.0005         0.002         02/17/14         14:55         calculation           Copper, dissolved         M200.8 ICP-MS         1         0.0009         B         mg/L         0.0005         0.002         02/17/14         14:15         msh           Copper, dissolved         M200.8 ICP-MS         1         0.0040         mg/L         0.002         0.05         02/12/14         0:01         msh           Copper, total         M200.7 ICP         1         0.19         mg/L         0.02         0.05         02/12/14         11:34         jjc           Iron, total         M200.7 ICP         1         0.19         mg/L         0.02         0.05         02/12/14         11:34         jjc           Lead, dissolved         M200.8 ICP-MS         1         0.0002         B         mg/L         0.001         0.0005         02/13/14         21:16         pmc           Magnesium, dissolved         M200.7 ICP         1         0.115         mg/L         0.005         0.03         02/12/14         11:34         jjc           Marganese, total         M200.7 ICP         1         0.133         mg/L         0.0005	Chromium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	02/12/14 0:01	msh
Chromium, Trivalent         Calculation (Total - Hexavalent)         U         mg/L         0.0005         0.002         02/17/14 14:59         calculation (Total - Hexavalent)           Copper, dissolved         M200.8 ICP-MS         1         0.0009         B         mg/L         0.0005         0.003         02/17/14 14:59         calculation (Total - Hexavalent)           Copper, dissolved         M200.8 ICP-MS         1         0.0009         B         mg/L         0.0005         0.003         02/17/14 11:34         ijic           Iron, dissolved         M200.7 ICP         1         0.19         mg/L         0.02         0.05         02/06/14 15:46         aeb           Lead, dissolved         M200.8 ICP-MS         1         0.0002         B         mg/L         0.001         0.0005         02/12/14 0:01         msh           Lead, dissolved         M200.8 ICP-MS         1         0.0002         B         mg/L         0.001         0.0005         02/13/14 21:16         pmc           Magnesium, dissolved         M200.7 ICP         1         0.115         mg/L         0.005         0.03         02/12/14 11:34         ijc           Manganese, dissolved         M200.7 ICP         1         0.113         mg/L         0.005         0.03 </td <td>Chromium, total</td> <td>M200.8 ICP-MS</td> <td>1</td> <td></td> <td>U</td> <td>mg/L</td> <td>0.0005</td> <td>0.002</td> <td>02/13/14 21:16</td> <td>pmc</td>	Chromium, total	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	02/13/14 21:16	pmc
Copper, dissolved         M200.8 ICP-MS         1         0.0009         B         mg/L         0.0005         0.003         02/12/14 0:01         msh           Copper, total         M200.8 ICP-MS         1         0.0040         mg/L         0.0005         0.003         02/13/14 21:16         pmc           Iron, dissolved         M200.7 ICP         1         U         mg/L         0.02         0.05         02/12/14 11:34         jjc           Iron, total         M200.7 ICP         1         0.19         mg/L         0.02         0.05         02/06/14 15:46         aeb           Lead, dissolved         M208.8 ICP-MS         1         0.0002         B         mg/L         0.0001         0.0005         02/12/14 0:01         msh           Lead, total         M208.8 ICP-MS         1         0.0046         mg/L         0.0011         0.0005         02/13/14 21:16         pmc           Magnesium, dissolved         M200.7 ICP         1         3.4         mg/L         0.2         1         02/12/14 11:34         jjc           Manganese, total         M200.7 ICP         1         0.115         mg/L         0.0001         0.001         0.2/06/14 15:46         aeb           Mercury, total         M245.1	Chromium, Trivalent	Calculation (Total - Hexavale	nt)		U	•	0.0005	0.002	02/17/14 14:59	calc
Coper, totalM200.8 ICP-MS10.0040mg/L0.00050.00302/13/14 21:16pmcIron, dissolvedM200.7 ICP1Umg/L0.020.0502/12/14 11:34jjcIron, totalM200.7 ICP10.19mg/L0.020.0502/12/14 0:01mshLead, dissolvedM200.8 ICP-MS10.0002Bmg/L0.00010.000502/12/14 0:01mshLead, totalM200.7 ICP10.0046mg/L0.00010.000502/12/14 11:34jjcMagnesium, dissolvedM200.7 ICP10.115mg/L0.0050.0302/12/14 11:34jjcManganese, dissolvedM200.7 ICP10.133mg/L0.0050.0302/12/14 11:34jjcManganese, totalM20.7 ICP10.133mg/L0.00020.00102/06/14 15:46aebMercury, totalM245.1 CVAA1Umg/L0.00010.000302/12/14 11:34jjcNickel, dissolvedM200.7 ICP1Umg/L0.00010.00302/12/14 11:34jjcNickel, dissolvedM200.7 ICP1Umg/L0.00010.00302/12/14 11:34jjcNickel, dissolvedM200.8 ICP-MS1Umg/L0.00010.00302/12/14 11:34jjcSilver, dissolvedM200.8 ICP-MS1Umg/L0.00010.00302/12/14 23:12mshSilver, totalM200.8 ICP-MS <td< td=""><td>Copper, dissolved</td><td>M200.8 ICP-MS</td><td>1</td><td>0.0009</td><td>В</td><td>•</td><td>0.0005</td><td>0.003</td><td>02/12/14 0:01</td><td>msh</td></td<>	Copper, dissolved	M200.8 ICP-MS	1	0.0009	В	•	0.0005	0.003	02/12/14 0:01	msh
Iron, dissolvedM200.7 ICP1Umg/L0.020.0502/12/14 11:34jjcIron, totalM200.7 ICP10.19mg/L0.020.0502/06/14 15:46aebLead, dissolvedM200.8 ICP-MS10.0002Bmg/L0.00010.000502/12/14 0:01mshLead, totalM200.8 ICP-MS10.0046mg/L0.00110.000502/12/14 11:34jjcMagnesium, dissolvedM200.7 ICP13.4mg/L0.22102/12/14 11:34jjcManganese, dissolvedM200.7 ICP10.115mg/L0.0050.0302/12/14 11:34jjcManganese, totalM200.7 ICP10.133mg/L0.0050.0302/06/14 15:46aebMercury, totalM245.1 CVAA1Umg/L0.00020.00102/06/14 11:30mfmNickel, dissolvedM200.7 ICP1Umg/L0.0010.00302/12/14 11:34jjcNickel, dissolvedM200.7 ICP1Umg/L0.00020.0010.00302/12/14 11:34jjcNickel, dissolvedM200.8 ICP-MS10.0003mg/L0.0010.00302/12/14 11:34jjcSilver, dissolvedM200.8 ICP-MS10.0003mg/L0.0010.00302/12/14 23:12mshSilver, totalM200.8 ICP-MS10.0005mg/L0.00010.000502/13/14 21:16pmcUranium, dissolved<	Copper, total	M200.8 ICP-MS	1	0.0040		•	0.0005	0.003	02/13/14 21:16	pmc
Iron, totalM200.7 ICP10.19mg/L0.020.0502/06/14 15:46advLead, dissolvedM200.8 ICP-MS10.0002Bmg/L0.00010.000502/12/14 0:01mshLead, totalM200.8 ICP-MS10.0046mg/L0.00010.000502/12/14 11:34jjcMagnesium, dissolvedM200.7 ICP13.4mg/L0.2102/12/14 11:34jjcManganese, dissolvedM200.7 ICP10.115mg/L0.0050.0302/12/14 11:34jjcManganese, totalM200.7 ICP10.133mg/L0.0050.0302/12/14 11:34jjcMercury, totalM245.1 CVAA1Umg/L0.00020.00102/06/14 15:46aebNickel, dissolvedM200.7 ICP1Umg/L0.00020.00102/06/14 15:46aebNickel, dissolvedM200.7 ICP1Umg/L0.00020.00102/06/14 15:46aebSelenium, dissolvedM200.7 ICP1Umg/L0.000302/12/14 11:34jjcNickel, totalM200.7 ICP10.0003mg/L0.0010.00302/12/14 11:34jjcSilver, dissolvedM200.8 ICP-MS10.0003mg/L0.0010.000302/12/14 0:01mshSilver, totalM200.8 ICP-MS1Umg/L0.00050.00302/12/14 21:16pmcUranium, dissolvedM200.8 ICP-MS1 <td< td=""><td>Iron, dissolved</td><td>M200.7 ICP</td><td>1</td><td></td><td>U</td><td>•</td><td>0.02</td><td>0.05</td><td>02/12/14 11:34</td><td></td></td<>	Iron, dissolved	M200.7 ICP	1		U	•	0.02	0.05	02/12/14 11:34	
Lead, dissolved         M200.8 ICP-MS         1         0.0002         B         mg/L         0.0001         0.0005         02/12/14 0:01         msh           Lead, total         M200.8 ICP-MS         1         0.0046         mg/L         0.0001         0.0005         02/13/14 21:16         pmc           Magnesium, dissolved         M200.7 ICP         1         3.4         mg/L         0.005         0.03         02/12/14 11:34         ijic           Manganese, dissolved         M200.7 ICP         1         0.115         mg/L         0.005         0.03         02/12/14 11:34         ijic           Manganese, total         M200.7 ICP         1         0.133         mg/L         0.005         0.03         02/06/14 15:46         aeb           Mercury, total         M245.1 CVAA         1         U         mg/L         0.0002         0.001         0.206/14 11:30         mfm           Nickel, dissolved         M200.7 ICP         1         U         mg/L         0.002         0.001         0.003         02/12/14 11:34         ijc           Nickel, dissolved         M200.8 ICP-MS         1         U         mg/L         0.001         0.003         02/12/14 0:01         msh           Silver, dissolved	Iron, total	M200.7 ICP	1	0.19		•	0.02		02/06/14 15:46	aeb
Lead, totalM200.8 ICP-MS10.0046mg/L0.00010.000502/13/14 21:16pmcMagnesium, dissolvedM200.7 ICP13.4mg/L0.2102/12/14 11:34jjcManganese, dissolvedM200.7 ICP10.115mg/L0.0050.0302/12/14 11:34jjcManganese, totalM200.7 ICP10.133mg/L0.0050.0302/06/14 15:46aebMercury, totalM245.1 CVAA1Umg/L0.0080.0402/12/14 11:34jjcNickel, dissolvedM200.7 ICP1Umg/L0.0080.0402/12/14 11:34jjcNickel, dissolvedM200.7 ICP1Umg/L0.0010.00302/12/14 11:34jjcNickel, totalM200.7 ICP1Umg/L0.0010.00302/12/14 11:34jjcNickel, totalM200.7 ICP1Umg/L0.0010.00302/12/14 11:34jjcSilver, dissolvedM200.8 ICP-MS10.0003mg/L0.0010.00302/12/14 23:12mshSilver, totalM200.8 ICP-MS10.0005mg/L0.00010.000502/13/14 21:16pmcUranium, dissolvedM200.8 ICP-MS10.0005mg/L0.00010.000502/12/14 0:01mshUranium, totalM200.8 ICP-MS10.0006mg/L0.0010.00502/13/14 21:16pmcZinc, dissolvedM200.7 ICP1 <td< td=""><td>Lead, dissolved</td><td>M200.8 ICP-MS</td><td>1</td><td>0.0002</td><td>В</td><td>•</td><td>0.0001</td><td>0.0005</td><td>02/12/14 0:01</td><td>msh</td></td<>	Lead, dissolved	M200.8 ICP-MS	1	0.0002	В	•	0.0001	0.0005	02/12/14 0:01	msh
Magnesium, dissolvedM200.7 ICP13.4mg/L0.2102/12/14 11:34ijcManganese, dissolvedM200.7 ICP10.115mg/L0.0050.0302/12/14 11:34ijcManganese, totalM200.7 ICP10.133mg/L0.0050.0302/06/14 15:46aebMercury, totalM245.1 CVAA1Umg/L0.00020.00102/06/14 11:30mfmNickel, dissolvedM200.7 ICP1Umg/L0.0080.0402/12/14 11:34ijcNickel, totalM200.7 ICP1Umg/L0.0010.0502/06/14 15:46aebSelenium, dissolvedM200.7 ICP1Umg/L0.0010.0502/06/14 15:46aebSelenium, dissolvedM200.8 ICP-MS10.0003mg/L0.0010.00302/12/14 0:01mshSilver, totalM200.8 ICP-MS10.0005mg/L0.00050.00302/12/14 23:12mshSilver, totalM200.8 ICP-MS10.0005mg/L0.00010.000502/12/14 0:01mshUranium, dissolvedM200.8 ICP-MS10.0005mg/L0.00010.000502/12/14 0:01mshUranium, totalM200.8 ICP-MS10.0006mg/L0.00010.000502/12/14 0:01mshUranium, totalM200.8 ICP-MS10.200mg/L0.00110.00502/12/14 11:34jjcZinc, dissolvedM200.7 ICP	Lead, total	M200.8 ICP-MS	1	0.0046		•	0.0001	0.0005	02/13/14 21:16	pmc
Manganese, dissolved         M200.7 ICP         1         0.115         mg/L         0.005         0.03         02/12/14 11:34         ijc           Manganese, total         M200.7 ICP         1         0.133         mg/L         0.005         0.03         02/06/14 15:46         aeb           Mercury, total         M245.1 CVAA         1         U         mg/L         0.002         0.001         02/06/14 15:46         aeb           Nickel, dissolved         M200.7 ICP         1         U         mg/L         0.008         0.04         02/12/14 11:34         ijc           Nickel, dissolved         M200.7 ICP         1         U         mg/L         0.008         0.04         02/12/14 11:34         ijc           Nickel, total         M200.7 ICP         1         U         mg/L         0.01         0.05         02/06/14 15:46         aeb           Selenium, dissolved         M200.8 ICP-MS         1         0.0003         mg/L         0.001         0.003         02/12/14 0:01         msh           Silver, total         M200.8 ICP-MS         1         U         mg/L         0.0005         0.0003         02/12/14 23:12         msh           Uranium, dissolved         M200.8 ICP-MS         1         0	Magnesium, dissolved	M200.7 ICP	1	3.4		mg/L	0.2	1	02/12/14 11:34	jjc
Manganese, total         M200.7 ICP         1         0.133         mg/L         0.005         0.03         02/06/14 15:46         aeb           Mercury, total         M245.1 CVAA         1         U         mg/L         0.0002         0.001         02/06/14 11:30         mfm           Nickel, dissolved         M200.7 ICP         1         U         mg/L         0.008         0.04         02/12/14 11:34         jjc           Nickel, total         M200.7 ICP         1         U         mg/L         0.001         0.05         02/06/14 15:46         aeb           Selenium, dissolved         M200.7 ICP         1         U         mg/L         0.01         0.05         02/06/14 15:46         aeb           Selenium, dissolved         M200.8 ICP-MS         1         0.0003         mg/L         0.001         0.003         02/12/14 0:01         msh           Silver, total         M200.8 ICP-MS         1         U         mg/L         0.0005         0.0003         02/12/14 23:12         msh           Silver, total         M200.8 ICP-MS         1         U         mg/L         0.0005         0.0003         02/12/14 23:12         msh           Uranium, dissolved         M200.8 ICP-MS         1         0.0	Manganese, dissolved	M200.7 ICP	1	0.115		•		0.03	02/12/14 11:34	
Mercury, total         M245.1 CVAA         1         U         mg/L         0.0002         0.001         02/06/14 11:30         mfm           Nickel, dissolved         M200.7 ICP         1         U         mg/L         0.008         0.04         02/12/14 11:34         jjc           Nickel, total         M200.7 ICP         1         U         mg/L         0.01         0.05         02/06/14 15:46         aeb           Selenium, dissolved         M200.8 ICP-MS         1         0.0003         mg/L         0.0001         0.0003         02/12/14 0:01         msh           Silver, dissolved         M200.8 ICP-MS         1         0.0003         mg/L         0.00005         0.0003         02/12/14 23:12         msh           Silver, total         M200.8 ICP-MS         1         U         mg/L         0.00005         0.0003         02/12/14 23:12         msh           Silver, total         M200.8 ICP-MS         1         U         mg/L         0.00005         0.0003         02/13/14 21:16         pmc           Uranium, dissolved         M200.8 ICP-MS         1         0.0005         mg/L         0.0001         0.0005         02/13/14 21:16         pmc           Uranium, total         M200.8 ICP-MS         1 </td <td>Manganese, total</td> <td></td> <td>1</td> <td>0.133</td> <td></td> <td>•</td> <td>0.005</td> <td>0.03</td> <td>02/06/14 15:46</td> <td>aeb</td>	Manganese, total		1	0.133		•	0.005	0.03	02/06/14 15:46	aeb
Nickel, dissolved         M200.7 ICP         1         U         mg/L         0.008         0.04         02/12/14 11:34         jjc           Nickel, total         M200.7 ICP         1         U         mg/L         0.01         0.05         02/06/14 15:46         aeb           Selenium, dissolved         M200.8 ICP-MS         1         0.0003         mg/L         0.0001         0.0003         02/12/14 0:01         msh           Silver, dissolved         M200.8 ICP-MS         1         0.0003         mg/L         0.00005         0.0003         02/12/14 23:12         msh           Silver, total         M200.8 ICP-MS         1         U         mg/L         0.00005         0.0003         02/12/14 23:12         msh           Silver, total         M200.8 ICP-MS         1         U         mg/L         0.00005         0.0003         02/12/14 23:12         msh           Uranium, dissolved         M200.8 ICP-MS         1         0.0005         mg/L         0.0001         0.0005         02/13/14 21:16         pmc           Uranium, total         M200.8 ICP-MS         1         0.0006         mg/L         0.001         0.0055         02/13/14 21:16         pmc           Zinc, dissolved         M200.7 ICP <t< td=""><td>Mercury, total</td><td>M245.1 CVAA</td><td>1</td><td></td><td>U</td><td>•</td><td>0.0002</td><td>0.001</td><td>02/06/14 11:30</td><td>mfm</td></t<>	Mercury, total	M245.1 CVAA	1		U	•	0.0002	0.001	02/06/14 11:30	mfm
Nickel, total         M200.7 ICP         1         U         mg/L         0.01         0.05         02/06/14 15:46         aeb           Selenium, dissolved         M200.8 ICP-MS         1         0.0003         mg/L         0.0001         0.0003         02/12/14 0:01         msh           Silver, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.0003         02/12/14 23:12         msh           Silver, total         M200.8 ICP-MS         1         U         mg/L         0.0005         0.0003         02/12/14 23:12         msh           Silver, total         M200.8 ICP-MS         1         U         mg/L         0.0005         0.0003         02/12/14 23:12         msh           Uranium, dissolved         M200.8 ICP-MS         1         0.0005         mg/L         0.0001         0.0005         02/12/14 21:16         pmc           Uranium, total         M200.8 ICP-MS         1         0.0006         mg/L         0.0001         0.0005         02/13/14 21:16         pmc           Zinc, dissolved         M200.7 ICP         1         0.20         mg/L         0.01         0.05         02/12/14 11:34         jjc	Nickel, dissolved	M200.7 ICP	1		U	mg/L	0.008	0.04	02/12/14 11:34	jjc
Selenium, dissolved         M200.8 ICP-MS         1         0.0003         mg/L         0.0001         0.0003         02/12/14 0:01         msh           Silver, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.0003         02/12/14 23:12         msh           Silver, total         M200.8 ICP-MS         1         U         mg/L         0.0005         0.0003         02/12/14 23:12         msh           Uranium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.0005         0.0003         02/12/14 23:12         msh           Uranium, dissolved         M200.8 ICP-MS         1         0.0005         mg/L         0.0001         0.0005         02/12/14 0:01         msh           Uranium, total         M200.8 ICP-MS         1         0.0006         mg/L         0.0001         0.0005         02/12/14 0:01         msh           Uranium, total         M200.8 ICP-MS         1         0.0006         mg/L         0.0001         0.0005         02/13/14 21:16         pmc           Zinc, dissolved         M200.7 ICP         1         0.20         mg/L         0.01         0.05         02/12/14 11:34         jjc <td>Nickel, total</td> <td>M200.7 ICP</td> <td>1</td> <td></td> <td>U</td> <td>mg/L</td> <td>0.01</td> <td>0.05</td> <td>02/06/14 15:46</td> <td>aeb</td>	Nickel, total	M200.7 ICP	1		U	mg/L	0.01	0.05	02/06/14 15:46	aeb
Silver, dissolved         M200.8 ICP-MS         1         U         mg/L         0.00005         0.0003         02/12/14 23:12         msh           Silver, total         M200.8 ICP-MS         1         U         mg/L         0.00005         0.0003         02/12/14 23:12         msh           Uranium, dissolved         M200.8 ICP-MS         1         U         mg/L         0.00005         0.0003         02/12/14 21:16         pmc           Uranium, dissolved         M200.8 ICP-MS         1         0.0005         mg/L         0.0001         0.0005         02/12/14 0:01         msh           Uranium, total         M200.8 ICP-MS         1         0.0006         mg/L         0.0001         0.0005         02/13/14 21:16         pmc           Zinc, dissolved         M200.7 ICP         1         0.20         mg/L         0.01         0.05         02/12/14 11:34         jjc	Selenium, dissolved	M200.8 ICP-MS	1	0.0003			0.0001	0.0003	02/12/14 0:01	msh
Silver, total         M200.8 ICP-MS         1         U         mg/L         0.00005         0.0003         02/13/14 21:16         pmc           Uranium, dissolved         M200.8 ICP-MS         1         0.0005         mg/L         0.0001         0.0005         02/12/14 0:01         msh           Uranium, total         M200.8 ICP-MS         1         0.0006         mg/L         0.0001         0.0005         02/13/14 21:16         pmc           Zinc, dissolved         M200.7 ICP         1         0.20         mg/L         0.01         0.05         02/12/14 11:34         jjc	Silver, dissolved	M200.8 ICP-MS			U	-				msh
Uranium, dissolved         M200.8 ICP-MS         1         0.0005         mg/L         0.0001         0.0005         02/12/14         0:01         msh           Uranium, total         M200.8 ICP-MS         1         0.0006         mg/L         0.0001         0.0005         02/13/14         21:16         pmc           Zinc, dissolved         M200.7 ICP         1         0.20         mg/L         0.01         0.05         02/12/14         11:34         jjc	Silver, total	M200.8 ICP-MS				-				pmc
Uranium, total         M200.8 ICP-MS         1         0.0006         mg/L         0.0001         0.0005         02/13/14         21:16         pmc           Zinc, dissolved         M200.7 ICP         1         0.20         mg/L         0.01         0.05         02/12/14         11:34         jjc	Uranium, dissolved	M200.8 ICP-MS		0.0005		-				msh
Zinc, dissolved M200.7 ICP 1 0.20 mg/L 0.01 0.05 02/12/14 11:34 jjc	Uranium, total	M200.8 ICP-MS				-				pmc
	Zinc, dissolved	M200.7 ICP	1			-				, jjc
	Zinc, total	M200.7 ICP	1	0.23		mg/L	0.01	0.05	02/06/14 15:46	aeb

* Please refer to Qualifier Reports for details.

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:

Sample ID: CB-A

# Inorganic Analytical Results

ACZ Sample ID: L16679-01 Date Sampled: 01/31/14 00:00 Date Received: 02/04/14 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	46			mg/L	2	20	02/06/14 0:00	abd
Carbonate as CaCO3		1		U		mg/L	2	20	02/06/14 0:00	abd
Hydroxide as CaCO3		1		U		mg/L	2	20	02/06/14 0:00	abd
Total Alkalinity		1	46			mg/L	2	20	02/06/14 0:00	abd
Chloride	SM4500CI-E	1	1	В		mg/L	1	5	02/11/14 12:24	tcd
Conductivity @25C	SM2510B	1	1310			umhos/cm	1	10	02/06/14 17:30	abd
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	02/11/14 23:59	pjb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	02/07/14 19:41	pjb
Dissolved Chromium, Hexavalent	SM3500Cr-B	1		UH	*	mg/L	0.005	0.02	02/04/14 15:08	dcw
Hardness as CaCO3	SM2340B - Calculation		736			mg/L	1	7	02/17/14 14:59	calc
Lab Filtration (0.45um filter)	SOPWC050	1							02/07/14 12:35	dcw
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							02/10/14 13:04	las
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2			UH		mg/L	0.02	0.1	02/17/14 14:59	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		UH	*	mg/L	0.02	0.1	02/04/14 22:33	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		UH	*	mg/L	0.01	0.05	02/04/14 22:33	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	02/11/14 17:00	mpb
pH (lab)	SM4500H+ B									
рН		1	8	Н		units	0.1	0.1	02/06/14 0:00	abd
pH measured at		1	21			С	0.1	0.1	02/06/14 0:00	abd
Residue, Filterable (TDS) @180C	SM2540C	1	1180			mg/L	10	20	02/06/14 15:14	abd
Residue, Non- Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	02/06/14 17:49	khw
Sulfate	D516-02 - Turbidimetric	20	694		*	mg/L	20	100	02/11/14 15:37	tcd
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	02/06/14 13:31	dcw

# ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

## **Caldera Mineral Resources LLC**

Project ID:

Sample ID: CB-B

# Inorganic Analytical Results

ACZ Sample ID:	L16679-02
Date Sampled:	01/31/14 00:00
Date Received:	02/04/14
Sample Matrix:	Surface Water

Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date A	Analys
Cyanide, total	M335.4 - Manual Distillation							02/10/14 10:48	mss
Cyanide, WAD	SM4500-CN I- distillation							02/07/14 16:33	mp
Fotal Hot Plate	M200.2 ICP							02/05/14 18:45	ae
Digestion Fotal Hot Plate	M200.2 ICP-MS							02/11/14 14:32	la
Digestion								0	
Total Recoverable Digestion	M200.2 ICP-MS							02/05/14 18:15	la
Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date A	Analys
Aluminum, total recoverable	M200.8 ICP-MS	1	0.013		mg/L	0.001	0.005	02/06/14 14:24	la
Arsenic, dissolved	M200.8 ICP-MS	1	0.0003	В	mg/L	0.0002	0.001	02/12/14 0:04	ms
Arsenic, total ecoverable	M200.8 ICP-MS	1	0.0011		mg/L	0.0002	0.001	02/06/14 14:24	la
Barium, dissolved	M200.7 ICP	1	0.020		mg/L	0.003	0.02	02/12/14 11:43	
Beryllium, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	02/12/14 11:43	
Boron, dissolved	M200.7 ICP	1	0.03	В	mg/L	0.01	0.05	02/12/14 11:43	
Cadmium, dissolved	M200.8 ICP-MS	1	0.0008		mg/L	0.0001	0.0005	02/12/14 0:04	m
admium, total	M200.8 ICP-MS	1	0.0009		mg/L	0.0001	0.0005	02/13/14 21:19	pr
Calcium, dissolved	M200.7 ICP	1	293		mg/L	0.1	0.5	02/12/14 11:43	
Chromium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	02/12/14 0:04	m
Chromium, total	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	02/13/14 21:19	pr
Chromium, Trivalent	Calculation (Total - Hexavale	nt)		U	mg/L	0.0005	0.002	02/17/14 14:59	Ca
Copper, dissolved	M200.8 ICP-MS	1	0.0008	В	mg/L	0.0005	0.003	02/12/14 0:04	m
Copper, total	M200.8 ICP-MS	1	0.0044		mg/L	0.0005	0.003	02/13/14 21:19	pr
ron, dissolved	M200.7 ICP	1		U	mg/L	0.02	0.05	02/12/14 11:43	
ron, total	M200.7 ICP	1	0.19		mg/L	0.02	0.05	02/06/14 15:49	а
ead, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0001	0.0005	02/12/14 0:04	m
ead, total	M200.8 ICP-MS	1	0.0068		mg/L	0.0001	0.0005	02/13/14 21:19	pr
lagnesium, dissolved	M200.7 ICP	1	3.5		mg/L	0.2	1	02/12/14 11:43	
langanese, dissolved	M200.7 ICP	1	0.106		mg/L	0.005	0.03	02/12/14 11:43	
langanese, total	M200.7 ICP	1	0.158		mg/L	0.005	0.03	02/06/14 15:49	а
lercury, total	M245.1 CVAA	1		U	mg/L	0.0002	0.001	02/06/14 11:33	m
lickel, dissolved	M200.7 ICP	1		U	mg/L	0.008	0.04	02/12/14 11:43	
lickel, total	M200.7 ICP	1		U	mg/L	0.01	0.05	02/06/14 15:49	а
Selenium, dissolved	M200.8 ICP-MS	1	0.0003		mg/L	0.0001	0.0003	02/12/14 0:04	m
Silver, dissolved	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	02/12/14 23:15	m
Silver, total	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	02/13/14 21:19	pr
Jranium, dissolved	M200.8 ICP-MS	1	0.0005		mg/L	0.0001	0.0005	02/12/14 0:04	m
Jranium, total	M200.8 ICP-MS	1	0.0006		mg/L	0.0001	0.0005	02/13/14 21:19	pr
Zinc, dissolved	M200.7 ICP	1	0.19		mg/L	0.01	0.05	02/12/14 11:43	
Zinc, total	M200.7 ICP	1	0.23		mg/L	0.01	0.05	02/06/14 15:49	а

* Please refer to Qualifier Reports for details.

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:

Sample ID: CB-B

# Inorganic Analytical Results

ACZ Sample ID: L16679-02 Date Sampled: 01/31/14 00:00 Date Received: 02/04/14 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	46			mg/L	2	20	02/06/14 0:00	abd
Carbonate as CaCO3		1		U		mg/L	2	20	02/06/14 0:00	abd
Hydroxide as CaCO3		1		U		mg/L	2	20	02/06/14 0:00	abd
Total Alkalinity		1	46			mg/L	2	20	02/06/14 0:00	abd
Chloride	SM4500CI-E	1	1	В		mg/L	1	5	02/11/14 12:24	tcd
Conductivity @25C	SM2510B	1	1300			umhos/cm	1	10	02/06/14 17:38	abd
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	02/12/14 0:01	pjb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	02/07/14 19:42	pjb
Dissolved Chromium, Hexavalent	SM3500Cr-B	1		UH	*	mg/L	0.005	0.02	02/04/14 15:11	dcw
Hardness as CaCO3	SM2340B - Calculation		747			mg/L	1	7	02/17/14 14:59	calc
Lab Filtration (0.45um filter)	SOPWC050	1							02/07/14 12:40	dcw
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							02/10/14 13:09	las
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2			UH		mg/L	0.02	0.1	02/17/14 14:59	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		UH	*	mg/L	0.02	0.1	02/04/14 22:34	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		UH	*	mg/L	0.01	0.05	02/04/14 22:34	pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	02/11/14 17:04	mpb
pH (lab)	SM4500H+ B									
pН		1	8	Н		units	0.1	0.1	02/06/14 0:00	abd
pH measured at		1	21			С	0.1	0.1	02/06/14 0:00	abd
Residue, Filterable (TDS) @180C	SM2540C	1	1080			mg/L	10	20	02/06/14 15:16	abd
Residue, Non- Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	02/06/14 17:51	khw
Sulfate	D516-02 - Turbidimetric	20	693		*	mg/L	20	100	02/11/14 15:37	tcd
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	02/06/14 13:38	dcw

# ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

## **Caldera Mineral Resources LLC**

Project ID:

Sample ID: CB-C

# Inorganic Analytical Results

ACZ Sample ID:	L16679-03
Date Sampled:	01/31/14 00:00
Date Received:	02/04/14
Sample Matrix:	Surface Water

Inorganic Prep		Dilution	Decult		Linite	MDL	DOL	Dete	Analyse
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL		Analys
Cyanide, total	M335.4 - Manual Distillation							02/10/14 11:12	mss2
Cyanide, WAD	SM4500-CN I- distillation							02/07/14 16:40	mpt
Total Hot Plate Digestion	M200.2 ICP							02/06/14 17:58	jjo
Total Hot Plate Digestion	M200.2 ICP-MS							02/11/14 14:44	las
Total Recoverable Digestion	M200.2 ICP-MS							02/05/14 18:25	las
Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	1	0.045		mg/L	0.001	0.005	02/06/14 14:27	las
Arsenic, dissolved	M200.8 ICP-MS	1	0.0005	В	mg/L	0.0002	0.001	02/12/14 0:08	msł
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0011		mg/L	0.0002	0.001	02/06/14 14:27	las
Barium, dissolved	M200.7 ICP	1	0.050		mg/L	0.003	0.02	02/12/14 11:46	jje
Beryllium, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	02/12/14 11:46	jjo
Boron, dissolved	M200.7 ICP	1	0.01	В	mg/L	0.01	0.05	02/12/14 11:46	jjo
Cadmium, dissolved	M200.8 ICP-MS	1	0.0002	В	mg/L	0.0001	0.0005	02/12/14 0:08	msh
Cadmium, total	M200.8 ICP-MS	1	0.0002	В	mg/L	0.0001	0.0005	02/13/14 21:22	pmo
Calcium, dissolved	M200.7 ICP	1	39		mg/L	0.1	0.5	02/12/14 11:46	jjo
Chromium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	02/12/14 0:08	msh
Chromium, total	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	02/13/14 21:22	pmo
Chromium, Trivalent	Calculation (Total - Hexavale	nt)		U	mg/L	0.0005	0.002	02/17/14 14:59	cal
Copper, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.003	02/12/14 0:08	msł
Copper, total	M200.8 ICP-MS	1	0.0006	В	mg/L	0.0005	0.003	02/13/14 21:22	pm
Iron, dissolved	M200.7 ICP	1		U	mg/L	0.02	0.05	02/12/14 11:46	jjo
Iron, total	M200.7 ICP	1	0.02	В	mg/L	0.02	0.05	02/07/14 17:31	jjo
Lead, dissolved	M200.8 ICP-MS	1	0.0017		mg/L	0.0001	0.0005	02/12/14 0:08	msł
Lead, total	M200.8 ICP-MS	1	0.0028		mg/L	0.0001	0.0005	02/13/14 21:22	pmo
Magnesium, dissolved	M200.7 ICP	1	2.7		mg/L	0.2	1	02/12/14 11:46	jjo
Manganese, dissolved	M200.7 ICP	1		U	mg/L	0.005	0.03	02/12/14 11:46	jjo
Manganese, total	M200.7 ICP	1		U	mg/L	0.005	0.03	02/07/14 17:31	jjo
Mercury, total	M245.1 CVAA	1		U	mg/L	0.0002	0.001	02/06/14 11:35	mfm
Nickel, dissolved	M200.7 ICP	1		U	mg/L	0.008	0.04	02/12/14 11:46	jjo
Nickel, total	M200.7 ICP	1		U	mg/L	0.008	0.04	02/07/14 17:31	jjo
Selenium, dissolved	M200.8 ICP-MS	1	0.0004		mg/L	0.0001	0.0003	02/12/14 0:08	msł
Silver, dissolved	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	02/12/14 23:19	msł
Silver, total	M200.8 ICP-MS	1	0.00005	В	mg/L	0.00005	0.0003	02/13/14 21:22	pmo
Uranium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0001	0.0005	02/12/14 0:08	msł
Uranium, total	M200.8 ICP-MS	1	0.0001	В	mg/L	0.0001	0.0005	02/13/14 21:22	pmo
Zinc, dissolved	M200.7 ICP	1	0.08		mg/L	0.01	0.05	02/12/14 11:46	jjo
					-		0.05		

Zinc, total

* Please refer to Qualifier Reports for details.

02/07/14 17:31

M200.7 ICP

1

0.08

mg/L

0.01

0.05

jjc

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:

Sample ID: CB-C

# Inorganic Analytical Results

ACZ Sample ID: L16679-03 Date Sampled: 01/31/14 00:00 Date Received: 02/04/14 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	46			mg/L	2	20	02/06/14 0:00	abd
Carbonate as CaCO3		1		U		mg/L	2	20	02/06/14 0:00	abd
Hydroxide as CaCO3		1		U		mg/L	2	20	02/06/14 0:00	abd
Total Alkalinity		1	46			mg/L	2	20	02/06/14 0:00	abd
Chloride	SM4500CI-E	1		U		mg/L	1	5	02/11/14 12:25	tcd
Conductivity @25C	SM2510B	1	246			umhos/cm	1	10	02/06/14 17:45	abd
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	02/12/14 0:03	pjb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	02/07/14 19:42	pjb
Dissolved Chromium, Hexavalent	SM3500Cr-B	1		UH	*	mg/L	0.005	0.02	02/04/14 15:14	dcw
Hardness as CaCO3	SM2340B - Calculation		109			mg/L	1	7	02/17/14 14:59	calc
Lab Filtration (0.45um filter)	SOPWC050	1							02/07/14 12:46	dcw
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							02/10/14 13:13	las
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.31	Н		mg/L	0.02	0.1	02/17/14 14:59	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.31	Н	*	mg/L	0.02	0.1	02/04/14 22:37	, pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		UH	*	mg/L	0.01	0.05	02/04/14 22:37	, pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	02/11/14 17:06	i mpb
pH (lab)	SM4500H+ B									
pН		1	8.1	Н		units	0.1	0.1	02/06/14 0:00	abd
pH measured at		1	21			С	0.1	0.1	02/06/14 0:00	abd
Residue, Filterable (TDS) @180C	SM2540C	1	160			mg/L	10	20	02/06/14 15:18	abd
Residue, Non- Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	02/06/14 17:55	i khw
Sulfate	D516-02 - Turbidimetric	5	71.0		*	mg/L	5	25	02/11/14 15:34	tcd
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	02/06/14 13:44	dcw

# ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

## **Caldera Mineral Resources LLC**

Project ID:

Sample ID: CB-D

# Inorganic Analytical Results

ACZ Sample ID:	L16679-04
Date Sampled:	01/31/14 00:00
Date Received:	02/04/14
Sample Matrix:	Surface Water

Inorganic Prep									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation							02/11/14 11:30	mss2
Cyanide, WAD	SM4500-CN I- distillation							02/07/14 16:55	mpb
Total Hot Plate Digestion	M200.2 ICP-MS							02/11/14 14:56	las
Total Hot Plate Digestion	M200.2 ICP							02/06/14 18:10	jjc
Total Recoverable Digestion	M200.2 ICP-MS							02/05/14 18:35	las
Metals Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Aluminum, total recoverable	M200.8 ICP-MS	1	0.037		mg/L	0.001	0.005	02/06/14 14:31	las
Arsenic, dissolved	M200.8 ICP-MS	1	0.0005	В	mg/L	0.0002	0.001	02/12/14 0:11	msh
Arsenic, total recoverable	M200.8 ICP-MS	1	0.0013		mg/L	0.0002	0.001	02/06/14 14:31	las
Barium, dissolved	M200.7 ICP	1	0.033		mg/L	0.003	0.02	02/12/14 11:50	jjc
Beryllium, dissolved	M200.7 ICP	1		U	mg/L	0.01	0.05	02/12/14 11:50	jjc
Boron, dissolved	M200.7 ICP	1	0.02	В	mg/L	0.01	0.05	02/12/14 11:50	jjc
Cadmium, dissolved	M200.8 ICP-MS	1	0.0006		mg/L	0.0001	0.0005	02/12/14 0:11	msh
Cadmium, total	M200.8 ICP-MS	1	0.0008		mg/L	0.0001	0.0005	02/13/14 21:25	pmc
Calcium, dissolved	M200.7 ICP	1	176		mg/L	0.1	0.5	02/12/14 11:50	jjc
Chromium, dissolved	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	02/12/14 0:11	msh
Chromium, total	M200.8 ICP-MS	1		U	mg/L	0.0005	0.002	02/13/14 21:25	pmc
Chromium, Trivalent	Calculation (Total - Hexavale	nt)		U	mg/L	0.0005	0.002	02/17/14 15:00	calc
Copper, dissolved	M200.8 ICP-MS	1	0.0018	В	mg/L	0.0005	0.003	02/12/14 0:11	msh
Copper, total	M200.8 ICP-MS	1	0.0074		mg/L	0.0005	0.003	02/13/14 21:25	pmc
Iron, dissolved	M200.7 ICP	1	0.05		mg/L	0.02	0.05	02/12/14 11:50	jjc
Iron, total	M200.7 ICP	1	0.24		mg/L	0.02	0.05	02/07/14 17:34	jjc
Lead, dissolved	M200.8 ICP-MS	1	0.0023		mg/L	0.0001	0.0005	02/12/14 0:11	msh
Lead, total	M200.8 ICP-MS	1	0.0169		mg/L	0.0001	0.0005	02/13/14 21:25	pmc
Magnesium, dissolved	M200.7 ICP	1	3.1		mg/L	0.2	1	02/12/14 11:50	jjc
Manganese, dissolved	M200.7 ICP	1	0.059		mg/L	0.005	0.03	02/12/14 11:50	jjc
Manganese, total	M200.7 ICP	1	0.127		mg/L	0.005	0.03	02/07/14 17:34	jjc
Mercury, total	M245.1 CVAA	1		U	mg/L	0.0002	0.001	02/06/14 11:37	mfm
Nickel, dissolved	M200.7 ICP	1		U	mg/L	0.008	0.04	02/12/14 11:50	jjc
Nickel, total	M200.7 ICP	1		U	mg/L	0.008	0.04	02/07/14 17:34	jjc
Selenium, dissolved	M200.8 ICP-MS	1	0.0003		mg/L	0.0001	0.0003	02/12/14 0:11	msh
Silver, dissolved	M200.8 ICP-MS	1		U	mg/L	0.00005	0.0003	02/12/14 23:29	msh
Silver, total	M200.8 ICP-MS	1	0.00006	В	mg/L	0.00005	0.0003	02/13/14 21:25	pmc
Uranium, dissolved	M200.8 ICP-MS	1	0.0003	В	mg/L	0.0001	0.0005	02/12/14 0:11	msh
Uranium, total	M200.8 ICP-MS	1	0.0004	В	mg/L	0.0001	0.0005	02/13/14 21:25	pmc
Zinc, dissolved	M200.7 ICP	1	0.19		mg/L	0.01	0.05	02/12/14 11:50	jjc
Zinc, total	M200.7 ICP	1	0.23		mg/L	0.01	0.05	02/07/14 17:34	jjc

* Please refer to Qualifier Reports for details.

ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

Project ID:

Sample ID: CB-D

# Inorganic Analytical Results

ACZ Sample ID: L16679-04 Date Sampled: 01/31/14 00:00 Date Received: 02/04/14 Sample Matrix: Surface Water

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	46			mg/L	2	20	02/06/14 0:00	abd
Carbonate as CaCO3		1		U		mg/L	2	20	02/06/14 0:00	abd
Hydroxide as CaCO3		1		U		mg/L	2	20	02/06/14 0:00	abd
Total Alkalinity		1	46			mg/L	2	20	02/06/14 0:00	abd
Chloride	SM4500CI-E	1	1	В	*	mg/L	1	5	02/11/14 12:25	5 tcd
Conductivity @25C	SM2510B	1	863			umhos/cm	1	10	02/06/14 17:55	abd
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	02/12/14 0:35	pjb
Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	0.5		U	*	mg/L	0.003	0.01	02/07/14 19:44	l pjb
Dissolved Chromium, Hexavalent	SM3500Cr-B	1		UH	*	mg/L	0.005	0.02	02/04/14 15:16	6 dcw
Hardness as CaCO3	SM2340B - Calculation		453			mg/L	1	7	02/17/14 15:00	) calc
Lab Filtration (0.45um filter)	SOPWC050	1							02/17/14 8:43	id
Lab Filtration (0.45um) & Acidification	M200.7/200.8	1							02/10/14 13:18	8 las
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2		0.13	Н		mg/L	0.02	0.1	02/17/14 15:00	) calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.13	Н	*	mg/L	0.02	0.1	02/04/14 22:39	) pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1		UH	*	mg/L	0.01	0.05	02/04/14 22:39	) pjb
Nitrogen, ammonia	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	02/11/14 17:07	′ mpb
pH (lab)	SM4500H+ B									
рН		1	8	н		units	0.1	0.1	02/06/14 0:00	abd
pH measured at		1	21			С	0.1	0.1	02/06/14 0:00	abd
Residue, Filterable (TDS) @180C	SM2540C	1	680			mg/L	10	20	02/06/14 15:19	) abd
Residue, Non- Filterable (TSS) @105C	SM2540D	1		U	*	mg/L	5	20	02/06/14 17:57	' khw
Sulfate	D516-02 - Turbidimetric	20	407		*	mg/L	20	100	02/11/14 15:37	′ tcd
Sulfide as S	SM4500S2-D	1		U	*	mg/L	0.02	0.1	02/06/14 13:50	) dcw



# Inorganic Reference

D. / /	Explanations			
Batch	A distinct set of sample	es analyzed at a specific time		
Found	Value of the QC Type	of interest		
Limit	Upper limit for RPD, in	%.		
Lower	Lower Recovery Limit,	in % (except for LCSS, mg/Kg)		
MDL	-	it. Same as Minimum Reporting Limit.	Allows for instrume	ent and annual fluctuations.
PCN/SCN		reagents/standards to trace to the man		
PQL	-	Limit, typically 5 times the MDL.		
QC		trol Sample or the amount added to the	Spike	
Rec	Recovered amount of	the true value or spike added, in % (exc	ept for LCSS, mg	/Kg)
RPD	Relative Percent Diffe	ence, calculation used for Duplicate QC	Types	
Upper	Upper Recovery Limit,	in % (except for LCSS, mg/Kg)		
Sample	Value of the Sample of	finterest		
Sample Typ	Des			
AS	Analytical Spike (Post	Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post	Digestion) Duplicate	LFB	Laboratory Fortified Blank
ССВ	Continuing Calibration	Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration	Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate		LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	< c	MS	Matrix Spike
ICV	Initial Calibration Verifi	cation standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction	on Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sa	mple - Soil	PBW	Prep Blank - Water
LCSSD	Laboratory Control Sa	mple - Soil Duplicate	PQV	Practical Quantitation Verification standard
LCSW	Laboratory Control Sa	mple - Water	SDL	Serial Dilution
Control Sam Duplicates Spikes/Forti Standard		Verifies the accuracy of the method, Verifies the precision of the instrume Determines sample matrix interferen	nt and/or method. ces, if any.	procedure.
		Verifies the validity of the calibration.		
Z Qualifiers	(Qual)			ed value is an estimated quantity
Z Qualifiers B	(Qual) Analyte concentration	detected at a value between MDL and I	PQL. The associat	
Z Qualifiers B H	(Qual) Analyte concentration Analysis exceeded me	detected at a value between MDL and I sthod hold time. pH is a field test with an	PQL. The associat n immediate hold t	
Z Qualifiers B H L	(Qual) Analyte concentration Analysis exceeded me Target analyte respon	detected at a value between MDL and I sthod hold time. pH is a field test with an se was below the laboratory defined neg	PQL. The associat n immediate hold t gative threshold.	ime.
Z Qualifiers B H	(Qual) Analyte concentration Analysis exceeded me Target analyte respon The material was anal	detected at a value between MDL and I thod hold time. pH is a field test with a se was below the laboratory defined neg yzed for, but was not detected above th	PQL. The associat n immediate hold t gative threshold. e level of the asso	ime. ciated value.
Z Qualifiers B H L U	(Qual) Analyte concentration Analysis exceeded me Target analyte respon The material was anal The associated value	detected at a value between MDL and I sthod hold time. pH is a field test with an se was below the laboratory defined neg	PQL. The associat n immediate hold t gative threshold. e level of the asso	ime. ciated value.
Z Qualifiers B H L U	(Qual) Analyte concentration Analysis exceeded me Target analyte respon The material was anal The associated value nces	detected at a value between MDL and I athod hold time. pH is a field test with an se was below the laboratory defined new yzed for, but was not detected above th is either the sample quantitation limit or	PQL. The associat n immediate hold t gative threshold. e level of the asso the sample detect	ime. ciated value. ion limit.
Z Qualifiers B H L U ethod Referen (1)	(Qual) Analyte concentration Analysis exceeded me Target analyte respon The material was anal The associated value nces EPA 600/4-83-020. M	detected at a value between MDL and I ethod hold time. pH is a field test with ar se was below the laboratory defined neg yzed for, but was not detected above th is either the sample quantitation limit or lethods for Chemical Analysis of Water	PQL. The associat n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc	ime. ciated value. ion limit. h 1983.
Z Qualifiers B H L U withod Referen (1) (2)	(Qual) Analyte concentration Analysis exceeded me Target analyte respon The material was anal The associated value nces EPA 600/4-83-020. M EPA 600/R-93-100. M	detected at a value between MDL and I ethod hold time. pH is a field test with ar se was below the laboratory defined neg yzed for, but was not detected above th is either the sample quantitation limit or lethods for Chemical Analysis of Water a lethods for the Determination of Inorgan	PQL. The associat h immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc hic Substances in l	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993.
Z Qualifiers B H L U sthod Referen (1) (2) (3)	(Qual) Analyte concentration Analysis exceeded me Target analyte respon The material was anal The associated value nces EPA 600/4-83-020. M EPA 600/R-93-100. M EPA 600/R-94-111. M	detected at a value between MDL and I ethod hold time. pH is a field test with ar se was below the laboratory defined neg yzed for, but was not detected above th is either the sample quantitation limit or lethods for Chemical Analysis of Water a lethods for the Determination of Inorgar lethods for the Determination of Metals	PQL. The associat h immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc hic Substances in l	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993.
Z Qualifiers B H L U sthod Referen (1) (2) (3) (4)	(Qual) Analyte concentration Analysis exceeded me Target analyte respon The material was anal The associated value EPA 600/4-83-020. M EPA 600/R-93-100. M EPA 600/R-94-111. M EPA SW-846. Test M	detected at a value between MDL and I ethod hold time. pH is a field test with ar se was below the laboratory defined neg yzed for, but was not detected above th is either the sample quantitation limit or lethods for Chemical Analysis of Water a fethods for the Determination of Inorgar lethods for the Determination of Metals ethods for Evaluating Solid Waste.	PQL. The associat h immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental S	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993.
Z Qualifiers B H L U sthod Referen (1) (2) (3)	(Qual) Analyte concentration Analysis exceeded me Target analyte respon The material was anal The associated value EPA 600/4-83-020. M EPA 600/R-93-100. M EPA 600/R-94-111. M EPA SW-846. Test M	detected at a value between MDL and I ethod hold time. pH is a field test with ar se was below the laboratory defined neg yzed for, but was not detected above th is either the sample quantitation limit or lethods for Chemical Analysis of Water a lethods for the Determination of Inorgar lethods for the Determination of Metals	PQL. The associat h immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc nic Substances in I in Environmental S	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993.
Z Qualifiers B H L U vthod Referen (1) (2) (3) (4) (5) wmments	(Qual) Analyte concentration Analysis exceeded me Target analyte respon The material was anal The associated value nces EPA 600/4-83-020. M EPA 600/R-93-100. M EPA 600/R-94-111. M EPA SW-846. Test M Standard Methods for	detected at a value between MDL and I ethod hold time. pH is a field test with an se was below the laboratory defined new yzed for, but was not detected above th is either the sample quantitation limit or lethods for Chemical Analysis of Water lethods for the Determination of Inorgan lethods for the Determination of Metals ethods for Evaluating Solid Waste. the Examination of Water and Wastewa	PQL. The associat h immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc hic Substances in I in Environmental S ater.	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Z Qualifiers B H L U (1) (2) (3) (4) (5) mments (1)	(Qual) Analyte concentration Analysis exceeded me Target analyte respon The material was anal The associated value nces EPA 600/4-83-020. M EPA 600/R-93-100. M EPA 600/R-94-111. M EPA SW-846. Test M Standard Methods for QC results calculated	detected at a value between MDL and I ethod hold time. pH is a field test with an se was below the laboratory defined new yzed for, but was not detected above th is either the sample quantitation limit or lethods for Chemical Analysis of Water lethods for the Determination of Inorgan lethods for the Determination of Metals ethods for Evaluating Solid Waste. the Examination of Water and Wastewar from raw data. Results may vary slight	PQL. The associat h immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc ic Substances in I in Environmental S ater. y if the rounded va	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Z Qualifiers B H L U thod Referent (1) (2) (3) (4) (5) mments (1) (2)	(Qual) Analyte concentration Analysis exceeded me Target analyte respon The material was anal The associated value EPA 600/4-83-020. M EPA 600/R-93-100. M EPA 600/R-94-111. M EPA SW-846. Test M Standard Methods for QC results calculated Soil, Sludge, and Plan	detected at a value between MDL and I ethod hold time. pH is a field test with an se was below the laboratory defined new yzed for, but was not detected above th is either the sample quantitation limit or lethods for Chemical Analysis of Water lethods for the Determination of Inorgan lethods for the Determination of Metals ethods for Evaluating Solid Waste. the Examination of Water and Wastewar from raw data. Results may vary slighth t matrices for Inorganic analyses are rep	PQL. The associat h immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc ic Substances in I in Environmental S ater. y if the rounded va ported on a dry we	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Z Qualifiers B H L U thod Referent (1) (2) (3) (4) (5) mments (1) (2) (3) (3)	(Qual) Analyte concentration Analysis exceeded me Target analyte respon The material was anal The associated value EPA 600/4-83-020. M EPA 600/R-93-100. M EPA 600/R-94-111. M EPA SW-846. Test M Standard Methods for QC results calculated Soil, Sludge, and Plan Animal matrices for In-	detected at a value between MDL and I ethod hold time. pH is a field test with an se was below the laboratory defined new yzed for, but was not detected above th is either the sample quantitation limit or lethods for Chemical Analysis of Water a lethods for the Determination of Inorgan lethods for the Determination of Metals ethods for Evaluating Solid Waste. the Examination of Water and Wastewa from raw data. Results may vary slighth t matrices for Inorganic analyses are rep organic analyses are reported on an "as	PQL. The associat h immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc ic Substances in I in Environmental S ater. y if the rounded va ported on a dry we received" basis.	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Z Qualifiers B H L U thod Referent (1) (2) (3) (4) (5) mments (1) (2)	(Qual) Analyte concentration Analysis exceeded me Target analyte respon The material was anal The associated value EPA 600/4-83-020. M EPA 600/R-93-100. M EPA 600/R-94-111. M EPA 600/R-94-111. M EPA SW-846. Test M Standard Methods for QC results calculated Soil, Sludge, and Plan Animal matrices for Im An asterisk in the "XQ	detected at a value between MDL and I ethod hold time. pH is a field test with an se was below the laboratory defined new yzed for, but was not detected above th is either the sample quantitation limit or lethods for Chemical Analysis of Water a lethods for the Determination of Inorgan lethods for the Determination of Metals ethods for Evaluating Solid Waste. the Examination of Water and Wastewa from raw data. Results may vary slighth t matrices for Inorganic analyses are rep organic analyses are reported on an "as " column indicates there is an extended	PQL. The associat h immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc ic Substances in I in Environmental S ater. y if the rounded va ported on a dry we received" basis.	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Z Qualifiers B H L U thod Referent (1) (2) (3) (4) (5) mments (1) (2) (3) (4) (4)	(Qual) Analyte concentration Analysis exceeded me Target analyte respon The material was anal The associated value <b>nces</b> EPA 600/R-93-100. M EPA 600/R-93-100. M EPA 600/R-94-111. M EPA 600/R-94-111. M EPA SW-846. Test M Standard Methods for QC results calculated Soil, Sludge, and Plan Animal matrices for Im An asterisk in the "XQ associated with the results	detected at a value between MDL and I athod hold time. pH is a field test with an se was below the laboratory defined neg yzed for, but was not detected above th is either the sample quantitation limit or lethods for Chemical Analysis of Water a lethods for the Determination of Inorgan lethods for the Determination of Metals ethods for Evaluating Solid Waste. the Examination of Water and Wastewa from raw data. Results may vary slight t matrices for Inorganic analyses are rep organic analyses are reported on an "as " column indicates there is an extended sult.	PQL. The associat n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc ic Substances in I in Environmental S ater. y if the rounded va ported on a dry we received" basis. qualifier and/or ce	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. lues are used in the calculations. ight basis.
Z Qualifiers B H L U thod Referent (1) (2) (3) (4) (5) mments (1) (2) (3) (3)	(Qual) Analyte concentration Analysis exceeded me Target analyte respon The material was anal The associated value <b>nces</b> EPA 600/R-93-100. M EPA 600/R-93-100. M EPA 600/R-94-111. M EPA 600/R-94-111. M EPA SW-846. Test M Standard Methods for QC results calculated Soil, Sludge, and Plan Animal matrices for Im An asterisk in the "XQ associated with the results	detected at a value between MDL and I ethod hold time. pH is a field test with an se was below the laboratory defined new yzed for, but was not detected above th is either the sample quantitation limit or lethods for Chemical Analysis of Water a lethods for the Determination of Inorgan lethods for the Determination of Metals ethods for Evaluating Solid Waste. the Examination of Water and Wastewa from raw data. Results may vary slighth t matrices for Inorganic analyses are rep organic analyses are reported on an "as " column indicates there is an extended	PQL. The associat n immediate hold t gative threshold. e level of the asso the sample detect and Wastes, Marc ic Substances in I in Environmental S ater. y if the rounded va ported on a dry we received" basis. qualifier and/or ce	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. lues are used in the calculations. ight basis.

REP001.09.12.01


## Inorganic QC Summary

#### **Caldera Mineral Resources LLC**

Alkalinity as CaC	:03			8 - Titration									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG358968													
WG358968PBW1	PBW	02/06/14 15:03				U	mg/L		-20	20			
WG358968LCSW2	LCSW	02/06/14 15:14	WC140204-	820.0001		781.7	mg/L	95.3	90	110			
L16679-04DUP	DUP	02/06/14 18:02			46	46.2	mg/L				0.4	20	
WG358968LCSW5	LCSW	02/06/14 18:13	WC140204-	820.0001		812.5	mg/L	99.1	90	110			
WG358968PBW2	PBW	02/06/14 18:21				U	mg/L		-20	20			
WG358968LCSW8	LCSW	02/06/14 21:17	WC140204-	820.0001		815.2	mg/L	99.4	90	110			
Aluminum, total	recover	able	M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG358953													
WG358953ICV	ICV	02/06/14 12:46	MS140106-2	.1		.1022	mg/L	102.2	90	110			
WG358953ICB	ICB	02/06/14 12:49				U	mg/L		-0.003	0.003			
WG358865LRB	LRB	02/06/14 12:53				U	mg/L		-0.0022	0.0022			
WG358865LFB	LFB	02/06/14 12:56	MS140128-2	.050055		.0515	mg/L	102.9	85	115			
L16673-01LFM	LFM	02/06/14 14:00	MS140128-2	.050055	.099	.1433	mg/L	88.5	70	130			
L16673-01LFMD	LFMD	02/06/14 14:10	MS140128-2	.050055	.099	.1429	mg/L	87.7	70	130	0.28	20	
Arsenic, dissolve	əd		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qua
WG359170													
WG359170ICV	ICV	02/11/14 22:32	MS140106-2	.05		.05422	mg/L	108.4	90	110			
WG359170IC8	ICB	02/11/14 22:32	MIS 140 100-2	.05		.03422 U	mg/L	100.4	-0.0006	0.0006			
WG359170LFB	LFB	02/11/14 22:39	MS140128-2	.0501		.04799	mg/L	95.8	85	115			
L16660-03AS	AS	02/11/14 23:33	MS140128-2	.2505	U	.2489	mg/L	99.4	70	130			
L16660-03ASD	ASD	02/11/14 23:40	MS140128-2	.2505	U	.2403	mg/L	104.4	70	130	4.9	20	
							<u>9</u> /2					20	
Arsenic, total rec ACZ ID	Type	Analyzed	M200.8 IC	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
	Type	Analyzeu	I CN/SON	QO	Sample	Tound	onits	Nec	Lower	opper		Linin	Gua
WG358953													
WG358953ICV	ICV	02/06/14 12:46	MS140106-2	.05		.05171	mg/L	103.4	90	110			
WG358953ICB	ICB	02/06/14 12:49				U	mg/L		-0.0006	0.0006			
WG358865LRB	LRB	02/06/14 12:53				U	mg/L		-0.00044	0.00044			
WG358865LFB	LFB	02/06/14 12:56	MS140128-2	.0501		.05172	mg/L	103.2	85	115			
L16673-01LFM		02/06/14 14:00	MS140128-2	.0501	U	.05171	mg/L	103.2	70 70	130 120	1.60	20	
L16673-01LFMD	LFMD	02/06/14 14:10	MS140128-2	.0501	U	.05259	mg/L	105	70	130	1.69	20	
Barium, dissolve			M200.7 IC										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qua
WG359185													
WG359185ICV	ICV	02/12/14 11:09	1131218-1	2		1.9562	mg/L	97.8	95	105			
WG359185ICB	ICB	02/12/14 11:15				U	mg/L		-0.009	0.009			
WG359185LFB	LFB	02/12/14 11:27	II140117-2	.5		.5033	mg/L	100.7	85	115			
L16679-01AS	AS	02/12/14 11:37	II140117-2	.5	.019	.525	mg/L	101.2	85	115			
L16679-01ASD	ASD	02/12/14 11:40	II140117-2	.5	.019	.522	mg/L	100.6	85	115	0.57	20	



Beryllium, disso	lved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359185													
WG359185ICV	ICV	02/12/14 11:09	II131218-1	2		1.956	mg/L	97.8	95	105			
WG359185ICB	ICB	02/12/14 11:15				U	mg/L		-0.03	0.03			
WG359185LFB	LFB	02/12/14 11:27	II140117-2	.5		.515	mg/L	103	85	115			
L16679-01AS	AS	02/12/14 11:37	ll140117-2	.5	U	.509	mg/L	101.8	85	115			
L16679-01ASD	ASD	02/12/14 11:40	II140117-2	.5	U	.507	mg/L	101.4	85	115	0.39	20	
Boron, dissolve	d		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359185													
WG359185ICV	ICV	02/12/14 11:09	II131218-1	2		2.025	mg/L	101.3	95	105			
WG359185ICB	ICB	02/12/14 11:15				.011	mg/L		-0.03	0.03			
WG359185LFB	LFB	02/12/14 11:27	II140117-2	.5005		.525	mg/L	104.9	85	115			
L16679-01AS	AS	02/12/14 11:37	II140117-2	.5005	.04	.573	mg/L	106.5	85	115			
L16679-01ASD	ASD	02/12/14 11:40	II140117-2	.5005	.04	.565	mg/L	104.9	85	115	1.41	20	
Cadmium, disso	olved		M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359170													
WG359170ICV	ICV	02/11/14 22:32	MS140106-2	.05		.04833	mg/L	96.7	90	110			
WG359170ICB	ICB	02/11/14 22:36				U	mg/L		-0.0003	0.0003			
WG359170LFB	LFB	02/11/14 22:39	MS140128-2	.0501		.04697	mg/L	93.8	85	115			
L16660-03AS	AS	02/11/14 23:37	MS140128-2	.2505	U	.22025	mg/L	87.9	70	130			
L16660-03ASD	ASD	02/11/14 23:40	MS140128-2	.2505	U	.2329	mg/L	93	70	130	5.58	20	
Cadmium, total			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359293													
WG359293ICV	ICV	02/13/14 20:18	MS140106-2	.05		.0497	mg/L	99.4	90	110			
WG359293ICB	ICB	02/13/14 20:21				U	mg/L		-0.0003	0.0003			
WG359129LRB	LRB	02/13/14 20:24				U	mg/L		-0.00022	0.00022			
WG359129LFB	LFB	02/13/14 20:28	MS140128-2	.0501		.05105	mg/L	101.9	85	115			
L16703-01LFM	LFM	02/13/14 21:41	MS140128-2	.0501	U	.04983	mg/L	99.5	70	130			
L16703-01LFMD	LFMD	02/13/14 21:44	MS140128-2	.0501	U	.05116	mg/L	102.1	70	130	2.63	20	
Calcium, dissol	ved		M200.7 I	CP									
,	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
ACZ ID													
ACZ ID WG359185													
WG359185	ICV	02/12/14 11.00	1131218-1	100		99.11	ma/l	90 1	95	105			
<b>WG359185</b> WG359185ICV	ICV	02/12/14 11:09	II131218-1	100		99.11	mg/L	99.1	95 -0 3	105 0 3			
WG359185 WG359185ICV WG359185ICB	ICB	02/12/14 11:15				U	mg/L		-0.3	0.3			
<b>WG359185</b> WG359185ICV			II131218-1 II140117-2 II140117-2	100 68.00225 68.00225	289		-	99.1 104.9 86.8					



## Inorganic QC Summary

#### **Caldera Mineral Resources LLC**

Chloride			SM4500C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
NG359142													
VG359142ICB	ICB	02/11/14 11:50				U	mg/L		-3	3			
VG359142ICV	ICV	02/11/14 11:50	WI130722-5	54.945		57.4	mg/L	104.5	90	110			
VG359142LFB1	LFB	02/11/14 12:14	WI131010-1	30		31.6	mg/L	105.3	90	110			
16620-02AS	AS	02/11/14 12:24	WI131010-1	30	50	78.2	mg/L	94	90	110			
_16620-03DUP	DUP	02/11/14 12:24			28	29.2	mg/L				4.2	20	
VG359142LFB2	LFB	02/11/14 12:25	WI131010-1	30		32.1	mg/L	107	90	110			
Chromium, disso	olved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
NG359170													
VG359170ICV	ICV	02/11/14 22:32	MS140106-2	.05		.05063	mg/L	101.3	90	110			
VG359170ICB	ICB	02/11/14 22:36				U	mg/L		-0.0015	0.0015			
VG359170LFB	LFB	02/11/14 22:39	MS140128-2	.05005		.04768	mg/L	95.3	85	115			
16660-03AS	AS	02/11/14 23:37	MS140128-2	.25025	U	.2341	mg/L	93.5	70	130			
16660-03ASD	ASD	02/11/14 23:40	MS140128-2	.25025	U	.2434	mg/L	97.3	70	130	3.9	20	
Chromium, total			M200.8 IC	P-MS									
CZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
VG359293													
VG359293ICV	ICV	02/13/14 20:18	MS140106-2	.05		.05008	mg/L	100.2	90	110			
VG359293ICB	ICB	02/13/14 20:21				U	mg/L		-0.0015	0.0015			
VG359129LRB	LRB	02/13/14 20:24				U	mg/L		-0.0011	0.0011			
VG359129LFB	LFB	02/13/14 20:28	MS140128-2	.05005		.0503	mg/L	100.5	85	115			
16703-01LFM	LFM	02/13/14 21:41	MS140128-2	.05005	U	.04927	mg/L	98.4	70	130			
16703-01LFMD	LFMD	02/13/14 21:44	MS140128-2	.05005	U	.04868	mg/L	97.3	70	130	1.2	20	
onductivity @2	5C		SM2510B										
ICZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
VG358968													
VG358968LCSW1	LCSW	02/06/14 15:04	PCN42442	1408.8		1355	umhos/cm	96.2	90	110			
.16679-04DUP	DUP	02/06/14 18:02		1100.0	863	862	umhos/cm	00.2	50		0.1	20	
VG358968LCSW4	LCSW	02/06/14 18:04	PCN42442	1408.8		1353	umhos/cm	96	90	110	0.1	20	
VG358968LCSW7		02/06/14 21:07	PCN42442	1408.8		1339	umhos/cm	95	90	110			
Copper, dissolve	h		M200.8 IC	P-MS									
	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
NG359170													
	1011	00/14/14 - 00 05	NO446466	<b>~</b> =		04045		00.0	~~	4.40			
WG359170ICV	ICV	02/11/14 22:32	MS140106-2	.05		.04916	mg/L	98.3	90	110			
VG359170ICB	ICB	02/11/14 22:36				U	mg/L		-0.0015	0.0015			
VG359170LFB	LFB	02/11/14 22:39	MS140128-2	.05005		.04663	mg/L	93.2	85	115			
_16660-03AS	AS	02/11/14 23:37	MS140128-2	.25025	U	.2169	mg/L	86.7	70	130			
16660-03ASD	ASD	02/11/14 23:40	MS140128-2	.25025	U	.2233	mg/L	89.2	70	130	2.91	20	



## Inorganic QC Summary

#### **Caldera Mineral Resources LLC**

Copper, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359293													
WG359293ICV	ICV	02/13/14 20:18	MS140106-2	.05		.04925	mg/L	98.5	90	110			
WG359293ICB	ICB	02/13/14 20:21				U	mg/L		-0.0015	0.0015			
WG359129LRB	LRB	02/13/14 20:24				U	mg/L		-0.0011	0.0011			
WG359129LFB	LFB	02/13/14 20:28	MS140128-2	.05005		.05025	mg/L	100.4	85	115			
L16703-01LFM	LFM	02/13/14 21:41	MS140128-2	.05005	.1065	.1533	mg/L	93.5	70	130			
L16703-01LFMD	LFMD	02/13/14 21:44	MS140128-2	.05005	.1065	.1519	mg/L	90.7	70	130	0.92	20	
Cyanide, total			M335.4 - 0	Colorimeti	ric w/ distil	lation							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359174													
WG359174ICV	ICV	02/11/14 23:56	WI140205-6	.3		.2878	mg/L	95.9	90	110			
WG359174ICB	ICB	02/11/14 23:57				U	mg/L		-0.003	0.003			
WG359064LRB	LRB	02/11/14 23:58				U	mg/L		-0.003	0.003			
WG359064LFB	LFB	02/11/14 23:58	WI140205-2	.2		.2036	mg/L	101.8	90	110			
L16679-01LFM	LFM	02/12/14 0:00	WI140205-2	.2	U	.1911	mg/L	95.6	90	110			
L16679-02DUP	DUP	02/12/14 0:02			U	U	mg/L				0	20	RA
WG359175													
WG359140LRB	LRB	02/12/14 0:33				U	mg/L		-0.003	0.003			
WG359140LFB	LFB	02/12/14 0:34	WI140205-2	.2		.2055	mg/L	102.8	90	110			
L16679-04LFM	LFM	02/12/14 0:36	WI140205-2	.2	U	.207	mg/L	103.5	90	110			
L16702-01DUP	DUP	02/12/14 0:37			U	U	mg/L				0	20	RA
Cyanide, WAD			SM4500-0	CN I-Color	imetric w/	distillatio	on						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359022													
WG359022ICV	ICV	02/07/14 14:15	WI140205-6	.3		.299	mg/L	99.7	90	110			
WG359022ICB	ICB	02/07/14 14:16				U	mg/L		-0.003	0.003			
WG359039							5						
WG359035LRB	LRB	02/07/14 19:28				U	mg/L		-0.003	0.003			
WG359035LFB	LFB	02/07/14 19:29	WI140205-4	.2		.1872	mg/L	93.6	90	110			
L16618-02DUP	DUP	02/07/14 19:29	WI140205-4	.2	U	.1072 U	mg/L	93.0	90	110	0	20	RA
L16618-03LFM	LFM	02/07/14 19:33	WI140205-4	.2	U	.1898	mg/L	94.9	90	110	0	20	INA.
L16679-03DUP	DUP	02/07/14 19:33	WI140203-4	.2	U	U . 1030	mg/L	34.3	30	110	0	20	RA
L16679-04LFM	LFM	02/07/14 19:45	WI140205-4	.2	U	.1828	mg/L	91.4	90	110	0	20	
Dissolved Chror	mium. H	exavalent	SM3500C	r-B									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG358823													
		02/04/14 15:00	WC121202	05		0505	m~//	105	00	110			
WG358823ICV	ICV	02/04/14 15:00	WC131202-	.05		.0525 U	mg/L	105	90 0.015	110 0.015			
WG358823ICB		02/04/14 15:02	WC121202	05			mg/L	109.6	-0.015	0.015			
WG358823LFB	LFB	02/04/14 15:05	WC131202-	.05		.0543	mg/L	108.6	90	110			
L16679-04AS	AS	02/04/14 15:19	WC131202-	.05	U	.0494	mg/L	98.8	90	110	0	20	<b>D</b> 4
L16679-04DUP	DUP	02/04/14 15:22			U	U	mg/L				0	20	RA



MCG359185    VGG359185/CV    ICV    02/12/14 11:09    II131218-11    2    2.006    mg/L    100.3    95    105      WG359185/CB    ICB    02/12/14 11:17    II140117-2    1.0014    U    mg/L    104.6    85    115      L16673-01AS    AS    02/12/14 11:37    II140117-2    1.0014    U    1.042    mg/L    104.1    85    115      L16673-01AS    ASD    02/12/14 11:30    II140117-2    1.0014    U    1.042    mg/L    103.3    85    115    0.77    20      Inon, total    M200.7 ICP    M200.7 ICP    M200.7 ICP    V    mg/L    -0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06	Iron, dissolved			M200.7 IC	P									
WG359185ICV  ICV  02/12/14 11:09  III 31218-1  2  2.006  mgL  10.0.3  95  105  V    WG35918BICE  ICB  02/12/14 11:27  III 40117-2  1.0014  U  ngL  10.41  855  115  III 401  III 40117-2  1.0014  U  1.042  mgL  104.1  855  115  III 401  7  20    Inor, total  M200.7 ICP  Analyzed  PCN/SCN  CC  Sample  Found  Units  Rec  Low  Uppe  RPD  Linit  Qu    WG358941ICV  ICV  02/06/14 14.07  III 4017-2  1.0014  1.059  mgL  -0.06  0.05  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V <th>ACZ ID</th> <th>Туре</th> <th>Analyzed</th> <th>PCN/SCN</th> <th>QC</th> <th>Sample</th> <th>Found</th> <th>Units</th> <th>Rec</th> <th>Lower</th> <th>Upper</th> <th>RPD</th> <th>Limit</th> <th>Qual</th>	ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359185ICB  ICB  0212/14 11:75  U  mgL  -0.06  0.06  VIIII  VIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	WG359185													
WG3S918SLFB  LFB  02/12/14 11:27  1140117.2  1 0014  1 047  mgL  104.6  85  115  115    L1667901AS  ASD  02/12/14 11:40  1140117.2  1 0014  U  1.042  mgL  103.3  85  115  0.77  20    Inform, total  M200.7 I/CP  M2	WG359185ICV	ICV	02/12/14 11:09	II131218-1	2		2.006	mg/L	100.3	95	105			
L16679-01ASD AS 02/12/14 11:37 1140117.2 1.0014 U 1.024 mgL 104.1 85 115 7 20 iron.total M200.7 ICP AC2/ID Type Analyzed PCN/SCN QC Sampl Found Units Rec Lower Upper RPD Limit QU WG358941ICV ICV 02/06/14 14:07 U mgL 0-0.06 0.66 WG358941ICV ICV 02/06/14 14:07 U mgL 0-0.06 0.66 WG358941ICV ICV 02/06/14 14:07 U mgL 0-0.04 0.044 WG3589841ICV ICV 02/06/14 14:22 II140117.2 1.0014 5.3 1.695 mgL 107.3 70 130 L16666-03LFM LFM 02/06/14 15:24 II140117.2 1.0014 5.3 1.695 mgL 107.3 70 130 L16666-03LFM LFM 02/06/14 15:24 II140117.2 1.0014 5.3 1.695 mgL 017.7 70 130 UFG858931CV ICV 02/07/14 15:24 II140117.2 1.0014 5.3 1.695 mgL 017.7 70 130 US358933ICV ICV 02/07/14 15:24 II140117.2 1.0014 5.3 1.695 mgL 017.7 70 130 US358933ICV ICV 02/07/14 15:24 II140117.2 1.0014 5.3 1.695 mgL 017.7 70 130 U mgL 0-0.044 0.044 WG358933ICV ICV 02/07/14 15:24 II140117.2 1.0014 U 0.652 mgL 062 70 130 L16682-01LFM LFM 02/06/14 15:24 II140117.2 1.0014 U 0.682 mgL 062 70 130 L16682-01LFM LFM 02/07/14 15:24 II140117.2 1.0014 U 0.682 mgL 062 70 130 L16682-01LFM LFM 02/07/14 15:24 II140117.2 1.0014 U 0.682 mgL 062 70 130 L16682-01LFM LFM 02/07/14 15:24 II140117.2 1.0014 U 0.682 mgL 062 70 130 L16682-01LFM LFM 02/07/14 17.49 II140117.2 1.0014 U 0.682 mgL 062 70 130 L16682-01LFM LFM 02/07/14 17.49 II140117.2 1.0014 U 0.682 mgL 062 70 130 L16682-01LFM LFM 02/07/14 17.49 II140117.2 1.0014 U 0.682 mgL 062 70 130 L16682-01LFM LFM 02/07/14 17.49 II140117.2 1.0014 U 0.682 mgL 062 70 130 L16682-01LFM LFM 02/07/14 17.49 II140117.2 1.0014 U 0.682 mgL 062 70 130 L16682-01LFM LFM 02/07/14 17.49 II140117.2 1.0014 U 0.682 mgL 062 70 130 L16682-01LFM LFM 02/07/14 17.49 II140117.2 1.0014 U 0.083 mgL 062 70 130 L16682-01LFM LFM 02/07/14 17.49 II14017.2 1.0014 U 0.083 mgL 062 70 70 130 L16682-01LFM LFM 02/07/14 12.29 MS1401282 0.5005	WG359185ICB	ICB	02/12/14 11:15				U	mg/L		-0.06	0.06			
L16679-01ASD    ASD    02/12/14 11:40    II:40117-2    1.0014    U    1.034    mg/L    103.3    85    115    0.77    20      Iron, total    M200.7 ICP      AC2 ID    Type    Analyzed    PCN/SCN    QC    Sample    Found    Units    Rec    Lower    Upper    RPD    Limit    Qu      WG3589410V    ICV    02/06/14 14:01    III:401/23-2    2    1.992    mg/L    -0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.06    0.05    0.05    0.05    0.05    0.05    0.05    0.05    0.05    0.05    0.05    0.05    0.05    0.05    0.05    0.05    0.05    0.05    0.05    0.05    0.05    0.05    0.05    0.05    0.05	WG359185LFB	LFB	02/12/14 11:27	ll140117-2	1.0014		1.047	mg/L	104.6	85	115			
Incr., total    M200.7 ICP      AC2 ID    Type    Analyzed    PCN/SCN    QC    Sample    Found    Units    Rec    Lower    Upper    RPD    Limit    Qu      WG358941    U    Sample    Sumple    Sample    Samp	L16679-01AS	AS	02/12/14 11:37	ll140117-2	1.0014	U	1.042	mg/L	104.1	85	115			
ACZ ID    Type    Analyzed    PCN/SCN    QC    Sample    Found    Units    Rec    Lower    Upper    RPD    Limit    Quits      WG358941    ICV    02/06/14 14:01    II140123-2    2    1.992    mg/L    99.6    95    105	L16679-01ASD	ASD	02/12/14 11:40	II140117-2	1.0014	U	1.034	mg/L	103.3	85	115	0.77	20	
WG358941    WG368941    WG368941    WG36894110V    ICV    0.206/14 14:01    II 40123-2    2    1.992    mg/L    -0.06    0.06      WG36894110CB    ICB    0.206/14 14:07    U    mg/L    -0.044    0.044    0.044      WG3689831RB    IEB    0.206/14 14:21    II140117-2    1.0014    1.53    1.605    mg/L    107.3    70    1.30    0.25    20      WG368931RD    IEM    0.206/14 15:24    II140117-2    1.0014    .53    1.605    mg/L    107.3    70    1.30    0.25    20      WG3590330CB    ICB    0.207/14 16:32    II140117-2    1.0014    1.077    mg/L    0.004    0.044    0.044    0.044    0.044    0.044    0.044    0.044    0.044    0.044    0.044    0.044    0.044    0.044    0.044    0.044    0.044    0.044    0.044    0.044    0.044    0.044    0.044    0.044    0.044    0.044    0.044    0.0474    1.46117-2	Iron, total			M200.7 IC	P									
WG3589411CV  ICV  02/06/14 14:01  III 40123-2  2  1.992  mg/L  99.6  95  105    WG358983LR6  LR8  02/06/14 14:21  III 40117-2  1.0014  1.059  mg/L  0.044  0.044    WG358983LR6  LF8  02/06/14 15:21  III 40117-2  1.0014  5.33  1.605  mg/L  107.3  70  130  105.5  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V  V	ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG35898411CB  ICB  0206/14 14:07  U  mg/L  -0.068  0.06    WG358883LRB  LFB  0206/14 14:19  U  mg/L  1058  85  115    WG358883LFB  LFB  0206/14 15:24  II140117-2  1.0014  5.33  1.609  mg/L  107.3  70  130  0.25  20    WG359033GV  LFMD  0206/14 15:24  II140117-2  1.0014  5.33  1.609  mg/L  107.7  70  130  0.25  20    WG359033GV  LFMD  0206/14 15:24  II140117-2  1.0014  5.33  1.609  mg/L  107.7  70  130  0.25  20    WG359033GV  LFWD  0207/14 16:32  2  1.014  1.074  mg/L  -0.066  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06	WG358941													
WG35888411CB  ICB  02/06/14 14:07  U  mg/L  -0.06k  0.06  U  MG/M    WG358883LRB  LFB  02/06/14 14:19  10117-2  1.0014  1.059  mg/L  107.8  85  115  1011    L16666-03LFM  LFM  02/06/14 15:24  1140117-2  1.0014  5.33  1.609  mg/L  107.7  70  130  0.25  20    WG3590330  LFM  02/06/14 15:24  1140117-2  1.0014  5.33  1.609  mg/L  107.7  70  130  0.25  20  WG3590330    WG3590331CV  ICV  02/07/14 16:32  2  1.967  mg/L  0.044  0.044  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  . <t< td=""><td>WG358941ICV</td><td>ICV</td><td>02/06/14 14:01</td><td>ll140123-2</td><td>2</td><td></td><td>1.992</td><td>mg/L</td><td>99.6</td><td>95</td><td>105</td><td></td><td></td><td></td></t<>	WG358941ICV	ICV	02/06/14 14:01	ll140123-2	2		1.992	mg/L	99.6	95	105			
WG358883LRB  LRB  0206/14 14:22  II140117-2  1.0014  1.059  mg/L  105.8  85  115    L16666-03LFM  LFM  0206/14 15:21  II140117-2  1.0014  5.3  1.605  mg/L  107.3  70  130  0.25  20    WG358803LFM  LFM  0206/14 15:21  II140117-2  1.0014  5.3  1.605  mg/L  107.7  70  130  0.25  20    WG358033CV  LFM  02007/14 16:24  II140117-2  1.0014  5.3  1.607  mg/L  98.4  95  105  5  1.605  0006  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.06  0.000  0.003  0.000  0.00  0.000	WG358941ICB	ICB	02/06/14 14:07				U	-		-0.06	0.06			
WG358983LFB  LFB  02/06/14 14:22  II140117-2  1.0014  1.059  mg/L  105.8  85  115    L16666-03LFM  LFM  02/06/14 15:24  II140117-2  1.0014  5.3  1.605  mg/L  107.3  70  130	WG358883LRB	LRB	02/06/14 14:19				U	-		-0.044	0.044			
L16666-03LFM LFM 0206/14 15:21 II140117-2 1.0014 .53 1.605 mg/L 107.3 70 130 L16666-03LFMD LFMD 0206/14 15:24 II140117-2 1.0014 .53 1.609 mg/L 107.7 70 130 0.25 20 WG3590331CV ICV 02/07/14 16:14 II140123-2 2 1.0014 .0014 98.4 95 105 WG3590331CB ICB 02/07/14 16:32 U mg/L -0.066 0.06 WG359974LFB LFB 02/07/14 16:32 U mg/L -0.064 0.044 WG359874LFB LFB 02/07/14 16:32 II140117-2 1.0014 1.074 mg/L 0.062 70 130 0.09 20 L16682-01LFM LFM 02/07/14 17:46 II140117-2 1.0014 U 1.063 mg/L 106.2 70 130 0.09 20 L16682-01LFM LFM 02/07/14 17:49 II140117-2 1.0014 U 1.063 mg/L 106.1 70 130 0.09 20 L16682-01LFM LFM 02/07/14 17:49 II140117-2 1.0014 U 1.062 mg/L 106.1 70 130 0.09 20 L666, 0150 02/07/14 17:49 II140117-2 1.0014 U 1.062 mg/L 106.1 70 130 0.09 20 L668, 0150 02/07/14 17:49 II140117-2 1.0014 U 1.062 mg/L 106.1 70 130 0.09 20 L668, 0150 02/07/14 17:49 II140117-2 1.0014 U 1.062 mg/L 106.1 70 130 0.09 20 L668, 0150 02/07/14 17:49 II140117-2 1.0014 U 1.062 mg/L 106.1 70 130 0.09 20 L668, 0150 02/07/14 17:49 II140117-2 1.0014 U 1.062 mg/L 106.1 70 130 0.09 20 L668, 0150 02/07/14 17:49 II140128-2 0.505 0.4861 mg/L 0.0003 0.0003 WG359170ICF ICB 02/11/14 22:39 MS140128-2 0.5005 0.4861 mg/L 0.0003 0.0003 0.0003 WG359170ICFB ICB 02/11/14 23:37 MS140128-2 0.5005 0.4861 mg/L 99.7 70 130 1.00 L16660-03AS AS 02/11/14 23:40 MS140128-2 0.5005 0.4861 mg/L 99.7 70 130 3.91 20 L666, 03AS AS 02/11/14 23:40 MS140128-2 0.5005 0.4861 mg/L 99.7 70 130 3.91 20 L666, 03AS AS 02/11/14 23:40 MS140128-2 0.5005 0.0595 mg/L 99.7 70 130 3.91 20 L666, 03AS AS 02/11/14 23:40 MS140128-2 0.5005 0.0511 mg/L 00.003 0.0003 WG3599203CF ICV 02/13/14 20:21 MS140128-2 0.5005 0.0511 mg/L 00.0003 0.0003 WG359293ICV ICV 02/13/14 20:21 MS140128-2 0.5005 0.0511 mg/L 00.0002 0.00002 V WG359293ICV ICV 02/13/14 20:21 MS140128-2 0.5005 0.0511 mg/L 00.0002 0.00002 V WG359293ICV ICV 02/13/14 20:21 MS140128-2 0.5005 0.0511 mg/L 00.0020 0.00002 V WG359293ICV ICV 02/13/14 20:21 MS140128-2 0.5005 0.0511 mg/L 00.16 70 130				ll140117-2	1.0014			-	105.8					
L16666-03LFMD LFMD 02/06/14 15:24   140117-2 1.0014 .53 1.609 mg/L 107.7 70 130 0.25 20 WG359033CV ICV 02/07/14 16:20 U mg/L -0.06 0.06 WG359033ICV ICV 02/07/14 16:30   140117-2 2 2 1.0014 U mg/L -0.06 0.06 WG359974LFB LFB 02/07/14 16:35   140117-2 1.0014 U.1074 mg/L 107.2 85 115 L16682-01LFM LFM 02/07/14 17:49   140117-2 1.0014 U.1063 mg/L 106.2 70 130 L16682-01LFM LFM 02/07/14 17:49   140117-2 1.0014 U 1.063 mg/L 106.1 70 130 0.09 20 L6682-01LFM LFM 02/07/14 17:49   140117-2 1.0014 U 1.063 mg/L 106.1 70 130 0.09 20 L6682-01LFM LFM 02/07/14 17:49   140117-2 1.0014 U 1.063 mg/L 106.1 70 130 0.09 20 L6682-01LFM LFM 02/07/14 17:49   140117-2 1.0014 U 1.063 mg/L 0.61 70 130 0.09 20 L6682-01LFM LFM 02/07/14 17:49   140117-2 1.0014 U 1.063 mg/L 0.61 70 130 0.09 20 L6682-01LFM LFM 02/07/14 17:49   140117-2 1.0014 U 1.063 mg/L 0.61 70 130 0.09 20 L6682-01LFM LFM 02/07/14 17:49   140117-2 1.0014 U 1.063 mg/L 0.61 70 130 0.09 20 L6682-01LFM LFM 02/07/14 17:49   140117-2 1.0014 U 1.063 mg/L 0.61 70 130 0.09 20 L6682-01LFM LFM 02/07/14 17:49   14017-2 1.0014 U 1.063 mg/L 0.61 70 130 0.09 20 L6682-01LFM LFM 02/11/14 22:39 MS140128-2 .05 0.5222 mg/L 104.4 90 110 WG359170LFB LFB 02/11/14 22:39 MS140128-2 .5505 U 2.595 mg/L 97.7 70 130 1.00 L16660-03AS AS 02/11/14 23:37 MS140128-2 .55025 U 2.595 mg/L 99.7 70 130 L16660-03AS AS 02/11/14 23:40 MS140128-2 .55025 U 2.595 mg/L 99.7 70 130 3.91 20 L6660-03AS AS 02/11/14 23:40 MS140128-2 .55025 U 2.595 mg/L 99.7 70 130 3.91 20 L6660-03AS AS 02/11/14 23:40 MS140128-2 .55025 U 2.595 mg/L 99.7 70 130 3.91 20 MG359120LFB LFB 02/13/14 20:21 MS140128-2 .5502 U 2.595 mg/L 99.7 70 130 3.91 20 MG359293CV ICV 02/13/14 20:21 MS140128-2 .5502 U 2.595 mg/L 90.7 70 130 3.91 20 MG359293CV ICV 02/13/14 20:21 MS140128-2 .5505 .00511 mg/L 0.0003 0.0003 WG359293CV ICV 02/13/14 20:21 MS140128-2 .5505 .00511 mg/L 0.00202 0.00002 V V MG359293ICV ICV 02/13/14 20:21 MS140128-2 .5505 .00511 mg/L 0.00002 0.00002 V V MG359293ICP ICB LFB 02/13/14 20:21 MS140128-2 .5505 .00511 mg/L 0.01.6						.53		•						
WG359033ICV  ICV  02/07/14 16:14  II140123-2  2  1.967  mg/L  98.4  95  105    WG359033ICB  ICB  02/07/14 16:20  U  mg/L  -0.066  0.06    WG359033ICB  ICB  02/07/14 16:32  U  mg/L  -0.044  0.044    WG359974LFB  LFB  02/07/14 16:35  II140117-2  1.0014  U  1.063  mg/L  106.2  70  130    L16682-01LFMD  LFMD  02/07/14 17:49  II140117-2  1.0014  U  1.062  mg/L  106.1  70  130  0.09  20    Le682-01LFMD  LFMD  02/07/14 17:49  II140117-2  1.0014  U  1.062  mg/L  106.1  70  130  0.09  20    Lead, dissolved  M200.8 ICP-MS  M200.8 ICP-MS  M20.8  U  mg/L  90.4  90  110  Q359170    WG359170ICV  ICV  02/11/14 22:36  MS140128-2  .05005  .04861  mg/L  90.7  70  130  .0003  .00033    UG359170ICB  ICB								•				0.25	20	
WG3590331CB  ICB  02/07/14 16:20  U  mg/L  -0.06  0.06    WG358974LRB  LRB  02/07/14 16:32  U  mg/L  -0.044  0.044  0.044    WG358974LRB  LFB  02/07/14 16:32  II140117-2  1.0014  U  1.074  mg/L  107.2  85  115  15  15    L16682-01LFM  LFM  02/07/14 17:46  II140117-2  1.0014  U  1.063  mg/L  106.1  70  130  0.09  20    L16682-01LFM  LFMD  02/07/14 17:49  II140117-2  1.0014  U  1.062  mg/L  106.1  70  130  0.09  20    Lead, dissolved  M200.8 ICP-MS    ACZ ID  Type  Analyzed  PCN/SCN  QC  Sample  Found  Units  Rec  Lower  Upper  RPD  Limit  Qu    WG359170ICV  ICV  02/11/14 22:32  MS140128-2  .0505  .05222  mg/L  104.4  90  110	WG359033							Ū						
WG3590331CB  ICB  02/07/14 16:20  U  mg/L  -0.06  0.06    WG358074LRB  LRB  02/07/14 16:32  U  mg/L  -0.044  0.044  0.044    WG358074LRB  LFB  02/07/14 16:32  II140117-2  1.0014  U  ng/L  107.2  85  115  15    L16682-01LFM  LFM  02/07/14 17:46  II140117-2  1.0014  U  1.063  mg/L  106.1  70  130  0.09  20    L16682-01LFM  LFMD  02/07/14 17:49  II140117-2  1.0014  U  1.063  mg/L  106.1  70  130  0.09  20    L16682-01LFMD  LFMD  02/07/14 17:49  II140117-2  1.0014  U  1.062  mg/L  106.1  70  130  0.09  20    Lead, dissolved  M200.8 ICP-MS  M200.8 ICP-MS  M200.8 ICP-MS  U  mg/L  -0.003  0.0003  0.003  0003  0003  0003  0003  0003  0003  0003  0003  001116  105  106.1  103.7  70  130	WG359033ICV	ICV	02/07/14 16:14	ll140123-2	2		1.967	ma/L	98.4	95	105			
WG358974LRB  LRB  02/07/14 16:32  U  mg/L  -0.044  0.044  U  U  Mg/L  107.2  85  115  U  U  Mg/L  107.4  mg/L  107.2  85  115  U  U  U  107.4  mg/L  107.2  85  115  U  U  U  106.2  70  130  0.09  20    L16682-01LFM  LFM  02/07/14 17:46  II140117-2  1.0014  U  1.063  mg/L  106.1  70  130  0.09  20    L16682-01LFM  LFMD  02/07/14 17:46  II140117-2  1.0014  U  1.062  mg/L  106.1  70  130  0.09  20    L16682-01LFM  LFMD  02/07/14 17:49  II140117-2  1.0014  U  1.062  mg/L  106.1  70  130  0.09  20    L66350170  Type  Analyzed  PCN/SCN  QC  Sample  Found  Init.  90  110  102  100  100  100  100  100  100  100  100								-						
WG358974LFB  LFB  02/07/14 16:35  II 140117-2  1.0014  1.074  mg/L  107.2  85  115    L16682-01LFM  LFM  02/07/14 17:46  II140117-2  1.0014  U  1.063  mg/L  106.2  70  130  1.09  20    Lead, dissolved  M200.8 ICP-MS  M200.8 ICP-MS  M200.8 ICP-MS  M200.8 ICP-MS  Limit  Quival  Quival </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								•						
L16682-01LFM  LFM  02/07/14 17:46  II40117-2  1.0014  U  1.063  mg/L  106.2  70  130      L16682-01LFMD  LFMD  02/07/14 17:49  II40117-2  1.0014  U  1.062  mg/L  106.1  70  130  0.09  20    Lead, dissolved  Type  Analyzed  PCN/SCN  QC  Sample  Found  Units  Rec  Lower  Upper  RPD  Limit  Qu    WG359170  ICV  02/11/14 22:32  MS140106-2  .05  .05222  mg/L  104.4  90  110				ll140117-2	1.0014				107.2					
L16682-01LFMD    LFMD    02/07/14 17:49    II140117-2    1.0014    U    1.062    mg/L    106.1    70    130    0.09    20      Lead, dissolved    Type    Analyzed    PCN/SCN    QC    Sample    Found    Units    Rec    Lower    Upper    RPD    Limit    Qu      WG359170    WG359170ICV    ICV    02/11/14 22:32    MS140106-2    .05    .05222    mg/L    104.4    90    110                                 WG359170    ICV    02/11/14 22:32    MS140128-2						U								
ACZ ID    Type    Analyzed    PCN/SCN    QC    Sample    Found    Units    Rec    Lower    Upper    RPD    Limit    Qu      WG359170    WG359170    WG359170    U    IQV    02/11/14 22:32    MS140106-2    .05    .05222    mg/L    104.4    90    110    U    WG359170ICS    ICB    02/11/14 22:36    U    mg/L    -0.0003    0.0003    U    WG359170ICFB    LFB    02/11/14 22:39    MS140128-2    .05005    .04861    mg/L    97.1    85    115    L16660-03AS    AS    02/11/14 23:37    MS140128-2    .25025    U    .24955    mg/L    99.7    70    130    3.91    20      Lead, total    M200.8 ICP-MS    M200.8 ICP-MS    M200.8 ICP-MS    Rec    Lower    Upper    RPD    Limit    Qu      WG359293ICV    ICV    02/13/14 20:18    MS140106-2    .05    .0511    mg/L    102.2    90    110    WG359293ICV    ICV    02/13/14 20:21    .00015<												0.09	20	
WG359170    WG359170      WG359170ICV    ICV    02/11/14 22:32    MS140106-2    .05    .05222    mg/L    104.4    90    110      WG359170ICV    ICV    02/11/14 22:32    MS140106-2    .05    .05222    mg/L    104.4    90    110      WG359170ICB    ICB    02/11/14 22:39    MS140128-2    .05005    .04861    mg/L    97.1    85    115      L16660-03AS    AS    02/11/14 23:37    MS140128-2    .25025    U    .24955    mg/L    103.7    70    130	Lead, dissolved			M200.8 IC	P-MS									
WG359170ICV  ICV  02/11/14 22:32  MS140106-2  .05  .05222  mg/L  104.4  90  110    WG359170ICB  ICB  02/11/14 22:36  U  mg/L  -0.0003  0.0003  0.0003    WG359170ICB  LFB  02/11/14 22:39  MS140128-2  .05005  .04861  mg/L  97.1  85  115    L16660-03AS  AS  02/11/14 23:37  MS140128-2  .25025  U  .24955  mg/L  99.7  70  130  .91  20    L16660-03ASD  ASD  02/11/14 23:40  MS140128-2  .25025  U  .2595  mg/L  103.7  70  130  .91  20    L16660-03ASD  ASD  02/11/14 23:40  MS140128-2  .25025  U  .2595  mg/L  103.7  70  130  .91  20    Lead, total  M200.8 ICP-MS    ACZ ID  Type  Analyzed  PCN/SCN  QC  Sample  Found  Units  Rec  Lower  Upper  RPD  Limit  Qu    WG359293ICV  ICV  02/	ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359170ICV  ICV  02/11/14 22:32  MS140106-2  .05  .05222  mg/L  104.4  90  110    WG359170ICB  ICB  02/11/14 22:36  U  mg/L  -0.0003  0.0003  0.0003    WG359170ICB  LFB  02/11/14 22:39  MS140128-2  .05005  .04861  mg/L  97.1  85  115    L16660-03AS  AS  02/11/14 23:37  MS140128-2  .25025  U  .24955  mg/L  99.7  70  130  .91  20    L16660-03ASD  ASD  02/11/14 23:40  MS140128-2  .25025  U  .2595  mg/L  103.7  70  130  .91  20    L16660-03ASD  ASD  02/11/14 23:40  MS140128-2  .25025  U  .2595  mg/L  103.7  70  130  .91  20    Lead, total  M200.8 ICP-MS    ACZ ID  Type  Analyzed  PCN/SCN  QC  Sample  Found  Units  Rec  Lower  Upper  RPD  Limit  Qu    WG359293ICV  ICV  02/	WG359170													
WG3591701CB  ICB  02/11/14 22:36  U  mg/L  -0.0003  0.0003    WG3591701LFB  LFB  02/11/14 22:39  MS140128-2  .05005  .04861  mg/L  97.1  85  115    L16660-03AS  AS  02/11/14 23:37  MS140128-2  .25025  U  .24955  mg/L  99.7  70  130    L16660-03ASD  ASD  02/11/14 23:40  MS140128-2  .25025  U  .24955  mg/L  103.7  70  130  .91  20    Lead, total  M200.8 ICP-MS  M200.8 ICP-MS  M200.8 ICP-MS  V  .26511  mg/L  102.2  90  110  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .	WG359170ICV	ICV	02/11/14 22:32	MS140106-2	05		05222	ma/l	104 4	90	110			
WG359170LFB  LFB  02/11/14 22:39  MS140128-2  .05005  .04861  mg/L  97.1  85  115    L16660-03AS  AS  02/11/14 23:37  MS140128-2  .25025  U  .24955  mg/L  99.7  70  130  3.91  20    L16660-03AS  ASD  02/11/14 23:37  MS140128-2  .25025  U  .24955  mg/L  103.7  70  130  3.91  20    Lead, total  M200.8 ICP-MS    ACZ ID  Type  Analyzed  PCN/SCN  QC  Sample  Found  Units  Rec  Lower  Upper  RPD  Limit  Qu    WG359293ICV  ICV  02/13/14 20:18  MS140106-2  .05  .0511  mg/L  -0.0003  0.0003  0.0003  0.0003  0.0003  0.0003  0.0003  0.0003  0.0003  0.00022  0.00022  0.00022  0.00022  0.00022  0.00022  0.00022  0.00022  0.00022  0.00022  0.00022  0.00022  0.00022  0.00022  0.00022  0.00022  0.00022  0.00022  0.00022<								-						
L16660-03AS L1660-03ASD  AS ASD  02/11/14 23:37 02/11/14 23:37  MS140128-2 MS140128-2 .25025  L2595  mg/L mg/L  99.7 103.7  70 70  130 130  3.91  20    Lead, total  M200.8 ICP-MS    ACZ ID  Type  Analyzed  PCN/SCN  QC  Sample  Found  Units  Rec  Lower  Upper  RPD  Limit  Qu    WG359293  ICP  ICV  02/13/14 20:18 02/13/14 20:21  MS140106-2 MS140106-2  .05  .0511  mg/L mg/L  102.2  90 90  110 90  Notability  Vision 90    WG359293ICV WG359129LRB LRB  ICP  02/13/14 20:21 420:21  MS140106-2  .05  .0511  mg/L 90  102.2  90 90  110 90  Init 90  Qu    WG359129LRB L16703-01LFM  LFB  02/13/14 20:24  MS140128-2  .05005  .002  .0511  mg/L 90  102.1  85  115    L16703-01LFM  LFM  02/13/14 20:24  MS140128-2  .05005  .002  .05285  mg/L  101.6  70  130				MS140128-2	05005			-	97 1					
L16660-03ASD  ASD  02/11/14 23:40  MS140128-2  .25025  U  .2595  mg/L  103.7  70  130  3.91  20    Lead, total  M200.8 ICP-MS    ACZ ID  Type  Analyzed  PCN/SCN  QC  Sample  Found  Units  Rec  Lower  Upper  RPD  Limit  Qu    WG359293  WG359293ICV  ICV  02/13/14 20:18  MS140106-2  .05  .0511  mg/L  102.2  90  110  Ymathetee  MS140128-2  .050  .0511  mg/L  102.2  90  110  Ymathetee						U								
ACZ ID    Type    Analyzed    PCN/SCN    QC    Sample    Found    Units    Rec    Lower    Upper    RPD    Limit    Qu      WG359293    WG359293ICV    ICV    02/13/14 20:18    MS140106-2    .05    .0511    mg/L    102.2    90    110      WG359293ICV    ICB    02/13/14 20:21    .05    .0511    mg/L    -0.0003    0.0003      WG359129LRB    ICB    02/13/14 20:24    U    mg/L    -0.00022    0.00022      WG359129LFB    LFB    02/13/14 20:28    MS140128-2    .05005    .0511    mg/L    102.1    85    115      L16703-01LFM    LFM    02/13/14 21:41    MS140128-2    .05005    .002    .05285    mg/L    101.6    70    130								-				3.91	20	
ACZ ID    Type    Analyzed    PCN/SCN    QC    Sample    Found    Units    Rec    Lower    Upper    RPD    Limit    Qu      WG359293    WG359293ICV    ICV    02/13/14 20:18    MS140106-2    .05    .0511    mg/L    102.2    90    110      WG359293ICV    ICB    02/13/14 20:21    .05    .0511    mg/L    -0.0003    0.0003      WG359129LRB    ICB    02/13/14 20:24    U    mg/L    -0.00022    0.00022      WG359129LFB    LFB    02/13/14 20:28    MS140128-2    .05005    .0511    mg/L    102.1    85    115      L16703-01LFM    LFM    02/13/14 21:41    MS140128-2    .05005    .002    .05285    mg/L    101.6    70    130	l ead total			M200 8 IC	P-MS			-						
WG359293      WG359293ICV    ICV    02/13/14 20:18    MS140106-2    .05    .0511    mg/L    102.2    90    110      WG359293ICB    ICB    02/13/14 20:21    .05    .00015    mg/L    -0.0003    0.0003      WG359129LRB    LRB    02/13/14 20:24    U    mg/L    -0.00022    0.00022      WG359129LFB    LFB    02/13/14 20:28    MS140128-2    .05005    .0511    mg/L    102.1    85    115      L16703-01LFM    LFM    02/13/14 21:41    MS140128-2    .05005    .002    .05285    mg/L    101.6    70    130		Туре	Analyzed			Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359293ICV  ICV  02/13/14 20:18  MS140106-2  .05  .0511  mg/L  102.2  90  110    WG359293ICB  ICB  02/13/14 20:21  .05  .00015  mg/L  -0.0003  0.0003    WG359129LRB  LRB  02/13/14 20:24  U  mg/L  -0.00022  0.00022    WG359129LFB  LFB  02/13/14 20:28  MS140128-2  .05005  .0511  mg/L  102.1  85  115    L16703-01LFM  LFM  02/13/14 21:41  MS140128-2  .05005  .002  .05285  mg/L  101.6  70  130		51												
WG359293ICB  ICB  02/13/14 20:21  .00015  mg/L  -0.0003  0.0003    WG359129LRB  LRB  02/13/14 20:24  U  mg/L  -0.00022  0.00022    WG359129LFB  LFB  02/13/14 20:28  MS140128-2  .05005  .0511  mg/L  102.1  85  115    L16703-01LFM  LFM  02/13/14 21:41  MS140128-2  .05005  .002  .05285  mg/L  101.6  70  130		ICV	02/13/14 20.19	MS140106-2	05		0511	ma/l	102.2	۵n	110			
WG359129LRB    LRB    02/13/14 20:24    U    ng/L    -0.00022    0.00022      WG359129LFB    LFB    02/13/14 20:28    MS140128-2    .05005    .0511    mg/L    102.1    85    115      L16703-01LFM    LFM    02/13/14 21:41    MS140128-2    .05005    .002    .05285    mg/L    101.6    70    130				WIG 1-0 100-2	.00			•	102.2					
WG359129LFB    LFB    02/13/14 20:28    MS140128-2    .05005    .0511    mg/L    102.1    85    115      L16703-01LFM    LFM    02/13/14 21:41    MS140128-2    .05005    .002    .05285    mg/L    101.6    70    130								-						
L16703-01LFM LFM 02/13/14 21:41 MS140128-2 .05005 .002 .05285 mg/L 101.6 70 130				MS140409.0	05005			-	100.4					
-						000		-						
LIG/US-UTLENID LENID 02/15/14/21:44 MIS140128-2 .05005 .002 .05301 mg/L 101.9 /0 130 0.3 20								-				0.0	20	
	L 10/03-01LFMD	LEMD	02/13/14 21:44	WIS140128-2	.05005	.002	.05301	mg/L	101.9	70	130	0.3	20	



## Inorganic QC Summary

#### **Caldera Mineral Resources LLC**

Magnesium, dis			M200.7										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359185													
WG359185ICV	ICV	02/12/14 11:09	II131218-1	100		97.36	mg/L	97.4	95	105			
WG359185ICB	ICB	02/12/14 11:15				U	mg/L		-0.6	0.6			
WG359185LFB	LFB	02/12/14 11:27	II140117-2	49.99695		50.18	mg/L	100.4	85	115			
L16679-01AS	AS	02/12/14 11:37	ll140117-2	49.99695	3.4	52.97	mg/L	99.1	85	115			
_16679-01ASD	ASD	02/12/14 11:40	II140117-2	49.99695	3.4	53.23	mg/L	99.7	85	115	0.49	20	
Manganese, dis	solved		M200.7	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359185													
WG359185ICV	ICV	02/12/14 11:09	II131218-1	2		1.9458	mg/L	97.3	95	105			
WG359185ICB	ICB	02/12/14 11:15				U	mg/L		-0.015	0.015			
WG359185LFB	LFB	02/12/14 11:27	ll140117-2	.501		.5124	mg/L	102.3	85	115			
L16679-01AS	AS	02/12/14 11:37	ll140117-2	.501	.115	.6187	mg/L	100.5	85	115			
L16679-01ASD	ASD	02/12/14 11:40	II140117-2	.501	.115	.6173	mg/L	100.3	85	115	0.23	20	
Manganese, tot	al		M200.7	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG358941													
NG358941ICV	ICV	02/06/14 14:01	II140123-2	2		1.968	mg/L	98.4	95	105			
WG358941ICB	ICB	02/06/14 14:07		_		U	mg/L		-0.015	0.015			
WG358883LRB	LRB	02/06/14 14:19				U	mg/L		-0.011	0.011			
WG358883LFB	LFB	02/06/14 14:22	ll140117-2	.501		.5244	mg/L	104.7	85	115			
L16666-03LFM	LFM	02/06/14 15:21	II140117-2	.501	1.99	2.538	mg/L	109.4	70	130			
L16666-03LFMD	LFMD	02/06/14 15:24	II140117-2	.501	1.99	2.552	mg/L	112.2	70	130	0.55	20	
WG359033													
WG359033ICV	ICV	02/07/14 16:14	II140123-2	2		1.9498	mg/L	97.5	95	105			
NG359033ICB	ICB	02/07/14 16:20				U	mg/L		-0.015	0.015			
NG358974LRB	LRB	02/07/14 16:32				U	mg/L		-0.011	0.011			
WG358974LFB	LFB	02/07/14 16:35	ll140117-2	.501		.5295	mg/L	105.7	85	115			
_16682-01LFM	LFM	02/07/14 17:46	ll140117-2	.501	U	.5219	mg/L	104.2	70	130			
_16682-01LFMD	LFMD	02/07/14 17:49	II140117-2	.501	U	.5238	mg/L	104.6	70	130	0.36	20	
Mercury, total			M245.1	CVAA									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG358847													
WG358847ICV	ICV	02/06/14 10:28	II140128-3	.005005		.00488	mg/L	97.5	95	105			
WG358847ICB	ICB	02/06/14 10:30				U	mg/L		-0.0002	0.0002			
WG358847LRB	LRB	02/06/14 10:32				U	mg/L		-0.00044	0.00044			
WG358847LFB	LFB	02/06/14 10:34	II140203-2	.002002		.00191	mg/L	95.4	85	115			
_16660-03LFM	LFM	02/06/14 11:15	ll140203-2	.002002	U	.00195	mg/L	97.4	85	115			
_16660-03LFMD	LFMD	02/06/14 11:17	II140203-2	.002002	U	.00193	mg/L	96.4	85	115	1.03	20	



Nickel, dissolve	d		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359185													
WG359185ICV	ICV	02/12/14 11:09	II131218-1	2		2.0378	mg/L	101.9	95	105			
WG359185ICB	ICB	02/12/14 11:15				U	mg/L		-0.024	0.024			
WG359185LFB	LFB	02/12/14 11:27	II140117-2	.5		.5083	mg/L	101.7	85	115			
L16679-01AS	AS	02/12/14 11:37	II140117-2	.5	U	.5052	mg/L	101	85	115			
L16679-01ASD	ASD	02/12/14 11:40	II140117-2	.5	U	.4959	mg/L	99.2	85	115	1.86	20	
Nickel, total			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG358941													
WG358941ICV	ICV	02/06/14 14:01	II140123-2	2		1.991	mg/L	99.6	95	105			
WG358941ICB	ICB	02/06/14 14:07				U	mg/L		-0.03	0.03			
WG358883LRB	LRB	02/06/14 14:19				U	mg/L		-0.022	0.022			
WG358883LFB	LFB	02/06/14 14:22	II140117-2	.5		.517	mg/L	103.4	85	115			
L16666-03LFM	LFM	02/06/14 15:21	II140117-2	.5	.07	.597	mg/L	105.4	70	130			
L16666-03LFMD	LFMD	02/06/14 15:24	II140117-2	.5	.07	.586	mg/L	103.2	70	130	1.86	20	
WG359033													
WG359033ICV	ICV	02/07/14 16:14	II140123-2	2		2.0067	mg/L	100.3	95	105			
WG359033ICB	ICB	02/07/14 16:20				U	mg/L		-0.024	0.024			
WG358974LRB	LRB	02/07/14 16:32				U	mg/L		-0.0176	0.0176			
WG358974LFB	LFB	02/07/14 16:35	II140117-2	.5		.5302	mg/L	106	85	115			
L16682-01LFM	LFM	02/07/14 17:46	II140117-2	.5	.013	.5339	mg/L	104.2	70	130			
L16682-01LFMD	LFMD	02/07/14 17:49	II140117-2	.5	.013	.534	mg/L	104.2	70	130	0.02	20	
Nitrate/Nitrite as	s N, diss	olved	M353.2 - /	Automate	d Cadmiur	n Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG358856													
WG358856ICV	ICV	02/04/14 22:12	WI140116-3	2.416		2.426	mg/L	100.4	90	110			
WG358856ICB	ICB	02/04/14 22:13				U	mg/L		-0.06	0.06			
WG358856LFB	LFB	02/04/14 22:17	WI130816-3	2		1.921	mg/L	96.1	90	110			
L16647-01AS	AS	02/04/14 22:19	WI130816-3	2	U	1.921	mg/L	96.1	90	110			
L16647-02DUP	DUP	02/04/14 22:21			.02	U	mg/L				200	20	R
L16679-02AS	AS	02/04/14 22:36	WI130816-3	2	U	1.921	mg/L	96.1	90	110			
L16679-03DUP	DUP	02/04/14 22:38			.31	.3	mg/L				3.3	20	
Nitrite as N, dis	solved		M353.2	Automate	d Cadmiur	m Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG358856													
WG358856ICV	ICV	02/04/14 22:12	WI140116-3	.609		.633	mg/L	103.9	90	110			
WG358856ICB	ICB	02/04/14 22:13				U	mg/L		-0.03	0.03			
WG358856LFB	LFB	02/04/14 22:17	WI130816-3	1		.981	mg/L	98.1	90	110			
L16647-01AS	AS	02/04/14 22:19	WI130816-3	1	U	.99	mg/L	99	90	110			
L16647-02DUP	DUP	02/04/14 22:21			U	U	mg/L				0	20	R
L16679-02AS	AS	02/04/14 22:36	WI130816-3	1	U	.976	mg/L	97.6	90	110			
210010 0210													



## Inorganic QC Summary

#### **Caldera Mineral Resources LLC**

Nitrogen, ammo	nia		M350.1 - A	utomate	d Phenate								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359152													
WG359152ICV	ICV	02/11/14 16:21	WI131021-1	1.003		.978	mg/L	97.5	90	110			
WG359152ICB	ICB	02/11/14 16:24				U	mg/L		-0.15	0.15			
WG359152LFB2	LFB	02/11/14 16:57	WI140113-8	1		1.036	mg/L	103.6	90	110			
L16676-19AS	AS	02/11/14 16:59	WI140113-8	1	.09	1.141	mg/L	105.1	90	110			
L16679-01DUP	DUP	02/11/14 17:01			U	U	mg/L				0	20	RA
WG359152LFB1	LFB	02/11/14 17:13	WI140113-8	1		.997	mg/L	99.7	90	110			
pH (lab)			SM4500H-	+ B									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG358968													
WG358968LCSW3	LCSW	02/06/14 15:17	PCN40852	6		6.02	units	100.3					
L16679-04DUP	DUP	02/06/14 18:02			8	8.03	units				0.4	20	
WG358968LCSW6	LCSW	02/06/14 18:15	PCN40852	6		6.03	units	100.5					
WG358968LCSW9	LCSW	02/06/14 21:20	PCN40852	6		6.03	units	100.5					
Residue, Filterat	ole (TDS	) @180C	SM2540C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG358980													
WG358980PBW	PBW	02/06/14 15:00				U	mg/L		-20	20			
WG358980LCSW	LCSW	02/06/14 15:01	PCN44089	260		256	mg/L	98.5	80	120			
L16679-01DUP	DUP	02/06/14 15:15		200	1180	1168	mg/L	0010		.20	1	10	
L16709-02DUP	DUP	02/06/14 15:29			790	802	mg/L				1.5	10	
Residue, Non-Fil	terable	(TSS) @105C	SM2540D										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG259099													
WG358988													
WG358988PBW	PBW	02/06/14 17:30	DON144000	100		U	mg/L	05	-15	15			
WG358988LCSW	LCSW	02/06/14 17:31	PCN44089	160		152	mg/L	95	80	120	0	10	
L16679-02DUP	DUP DUP	02/06/14 17:53			U U	U 6	mg/L				0	10 10	RA
L16709-02DUP	DUP	02/06/14 18:14			U	0	mg/L				200	10	RA
Selenium, disso			M200.8 IC										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359170													
WG359170ICV	ICV	02/11/14 22:32	MS140106-2	.05		.05107	mg/L	102.1	90	110			
WG359170ICB	ICB	02/11/14 22:36				U	mg/L		-0.0003	0.0003			
WG359170LFB	LFB	02/11/14 22:39	MS140128-2	.05005		.0479	mg/L	95.7	85	115			
L16660-03AS	AS	02/11/14 23:37	MS140128-2	.25025	U	.2399	mg/L	95.9	70	130			
							-						



Silver, dissolved	d		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359212													
WG359212ICV	ICV	02/12/14 23:02	MS140106-2	.02002		.01997	mg/L	99.8	90	110			
WG359212ICB	ICB	02/12/14 23:05				U	mg/L		-0.00015	0.00015			
WG359212LFB	LFB	02/12/14 23:09	MS140128-2	.01001		.0093	mg/L	92.9	85	115			
L16679-03AS	AS	02/12/14 23:22	MS140128-2	.01001	U	.009193	mg/L	91.8	70	130			
L16679-03ASD	ASD	02/12/14 23:26	MS140128-2	.01001	U	.009348	mg/L	93.4	70	130	1.67	20	
Silver, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359293													
WG359293ICV	ICV	02/13/14 20:18	MS140106-2	.02002		.01979	mg/L	98.9	90	110			
WG359293ICB	ICB	02/13/14 20:21				U	mg/L		-0.00015	0.00015			
WG359129LRB	LRB	02/13/14 20:24				U	mg/L		-0.00011	0.00011			
WG359129LFB	LFB	02/13/14 20:28	MS140128-2	.01001		.009664	mg/L	96.5	85	115			
L16703-01LFM	LFM	02/13/14 21:41	MS140128-2	.01001	.0011	.01017	mg/L	90.6	70	130			
L16703-01LFMD	LFMD	02/13/14 21:44	MS140128-2	.01001	.0011	.01026	mg/L	91.5	70	130	0.88	20	
Sulfate			D516-02 -	Turbidime	etric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359154													
WG359154ICB	ICB	02/11/14 14:32				U	mg/L		-3	3			
WG359154ICV	ICV	02/11/14 14:32	WI140128-2	20		19.7	mg/L	98.5	90	110			
WG359154LFB	LFB	02/11/14 14:59	WI131010-2	9.99		9.8	mg/L	98.1	90	110			
L16762-01AS	AS	02/11/14 15:48	SO4TURB20	10	207	229	mg/L	220	90	110			N
L16762-01DUP	DUP	02/11/14 15:48			207	224	mg/L				7.9	20	
Sulfide as S			SM4500S	2-D									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG358954													
WG358954ICV	ICV	02/06/14 11:38	WC140206-	.34534		.322	mg/L	93.2	90	110			
WG358954ICB	ICB	02/06/14 11:44				.022 U	mg/L	00.L	-0.06	0.06			
WG358954LFB	LFB	02/06/14 11:50	WC140206-	.2453333		.258	mg/L	105.2	-0.00	120			
L16709-02AS	AS	02/06/14 14:41	WC140206-	.2453333	.06	.182	mg/L	49.7	75	125			Ν
L16709-02DUP	DUP	02/06/14 14:47			.06	.063	mg/L			.20	4.9	20	R
Uranium, dissol	ved		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359170													
WG359170ICV	ICV	02/11/14 22:32	MS140106-2	.05		.05184	mg/L	103.7	90	110			
WG359170ICB	ICB	02/11/14 22:32				.00104 U	mg/L	100.7	-0.0003	0.0003			
		02/11/14 22:30	MS140128-2	.05		.04919	mg/L	98.4	-0.0003	115			
WG359170LEB													
WG359170LFB L16660-03AS	LFB AS	02/11/14 23:33	MS140128-2	.25	.0176	.29165	mg/L	109.6	70	130			



Uranium, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359293													
WG359293ICV	ICV	02/13/14 20:18	MS140106-2	.05		.05071	mg/L	101.4	90	110			
WG359293ICB	ICB	02/13/14 20:21				U	mg/L		-0.0003	0.0003			
WG359129LRB	LRB	02/13/14 20:24				U	mg/L		-0.00022	0.00022			
WG359129LFB	LFB	02/13/14 20:28	MS140128-2	.05		.05146	mg/L	102.9	85	115			
L16703-01LFM	LFM	02/13/14 21:41	MS140128-2	.05	.0296	.08132	mg/L	103.4	70	130			
L16703-01LFMD	LFMD	02/13/14 21:44	MS140128-2	.05	.0296	.08249	mg/L	105.8	70	130	1.43	20	
Zinc, dissolved			M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359185													
WG359185ICV	ICV	02/12/14 11:09	II131218-1	2		1.958	mg/L	97.9	95	105			
WG359185ICB	ICB	02/12/14 11:15				U	mg/L		-0.03	0.03			
WG359185LFB	LFB	02/12/14 11:27	II140117-2	.5		.514	mg/L	102.8	85	115			
L16679-01AS	AS	02/12/14 11:37	II140117-2	.5	.2	.713	mg/L	102.6	85	115			
L16679-01ASD	ASD	02/12/14 11:40	II140117-2	.5	.2	.7	mg/L	100	85	115	1.84	20	
Zinc, total			M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG358941													
WG358941ICV	ICV	02/06/14 14:01	II140123-2	2		1.934	mg/L	96.7	95	105			
WG358941ICB	ICB	02/06/14 14:07				U	mg/L		-0.03	0.03			
WG358883LRB	LRB	02/06/14 14:19				U	mg/L		-0.022	0.022			
WG358883LFB	LFB	02/06/14 14:22	II140117-2	.5		.492	mg/L	98.4	85	115			
L16666-03LFM	LFM	02/06/14 15:21	II140117-2	.5	.11	.58	mg/L	96	70	130			
L16666-03LFMD	LFMD	02/06/14 15:24	II140117-2	.5	.11	.591	mg/L	98.2	70	130	1.88	20	
WG359033													
WG359033ICV	ICV	02/07/14 16:14	II140123-2	2		1.922	mg/L	96.1	95	105			
WG359033ICB	ICB	02/07/14 16:20				U	mg/L		-0.03	0.03			
WG358974LRB	LRB	02/07/14 16:32				U	mg/L		-0.022	0.022			
WG358974LFB	LFB	02/07/14 16:35	II140117-2	.5		.519	mg/L	103.8	85	115			
L16682-01LFM	LFM	02/07/14 17:46	II140117-2	.5	U	.507	mg/L	101.4	70	130			
L16682-01LFMD	LFMD	02/07/14 17:49	II140117-2	.5	U	.504	mg/L	100.8	70	130	0.59	20	

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#### **Caldera Mineral Resources LLC**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L16679-01	WG359174	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359039	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG358823	Dissolved Chromium, Hexavalent	SM3500Cr-B	H3	Sample was received and analyzed past holding time.
			SM3500Cr-B	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG358856	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359152	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG358988	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359154	Sulfate	D516-02 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG358954	Sulfide as S	SM4500S2-D	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).



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#### **Caldera Mineral Resources LLC**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L16679-02	WG359174	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359039	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG358823	Dissolved Chromium, Hexavalent	SM3500Cr-B	H3	Sample was received and analyzed past holding time.
			SM3500Cr-B	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG358856	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359152	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG358988	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359154	Sulfate	D516-02 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG358954	Sulfide as S	SM4500S2-D	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L16679-03	WG359174	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359039	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG358823	Dissolved Chromium, Hexavalent	SM3500Cr-B	H3	Sample was received and analyzed past holding time.
			SM3500Cr-B	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG358856	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359152	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG358988	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	
	WG359154	Sulfate	D516-02 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG358954	Sulfide as S	SM4500S2-D	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< $10x \text{ MDL}$ ).

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#### **Caldera Mineral Resources LLC**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L16679-04	WG359142	Chloride	SM4500CI-E	ZU	Analysis date/time preceeds filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
	WG359175	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359039	Cyanide, WAD	SM4500-CN I-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG358823	Dissolved Chromium, Hexavalent	SM3500Cr-B	H3	Sample was received and analyzed past holding time.
			SM3500Cr-B	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG358856	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	H3	Sample was received and analyzed past holding time.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359152	Nitrogen, ammonia	M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG358988	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359154	Sulfate	D516-02 - Turbidimetric	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG358954	Sulfide as S	SM4500S2-D	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500S2-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

ACZ	Laboratories, In	С.
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Project ID: Sample ID: CB-A ACZ Sample ID: L16679-01 Date Sampled: 01/31/14 0:00 Date Received: 02/04/14 Sample Matrix: Surface Water

### Oil & Grease, Total Recoverable

Workgroup:	WG359088								
Analyst:	RJV								
Extract Date:									
Analysis Date:	02/10/14 14:32								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.03		mg/L	2.06	10.3

ACZ	Laboratories, In	С.
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Project ID: Sample ID: CB-B ACZ Sample ID: L16679-02 Date Sampled: 01/31/14 0:00 Date Received: 02/04/14 Sample Matrix: Surface Water

### Oil & Grease, Total Recoverable

Workgroup:	WG359088								
Analyst:	RJV								
Extract Date:									
Analysis Date:	02/10/14 14:43								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.03		mg/L	2.06	10.3

ACZ	Laboratories, In	С.
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Project ID: Sample ID: CB-C ACZ Sample ID: L16679-03 Date Sampled: 01/31/14 0:00 Date Received: 02/04/14 Sample Matrix: Surface Water

### Oil & Grease, Total Recoverable

Workgroup:	WG359088								
Analyst:	RJV								
Extract Date:									
Analysis Date:	02/10/14 14:53								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.02		mg/L	2.04	10.2

ACZ	Laboratories, In	С.
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Project ID: Sample ID: CB-D ACZ Sample ID: L16679-04 Date Sampled: 01/31/14 0:00 Date Received: 02/04/14 Sample Matrix: Surface Water

### Oil & Grease, Total Recoverable

Workgroup:	WG359088								
Analyst:	RJV								
Extract Date:									
Analysis Date:	02/10/14 15:03								
Compound		CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Oil and Grease				U	1.02		mg/L	2.04	10.2



Organic Reference

atcn	A distinct set of sample	s analyzed at a specific time		
Batch Found	Value of the QC Type of			
Limit				
	Upper limit for RPD, in		.)	
Lower	-	in % (except for LCSS, mg/Kg	))	
LCL	Lower Control Limit	Cama ao Minimum Departin	a Linait Allauva farinatrum	cont and annual fluctuations
MDL		. Same as Minimum Reportin	-	
PCN/SCN	-	reagents/standards to trace to		cate of analysis
PQL		imit, typically 5 times the MDL		
QC Dee		ol Sample or the amount add		07-1
Rec		e or spike added recovered, in		/Kg)
RPD		ence, calculation used for Dup		
Upper		in % (except for LCSS, mg/Kg	))	
UCL	Upper Control Limit			
Sample	Value of the Sample of	Interest		
Sample Typ	)es			
SURR	Surrogate		LFM	Laboratory Fortified Matrix
INTS	Internal Standard		LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate		LRB	Laboratory Reagent Blank
LCSS	Laboratory Control San	nple - Soil	MS/MSD	Matrix Spike/Matrix Spike Duplicate
LCSW	Laboratory Control San	nple - Water	PBS	Prep Blank - Soil
LFB	Laboratory Fortified Bla	ink	PBW	Prep Blank - Water
Blanks Control San	pe Explanations	Verifies the accuracy of the	method, including the pre	
Blanks	nples		method, including the prep nstrument and/or method	p procedure.
Blanks Control San Duplicates Spikes/Forti Qualifiers	nples ified Matrix (Qual)	Verifies the accuracy of the i Verifies the precision of the i Determines sample matrix ir	method, including the prep nstrument and/or method aterferences, if any.	p procedure.
Blanks Control San Duplicates Spikes/Fort Qualifiers B	nples ified Matrix (Qual) Analyte concentration c	Verifies the accuracy of the i Verifies the precision of the i Determines sample matrix ir letected at a value between M	method, including the prep nstrument and/or method iterferences, if any. DL and PQL. The associa	p procedure.
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REP002.09.12.01



#### ACZ Project ID: L16679

1664A - Gravimetric

#### Oil & Grease, Total Recoverable

WG359088

MS	Sample ID:	L16676-01MS		PCN/S	CN: OP14	40116-2		Analy	/zed:	02/10	/14 14:22
Compound		QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE		40	U	36.6	mg/L	91.5	78	114			
LCSW	Sample ID:	WG359088LCSW	1	PCN/S	CN: OP14	10116-2		Analy	/zed:	02/10	/14 17:19
Compound		QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE		40		36.5	mg/L	91.3	78	114			
LCSWD	Sample ID:	WG359088LCSW	'D	PCN/S	CN: OP14	10116-2		Analy	/zed:	02/10	/14 17:30
Compound		QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE		40		35.5	mg/L	88.8	78	114	2.8	18	
PBW	Sample ID:	WG359088PBW						Analy	/zed:	02/10	/14 13:30
<b>^</b>	•		<b>•</b> •								

PBW	Sample ID: WG359088PBW						Analyzed:		02/10/14 13:3	
Compound	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
OIL AND GREASE			U	mg/L		-5	5			



ACZ Project ID: L16679

#### Caldera Mineral Resources LLC

ACZ ID	WORKNUM PARAMETER	METHOD	QUAL DESCRIPTION	

No extended qualifiers associated with this analysis



ACZ Project ID: L16679

Wet Chemistry

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

Sulfide as S

SM4500S2-D

Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

#### Calc

### Sample Receipt

Caldera Mineral Resources LLC ACZ	Project ID:		L16679
	e Received: (	)2/04/20	14 11:48
	eceived By:		mtb
	ate Printed:	:	2/4/2014
Receipt Verification	VEO	NO	NIA
1) Is a foreign soil permit included for applicable samples?	YES	NO	NA X
2) Is the Chain of Custody or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?			Х
4) Are any samples NRC licensable material?			Х
5) If samples are received past hold time, proceed with requested short hold time analyses	? X		
6) Is the Chain of Custody complete and accurate?	Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the samples?	Х		
A change was made in the Copy Report to: section prior to ACZ custody.	2		
Samples/Containers			
	YES	NO	NA
8) Are all containers intact and with no leaks?	Х		
9) Are all labels on containers and are they intact and legible?	Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time?	Х		
11) For preserved bottle types, was the pH checked and within limits?	Х		
12) Is there sufficient sample volume to perform all requested work?	Х		
13) Is the custody seal intact on all containers?			Х
14) Are samples that require zero headspace acceptable?			Х
15) Are all sample containers appropriate for analytical requirements?	Х		
16) Is there an Hg-1631 trip blank present?			Х
17) Is there a VOA trip blank present?			Х
18) Were all samples received within hold time?		Х	

Some parameters were received past hold time.

**Chain of Custody Related Remarks** 

#### **Client Contact Remarks**

#### Shipping Containers

Cooler Id _____ 4205

Temp (°C) _____ 4.4

Rad  $(\mu R/Hr)$ _____ 13

Custody Seal Intact? _____ Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

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

	mboat Springs, CO_80487_(800):			/						
Report to: Name: Mike Thom	10507		Addre	ess: P.	O.B.	x 7	97			
Company: Reardon	Steel LLC	-1	/ laure		River			SITV	erton.	CC
E-mail: Mt@rear			Telep	ohone:					/	
Copy of Report to:			· · ·			•	· ·			
Name: Karmen K			E-ma	ail ana	kki		2000	ust		~
Company: Graylin	<b>)</b>			phone:	1515/	ryu	NAG	May (	<u>, , , , , , , , , , , , , , , , , , , </u>	<u>ງ</u>
Invoice to:		 ;							48 12 11	
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Company: Reardon	Geol IIC	-			<u>.0. 0</u> er 5f.				00	14
E-mail: Mt@reardo			L	phone:					<u> </u>	<u>' 1</u>
	at holding time (HT), or if insuffic	یے۔ ient HT re				100			YES	L
analysis before expiratio	n, shall ACZ proceed with reque	sted shor	t HT aı	nalyses?	•				NO	
If "NO" then ACZ will contact client for t Are samples for SDWA C	further instruction. If neither "YES" nor "NO" is ind	licated, ACZ will	proceed v	with the reque		es, even i No	f HT is expi	ired, and da	ata will be qu	alified
	te forms. Results will be reporte	d to PQL		lorado.						
Sampler's Name:/⁄	Sampler's site Inform	mation	State:	<u> </u>	<u>د</u>	Zip co	de 8	1433	_ Time Z	one
Check box if observe Da	ylight Savings Time									
PROJECT INFORMAT	ION	 к. ,	, , ,	ANAL	YSES REC	DUESTE	D (attach	list or us	e quote nu	mbe
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L<del>16679-140217155(</del> FRMAD050.12.12.12

White - Return with sample.

Yellow - Retain for your records.



Analytical Report

March 12, 2014

Report to: Mike Thompson Reardon Steel LLC 4 River Street Silverton, CO 81433

cc: Karmen King

Bill to: Mike Thompson Reardon Steel LLC 4 River Street Silverton, CO 81433

Project ID: ACZ Project ID: L16884

Mike Thompson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on February 18, 2014. This project has been assigned to ACZ's project number, L16884. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L16884. 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 April 11, 2014. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/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 raw data reports for ten years.

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

Luce gible

Sue Webber has reviewed and approved this report.





# ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

POND FILL #1

#### **Reardon Steel LLC**

#### Project ID:

Sample ID:

### Inorganic Analytical Results

ACZ Sample ID: L16884-01 Date Sampled: 02/09/14 00:00 Date Received: 02/18/14 Sample Matrix: Soil

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Total Hot Plate Digestion	M3010A ICP								02/21/14 11:32	jjc
Total Hot Plate Digestion	M3010A ICP-MS								02/25/14 12:05	las
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (1312)	M6010B ICP	1	0.46		*	mg/L	0.03	0.2	02/24/14 16:26	jjc
Antimony (1312)	M6010B ICP	1		U	*	mg/L	0.03	0.2	02/24/14 16:26	jjc
Arsenic (1312)	M6010B ICP	1		U	*	mg/L	0.04	0.2	02/24/14 16:26	jjc
Barium (1312)	M6010B ICP	1	0.011	В		mg/L	0.003	0.02	02/24/14 16:26	jjc
Beryllium (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:26	jjc
Cadmium (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.02	02/24/14 16:26	jjc
Chromium (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:26	jjc
Copper (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:26	jjc
Iron (1312)	M6010B ICP	1	0.08		*	mg/L	0.02	0.05	02/24/14 16:26	jjc
Lead (1312)	M6010B ICP	1		U	*	mg/L	0.03	0.2	02/24/14 16:26	jjc
Manganese (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.03	02/24/14 16:26	jjc
Mercury (1312)	M7470A CVAA	1		U	*	mg/L	0.0002	0.001	02/24/14 13:04	mfm
Molybdenum (1312)	M6010B ICP	1		U	*	mg/L	0.02	0.1	02/24/14 16:26	jjc
Nickel (1312)	M6010B ICP	1		U	*	mg/L	0.008	0.04	02/24/14 16:26	jjc
Selenium (1312)	M6010B ICP	1		U	*	mg/L	0.05	0.3	02/24/14 16:26	jjc
Silver (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.03	02/24/14 16:26	jjc
Thallium (1312)	M6010B ICP	1		U	*	mg/L	0.1	0.5	02/24/14 16:26	jjc
Uranium (1312)	M6020 ICP-MS	1		U	*	mg/L	0.0001	0.0005	03/03/14 22:56	pmc
Vanadium (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.03	02/24/14 16:26	jjc
Zinc (1312)	M6010B ICP	1		U		mg/L	0.01	0.05	02/24/14 16:26	jjc



POND FILL #1

#### **Reardon Steel LLC**

Sample ID:

### Inorganic Analytical Results

ACZ Sample ID:	L16884-01
Date Sampled:	02/09/14 00:00
Date Received:	02/18/14
Sample Matrix:	Soil

Soil Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 3.2.4		0			t CaCO3/Kt	1	5	03/12/14 13:08	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3		51			t CaCO3/Kt	1	5	03/12/14 13:08	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3		51			t CaCO3/Kt	1	5	03/12/14 13:08	calc
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1	5.1		*	%	0.1	0.5	03/06/14 10:40	cdb
pH, Saturated Paste	EPA 600/2-78-054, section 3.2.2									
Max Particle Size		1	2000		*	um			03/06/14 0:00	spl
рН		1	8.5		*	units	0.1	0.1	03/06/14 0:00	spl
Sulfur Forms	M600/2-78-054 3.2.4									
Sulfur Organic Residual		1	0.01	В	*	%	0.01	0.1	03/06/14 0:00	cra
Sulfur Pyritic Sulfide		1		U	*	%	0.01	0.1	03/06/14 0:00	cra
Sulfur Sulfate		1	0.02	В	*	%	0.01	0.1	03/06/14 0:00	cra
Sulfur Total		1	0.02	В	*	%	0.01	0.1	03/06/14 0:00	cra
Total Sulfur minus Sulfate		1		U	*	%	0.01	0.1	03/06/14 0:00	cra

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972								02/21/14 12:09	9 spl
Crush and Pulverize	EPA-600/2-78-054 3.1.3								03/04/14 14:05	5 cdb
Saturated Paste Extraction	USDA No. 60 (2)								03/06/14 10:10	) spl
Sieve-2000 um (2.0mm)	ASA No.9, 15-4.2.2								03/04/14 14:05	5 cdb
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2								03/04/14 14:05	5 cdb
Synthetic Precip. Leaching Procedure	M1312-RC								02/20/14 6:19	cdb
Synthetic Precip. Leaching Procedure	M1312								02/20/14 9:33	cdb
Synthetic Precip. Leaching Procedure	M1312, DI Water								02/28/14 2:00	spl



#### **Reardon Steel LLC**

### Project ID:

Sample ID: POND FILL #1

### Inorganic Analytical Results

ACZ Sample ID: L16884-01 Date Sampled: 02/09/14 00:00 Date Received: 02/18/14 Sample Matrix: Soil

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Chloride (1312 DI)	SM4500CI-E	1	1	В	*	mg/L	1	5	03/05/14 20:32	mpb
Conductivity @25C (1312-DI)	SM2510B	1	57		*	umhos/cm	1	10	03/04/14 13:21	abd
Fluoride (1312 DI)	SM4500F-C	1	0.3	В	*	mg/L	0.1	0.5	03/04/14 12:00	abd
Nitrate/Nitrite as N (1312-DI)	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.02	0.1	02/28/14 23:22	pjb
Nitrogen, ammonia (1312-DI)	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	03/07/14 11:27	bsu
Sulfate (1312 DI)	D516-02 - Turbidimetric	1	9.4		*	mg/L	1	5	03/07/14 13:29	mpb

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POND FILL #2

#### **Reardon Steel LLC**

#### Project ID:

Sample ID:

### Inorganic Analytical Results

ACZ Sample ID: L16884-02 Date Sampled: 02/09/14 00:00 Date Received: 02/18/14 Sample Matrix: Soil

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Total Hot Plate Digestion	M3010A ICP								02/21/14 11:50	jjc
Total Hot Plate Digestion	M3010A ICP-MS								02/25/14 12:20	las
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (1312)	M6010B ICP	1	0.32		*	mg/L	0.03	0.2	02/24/14 16:36	jjc
Antimony (1312)	M6010B ICP	1		U	*	mg/L	0.03	0.2	02/24/14 16:36	jjc
Arsenic (1312)	M6010B ICP	1		U	*	mg/L	0.04	0.2	02/24/14 16:36	jjc
Barium (1312)	M6010B ICP	1	0.023			mg/L	0.003	0.02	02/24/14 16:36	jjc
Beryllium (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:36	jjc
Cadmium (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.02	02/24/14 16:36	jjc
Chromium (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:36	jjc
Copper (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:36	jjc
Iron (1312)	M6010B ICP	1	0.02	В	*	mg/L	0.02	0.05	02/24/14 16:36	jjc
Lead (1312)	M6010B ICP	1		U	*	mg/L	0.03	0.2	02/24/14 16:36	jjc
Manganese (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.03	02/24/14 16:36	jjc
Mercury (1312)	M7470A CVAA	1		U	*	mg/L	0.0002	0.001	02/24/14 13:06	mfm
Molybdenum (1312)	M6010B ICP	1		U	*	mg/L	0.02	0.1	02/24/14 16:36	jjc
Nickel (1312)	M6010B ICP	1		U	*	mg/L	0.008	0.04	02/24/14 16:36	jjc
Selenium (1312)	M6010B ICP	1		U	*	mg/L	0.05	0.3	02/24/14 16:36	jjc
Silver (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.03	02/24/14 16:36	jjc
Thallium (1312)	M6010B ICP	1		U	*	mg/L	0.1	0.5	02/24/14 16:36	jjc
Uranium (1312)	M6020 ICP-MS	1	0.0002	В	*	mg/L	0.0001	0.0005	03/03/14 23:01	pmc
Vanadium (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.03	02/24/14 16:36	jjc
Zinc (1312)	M6010B ICP	1		U		mg/L	0.01	0.05	02/24/14 16:36	jjc



POND FILL #2

#### **Reardon Steel LLC**

Sample ID:

### Inorganic Analytical Results

ACZ Sample ID:	L16884-02
Date Sampled:	02/09/14 00:00
Date Received:	02/18/14
Sample Matrix:	Soil

Soil Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 3.2.4		0			t CaCO3/Kt	1	5	03/12/14 13:09	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3		44			t CaCO3/Kt	1	5	03/12/14 13:09	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3		44			t CaCO3/Kt	1	5	03/12/14 13:09	calc
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1	4.4		*	%	0.1	0.5	03/06/14 10:50	cdb
pH, Saturated Paste	EPA 600/2-78-054, section 3.2.2									
Max Particle Size		1	2000		*	um			03/06/14 0:00	spl
рН		1	8.4		*	units	0.1	0.1	03/06/14 0:00	spl
Sulfur Forms	M600/2-78-054 3.2.4									
Sulfur Organic Residual		1	0.02	В	*	%	0.01	0.1	03/06/14 0:00	cra
Sulfur Pyritic Sulfide		1		U	*	%	0.01	0.1	03/06/14 0:00	cra
Sulfur Sulfate		1	0.01	В	*	%	0.01	0.1	03/06/14 0:00	cra
Sulfur Total		1	0.03	В	*	%	0.01	0.1	03/06/14 0:00	cra
Total Sulfur minus Sulfate		1	0.02	В	*	%	0.01	0.1	03/06/14 0:00	cra

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972								02/21/14 12:18	spl
Crush and Pulverize	EPA-600/2-78-054 3.1.3								03/04/14 14:12	cdb
Saturated Paste Extraction	USDA No. 60 (2)								03/06/14 10:12	spl
Sieve-2000 um (2.0mm)	ASA No.9, 15-4.2.2								03/04/14 14:12	cdb
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2								03/04/14 14:12	cdb
Synthetic Precip. Leaching Procedure	M1312-RC								02/20/14 9:47	cdb
Synthetic Precip. Leaching Procedure	M1312, DI Water								02/28/14 3:15	spl
Synthetic Precip. Leaching Procedure	M1312								02/20/14 10:36	cdb



#### **Reardon Steel LLC**

### Project ID:

Sample ID: POND FILL #2

### Inorganic Analytical Results

ACZ Sample ID:	L16884-02
Date Sampled:	02/09/14 00:00
Date Received:	02/18/14
Sample Matrix:	Soil

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Chloride (1312 DI)	SM4500CI-E	1		U	*	mg/L	1	5	03/05/14 20:32	mpb
Conductivity @25C (1312-DI)	SM2510B	1	57		*	umhos/cm	1	10	03/04/14 13:22	abd
Fluoride (1312 DI)	SM4500F-C	1	0.3	В	*	mg/L	0.1	0.5	03/04/14 12:04	abd
Nitrate/Nitrite as N (1312-DI)	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.02	0.1	02/28/14 23:23	pjb
Nitrogen, ammonia (1312-DI)	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	03/07/14 11:28	bsu
Sulfate (1312 DI)	D516-02 - Turbidimetric	1	3.3	В	*	mg/L	1	5	03/07/14 13:29	mpb

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#### **Reardon Steel LLC**

#### Project ID:

Sample ID:

### POND FILL #3

### Inorganic Analytical Results

ACZ Sample ID: L16884-03 Date Sampled: 02/09/14 00:00 Date Received: 02/18/14 Sample Matrix: Soil

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Total Hot Plate Digestion	M3010A ICP-MS								02/25/14 12:35	las
Total Hot Plate Digestion	M3010A ICP								02/21/14 12:08	jjc
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (1312)	M6010B ICP	1	0.37		*	mg/L	0.03	0.2	02/24/14 16:39	jjc
Antimony (1312)	M6010B ICP	1		U	*	mg/L	0.03	0.2	02/24/14 16:39	jjc
Arsenic (1312)	M6010B ICP	1		U	*	mg/L	0.04	0.2	02/24/14 16:39	jjc
Barium (1312)	M6010B ICP	1		U		mg/L	0.003	0.02	02/24/14 16:39	jjc
Beryllium (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:39	jjc
Cadmium (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.02	02/24/14 16:39	jjc
Chromium (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:39	jjc
Copper (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:39	jjc
Iron (1312)	M6010B ICP	1	0.06		*	mg/L	0.02	0.05	02/24/14 16:39	jjc
Lead (1312)	M6010B ICP	1		U	*	mg/L	0.03	0.2	02/24/14 16:39	jjc
Manganese (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.03	02/24/14 16:39	jjc
Mercury (1312)	M7470A CVAA	1		U	*	mg/L	0.0002	0.001	02/24/14 13:12	mfm
Molybdenum (1312)	M6010B ICP	1		U	*	mg/L	0.02	0.1	02/24/14 16:39	jjc
Nickel (1312)	M6010B ICP	1		U	*	mg/L	0.008	0.04	02/24/14 16:39	jjc
Selenium (1312)	M6010B ICP	1		U	*	mg/L	0.05	0.3	02/24/14 16:39	jjc
Silver (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.03	02/24/14 16:39	jjc
Thallium (1312)	M6010B ICP	1		U	*	mg/L	0.1	0.5	02/24/14 16:39	jjc
Uranium (1312)	M6020 ICP-MS	1	0.0001	В	*	mg/L	0.0001	0.0005	03/03/14 23:03	pmc
Vanadium (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.03	02/24/14 16:39	jjc
Zinc (1312)	M6010B ICP	1		U		mg/L	0.01	0.05	02/24/14 16:39	jjc



POND FILL #3

#### **Reardon Steel LLC**

Sample ID:

### Inorganic Analytical Results

ACZ Sample ID:	L16884-03
Date Sampled:	02/09/14 00:00
Date Received:	02/18/14
Sample Matrix:	Soil

Soil Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 3.2.4		0			t CaCO3/Kt	1	5	03/12/14 13:09	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3		39			t CaCO3/Kt	1	5	03/12/14 13:09	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3		39			t CaCO3/Kt	1	5	03/12/14 13:09	calc
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1	3.9		*	%	0.1	0.5	03/06/14 11:00	cdb
pH, Saturated Paste	EPA 600/2-78-054, section 3.2.2									
Max Particle Size		1	2000		*	um			03/06/14 0:00	spl
рН		1	8.1		*	units	0.1	0.1	03/06/14 0:00	spl
Sulfur Forms	M600/2-78-054 3.2.4									
Sulfur Organic Residual		1	0.02	В	*	%	0.01	0.1	03/06/14 0:00	cra
Sulfur Pyritic Sulfide		1		U	*	%	0.01	0.1	03/06/14 0:00	cra
Sulfur Sulfate		1	0.01	В	*	%	0.01	0.1	03/06/14 0:00	cra
Sulfur Total		1	0.03	В	*	%	0.01	0.1	03/06/14 0:00	cra
Total Sulfur minus Sulfate		1	0.02	В	*	%	0.01	0.1	03/06/14 0:00	cra

Soil	Preparation	
001	reparation	

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972								02/21/14 12:2	7 spl
Crush and Pulverize	EPA-600/2-78-054 3.1.3								03/04/14 14:19	9 cdb
Saturated Paste Extraction	USDA No. 60 (2)								03/06/14 10:1	5 spl
Sieve-2000 um (2.0mm)	ASA No.9, 15-4.2.2								03/04/14 14:19	edb
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2								03/04/14 14:19	edb
Synthetic Precip. Leaching Procedure	M1312-RC								02/20/14 10:50	6 cdb
Synthetic Precip. Leaching Procedure	M1312								02/20/14 11:3	edb
Synthetic Precip. Leaching Procedure	M1312, DI Water								02/28/14 4:30	spl



#### **Reardon Steel LLC**

### Project ID:

Sample ID: POND FILL #3

### Inorganic Analytical Results

ACZ Sample ID: L16884-03 Date Sampled: 02/09/14 00:00 Date Received: 02/18/14 Sample Matrix: Soil

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Chloride (1312 DI)	SM4500CI-E	1	1	В	*	mg/L	1	5	03/05/14 20:32	mpb
Conductivity @25C (1312-DI)	SM2510B	1	88		*	umhos/cm	1	10	03/04/14 13:24	abd
Fluoride (1312 DI)	SM4500F-C	1	0.3	В	*	mg/L	0.1	0.5	03/04/14 12:08	abd
Nitrate/Nitrite as N (1312-DI)	M353.2 - Automated Cadmium Reduction	1	0.05	В	*	mg/L	0.02	0.1	02/28/14 23:24	pjb
Nitrogen, ammonia (1312-DI)	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	03/07/14 11:29	bsu
Sulfate (1312 DI)	D516-02 - Turbidimetric	1	19.4		*	mg/L	1	5	03/07/14 13:29	mpb

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#### **Reardon Steel LLC**

#### Project ID:

Sample ID:

### POND FILL #4

### Inorganic Analytical Results

ACZ Sample ID: L16884-04 Date Sampled: 02/09/14 00:00 Date Received: 02/18/14 Sample Matrix: Soil

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Total Hot Plate Digestion	M3010A ICP-MS								02/25/14 12:50	las
Total Hot Plate Digestion	M3010A ICP								02/21/14 12:27	jjc
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (1312)	M6010B ICP	1	0.38		*	mg/L	0.03	0.2	02/24/14 16:42	jjc
Antimony (1312)	M6010B ICP	1		U	*	mg/L	0.03	0.2	02/24/14 16:42	jjc
Arsenic (1312)	M6010B ICP	1		U	*	mg/L	0.04	0.2	02/24/14 16:42	jjc
Barium (1312)	M6010B ICP	1	0.015	В		mg/L	0.003	0.02	02/24/14 16:42	jjc
Beryllium (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:42	jjc
Cadmium (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.02	02/24/14 16:42	jjc
Chromium (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:42	jjc
Copper (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:42	jjc
Iron (1312)	M6010B ICP	1	0.02	В	*	mg/L	0.02	0.05	02/24/14 16:42	jjc
Lead (1312)	M6010B ICP	1		U	*	mg/L	0.03	0.2	02/24/14 16:42	jjc
Manganese (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.03	02/24/14 16:42	jjc
Mercury (1312)	M7470A CVAA	1		U	*	mg/L	0.0002	0.001	02/24/14 13:14	mfm
Molybdenum (1312)	M6010B ICP	1		U	*	mg/L	0.02	0.1	02/24/14 16:42	jjc
Nickel (1312)	M6010B ICP	1		U	*	mg/L	0.008	0.04	02/24/14 16:42	jjc
Selenium (1312)	M6010B ICP	1		U	*	mg/L	0.05	0.3	02/24/14 16:42	jjc
Silver (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.03	02/24/14 16:42	jjc
Thallium (1312)	M6010B ICP	1		U	*	mg/L	0.1	0.5	02/24/14 16:42	jjc
Uranium (1312)	M6020 ICP-MS	1	0.0002	В	*	mg/L	0.0001	0.0005	03/03/14 23:05	pmc
Vanadium (1312)	M6010B ICP	1	0.006	В	*	mg/L	0.005	0.03	02/24/14 16:42	jjc
Zinc (1312)	M6010B ICP	1		U		mg/L	0.01	0.05	02/24/14 16:42	jjc



POND FILL #4

#### **Reardon Steel LLC**

Sample ID:

### Inorganic Analytical Results

ACZ Sample ID:	L16884-04
Date Sampled:	02/09/14 00:00
Date Received:	02/18/14
Sample Matrix:	Soil

Soil Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 3.2.4		2	В		t CaCO3/Kt	1	5	03/12/14 13:09	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3		58			t CaCO3/Kt	1	5	03/12/14 13:09	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3		56			t CaCO3/Kt	1	5	03/12/14 13:09	calc
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1	5.8		*	%	0.1	0.5	03/06/14 11:10	cdb
pH, Saturated Paste	EPA 600/2-78-054, section 3.2.2									
Max Particle Size		1	2000		*	um			03/06/14 0:00	spl
рН		1	8.3		*	units	0.1	0.1	03/06/14 0:00	spl
Sulfur Forms	M600/2-78-054 3.2.4									
Sulfur Organic Residual		1	0.05	В	*	%	0.01	0.1	03/06/14 0:00	cra
Sulfur Pyritic Sulfide		1	0.03	В	*	%	0.01	0.1	03/06/14 0:00	cra
Sulfur Sulfate		1		U	*	%	0.01	0.1	03/06/14 0:00	cra
Sulfur Total		1	0.07	В	*	%	0.01	0.1	03/06/14 0:00	cra
Total Sulfur minus Sulfate		1	0.07	В	*	%	0.01	0.1	03/06/14 0:00	cra

#### Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972								02/21/14 12:36	6 spl
Crush and Pulverize	EPA-600/2-78-054 3.1.3								03/04/14 14:25	5 cdb
Saturated Paste Extraction	USDA No. 60 (2)								03/06/14 10:17	spl
Sieve-2000 um (2.0mm)	ASA No.9, 15-4.2.2								03/04/14 14:25	cdb
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2								03/04/14 14:25	cdb
Synthetic Precip. Leaching Procedure	M1312								02/20/14 12:42	cdb
Synthetic Precip. Leaching Procedure	M1312-RC								02/20/14 12:05	cdb
Synthetic Precip. Leaching Procedure	M1312, DI Water								02/28/14 5:45	spl



#### **Reardon Steel LLC**

### Project ID:

Sample ID: POND FILL #4

### Inorganic Analytical Results

ACZ Sample ID:	L16884-04
Date Sampled:	02/09/14 00:00
Date Received:	02/18/14
Sample Matrix:	Soil

Wet Chemistry											
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst	
Chloride (1312 DI)	SM4500CI-E	1		U	*	mg/L	1	5	03/05/14 20:32	mpb	
Conductivity @25C (1312-DI)	SM2510B	1	58		*	umhos/cm	1	10	03/04/14 13:25	abd	
Fluoride (1312 DI)	SM4500F-C	1	0.2	В	*	mg/L	0.1	0.5	03/04/14 12:23	abd	
Nitrate/Nitrite as N (1312-DI)	M353.2 - Automated Cadmium Reduction	1	0.03	В	*	mg/L	0.02	0.1	02/28/14 23:27	pjb	
Nitrogen, ammonia (1312-DI)	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	03/07/14 11:32	bsu	
Sulfate (1312 DI)	D516-02 - Turbidimetric	1	3.0	В	*	mg/L	1	5	03/07/14 13:29	mpb	
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### **Reardon Steel LLC**

### Project ID:

Sample ID: SHOP 1

# Inorganic Analytical Results

ACZ Sample ID:	L16884-05
Date Sampled:	02/09/14 00:00
Date Received:	02/18/14
Sample Matrix:	Soil

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Total Hot Plate	M3010A ICP								02/21/14 12:45	jjc
Digestion										
Total Hot Plate Digestion	M3010A ICP-MS								02/25/14 13:05	las
Metals Analysis			_							
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (1312)	M6010B ICP	1	0.28		*	mg/L	0.03	0.2	02/24/14 16:45	jjc
Antimony (1312)	M6010B ICP	1		U	*	mg/L	0.03	0.2	02/24/14 16:45	jjc
Arsenic (1312)	M6010B ICP	1		U	*	mg/L	0.04	0.2	02/24/14 16:45	jjc
Barium (1312)	M6010B ICP	1	0.040			mg/L	0.003	0.02	02/24/14 16:45	jjc
Beryllium (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:45	jjc
Cadmium (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.02	02/24/14 16:45	jjc
Chromium (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:45	jjc
Copper (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:45	jjc
Iron (1312)	M6010B ICP	1		U	*	mg/L	0.02	0.05	02/24/14 16:45	jjc
Lead (1312)	M6010B ICP	1		U	*	mg/L	0.03	0.2	02/24/14 16:45	jjc
Manganese (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.03	02/24/14 16:45	jjc
Mercury (1312)	M7470A CVAA	1		U	*	mg/L	0.0002	0.001	02/24/14 13:16	mfm
Molybdenum (1312)	M6010B ICP	1		U	*	mg/L	0.02	0.1	02/24/14 16:45	jjc
Nickel (1312)	M6010B ICP	1		U	*	mg/L	0.008	0.04	02/24/14 16:45	jjc
Selenium (1312)	M6010B ICP	1		U	*	mg/L	0.05	0.3	02/24/14 16:45	jjc
Silver (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.03	02/24/14 16:45	jjc
Thallium (1312)	M6010B ICP	1		U	*	mg/L	0.1	0.5	02/24/14 16:45	jjc
Uranium (1312)	M6020 ICP-MS	1		U	*	mg/L	0.0001	0.0005	03/03/14 23:07	pmc
Vanadium (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.03	02/24/14 16:45	jjc
Zinc (1312)	M6010B ICP	1		U		mg/L	0.01	0.05	02/24/14 16:45	jjc



### **Reardon Steel LLC**

SHOP 1

# Inorganic Analytical Results

ACZ Sample ID: L16884-05 Date Sampled: 02/09/14 00:00 Date Received: 02/18/14 Sample Matrix: Soil

Soil Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 3.2.4		16			t CaCO3/Kt	1	5	03/12/14 13:09	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3		64			t CaCO3/Kt	1	5	03/12/14 13:09	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3		48			t CaCO3/Kt	1	5	03/12/14 13:09	calc
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1	6.4		*	%	0.1	0.5	03/06/14 11:30	cdb
pH, Saturated Paste	EPA 600/2-78-054, section 3.2.2									
Max Particle Size		1	2000		*	um			03/06/14 0:00	spl
рН		1	8.2		*	units	0.1	0.1	03/06/14 0:00	spl
Sulfur Forms	M600/2-78-054 3.2.4									
Sulfur Organic Residual		1	0.29		*	%	0.01	0.1	03/06/14 0:00	cra
Sulfur Pyritic Sulfide		1	0.13		*	%	0.01	0.1	03/06/14 0:00	cra
Sulfur Sulfate		1	0.09	В	*	%	0.01	0.1	03/06/14 0:00	cra
Sulfur Total		1	0.51		*	%	0.01	0.1	03/06/14 0:00	cra
Total Sulfur minus Sulfate		1	0.42		*	%	0.01	0.1	03/06/14 0:00	cra

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972								02/21/14 12:46	6 spl
Crush and Pulverize	EPA-600/2-78-054 3.1.3								03/04/14 14:32	2 cdb
Saturated Paste Extraction	USDA No. 60 (2)								03/06/14 10:20	) spl
Sieve-2000 um (2.0mm)	ASA No.9, 15-4.2.2								03/04/14 14:32	2 cdb
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2								03/04/14 14:32	2 cdb
Synthetic Precip. Leaching Procedure	M1312								02/20/14 13:45	5 cdb
Synthetic Precip. Leaching Procedure	M1312-RC								02/20/14 13:14	4 cdb
Synthetic Precip. Leaching Procedure	M1312, DI Water								02/28/14 7:00	spl



### **Reardon Steel LLC**

Project ID:

Sample ID: SHOP 1

# Inorganic Analytical Results

ACZ Sample ID: L16884-05 Date Sampled: 02/09/14 00:00 Date Received: 02/18/14 Sample Matrix: Soil

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Chloride (1312 DI)	SM4500CI-E	1	1	В	*	mg/L	1	5	03/05/14 20:33	mpb
Conductivity @25C (1312-DI)	SM2510B	1	83		*	umhos/cm	1	10	03/04/14 13:26	abd
Fluoride (1312 DI)	SM4500F-C	1	0.2	В	*	mg/L	0.1	0.5	03/04/14 12:27	abd
Nitrate/Nitrite as N (1312-DI)	M353.2 - Automated Cadmium Reduction	1	0.25		*	mg/L	0.02	0.1	02/28/14 23:29	pjb
Nitrogen, ammonia (1312-DI)	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	03/07/14 11:33	bsu
Sulfate (1312 DI)	D516-02 - Turbidimetric	1	13.7		*	mg/L	1	5	03/07/14 13:30	mpb

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### **Reardon Steel LLC**

### Project ID:

Sample ID: SHOP 2

# Inorganic Analytical Results

ACZ Sample ID: L16884-06 Date Sampled: 02/09/14 00:00 Date Received: 02/18/14 Sample Matrix: Soil

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Total Hot Plate Digestion	M3010A ICP								02/21/14 13:03	jjc
Total Hot Plate Digestion	M3010A ICP-MS								02/25/14 13:20	las
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (1312)	M6010B ICP	1	0.28		*	mg/L	0.03	0.2	02/24/14 16:48	jjc
Antimony (1312)	M6010B ICP	1		U	*	mg/L	0.03	0.2	02/24/14 16:48	jjc
Arsenic (1312)	M6010B ICP	1		U	*	mg/L	0.04	0.2	02/24/14 16:48	jjc
Barium (1312)	M6010B ICP	1	0.012	В		mg/L	0.003	0.02	02/24/14 16:48	jjc
Beryllium (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:48	jjc
Cadmium (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.02	02/24/14 16:48	jjc
Chromium (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:48	jjc
Copper (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:48	jjc
Iron (1312)	M6010B ICP	1		U	*	mg/L	0.02	0.05	02/24/14 16:48	jjc
Lead (1312)	M6010B ICP	1		U	*	mg/L	0.03	0.2	02/24/14 16:48	jjc
Manganese (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.03	02/24/14 16:48	jjc
Mercury (1312)	M7470A CVAA	1		U	*	mg/L	0.0002	0.001	02/24/14 13:18	mfm
Molybdenum (1312)	M6010B ICP	1		U	*	mg/L	0.02	0.1	02/24/14 16:48	jjc
Nickel (1312)	M6010B ICP	1		U	*	mg/L	0.008	0.04	02/24/14 16:48	jjc
Selenium (1312)	M6010B ICP	1		U	*	mg/L	0.05	0.3	02/24/14 16:48	jjc
Silver (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.03	02/24/14 16:48	jjc
Thallium (1312)	M6010B ICP	1		U	*	mg/L	0.1	0.5	02/24/14 16:48	jjc
Uranium (1312)	M6020 ICP-MS	1		U	*	mg/L	0.0001	0.0005	03/03/14 23:09	pmc
Vanadium (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.03	02/24/14 16:48	jjc
Zinc (1312)	M6010B ICP	1		U		mg/L	0.01	0.05	02/24/14 16:48	jjc



### **Reardon Steel LLC**

ACZ Sample ID:	L16884-06
Date Sampled:	02/09/14 00:00
Date Received:	02/18/14
Sample Matrix:	Soil

Soil Analysis									
Parameter	EPA Method	Dilution	Result	Qual XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 3.2.4		37		t CaCO3/Kt	1	5	03/12/14 13:09	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3		63		t CaCO3/Kt	1	5	03/12/14 13:09	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3		26		t CaCO3/Kt	1	5	03/12/14 13:09	calc
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1	6.3	*	%	0.1	0.5	03/06/14 11:40	cdb
pH, Saturated Paste	EPA 600/2-78-054, section 3.2.2								
Max Particle Size		1	2000	*	um			03/06/14 0:00	spl
рН		1	7.5	*	units	0.1	0.1	03/06/14 0:00	spl
Sulfur Forms	M600/2-78-054 3.2.4								
Sulfur Organic Residual		1	0.80	*	%	0.01	0.1	03/07/14 0:00	cra
Sulfur Pyritic Sulfide		1	0.18	*	%	0.01	0.1	03/07/14 0:00	cra
Sulfur Sulfate		1	0.19	*	%	0.01	0.1	03/07/14 0:00	cra
Sulfur Total		1	1.17	*	%	0.01	0.1	03/07/14 0:00	cra
Total Sulfur minus Sulfate		1	0.98	*	%	0.01	0.1	03/07/14 0:00	cra

#### Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972								02/21/14 12:55	5 spl
Crush and Pulverize	EPA-600/2-78-054 3.1.3								03/04/14 14:39	cdb
Saturated Paste Extraction	USDA No. 60 (2)								03/06/14 10:22	2 spl
Sieve-2000 um (2.0mm)	ASA No.9, 15-4.2.2								03/04/14 14:39	cdb
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2								03/04/14 14:39	cdb
Synthetic Precip. Leaching Procedure	M1312-RC								02/20/14 14:23	cdb
Synthetic Precip. Leaching Procedure	M1312								02/20/14 14:48	cdb
Synthetic Precip. Leaching Procedure	M1312, DI Water								02/28/14 9:30	spl



### **Reardon Steel LLC**

Project ID:

Sample ID: SHOP 2

# Inorganic Analytical Results

ACZ Sample ID: L16884-06 Date Sampled: 02/09/14 00:00 Date Received: 02/18/14 Sample Matrix: Soil

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Chloride (1312 DI)	SM4500CI-E	1	2	В	*	mg/L	1	5	03/05/14 20:33	mpb
Conductivity @25C (1312-DI)	SM2510B	1	80		*	umhos/cm	1	10	03/04/14 13:28	abd
Fluoride (1312 DI)	SM4500F-C	1	0.2	В	*	mg/L	0.1	0.5	03/04/14 12:30	abd
Nitrate/Nitrite as N (1312-DI)	M353.2 - Automated Cadmium Reduction	1	0.23		*	mg/L	0.02	0.1	02/28/14 23:30	pjb
Nitrogen, ammonia (1312-DI)	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	03/07/14 11:34	bsu
Sulfate (1312 DI)	D516-02 - Turbidimetric	1	8.7		*	mg/L	1	5	03/07/14 13:30	mpb



## Inorganic Reference

Report Header	Explanations		
Batch	A distinct set of samples analyzed at a specific time		
Found	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)		
MDL	Method Detection Limit. Same as Minimum Reporting Limit.	Allows for instrume	ent and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the man	ufacturer's certifica	ate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.		
QC	True Value of the Control Sample or the amount added to the	Spike	
Rec	Recovered amount of the true value or spike added, in % (exc	cept for LCSS, mg	/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC	C Types	
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)		
Sample	Value of the Sample of interest		
QC Sample Typ	Des		
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
ССВ	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	SDL	Serial Dilution
Blanks Control San Duplicates Spikes/Fort Standard	nples Verifies the accuracy of the method, Verifies the precision of the instrume	including the prep nt and/or method. ces, if any.	prep method or calibration procedure. procedure.
ACZ Qualifiers			
B	Analyte concentration detected at a value between MDL and F		ed value is an estimated quantity
н	Analysis exceeded method hold time. pH is a field test with an		
L	Target analyte response was below the laboratory defined neg		
U	The material was analyzed for, but was not detected above th	-	ciated value.
	The associated value is either the sample quantitation limit or		
Method Refere			
(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water a		
(2)	EPA 600/R-93-100. Methods for the Determination of Inorgan		
(3)	EPA 600/R-94-111. Methods for the Determination of Metals	In Environmental \$	samples - Supplement I, May 1994.
(4)	EPA SW-846. Test Methods for Evaluating Solid Waste.		
(5)	Standard Methods for the Examination of Water and Wastewa	aler.	
Comments			
(1)	QC results calculated from raw data. Results may vary slightly	y if the rounded va	lues are used in the calculations.
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are rep	ported on a dry we	ight basis.
(3)	Animal matrices for Inorganic analyses are reported on an "as	received" basis.	
(4)	An asterisk in the "XQ" column indicates there is an extended	qualifier and/or ce	rtification qualifier
	associated with the result.		
(5)	If the MDL equals the PQL or the MDL column is omitted, the	PQL is the reportir	ng limit.
For a comp	lete list of ACZ's Extended Qualifiers, please click:	http://www	w.acz.com/public/extquallist.pdf

REP001.09.12.01



#### **Reardon Steel LLC**

Aluminum (1312	?)		M6010B	ICP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	2		1.944	mg/L	97.2	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.09	0.09			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.09	0.09			
WG359563LFB1	LFB	02/24/14 16:02	II140218-5	1.0011		1.012	mg/L	101.1	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	U	mg/L				0	20	RA
L16859-03MS	MS	02/24/14 16:20	II140218-5	1.0011	U	1.028	mg/L	102.7	75	125			
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	1.0011	U	1.014	mg/L	101.3	75	125	1.37	20	
Antimony (1312)			M6010B	ICP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	4		3.946	mg/L	98.7	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.09	0.09			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.09	0.09			
WG359563LFB1	LFB	02/24/14 16:02	II140218-5	.2002		.178	mg/L	88.9	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	U	mg/L				0	20	RA
L16859-03MS	MS	02/24/14 16:20	II140218-5	.2002	U	.197	mg/L	98.4	75	125			
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	.2002	U	.176	mg/L	87.9	75	125	11.26	20	
Arsenic (1312)			M6010B	ICP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	4		4.003	mg/L	100.1	90	110			
WG359719ICB	ICB	02/24/14 15:46	111101202			U	mg/L	100.1	-0.12	0.12			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.12	0.12			
WG359563LFB1	LFB	02/24/14 16:02	II140218-5	1		1.037	mg/L	103.7	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	U	mg/L				0	20	RA
L16859-03MS	MS	02/24/14 16:20	II140218-5	1	U	1.058	mg/L	105.8	75	125	°,	20	
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	1	U	1.038	mg/L	103.8	75	125	1.91	20	
Barium (1312)			M6010B	ICP									;
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	2		1.952	mg/L	97.6	90	110			
WG359719ICB	ICB	02/24/14 15:46		-		U	mg/L	00	-0.009	0.009			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.009	0.009			
WG359563LFB1	LFB	02/24/14 16:02	II140218-5	.5		.4962	mg/L	99.2	85	115			
L16859-01DUP	DUP	02/24/14 16:02		.0	.03	.0311	mg/L	00.2	50		3.6	20	
L16859-03MS	MS	02/24/14 16:20	ll140218-5	.5	.027	.5249	mg/L	99.6	75	125	0.0		
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	.5	.027	.5178	mg/L	98.2	75	125	1.36	20	
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#### **Reardon Steel LLC**

### ACZ Project ID: L16884

Beryllium (1312)			M6010B I	-									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	2		1.924	mg/L	96.2	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.03	0.03			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.03	0.03			
WG359563LFB1	LFB	02/24/14 16:02	II140218-5	.5		.504	mg/L	100.8	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	U	mg/L				0	20	R
L16859-03MS	MS	02/24/14 16:20	II140218-5	.5	U	.501	mg/L	100.2	75	125			
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	.5	U	.497	mg/L	99.4	75	125	0.8	20	
Cadmium (1312)			M6010B I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	ll140123-2	2		1.887	mg/L	94.4	90	110			
WG359719IC8	ICB	02/24/14 15:45	1170123-2	2		1.007 U	mg/L	JT.4	-0.015	0.015			
WG3597191CB WG359563PBS	PBS	02/24/14 15:40				U			-0.015	0.015			
WG359563LFB1	LFB	02/24/14 15:59	II140218-5	.5		.4936	mg/L	98.7	-0.015 85	115			
			11140210-5	.5			mg/L	90.7	65	115	0	20	Р
L16859-01DUP	DUP	02/24/14 16:08	114 400 40 5	-	U	U	mg/L	07.0	75	405	0	20	R
L16859-03MS	MS	02/24/14 16:20	II140218-5	.5	.015	.5036	mg/L	97.9	75	125	4.04	00	
L16859-03MSD	MSD	02/24/14 16:23	ll140218-5	.5	.015	.4974	mg/L	96.7	75	125	1.24	20	
Chloride (1312 D	I)		SM4500C										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360265													
WG360265ICB	ICB	03/05/14 20:13				U	mg/L		-3	3			
WG360265ICV	ICV	03/05/14 20:13	WI130722-5	54.945		53.4	mg/L	97.2	90	110			
WG360265LFB	LFB	03/05/14 20:32	WI131010-1	30		30.9	mg/L	103	90	110			
WG359992PBS	PBS	03/05/14 20:32				U	mg/L		-3	3			
L16859-01DUP	DUP	03/05/14 20:32			9	10.2	mg/L				12.5	20	R
L16884-05AS	AS	03/05/14 20:33	WI131010-1	30	1	32.2	mg/L	104	90	110			
Chromium (1312	)		M6010B I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	ll140123-2	2		1.91	mg/L	95.5	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.03	0.03			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.03	0.03			
WG359563LFB1	LFB	02/24/14 16:02	II140218-5	.501		.497	mg/L	99.2	85	115			
L16859-01DUP	DUP	02/24/14 16:08		.001	U	U	mg/L	00.2	00	110	0	20	R
L16859-03MS	MS	02/24/14 16:00	II140218-5	.501	U	.491	mg/L	98	75	125	Ū	20	10
L16859-03MSD	MSD	02/24/14 16:23	ll140218-5	.501	U	.484	mg/L	96.6	75	125	1.44	20	
Conductivity @2	5C (131)	2-DI)	SM2510B										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360167													
WG360167LCSW1	LCSW	03/04/14 13:12	PCN43577	1408.8		1441	umhos/cm	102.3	90	110			
WG359992PBS	PBS	03/04/14 13:12	1 014-00/7	1 100.0		10.4	umhos/cm	102.0	-4	4			
L16859-01DUP	DUP				520	535	umhos/cm		+	4	2.8	20	
L10003-01D0P		03/04/14 13:16			520						2.0	20	
WG360167LCSW2	LCSW	03/04/14 13:34	PCN43577	1408.8		1420	umhos/cm	100 0	90	110			

L16884-1403121439



#### **Reardon Steel LLC**

Copper (1312)			M6010B	ICP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	2		1.942	mg/L	97.1	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.03	0.03			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.03	0.03			
WG359563LFB1	LFB	02/24/14 16:02	ll140218-5	.5		.499	mg/L	99.8	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	U	mg/L				0	20	RA
L16859-03MS	MS	02/24/14 16:20	II140218-5	.5	U	.513	mg/L	102.6	75	125			
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	.5	U	.508	mg/L	101.6	75	125	0.98	20	
Fluoride (1312 D	DI)		SM4500F	-C									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360168													
WG360168ICV	ICV	03/04/14 11:16	WC140227-	2		1.91	mg/L	95.5	95	105			
WG360168ICB	ICB	03/04/14 11:20				.12	mg/L		-0.3	0.3			
WG360168LFB	LFB	03/04/14 11:28	WC140220-	5.015		4.59	mg/L	91.5	90	110			
WG359992PBS	PBS	03/04/14 11:33				.19	mg/L		-0.3	0.3			
L16859-01DUP	DUP	03/04/14 11:40			.9	.94	mg/L				4.3	20	RA
L16859-02AS	AS	03/04/14 11:52	WC140220-	5.015	1	6.37	mg/L	107.1	90	110			
Iron (1312)			M6010B	ICP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	2		1.962	mg/L	98.1	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.06	0.06			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.06	0.06			
WG359563LFB1	LFB	02/24/14 16:02	ll140218-5	1.0014		1.016	mg/L	101.5	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	.042	mg/L				200	20	RA
L16859-03MS	MS	02/24/14 16:20	ll140218-5	1.0014	U	1.014	mg/L	101.3	75	125			
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	1.0014	U	1.001	mg/L	100	75	125	1.29	20	
Lead (1312)			M6010B	ICP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	4		3.827	mg/L	95.7	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.09	0.09			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.09	0.09			
WG359563LFB1	LFB	02/24/14 16:02	II140218-5	1.001		1.025	mg/L	102.4	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	U	mg/L				0	20	RA
L16859-03MS	MS	02/24/14 16:20	II140218-5	1.001	.11	1.109	mg/L	99.8	75	125			
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	1.001	.11	1.085	mg/L	97.4	75	125	2.19	20	



#### **Reardon Steel LLC**

Manganese (131	2)		M6010B	ICP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	ll140123-2	2		1.931	mg/L	96.6	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.015	0.015			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.015	0.015			
WG359563LFB1	LFB	02/24/14 16:02	ll140218-5	.501		.5038	mg/L	100.6	85	115			
L16859-01DUP	DUP	02/24/14 16:08			2.01	1.737	mg/L				14.6	20	
L16859-03MS	MS	02/24/14 16:20	ll140218-5	.501	4.43	4.918	mg/L	97.4	75	125			
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	.501	4.43	4.785	mg/L	70.9	75	125	2.74	20	M3
Mercury (1312)			M7470A	CVAA									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359693													
WG359693ICV	ICV	02/24/14 11:13	ll140214-1	.005005		.00491	mg/L	98.1	95	105			
WG359693ICB	ICB	02/24/14 11:16				U	mg/L		-0.0002	0.0002			
WG359698							-						
WG359563PBS	PBS	02/24/14 12:46				U	mg/Kg		-0.0006	0.0006			
WG359563LFB1	LFB	02/24/14 12:48	ll140203-2	.002002		.0019	mg/L	94.9	85	115			
L16859-01DUP	DUP	02/24/14 12:53			U	U	mg/L				0	20	RA
L16859-03MS	MS	02/24/14 12:59	II140203-2	.002002	U	.00191	mg/L	95.4	85	115			
L16859-03MSD	MSD	02/24/14 13:01	II140203-2	.002002	U	.00188	mg/L	93.9	85	115	1.58	20	
Molybdenum (13	312)		M6010B	ICP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	ll140123-2	2		1.944	mg/L	97.2	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.06	0.06			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.06	0.06			
WG359563LFB1	LFB	02/24/14 16:02	ll140218-5	.5		.496	mg/L	99.2	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	U	mg/L				0	20	RA
L16859-03MS	MS	02/24/14 16:20	II140218-5	.5	U	.499	mg/L	99.8	75	125			
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	.5	U	.494	mg/L	98.8	75	125	1.01	20	
Neutralization P	otential	as CaCO3	M600/2-7	78-054 3.2.3	3								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360249													
WG360249PBS	PBS	03/06/14 9:40				U	%		-0.1	0.1			
WG360249LCSS	LCSS	03/06/14 9:50	PCN33453	100		107.5	%	107.5	80	120			
L16859-01DUP	DUP	03/06/14 10:10			9.4	9.25	%				1.6	20	



#### **Reardon Steel LLC**

Nickel (1312)			M6010B I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	2		1.979	mg/L	99	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.024	0.024			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.024	0.024			
WG359563LFB1	LFB	02/24/14 16:02	ll140218-5	.5		.51	mg/L	102	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	U	mg/L				0	20	RA
L16859-03MS	MS	02/24/14 16:20	ll140218-5	.5	U	.5005	mg/L	100.1	75	125			
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	.5	U	.4959	mg/L	99.2	75	125	0.92	20	
Nitrate/Nitrite as	s N (131)	2-DI)	M353.2 - /	Automate	d Cadmiur	n Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360067													
WG360067ICV	ICV	02/28/14 21:46	WI140116-3	2.416		2.321	mg/L	96.1	90	110			
WG360067ICB	ICB	02/28/14 21:47				U	mg/L		-0.06	0.06			
WG360072													
WG360072LFB	LFB	02/28/14 23:13	WI140215-3	2		1.984	mg/L	99.2	90	110			
WG359992PBS	PBS	02/28/14 23:14				U	mg/L		-0.06	0.06			
L16859-01DUP	DUP	02/28/14 23:17			U	U	mg/L				0	20	RA
L16859-02AS	AS	02/28/14 23:19	WI140215-3	2	U	2.003	mg/L	100.2	90	110			
Nitrogen, ammo	onia (131	2-DI)	M350.1 - /	Automate	d Phenate								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360342													
WG360342ICV	ICV	03/07/14 11:15	WI131021-1	1.003		1.028	mg/L	102.5	90	110			
WG360342ICB	ICB	03/07/14 11:18				U	mg/L		-0.15	0.15			
WG360342LFB	LFB	03/07/14 11:19	WI140113-8	1		1.028	mg/L	102.8	90	110			
WG359992PBS	PBS	03/07/14 11:20				U	mg/L		-0.15	0.15			
L16859-01DUP	DUP	03/07/14 11:23			U	U	mg/L				0	20	RA
L16859-02AS	AS	03/07/14 11:25	WI140113-8	1	U	1	mg/L	100	90	110			
pH, Saturated P	aste		EPA 600/2	2-78-054,	section 3.	2.2							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360293													
WG360293ICV	ICV	03/06/14 11:09	PCN42578	4		4	units	100	3.9	4.1			
L16859-01DUP	DUP	03/06/14 11:35			7.1	7.27	units				2.4	20	
Selenium (1312)	)		M6010B I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	4		4.056	mg/L	101.4	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.15	0.15			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.15	0.15			
WG359563LFB1	LFB	02/24/14 16:02	ll140218-5	1.001		1.021	mg/L	102	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	U	mg/L				0	20	RA
L16859-03MS	MS	02/24/14 16:20	ll140218-5	1.001	U	1.019	mg/L	101.8	75	125			
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	1.001	U	1.023	mg/L	102.2	75	125	0.39	20	
							-						



#### **Reardon Steel LLC**

Silver (1312)			M6010B I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	1.001		1.002	mg/L	100.1	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.03	0.03			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.03	0.03			
WG359563LFB1	LFB	02/24/14 16:02	ll140218-5	.5005		.503	mg/L	100.5	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	U	mg/L				0	20	RA
L16859-03MS	MS	02/24/14 16:20	II140218-5	.5005	U	.504	mg/L	100.7	75	125			
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	.5005	U	.493	mg/L	98.5	75	125	2.21	20	
Sulfate (1312 DI	)		D516-02 ·	- Turbidim	etric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360357													
WG360357ICB	ICB	03/07/14 12:34				U	mg/L		-3	3			
WG360357ICV	ICV	03/07/14 12:34	WI140228-2	20		19	mg/L	95	90	110			
WG360357LFB	LFB	03/07/14 13:28	WI131010-2	9.99		9.2	mg/L	92.1	90	110			
WG359992PBS	PBS	03/07/14 13:28				U	mg/L		-3	3			
L16884-05AS	AS	03/07/14 13:30	WI131010-2	9.99	13.7	24.3	mg/L	106.1	90	110			
L16859-01DUP	DUP	03/07/14 13:47			195	201	mg/L				3	20	RA
Sulfur Organic I	Residual		M600/2-7	8-054 3.2.	4								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360227													
L16859-01DUP	DUP	03/05/14 22:12			.77	.71	%				8.1	20	
Sulfur Pyritic Su	ulfide		M600/2-7	8-054 3.2.	.4								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360227													
L16859-01DUP	DUP	03/05/14 22:12			2.05	2.07	%				1	20	
Sulfur Sulfate			M600/2-7	8-054 3.2.	.4								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360227													
L16859-01DUP	DUP	03/05/14 22:12			.5	.58	%				14.8	20	
Sulfur Total			M600/2-7	8-054 3.2.	.4								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360227													
WG360227PBS	PBS	03/05/14 11:30				U	%		-0.03	0.03			
WG360227PBS WG360227LCSS	LCSS		PCN44488	4.07		4.65	%	114.3	-0.03	0.03			
L16859-01DUP	DUP	03/05/14 15:04 03/05/14 22:12	ı⁻ ∪ı <del>\+</del> 4400	4.07	3.32	4.65 3.36	%	114.3			1.2	20	
L 10039-01DUF	DUF	03/03/14 22.12			J.JZ	5.50	70				1.4	20	



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Thallium (1312)			M6010B I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	4		3.89	mg/L	97.3	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.3	0.3			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.3	0.3			
WG359563LFB1	LFB	02/24/14 16:02	ll140218-5	2		1.96	mg/L	98	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	U	mg/L				0	20	RA
L16859-03MS	MS	02/24/14 16:20	ll140218-5	2	U	1.93	mg/L	96.5	75	125			
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	2	U	1.9	mg/L	95	75	125	1.57	20	
Total Sulfur Min	us Sulfa	ite	M600/2-78	3-054 3.2	.4								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360227													
L16859-01DUP	DUP	03/05/14 22:12			2.82	2.78	%				1.4	20	
Uranium (1312)			M6020 ICI	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360134													
WG360134ICV	ICV	03/03/14 22:32	MS140218-2	.05		.05071	mg/L	101.4	90	110			
WG360134ICB	ICB	03/03/14 22:34				U	mg/L		-0.0003	0.0003			
WG359563PBS	PBS	03/03/14 22:42				U	mg/L		-0.0003	0.0003			
WG359563LFB2	LFB	03/03/14 22:43	MS140128-2	.05		.04992	mg/L	99.8	80	120			
L16859-01DUP	DUP	03/03/14 22:47			.0002	U	mg/L				200	20	RA
L16859-02MS	MS	03/03/14 22:51	MS140128-2	.05	U	.05238	mg/L	104.8	75	125			
L16859-02MSD	MSD	03/03/14 22:52	MS140128-2	.05	U	.05316	mg/L	106.3	75	125	1.48	20	
Vanadium (1312)	)		M6010B I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	2		1.95	ma/l	97.5	90	110			
			11140125-2	2		1.95 U	mg/L	97.5					
WG359719ICB WG359563PBS	ICB PBS	02/24/14 15:46				U	mg/L		-0.015	0.015			
WG359563LFB1	LFB	02/24/14 15:59 02/24/14 16:02	II140218-5	.5		.5048	mg/L	101	-0.015 85	0.015 115			
L16859-01DUP	DUP	02/24/14 16:02	11140210-3	.5	U	.3048 U	mg/L mg/L	101	00	115	0	20	RA
L16859-03MS	MS	02/24/14 16:00	II140218-5	.5	U	.5011	•	100.2	75	125	0	20	1.4
L16859-03MSD	MSD	02/24/14 16:20	II140218-5 II140218-5	.5	U	.4911	mg/L mg/L	98.2	75 75	125	2.02	20	
	mee	02/2 // 10/20	M6010B I		Ū.			00.2		.20	2.02	20	
Zinc (1312) ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
	1,960	7 IIIII J200	1 on oon	ųv	Campio	round	onito	noo	Lowor	oppor		Linit	duui
WG359719		00/04/14 45:40	1140400 0	0		1 00 4	ma = //	047	00	140			
WG359719ICV	ICV	02/24/14 15:43	II140123-2	2		1.894	mg/L	94.7	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.03	0.03			
WG359563PBS	PBS	02/24/14 15:59	114 400 40 5	5005		U	mg/L	404 5	-0.03	0.03			
WG359563LFB1	LFB	02/24/14 16:02	II140218-5	.5005	4-	.508	mg/L	101.5	85	115	40.0	00	
L16859-01DUP	DUP	02/24/14 16:08	114 400 40 -		.17	.148	mg/L	<b>6-</b> -		10-	13.8	20	
L16859-03MS	MS	02/24/14 16:20	II140218-5	.5005	1.08	1.53	mg/L	95.9	75	125	0.10	00	
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	.5005	1.08	1.497	mg/L	89.3	75	125	2.18	20	

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## ACZ Project ID: L16884

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L16884-01	WG359719	Aluminum (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Antimony (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Arsenic (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Beryllium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Cadmium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Chromium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Copper (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Iron (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Lead (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Manganese (1312)	M6010B ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG359698	Mercury (1312)	M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359719	Molybdenum (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nickel (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Selenium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Silver (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Thallium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360134	Uranium (1312)	M6020 ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359719	Vanadium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360265	Chloride (1312 DI)	SM4500CI-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360168	Fluoride (1312 DI)	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360072	Nitrate/Nitrite as N (1312-DI)	M353.2 - Automated Cadmium	HD	Analysis is outside the intended scope of the method,

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			Reduction		which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360342	Nitrogen, ammonia (1312-DI)	M350.1 - Automated Phenate	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360357	Sulfate (1312 DI)	D516-02 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			D516-02 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

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## ACZ Project ID: L16884

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L16884-02	WG359719	Aluminum (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Antimony (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Arsenic (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Beryllium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Cadmium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Chromium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Copper (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Iron (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Lead (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Manganese (1312)	M6010B ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG359698	Mercury (1312)	M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359719	Molybdenum (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nickel (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Selenium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Silver (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Thallium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360134	Uranium (1312)	M6020 ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359719	Vanadium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360265	Chloride (1312 DI)	SM4500CI-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360168	Fluoride (1312 DI)	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360072	Nitrate/Nitrite as N (1312-DI)	M353.2 - Automated Cadmium	HD	Analysis is outside the intended scope of the method,

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			Reduction		which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360342	Nitrogen, ammonia (1312-DI)	M350.1 - Automated Phenate	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360357	Sulfate (1312 DI)	D516-02 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			D516-02 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

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## ACZ Project ID: L16884

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L16884-03	WG359719	Aluminum (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Antimony (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Arsenic (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Beryllium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Cadmium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Chromium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Copper (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Iron (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Lead (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Manganese (1312)	M6010B ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG359698	Mercury (1312)	M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359719	Molybdenum (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nickel (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Selenium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Silver (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Thallium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360134	Uranium (1312)	M6020 ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359719	Vanadium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360265	Chloride (1312 DI)	SM4500CI-E		Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360168	Fluoride (1312 DI)	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360072	Nitrate/Nitrite as N (1312-DI)	M353.2 - Automated Cadmium	HD	Analysis is outside the intended scope of the method,

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			Reduction		which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360342	Nitrogen, ammonia (1312-DI)	M350.1 - Automated Phenate	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360357	Sulfate (1312 DI)	D516-02 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			D516-02 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

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## Inorganic Extended Qualifier Report

## ACZ Project ID: L16884

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L16884-04	WG359719	Aluminum (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Antimony (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Arsenic (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Beryllium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Cadmium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Chromium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Copper (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Iron (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Lead (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Manganese (1312)	M6010B ICP	М3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG359698	Mercury (1312)	M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359719	Molybdenum (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nickel (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Selenium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Silver (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Thallium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360134	Uranium (1312)	M6020 ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359719	Vanadium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360265	Chloride (1312 DI)	SM4500CI-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360168	Fluoride (1312 DI)	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360072	Nitrate/Nitrite as N (1312-DI)	M353.2 - Automated Cadmium	HD	Analysis is outside the intended scope of the method,

REPAD.15.06.05.01



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#### **Reardon Steel LLC**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			Reduction		which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360342	Nitrogen, ammonia (1312-DI)	M350.1 - Automated Phenate	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360357	Sulfate (1312 DI)	D516-02 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			D516-02 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

## 4C **AGZ** Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487

**Reardon Steel LLC** 

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## ACZ Project ID: L16884

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L16884-05	WG359719	Aluminum (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Antimony (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Arsenic (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Beryllium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Cadmium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Chromium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Copper (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Iron (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Lead (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Manganese (1312)	M6010B ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG359698	Mercury (1312)	M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359719	Molybdenum (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nickel (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Selenium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Silver (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Thallium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360134	Uranium (1312)	M6020 ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359719	Vanadium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360265	Chloride (1312 DI)	SM4500CI-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360168	Fluoride (1312 DI)	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360072	Nitrate/Nitrite as N (1312-DI)	M353.2 - Automated Cadmium	HD	Analysis is outside the intended scope of the method,

REPAD.15.06.05.01



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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			Reduction		which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360342	Nitrogen, ammonia (1312-DI)	M350.1 - Automated Phenate	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360357	Sulfate (1312 DI)	D516-02 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			D516-02 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

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**Reardon Steel LLC** 

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# Inorganic Extended Qualifier Report

## ACZ Project ID: L16884

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L16884-06	WG359719	Aluminum (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Antimony (1312)	M6010B ICP	RA	
		Arsenic (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Beryllium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Cadmium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Chromium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Copper (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Iron (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Lead (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Manganese (1312)	M6010B ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG359698	Mercury (1312)	M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359719	Molybdenum (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nickel (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Selenium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Silver (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Thallium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360134	Uranium (1312)	M6020 ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359719	Vanadium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360265	Chloride (1312 DI)	SM4500CI-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360168	Fluoride (1312 DI)	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360072	Nitrate/Nitrite as N (1312-DI)	M353.2 - Automated Cadmium	HD	Analysis is outside the intended scope of the method,

REPAD.15.06.05.01



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#### **Reardon Steel LLC**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			Reduction		which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360342	Nitrogen, ammonia (1312-DI)	M350.1 - Automated Phenate	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360357	Sulfate (1312 DI)	D516-02 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			D516-02 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

ACZ 2773 Downhill Drive	Laboratories, Steamboat Springs, CO 80	3			adioC alytic					
<b>Reardon Steel L</b> Project ID: Sample ID: Locator:			ACZ Sample ID: <b>L16884-01</b> Date Sampled: 02/09/14 0:00 Date Received: 02/18/14 Sample Matrix: Soil							
Gross Alpha & Beta ( M9310	(1312)						Pre	p Method:		
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst		
Gross Alpha (1312)	02/26/14 0:08		1.1	2.3	2.1	pCi/L	*	thf		
Gross Beta (1312)	02/26/14 0:08		7.9	4.3	5.7	pCi/L		thf		
Radium 226 (1312) M903.1							Pre	p Method:		
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst		
Radium 226 (1312)	03/04/14 0:07		0.25	0.37	0.62	pCi/L	*	jrd		
Radium 228 (1312) M9320							Pre	p Method:		
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst		

03/11/14 12:23

0.1

1.7

1.9

pCi/L

nco

ACZ 2773 Downhill Drive	Laboratories, Steamboat Springs, CO 80	3	RadioChemistry Analytical Results							
<b>Reardon Steel Ll</b> Project ID: Sample ID: Locator:	L <b>C</b> POND FILL #2			ACZ Sample ID: <b>L16884-02</b> Date Sampled: 02/09/14 0:00 Date Received: 02/18/14 Sample Matrix: Soil						
Gross Alpha & Beta (1 M9310	1312)						Pre	p Method:		
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst		
Gross Alpha (1312)	02/26/14 0:10		1.2	2.2	2.2	pCi/L	*	thf		
Gross Beta (1312)	02/26/14 0:10		0.09	4.3	5.6	pCi/L		thf		
Radium 226 (1312) M903.1							Pre	p Method:		
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst		
Radium 226 (1312)	03/04/14 0:08		0.23	0.27	0.54	pCi/L	*	jrd		
Radium 228 (1312) M9320							Pre	p Method:		
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst		

03/11/14 12:23

-0.2

2.2

pCi/L

nco

2.1

ACZ 2773 Downhill Drive	ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493						RadioChemistry Analytical Results				
<b>Reardon Steel L</b> Project ID: Sample ID: Locator:	ACZ Sar Date Sa Date Re Sample	ampled	: 02/09 : 02/18	/14 0:0	0						
Gross Alpha & Beta ( M9310	1312)						Pre	p Method:			
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst			
Gross Alpha (1312)	02/26/14 0:11		-0.81	1.6	1.8	pCi/L	*	thf			
Gross Beta (1312)	02/26/14 0:11		6.9	3.8	5.4	pCi/L		thf			
Radium 226 (1312) M903.1							Pre	p Method:			
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst			
Radium 226 (1312)	03/04/14 0:10		0.96	0.38	0.4	pCi/L	*	jrd			
Radium 228 (1312) M9320							Pre	p Method:			
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst			

03/11/14 12:23

2.3

2.6

2.6

pCi/L

nco

ACZ 2773 Downhill Drive	Laboratories, Steamboat Springs, CO 80	3	RadioChemistry Analytical Results							
<b>Reardon Steel L</b> Project ID: Sample ID: Locator:	LC POND FILL #4			ACZ Sar Date S Date Re Sample	ampled eceived	: 02/09 : 02/18	<b>84-04</b> 0/14 0:0 3/14	0		
Gross Alpha & Beta ( M9310	1312)						Pre	p Method:		
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst		
Gross Alpha (1312)	02/26/14 0:12		2.8	2.2	1.8	pCi/L	*	thf		
Gross Beta (1312)	02/26/14 0:12		7.3	3.6	5	pCi/L		thf		
Radium 226 (1312) M903.1							Pre	p Method:		
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst		
Radium 226 (1312)	03/04/14 0:11		0.36	0.42	0.68	pCi/L	*	jrd		
Radium 228 (1312) M9320							Pre	p Method:		
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst		

03/11/14 12:23

3.4

2.1

2

pCi/L

nco

ACZ 2773 Downhill Drive	Laboratories, Steamboat Springs, CO 80	3			adioC alytic		istry sults			
<b>Reardon Steel Ll</b> Project ID: Sample ID: Locator:	<b>-C</b> SHOP 1			ACZ Sample ID: <b>L16884-05</b> Date Sampled: 02/09/14 0:00 Date Received: 02/18/14 Sample Matrix: Soil						
Gross Alpha & Beta (1 M9310	1312)						Pre	p Method:		
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst		
Gross Alpha (1312)	02/26/14 0:14		0.73	1.7	1.8	pCi/L	*	thf		
Gross Beta (1312)	02/26/14 0:14		2.1	3.4	4.9	pCi/L		thf		
Radium 226 (1312) M903.1							Pre	p Method:		
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst		
Radium 226 (1312)	03/04/14 0:12		0.11	0.21	0.41	pCi/L	*	jrd		
Radium 228 (1312) M9320							Pre	p Method:		
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst		

03/11/14 14:07

-0.15

2.7

2.9

pCi/L

nco

ACZ 2773 Downhill Drive	Laboratories, Steamboat Springs, CO 80	3	RadioChemistry Analytical Resul						
<b>Reardon Steel L</b> Project ID: Sample ID: Locator:		ACZ Sample ID: <b>L16884-06</b> Date Sampled: 02/09/14 0:00 Date Received: 02/18/14 Sample Matrix: Soil							
Gross Alpha & Beta ( M9310	1312)						Pre	p Method:	
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst	
Gross Alpha (1312)	02/26/14 0:15		3.1	2.6	2	pCi/L	*	thf	
Gross Beta (1312)	02/26/14 0:15		4.4	4.5	5.5	pCi/L		thf	
Radium 226 (1312) M903.1							Pre	p Method:	
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst	
Radium 226 (1312)	03/04/14 0:14		0.2	0.23	0.52	pCi/L	*	jrd	
Radium 228 (1312) M9320							Pre	p Method:	
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst	
Radium 228 (1312)	03/11/14 14:07		1.8	1.7	1.7	pCi/L		nco	



## Radiochemistry Reference

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Report	Header E	xplanations	

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

#### QC Sample Types

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

#### Method Prefix Reference

М	EPA methodology, including those under SDWA, CWA, and RCRA
SM	Standard Methods for the Examination of Water and Wastewater.
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.
(4)	An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification
	qualifier associated with the result.
-	http://www.eet.com/public/outguellist.pdf

For a complete list of ACZ's Extended Qualifiers, please click:

http://www.acz.com/public/extquallist.pdf

REP003.09.12.01



## Radiochemistry QC Summary

#### Reardon Steel LLC

Alpha							Units: pCi/L									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
WG360086																
WG359561PBW	PBW	02/26/14						-1.3	1.4	1.8			3.6			
WG359561LCSW	LCSW	02/26/14	RC130807-3	81.06				82	8.7	1.8	101.2	83	133			
L16859-01DUP	DUP-RER	02/26/14			2.8	3	2.6	.34	2.3	2.7				0.65	2	
L16859-02DUP	DUP-RER	02/26/14			0.96	2.4	2.4	.11	1.7	2				0.29	2	
L16859-03MS	MS	02/26/14	RC130807-3	81.06	-2	2.4	3.1	60	9.4	2.7	76.5	83	133			M2
Beta			M9310										Uni	<b>ts:</b> pCi/L		
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
WG360086																
WG359561PBW	PBW	02/26/14						.36	3.3	5.4			10.8			
WG359561LCSW	LCSW	02/26/14	PCN44617	100				110	7.7	4.8	110	70	129			
L16859-01DUP	DUP-RER	02/26/14			12	5.1	5.7	2.7	4.6	5.8				1.35	2	
L16859-02DUP	DUP-RER	02/26/14			7	4.4	5.7	.83	3.7	5.2				1.07	2	
L16884-01MS	MS	02/26/14	PCN44617	100	7.9	4.3	5.7	120	8.3	5.4	112.1	70	129			
Radium 226 (13	312)		M903.1										Uni	ts: pCi/L		
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
WG360181																
WG359561PBW	PBW	03/04/14						.46	0.42	0.86			1.72			
WG359561LCSW	LCSW	03/04/14	PCN44713	66.67				77	2	0.38	115.5	43	148			
L16859-01DUP	DUP-RER	03/04/14			0.36	0.17	0.3	.26	0.36	0.71				0.25	2	
L16859-03DUP	DUP-RER	03/04/14			-0.33	0.27	0.44	.27	0.29	0.51				1.51	2	
L16859-02MS	MS	03/04/14	PCN44713	66.67	0.21	0.35	0.57	110	3.1	0.87	164.7	43	148			M1

## Radiochemistry QC Summary

#### Reardon Steel LLC

Radium 228 (13	812)		M9320										Uni	<b>ts:</b> pCi/L		
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
WG360519																
WG359561LCSW	LCSW	03/11/14	PCN44304	63.92				34	3.2	1.7	53.2	47	123			
WG359561PBW	PBW	03/11/14						.67	2.5	2.6			5.2			
L16859-01DUP	DUP-RER	03/11/14			1.9	2.9	3	28	2.1	2.3				0.61	2	
L16859-02MS	MS	03/11/14	PCN44304	63.92	-0.47	1.4	1.5	41	4.2	2.3	64.9	47	123			
L16884-01DUP	DUP-RER	03/11/14			0.1	1.7	1.9	1.2	2.5	2.6				0.36	2	

#### 40 Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487

**Reardon Steel LLC** 

(800) 334-5493

## RadChem Extended **Qualifier Report**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L16884-01	WG360086	Gross Alpha (1312)	M9310	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG360181	Radium 226 (1312)	M903.1	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L16884-02	WG360086	Gross Alpha (1312)	M9310	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG360181	Radium 226 (1312)	M903.1	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L16884-03	WG360086	Gross Alpha (1312)	M9310	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG360181	Radium 226 (1312)	M903.1	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L16884-04	WG360086	Gross Alpha (1312)	M9310	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG360181	Radium 226 (1312)	M903.1	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L16884-05	WG360086	Gross Alpha (1312)	M9310	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG360181	Radium 226 (1312)	M903.1	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L16884-06	WG360086	Gross Alpha (1312)	M9310	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG360181	Radium 226 (1312)	M903.1	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.


Sulfate (1312 DI)

#### Reardon Steel LLC

### ACZ Project ID: L16884

#### Radiochemistry

The following	parameters are not offered for certification	or are not covered by NELAC certificate #ACZ.
	Radium 226 (1312)	M903.1
Soil Analysis		
The following	parameters are not offered for certification	or are not covered by NELAC certificate #ACZ.
	Neutralization Potential as CaCO3	M600/2-78-054 3.2.3
	pH, Saturated Paste	EPA 600/2-78-054, section 3.2.2
	Sulfur Organic Residual	M600/2-78-054 3.2.4
	Sulfur Pyritic Sulfide	M600/2-78-054 3.2.4
	Sulfur Sulfate	M600/2-78-054 3.2.4
	Sulfur Total	M600/2-78-054 3.2.4
	Total Sulfur minus Sulfate	M600/2-78-054 3.2.4
Wet Chemist	rv	
	<u>,</u>	or are not covered by NELAC certificate #ACZ.
	Chloride (1312 DI)	SM4500CI-E
	Conductivity @25C (1312-DI)	SM2510B
	Fluoride (1312 DI)	SM4500F-C
	Nitrate/Nitrite as N (1312-DI)	M353.2 - Automated Cadmium Reduction
	Nitrogen, ammonia (1312-DI)	M350.1 - Automated Phenate

onia (1312-DI) M350.1 - Automated Pneu D516-02 - Turbidimetric

ACZ	Laboratories, Inc.	
	Steamboat Springs CO 80487 (800) 334-5493	

2 Steamboat Springs, CO 80487 (800) 334-5493

### **Reardon Steel LLC**

## Sample Receipt

ACZ Project ID: L16884 Date Received: 02/18/2014 10:04 Received By: mtb Date Printed: 2/18/2014

Date I	mileu.	2/	10/2014
Receipt Verification			
	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			Х
2) Is the Chain of Custody or other directive shipping papers present?	Х		
3) Does this project require special handling procedures such as CLP protocol?			Х
4) Are any samples NRC licensable material?			Х
5) If samples are received past hold time, proceed with requested short hold time analyses?	Х		
6) Is the Chain of Custody complete and accurate?	Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the samples?	Х		
A change was made in the Date:Time Line 1 section prior to ACZ custody.			
Samples/Containers			
	YES	NO	NA
8) Are all containers intact and with no leaks?	Х		
9) Are all labels on containers and are they intact and legible?	Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time?	Х		
11) For preserved bottle types, was the pH checked and within limits?			Х
12) Is there sufficient sample volume to perform all requested work?	Х		
13) Is the custody seal intact on all containers?			Х
14) Are samples that require zero headspace acceptable?			Х
15) Are all sample containers appropriate for analytical requirements?	Х		
16) Is there an Hg-1631 trip blank present?			Х

- 17) Is there a VOA trip blank present?
- 18) Were all samples received within hold time?

**Chain of Custody Related Remarks** 

**Client Contact Remarks** 

```
Shipping Containers
```

Cooler Id	Temp (°C)	Rad ( $\mu R/Hr$ )
NA19180	5.6	9

Custody Seal Intact? _____ N/A

Х

#### Was ice present in the shipment container(s)?

No - Wet or gel ice was not present in the shipment container(s).

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

Х

C16884

	ACZ	Labo	oratories, l	nc.	/	<u> </u>	CHAI	N of CUS	STODY			
		Steamboat Sp	orings, CO_80487 (80	0) 334-5493								
	Report to:					(1.0)	()		07			
	Name: Mile TI Company: Reard	10mpson	1 1 1 0		Addre	ss: 4 Kin	ver St. V	20, Box 2 31433	97			
	Company: Reard	on Stee	ILLC									
	E-mail: Mt@re	ardonst	heel. US		Teleph	none: <u>977</u>	426 2	i 29				
	Copy of Report to											
	Name: Kormen King				E-mail: KKing@aguatox.us Telephone: 970 426 2924							
	Company: Gr	ayling L	LC		Telephone: 970 426 2924							
	Invoice to:											
	Name: Mike Thompson				Address: 4 River St. P.O. Box 297 Silverton, CO 81433							
	Name: Mike Thompson Company: Reurdon Steel LLC					Silve	ton, CC	) <u>8143</u>	3			
	E-mail: mt@re	<b>A</b> 1	1 i		Telepł	none: 97	0 426	2924	<b> </b>			
	If sample(s) received				YES							
			ACZ proceed with red ction. If neither "YES" nor "NO" i				llyses, even if HT is ex	NO pired, and data will be g	ualified			
	Are samples for SDV	NA Compliar	nce Monitoring?		Yes		No X		i			
			. Results will be repo									
	Sampler's Name: 🦨	UA	Sampler's site In	formation	State:	<u>Co</u>	_ Zip code	Time	Zone			
	Check box if observ		avings Time									
	PROJECT INFORM		0.4 cm			ANALYSES	EQUESTED (attac	h list or use quote n	umber)			
	Quote #: ABA-SPLP-PASTE				Containers			hr				
	PO#:				ntaii	p	. 18	Kefe	-			
	Reporting state for compliance testing:				ŝ		gas a	Refe				
	Check box if samples include NRC licensed material? SAMPLE IDENTIFICATION DATE:TIME				# of		5 QUANT					
	Pond Fill #1		02/09/14	Matrix Rock	-1-				<u> </u>			
	Pond Fill #2	2		Roch	)							
	Pond Fill #3			Roche	1							
	Pond Fill #4	· · · · ·		Rock	1							
	Shop 1			Rock	1							
	Shop 2	<u></u>	U U	Rock	1							
ody												
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2		ce Water) · GW	/ (Ground Water) · WW (V	Vaste Water) · D	W (Drink	king Water) · SL	(Sludge) (SO (S	oil) · OL (Oil) · Otl	ner (Specify)			
16884 Chain of	REMARKS											
	Please in	iclude	EDD Rep	arting								
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	Please se	furn	unused so	imple	Ma	iterial	when re	mplete	·d.			
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			fer to ACZ's terms 8		ocated							
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	<u> </u>					<u>.</u>						

FRMAD050.12.12.12

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White - Return with sample. Yellow - Retain for your records.

ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493



Mike Thompson Reardon Steel LLC 4 River Street Silverton, CO 81433 Page 1 of 3 2/10/2014

## Quote Number: ABA-SPLP-PASTE

Matrix:	Soil
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#### Mine Waste Samples for SPLP & ABA & Sat.Paste Analysis

Parameter	Method again	Detection Limit	Cost/Sample
Inorganic Prep			
Total Hot Plate Digestion	M3010A ICP-MS		\$0.00
Total Hot Plate Digestion	M3010A ICP		\$0.00
Metals Analysis			
Aluminum (1312)	M6010B ICP	0.03 mg/L	\$0.00
Antimony (1312)	M6010B ICP	0.03 mg/L	\$0.00
Arsenic (1312)	M6010B ICP	0.04 mg/L	\$0.00
Barium (1312)	M6010B ICP	0.003 mg/L	\$0.00
Beryllium (1312)	M6010B ICP	0.01 mg/L	\$0.00
Cadmium (1312)	M6010B ICP	0.005 mg/L	\$0.00
Chromium (1312)	M6010B ICP	0.01 mg/L	\$0.00
Copper (1312)	M6010B ICP	0.01 mg/L	\$0.00
Iron (1312)	M6010B ICP	0.02 mg/L	\$0.00
Lead (1312)	M6010B ICP	0.03 mg/L	\$0.00
Manganese (1312)	M6010B ICP	0.005 mg/L	\$0.00
Mercury (1312)	M7470A CVAA	0.0002 mg/L	\$23.40
Molybdenum (1312)	M6010B ICP	0.02 mg/L	\$0.00
Nickel (1312)	M6010B ICP	0.008 mg/L	\$0.00
Selenium (1312)	M6010B ICP	0.05 mg/L	\$0.00
Silver (1312)	M6010B ICP	0.01 mg/L	\$0.00
Thallium (1312)	M6010B ICP	0.1 mg/L	\$0.00
Uranium (1312)	M6020 ICP-MS	0.0001 mg/L	\$17.10
Vanadium (1312)	M6010B ICP	0.005 mg/L	\$0.00
Zinc (1312)	M6010B ICP	0.01 mg/L	\$0.00
Misc.			
Electronic Data Deliverable			\$0.00
Quality Control Summary			\$0.00
Setup charge for ICP (1312)			\$75.00
Setup Charge for ICPMS			\$20.00
Radiochemistry			
Gross Alpha & Beta (1312)	M9310	2 to 4 pCi/L	\$46.80
Radium 226 (1312)	M903.1	0.4 pCi/L	\$82.80
Radium 228 (1312)	M9320	1.5 pCi/L	\$90.00

REPAD.09.06.05.01

AGZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

## Analytical Quote

Mike Thompson			Page 2 of 3
Reardon Steel LLC			2/10/2014
4 River Street			
Silverton, CO 81433			
Sample Preparation			
Air Dry at 34 Degrees C	USDA No. 1, 1972		\$7.20
Crush and Pulverize	EPA-600/2-78-054 3.1.3		\$10.80
Saturated Paste Extraction	USDA No. 60 (2)		\$16.20
Sieve-2000 um (2.0mm)	ASA No.9, 15-4.2.2		\$10.80
Synthetic Precip. Leaching Procedure	M1312, DI Water		\$67.50
Synthetic Precip. Leaching Procedure	M1312-RC		\$67.50
Synthetic Precip. Leaching Procedure	M1312		\$67.50
Soil Analysis			
Acid Generation Potential (calc on Sulfur tota	) M600/2-78-054 3.2.4	Calculation	\$0.00
Acid Neutralization Potential (calc)	M600/2-78-054 1.3	Calculation	\$0.00
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3	Calculation	\$0.00
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.1 %	\$14.40
pH, Saturated Paste	EPA 600/2-78-054, section 3.2.2	0.1 units	\$7.20
Sample Weight	Rad Disposal Compliance	g	\$6.30
Sulfur Forms	M600/2-78-054 3.2.4	0.01 %	\$58.00
Wet Chemistry			
Chloride (1312 DI)	SM4500CI-E	1 mg/L	\$9.90
Conductivity @25C (1312-DI)	SM2510B	1 umhos/cm	\$7.20
Fluoride (1312 DI)	SM4500F-C	0.1 mg/L	\$9.90
Nitrate/Nitrite as N (1312-DI)	M353.2 - Automated Cadmium Redu	0.02 mg/L	\$9.90
Nitrogen, ammonia (1312-DI)	M350.1 - Automated Phenate	0.05 mg/L	\$9.90
Sulfate (1312 DI)	SM4500 SO4-D	10 mg/L	\$11.70
		Cost/Sample:	\$747.00

This quote is based on a Standard Turn Around Time of approximately 28 days for radiochemistry analysis of solid matrices. All projects received are subject to a \$125.00 Minimum Charge. Soil preparation charges may fluctuate dependant on the condition of samples upon receipt. Please note that method detection limits are estimates and may be elevated depending on sample matrix.

REPAD.09.06.05.01





Mike Thompson Reardon Steel LLC 4 River Street Silverton, CO 81433 Page 3 of 3 2/10/2014

Quote Number: ABA-SPLP-PASTE

#### CONTRACT DETAILS

Pricing includes shipment of all standard sample containers and related paperwork by UPS Ground Service. Please allow three to five days for delivery when ordering containers. ACZ must be notified prior to receiving samples of all special requests such as electronic data deliverables or special reporting regirements. The client will be charged for special sample containers or express shipping and additional charges may apply for non-standard requests.

This quotation is valid for six months from the bid date unless specified otherwise in the bid. All bids must be signed and returned to ACZ before the project(s) is received. The authorized signature represents acceptance of the pricing as well as the general terms and conditions of ACZ Laboratories, Inc. which may be downloaded from our web site at http://www.acz.com/PDF/termsconditions.pdf. Please note that MDL's in this quote may possibly increase due to sample matrix or samples with high TDS.

All orders that require shipping of coolers are subject to a minimum charge of \$200.00. Local orders without shipping are subject to a minimum charge of \$125.00. Samples may incur a \$11.00/sample disposal fee for any samples deemed to be hazardous.

ACZ Representative (Authorized signature and date)

Client Representative (Authorized signature and date)

02/13/14

REPAD.09.06.05.01



Analytical Report

March 12, 2014

Report to: Mike Thompson Reardon Steel LLC 4 River Street Silverton, CO 81433

cc: Karmen King

Bill to: Mike Thompson Reardon Steel LLC 4 River Street Silverton, CO 81433

Project ID: ACZ Project ID: L16885

Mike Thompson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on February 18, 2014. This project has been assigned to ACZ's project number, L16885. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L16885. 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 April 11, 2014. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/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 raw data reports for ten years.

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

Sue Wellen

Sue Webber has reviewed and approved this report.







#### **Reardon Steel LLC**

Pro	iont	ID
FIU	IECL	ID.

Sample ID: PDH-025

## Inorganic Analytical Results

ACZ Sample ID: L16885-01 Date Sampled: 02/09/14 00:00 Date Received: 02/18/14 Sample Matrix: Soil

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Total Hot Plate Digestion	M3010A ICP-MS								02/25/14 13:35	las
Total Hot Plate Digestion	M3010A ICP								02/21/14 13:21	jjc
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (1312)	M6010B ICP	1		U	*	mg/L	0.03	0.2	02/24/14 16:51	jjc
Antimony (1312)	M6010B ICP	1		U	*	mg/L	0.03	0.2	02/24/14 16:51	jjc
Arsenic (1312)	M6010B ICP	1		U	*	mg/L	0.04	0.2	02/24/14 16:51	jjc
Barium (1312)	M6010B ICP	1	0.065			mg/L	0.003	0.02	02/24/14 16:51	jjc
Beryllium (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:51	jjc
Cadmium (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.02	02/24/14 16:51	jjc
Chromium (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:51	jjc
Copper (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:51	jjc
Iron (1312)	M6010B ICP	1		U	*	mg/L	0.02	0.05	02/24/14 16:51	jjc
Lead (1312)	M6010B ICP	1	0.05	В	*	mg/L	0.03	0.2	02/24/14 16:51	jjc
Manganese (1312)	M6010B ICP	1	0.707		*	mg/L	0.005	0.03	02/24/14 16:51	jjc
Mercury (1312)	M7470A CVAA	1		U	*	mg/L	0.0002	0.001	02/24/14 13:20	mfm
Molybdenum (1312)	M6010B ICP	1		U	*	mg/L	0.02	0.1	02/24/14 16:51	jjc
Nickel (1312)	M6010B ICP	1		U	*	mg/L	0.008	0.04	02/24/14 16:51	jjc
Selenium (1312)	M6010B ICP	1		U	*	mg/L	0.05	0.3	02/24/14 16:51	jjc
Silver (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.03	02/24/14 16:51	jjc
Thallium (1312)	M6010B ICP	1		U	*	mg/L	0.1	0.5	02/24/14 16:51	jjc
Uranium (1312)	M6020 ICP-MS	1		U	*	mg/L	0.0001	0.0005	03/03/14 23:10	pmc
Vanadium (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.03	02/24/14 16:51	jjc
Zinc (1312)	M6010B ICP	1	0.08			mg/L	0.01	0.05	02/24/14 16:51	jjc



#### **Reardon Steel LLC**

Project ID: Sample ID:

PDH-025

## Inorganic Analytical Results

ACZ Sample ID: L16885-01 Date Sampled: 02/09/14 00:00 Date Received: 02/18/14 Sample Matrix: Soil

Soil Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 3.2.4		56			t CaCO3/Kt	1	5	03/12/14 13:21	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3		124			t CaCO3/Kt	1	5	03/12/14 13:21	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3		68			t CaCO3/Kt	1	5	03/12/14 13:21	calc
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1	12.4		*	%	0.1	0.5	03/06/14 11:50	cdb
pH, Saturated Paste	EPA 600/2-78-054, section 3.2.2									
Max Particle Size		1	2000		*	um			03/06/14 0:00	spl
рН		1	7.6		*	units	0.1	0.1	03/06/14 0:00	spl
Sulfur Forms	M600/2-78-054 3.2.4									
Sulfur Organic Residual		1	0.48		*	%	0.01	0.1	03/07/14 0:00	cra
Sulfur Pyritic Sulfide		1	1.16		*	%	0.01	0.1	03/07/14 0:00	cra
Sulfur Sulfate		1	0.14		*	%	0.01	0.1	03/07/14 0:00	cra
Sulfur Total		1	1.78		*	%	0.01	0.1	03/07/14 0:00	cra
Total Sulfur minus Sulfate		1	1.64		*	%	0.01	0.1	03/07/14 0:00	cra

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972								02/21/14 13:04	spl
Crush and Pulverize	EPA-600/2-78-054 3.1.3								03/04/14 14:46	cdb
Saturated Paste Extraction	USDA No. 60 (2)								03/06/14 10:25	i spl
Sieve-2000 um (2.0mm)	ASA No.9, 15-4.2.2								03/04/14 14:46	cdb
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2								03/04/14 14:46	cdb
Synthetic Precip. Leaching Procedure	M1312-RC								02/20/14 15:32	cdb
Synthetic Precip. Leaching Procedure	M1312								02/20/14 15:51	cdb
Synthetic Precip. Leaching Procedure	M1312, DI Water								02/28/14 10:45	i spl



PDH-025

#### **Reardon Steel LLC**

Project ID: Sample ID:

## Inorganic Analytical Results

ACZ Sample ID: L16885-01 Date Sampled: 02/09/14 00:00 Date Received: 02/18/14 Sample Matrix: Soil

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Chloride (1312 DI)	SM4500CI-E	1	6		*	mg/L	1	5	03/05/14 20:33	mpb
Conductivity @25C (1312-DI)	SM2510B	1	276		*	umhos/cm	1	10	03/04/14 13:29	abd
Fluoride (1312 DI)	SM4500F-C	1	0.7		*	mg/L	0.1	0.5	03/04/14 12:34	abd
Nitrate/Nitrite as N (1312-DI)	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.02	0.1	02/28/14 23:31	pjb
Nitrogen, ammonia (1312-DI)	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	03/07/14 11:36	bsu
Sulfate (1312 DI)	D516-02 - Turbidimetric	5	85.8		*	mg/L	5	25	03/07/14 13:37	mpb



#### **Reardon Steel LLC**

#### Project ID:

Sample ID: PDH-038

## Inorganic Analytical Results

 ACZ Sample ID:
 L16885-02

 Date Sampled:
 02/09/14 00:00

 Date Received:
 02/18/14

 Sample Matrix:
 Soil

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Total Hot Plate Digestion	M3010A ICP-MS								02/25/14 13:50	las
Total Hot Plate Digestion	M3010A ICP								02/21/14 13:39	jjc
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (1312)	M6010B ICP	1		U	*	mg/L	0.03	0.2	02/24/14 16:54	jjc
Antimony (1312)	M6010B ICP	1		U	*	mg/L	0.03	0.2	02/24/14 16:54	jjc
Arsenic (1312)	M6010B ICP	1		U	*	mg/L	0.04	0.2	02/24/14 16:54	jjc
Barium (1312)	M6010B ICP	1	0.042			mg/L	0.003	0.02	02/24/14 16:54	jjc
Beryllium (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:54	jjc
Cadmium (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.02	02/24/14 16:54	jjc
Chromium (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:54	jjc
Copper (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:54	jjc
Iron (1312)	M6010B ICP	1		U	*	mg/L	0.02	0.05	02/24/14 16:54	jjc
Lead (1312)	M6010B ICP	1	0.08	В	*	mg/L	0.03	0.2	02/24/14 16:54	jjc
Manganese (1312)	M6010B ICP	1	2.260		*	mg/L	0.005	0.03	02/24/14 16:54	jjc
Mercury (1312)	M7470A CVAA	1		U	*	mg/L	0.0002	0.001	02/24/14 13:22	mfm
Molybdenum (1312)	M6010B ICP	1		U	*	mg/L	0.02	0.1	02/24/14 16:54	jjc
Nickel (1312)	M6010B ICP	1		U	*	mg/L	0.008	0.04	02/24/14 16:54	jjc
Selenium (1312)	M6010B ICP	1		U	*	mg/L	0.05	0.3	02/24/14 16:54	jjc
Silver (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.03	02/24/14 16:54	jjc
Thallium (1312)	M6010B ICP	1		U	*	mg/L	0.1	0.5	02/24/14 16:54	jjc
Uranium (1312)	M6020 ICP-MS	1		U	*	mg/L	0.0001	0.0005	03/03/14 23:12	pmc
Vanadium (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.03	02/24/14 16:54	jjc
Zinc (1312)	M6010B ICP	1	0.32			mg/L	0.01	0.05	02/24/14 16:54	jjc



#### **Reardon Steel LLC**

Project ID: Sample ID:

: PDH-038

## Inorganic Analytical Results

ACZ Sample ID: **L16885-02** Date Sampled: 02/09/14 00:00 Date Received: 02/18/14 Sample Matrix: Soil

Soil Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 3.2.4		71			t CaCO3/Kt	1	5	03/12/14 13:21	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3		125			t CaCO3/Kt	1	5	03/12/14 13:21	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3		54			t CaCO3/Kt	1	5	03/12/14 13:21	calc
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1	12.5		*	%	0.1	0.5	03/06/14 12:00	cdb
pH, Saturated Paste	EPA 600/2-78-054, section 3.2.2									
Max Particle Size		1	2000		*	um			03/06/14 0:00	spl
рН		1	7.6		*	units	0.1	0.1	03/06/14 0:00	spl
Sulfur Forms	M600/2-78-054 3.2.4									
Sulfur Organic Residual		1	0.17		*	%	0.01	0.1	03/07/14 0:00	cra
Sulfur Pyritic Sulfide		1	1.46		*	%	0.01	0.1	03/07/14 0:00	cra
Sulfur Sulfate		1	0.64		*	%	0.01	0.1	03/07/14 0:00	cra
Sulfur Total		1	2.27		*	%	0.01	0.1	03/07/14 0:00	cra
Total Sulfur minus Sulfate		1	1.63		*	%	0.01	0.1	03/07/14 0:00	cra

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972								02/21/14 13:13	spl
Crush and Pulverize	EPA-600/2-78-054 3.1.3								03/04/14 14:53	cdb
Saturated Paste Extraction	USDA No. 60 (2)								03/06/14 10:27	spl
Sieve-2000 um (2.0mm)	ASA No.9, 15-4.2.2								03/04/14 14:53	cdb
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2								03/04/14 14:53	cdb
Synthetic Precip. Leaching Procedure	M1312								02/20/14 16:54	cdb
Synthetic Precip. Leaching Procedure	M1312-RC								02/20/14 16:41	cdb
Synthetic Precip. Leaching Procedure	M1312, DI Water								02/28/14 12:00	spl



PDH-038

#### **Reardon Steel LLC**

Project ID: Sample ID:

## Inorganic Analytical Results

ACZ Sample ID: L16885-02 Date Sampled: 02/09/14 00:00 Date Received: 02/18/14 Sample Matrix: Soil

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Chloride (1312 DI)	SM4500CI-E	1	9		*	mg/L	1	5	03/05/14 20:33	mpb
Conductivity @25C (1312-DI)	SM2510B	1	605		*	umhos/cm	1	10	03/04/14 13:31	abd
Fluoride (1312 DI)	SM4500F-C	1	0.8		*	mg/L	0.1	0.5	03/04/14 12:38	abd
Nitrate/Nitrite as N (1312-DI)	M353.2 - Automated Cadmium Reduction	1	0.03	В	*	mg/L	0.02	0.1	02/28/14 23:32	pjb
Nitrogen, ammonia (1312-DI)	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	03/07/14 11:37	bsu
Sulfate (1312 DI)	D516-02 - Turbidimetric	20	236		*	mg/L	20	100	03/07/14 13:47	mpb



#### **Reardon Steel LLC**

#### Project ID:

Sample ID: PDH-049

## Inorganic Analytical Results

 ACZ Sample ID:
 L16885-03

 Date Sampled:
 02/09/14 00:00

 Date Received:
 02/18/14

 Sample Matrix:
 Soil

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Total Hot Plate Digestion	M3010A ICP-MS								02/25/14 14:05	las
Total Hot Plate Digestion	M3010A ICP								02/21/14 13:57	jjc
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum (1312)	M6010B ICP	1		U	*	mg/L	0.03	0.2	02/24/14 16:57	jjc
Antimony (1312)	M6010B ICP	1		U	*	mg/L	0.03	0.2	02/24/14 16:57	jjc
Arsenic (1312)	M6010B ICP	1		U	*	mg/L	0.04	0.2	02/24/14 16:57	jjc
Barium (1312)	M6010B ICP	1	0.039			mg/L	0.003	0.02	02/24/14 16:57	jjc
Beryllium (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:57	jjc
Cadmium (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.02	02/24/14 16:57	jjc
Chromium (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:57	jjc
Copper (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.05	02/24/14 16:57	jjc
Iron (1312)	M6010B ICP	1		U	*	mg/L	0.02	0.05	02/24/14 16:57	jjc
Lead (1312)	M6010B ICP	1		U	*	mg/L	0.03	0.2	02/24/14 16:57	jjc
Manganese (1312)	M6010B ICP	1	0.960		*	mg/L	0.005	0.03	02/24/14 16:57	jjc
Mercury (1312)	M7470A CVAA	1		U	*	mg/L	0.0002	0.001	02/24/14 13:25	mfm
Molybdenum (1312)	M6010B ICP	1		U	*	mg/L	0.02	0.1	02/24/14 16:57	jjc
Nickel (1312)	M6010B ICP	1		U	*	mg/L	0.008	0.04	02/24/14 16:57	jjc
Selenium (1312)	M6010B ICP	1		U	*	mg/L	0.05	0.3	02/24/14 16:57	jjc
Silver (1312)	M6010B ICP	1		U	*	mg/L	0.01	0.03	02/24/14 16:57	jjc
Thallium (1312)	M6010B ICP	1		U	*	mg/L	0.1	0.5	02/24/14 16:57	jjc
Uranium (1312)	M6020 ICP-MS	1		U	*	mg/L	0.0001	0.0005	03/03/14 23:14	pmc
Vanadium (1312)	M6010B ICP	1		U	*	mg/L	0.005	0.03	02/24/14 16:57	jjc
Zinc (1312)	M6010B ICP	1	0.07			mg/L	0.01	0.05	02/24/14 16:57	



#### **Reardon Steel LLC**

Project ID: Sample ID:

PDH-049

## Inorganic Analytical Results

ACZ Sample ID: **L16885-03** Date Sampled: 02/09/14 00:00 Date Received: 02/18/14 Sample Matrix: Soil

Soil Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acid Generation Potential (calc on Sulfur total)	M600/2-78-054 3.2.4		90			t CaCO3/Kt	1	5	03/12/14 13:22	calc
Acid Neutralization Potential (calc)	M600/2-78-054 1.3		113			t CaCO3/Kt	1	5	03/12/14 13:22	calc
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3		23			t CaCO3/Kt	1	5	03/12/14 13:22	calc
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	1	11.3		*	%	0.1	0.5	03/06/14 12:10	cdb
pH, Saturated Paste	EPA 600/2-78-054, section 3.2.2									
Max Particle Size		1	2000		*	um			03/06/14 0:00	spl
pН		1	7.7		*	units	0.1	0.1	03/06/14 0:00	spl
Sulfur Forms	M600/2-78-054 3.2.4									
Sulfur Organic Residual		1	0.58		*	%	0.01	0.1	03/07/14 0:00	cra
Sulfur Pyritic Sulfide		1	1.84		*	%	0.01	0.1	03/07/14 0:00	cra
Sulfur Sulfate		1	0.47		*	%	0.01	0.1	03/07/14 0:00	cra
Sulfur Total		1	2.89		*	%	0.01	0.1	03/07/14 0:00	cra
Total Sulfur minus Sulfate		1	2.42		*	%	0.01	0.1	03/07/14 0:00	cra

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972								02/21/14 13:23	spl
Crush and Pulverize	EPA-600/2-78-054 3.1.3								03/04/14 14:59	cdb
Saturated Paste Extraction	USDA No. 60 (2)								03/06/14 10:30	) spl
Sieve-2000 um (2.0mm)	ASA No.9, 15-4.2.2								03/04/14 14:59	cdb
Sieve-250 um (60 mesh)	ASA No.9, 15-4.2.2								03/04/14 14:59	cdb
Synthetic Precip. Leaching Procedure	M1312-RC								02/20/14 17:50	) cdb
Synthetic Precip. Leaching Procedure	M1312, DI Water								02/28/14 13:15	5 spl
Synthetic Precip. Leaching Procedure	M1312								02/20/14 17:57	cdb



PDH-049

#### **Reardon Steel LLC**

Project ID: Sample ID:

## Inorganic Analytical Results

ACZ Sample ID: L16885-03 Date Sampled: 02/09/14 00:00 Date Received: 02/18/14 Sample Matrix: Soil

Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Chloride (1312 DI)	SM4500CI-E	1	8		*	mg/L	1	5	03/05/14 20:33	mpb
Conductivity @25C (1312-DI)	SM2510B	1	448		*	umhos/cm	1	10	03/04/14 13:32	abd
Fluoride (1312 DI)	SM4500F-C	1	0.8		*	mg/L	0.1	0.5	03/04/14 12:46	abd
Nitrate/Nitrite as N (1312-DI)	M353.2 - Automated Cadmium Reduction	1		U	*	mg/L	0.02	0.1	02/28/14 23:53	pjb
Nitrogen, ammonia (1312-DI)	M350.1 - Automated Phenate	1		U	*	mg/L	0.05	0.5	03/07/14 11:38	bsu
Sulfate (1312 DI)	D516-02 - Turbidimetric	5	170		*	mg/L	5	25	03/07/14 13:37	mpb



## Inorganic Reference

Batch	Explanations		
	A distinct set of samples analyzed at a specific time		
Found	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)		
MDL	Method Detection Limit. Same as Minimum Reporting Limit.	Allows for instrume	ent and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the ma	nufacturer's certific	ate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.		
QC	True Value of the Control Sample or the amount added to the	e Spike	
Rec	Recovered amount of the true value or spike added, in % (ex	cept for LCSS, mg	/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate Q	C Types	
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)		
Sample	Value of the Sample of interest		
Sample Ty	pes		
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
ССВ	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	SDL	Serial Dilution
Duplicates Spikes/Fort	tified Matrix Determines sample matrix interfere		
Standard	Verifies the validity of the calibration	-	
	Verifies the validity of the calibration	-	
	Verifies the validity of the calibration	ı.	ed value is an estimated quantity.
Z Qualifiers	Verifies the validity of the calibration (Qual)	n. I PQL. The associat	
Z Qualifiers B	Verifies the validity of the calibration (Qual) Analyte concentration detected at a value between MDL and	n. I PQL. The associat an immediate hold t	
Z Qualifiers B H	Verifies the validity of the calibration (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a	n. I PQL. The associat an immediate hold t egative threshold.	ime.
Z Qualifiers B H L	Verifies the validity of the calibration (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined no	n. PQL. The associat an immediate hold t egative threshold. he level of the associated the social sectors and the	ime. iciated value.
Z Qualifiers B H L U	Verifies the validity of the calibration (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined no The material was analyzed for, but was not detected above to The associated value is either the sample quantitation limit o	n. PQL. The associat an immediate hold t egative threshold. he level of the associated the social sectors and the	ime. iciated value.
Z Qualifiers B H L U	Verifies the validity of the calibration (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined no The material was analyzed for, but was not detected above to The associated value is either the sample quantitation limit o	n. PQL. The associat an immediate hold t egative threshold. he level of the assoc r the sample detect	ime. iciated value. ion limit.
Z Qualifiers B H L U	Verifies the validity of the calibration (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined no The material was analyzed for, but was not detected above to The associated value is either the sample quantitation limit of mces	n. PQL. The associat an immediate hold t egative threshold. he level of the assoc r the sample detect and Wastes, Marc	ime. iciated value. ion limit. h 1983.
Z Qualifiers B H L U thod Refere (1)	Verifies the validity of the calibration (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined no The material was analyzed for, but was not detected above to The associated value is either the sample quantitation limit of mces EPA 600/4-83-020. Methods for Chemical Analysis of Water	n. PQL. The associat an immediate hold t egative threshold. he level of the assoc r the sample detect and Wastes, Marc anic Substances in	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
Z Qualifiers B H L U thod Refere (1) (2)	Verifies the validity of the calibration (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined no The material was analyzed for, but was not detected above to The associated value is either the sample quantitation limit of mces EPA 600/4-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorgan	n. PQL. The associat an immediate hold t egative threshold. he level of the assoc r the sample detect and Wastes, Marc anic Substances in	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
Z Qualifiers B H L U thod Refere (1) (2) (3)	Verifies the validity of the calibration (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined no The material was analyzed for, but was not detected above to The associated value is either the sample quantitation limit of mces EPA 600/R-93-100. Methods for Chemical Analysis of Water EPA 600/R-94-111. Methods for the Determination of Metals	h. I PQL. The associat an immediate hold t egative threshold. he level of the assoc r the sample detect r and Wastes, Marc anic Substances in s in Environmental s	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
Z Qualifiers B H L U thod Refere (1) (2) (3) (4)	Verifies the validity of the calibration (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined no The material was analyzed for, but was not detected above to The associated value is either the sample quantitation limit of mces EPA 600/A-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-110. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	h. I PQL. The associat an immediate hold t egative threshold. he level of the assoc r the sample detect r and Wastes, Marc anic Substances in s in Environmental s	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993.
Z Qualifiers B H L U thod Refere (1) (2) (3) (4) (5)	Verifies the validity of the calibration (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined no The material was analyzed for, but was not detected above to The associated value is either the sample quantitation limit of mces EPA 600/A-83-020. Methods for Chemical Analysis of Water EPA 600/R-93-110. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste.	n. I PQL. The associat an immediate hold t egative threshold. he level of the assoc r the sample detect r and Wastes, Marc anic Substances in s in Environmental s vater.	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Z Qualifiers B H L U (1) (2) (3) (4) (5) mments	Verifies the validity of the calibration (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined no The material was analyzed for, but was not detected above t The associated value is either the sample quantitation limit of <b>Inces</b> EPA 600/R-93-100. Methods for Chemical Analysis of Water EPA 600/R-94-111. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Waster	h. I PQL. The associat an immediate hold t egative threshold. he level of the assoc r the sample detect r and Wastes, Marc anic Substances in s in Environmental vater.	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Z Qualifiers B H L U (1) (2) (3) (4) (5) mments (1)	Verifies the validity of the calibration (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined no The material was analyzed for, but was not detected above to The associated value is either the sample quantitation limit of <b>Inces</b> EPA 600/R-93-100. Methods for Chemical Analysis of Water EPA 600/R-94-111. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Waster QC results calculated from raw data. Results may vary slight	n. I PQL. The associat an immediate hold t egative threshold. he level of the assoc r the sample detect r and Wastes, Marc anic Substances in s in Environmental vater. tly if the rounded va eported on a dry we	ime. iciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994.
Z Qualifiers B H L U thod Refere (1) (2) (3) (4) (5) mments (1) (2)	Verifies the validity of the calibration (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined no The material was analyzed for, but was not detected above t The associated value is either the sample quantitation limit o Inces EPA 600/R-93-100. Methods for Chemical Analysis of Water EPA 600/R-94-111. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastev QC results calculated from raw data. Results may vary sligh Soil, Sludge, and Plant matrices for Inorganic analyses are reference.	h. I PQL. The associat an immediate hold t egative threshold. he level of the assoc r the sample detect and Wastes, Marc anic Substances in s in Environmental vater. ty if the rounded va eported on a dry we as received" basis.	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.
Z Qualifiers B H L U thod Refere (1) (2) (3) (4) (5) mments (1) (2) (3) (3)	Verifies the validity of the calibration (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined no The material was analyzed for, but was not detected above t The associated value is either the sample quantitation limit o EPA 600/R-93-100. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastev QC results calculated from raw data. Results may vary sligh Soil, Sludge, and Plant matrices for Inorganic analyses are reported on an "a	h. I PQL. The associat an immediate hold t egative threshold. he level of the assoc r the sample detect and Wastes, Marc anic Substances in s in Environmental vater. ty if the rounded va eported on a dry we as received" basis.	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.
Z Qualifiers B H L U thod Refere (1) (2) (3) (4) (5) mments (1) (2) (3) (3)	Verifies the validity of the calibration (Qual) Analyte concentration detected at a value between MDL and Analysis exceeded method hold time. pH is a field test with a Target analyte response was below the laboratory defined ne The material was analyzed for, but was not detected above to The associated value is either the sample quantitation limit o  mces EPA 600/R-93-100. Methods for Chemical Analysis of Water EPA 600/R-93-100. Methods for the Determination of Inorga EPA 600/R-94-111. Methods for the Determination of Metals EPA SW-846. Test Methods for Evaluating Solid Waste. Standard Methods for the Examination of Water and Wastev QC results calculated from raw data. Results may vary sligh Soil, Sludge, and Plant matrices for Inorganic analyses are re An asterisk in the "XQ" column indicates there is an extended	h. I PQL. The association an immediate hold the egative threshold. The level of the association r the sample detection and Wastes, Marca anic Substances in a in Environmental structure vater. thy if the rounded value eported on a dry we as received" basis. d qualifier and/or ce	ime. ciated value. ion limit. h 1983. Environmental Samples, August 1993. Samples - Supplement I, May 1994. slues are used in the calculations. sight basis.

REP001.09.12.01



#### **Reardon Steel LLC**

Aluminum (1312	2)		M6010B	ICP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	ll140123-2	2		1.944	mg/L	97.2	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.09	0.09			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.09	0.09			
WG359563LFB1	LFB	02/24/14 16:02	ll140218-5	1.0011		1.012	mg/L	101.1	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	U	mg/L				0	20	RA
L16859-03MS	MS	02/24/14 16:20	II140218-5	1.0011	U	1.028	mg/L	102.7	75	125			
L16859-03MSD	MSD	02/24/14 16:23	ll140218-5	1.0011	U	1.014	mg/L	101.3	75	125	1.37	20	
Antimony (1312)			M6010B	ICP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	ll140123-2	4		3.946	mg/L	98.7	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.09	0.09			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.09	0.09			
WG359563LFB1	LFB	02/24/14 16:02	ll140218-5	.2002		.178	mg/L	88.9	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	U	mg/L				0	20	RA
L16859-03MS	MS	02/24/14 16:20	ll140218-5	.2002	U	.197	mg/L	98.4	75	125			
L16859-03MSD	MSD	02/24/14 16:23	ll140218-5	.2002	U	.176	mg/L	87.9	75	125	11.26	20	
Arsenic (1312)			M6010B	ICP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	ll140123-2	4		4.003	mg/L	100.1	90	110			
WG359719ICB	ICB	02/24/14 15:46		•		U	mg/L		-0.12	0.12			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.12	0.12			
WG359563LFB1	LFB	02/24/14 16:02	ll140218-5	1		1.037	mg/L	103.7	85	115			
L16859-01DUP	DUP	02/24/14 16:08		-	U	U	mg/L				0	20	RA
L16859-03MS	MS	02/24/14 16:20	ll140218-5	1	U	1.058	mg/L	105.8	75	125	-		
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	1	U	1.038	mg/L	103.8	75	125	1.91	20	
Barium (1312)			M6010B	ICP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG555715								07.6	00	110			
	ICV	02/24/14 15:43	140123-2	2		1,952	ma/l	9/n	90				
WG359719ICV	ICV ICB	02/24/14 15:43 02/24/14 15:46	II140123-2	2		1.952 U	mg/L ma/L	97.6	90 -0.009				
WG359719ICV WG359719ICB	ICB	02/24/14 15:46	II140123-2	2		U	mg/L	97.0	-0.009	0.009			
WG359719ICV WG359719ICB WG359563PBS	ICB PBS	02/24/14 15:46 02/24/14 15:59				U U	mg/L mg/L		-0.009 -0.009	0.009 0.009			
WG359719ICV WG359719ICB WG359563PBS WG359563LFB1	ICB PBS LFB	02/24/14 15:46 02/24/14 15:59 02/24/14 16:02	II140123-2 II140218-5	.5	.03	U U .4962	mg/L mg/L mg/L	97.6	-0.009	0.009	3.6	20	
WG359719ICV WG359719ICB WG359563PBS WG359563LFB1 L16859-01DUP	ICB PBS LFB DUP	02/24/14 15:46 02/24/14 15:59 02/24/14 16:02 02/24/14 16:08	II140218-5	.5	.03 .027	U U .4962 .0311	mg/L mg/L mg/L mg/L	99.2	-0.009 -0.009 85	0.009 0.009 115	3.6	20	
WG359719ICV WG359719ICB WG359563PBS WG359563LFB1	ICB PBS LFB	02/24/14 15:46 02/24/14 15:59 02/24/14 16:02			.03 .027 .027	U U .4962	mg/L mg/L mg/L		-0.009 -0.009	0.009 0.009	3.6 1.36	20 20	



#### **Reardon Steel LLC**

#### ACZ Project ID: L16885

Beryllium (1312)			M6010B I										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	2		1.924	mg/L	96.2	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.03	0.03			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.03	0.03			
WG359563LFB1	LFB	02/24/14 16:02	II140218-5	.5		.504	mg/L	100.8	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	U	mg/L				0	20	R/
L16859-03MS	MS	02/24/14 16:20	II140218-5	.5	U	.501	mg/L	100.2	75	125			
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	.5	U	.497	mg/L	99.4	75	125	0.8	20	
Cadmium (1312)			M6010B I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	2		1.887	mg/L	94.4	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.015	0.015			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.015	0.015			
WG359563LFB1	LFB	02/24/14 16:02	ll140218-5	.5		.4936	mg/L	98.7	85	115			
L16859-01DUP	DUP	02/24/14 16:08		.0	U	U	mg/L				0	20	R
L16859-03MS	MS	02/24/14 16:20	II140218-5	.5	.015	.5036	mg/L	97.9	75	125	Ū	20	10
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	.5	.015	.4974	mg/L	96.7	75	125	1.24	20	
		02/2 // 11 10:20			.010		iiig/E	00.1	10	120		20	
Chloride (1312 D		A	SM4500C		0		11					1	0.1
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360265													
WG360265ICB	ICB	03/05/14 20:13				U	mg/L		-3	3			
WG360265ICV	ICV	03/05/14 20:13	WI130722-5	54.945		53.4	mg/L	97.2	90	110			
WG360265LFB	LFB	03/05/14 20:32	WI131010-1	30		30.9	mg/L	103	90	110			
WG359992PBS	PBS	03/05/14 20:32				U	mg/L		-3	3			
L16859-01DUP	DUP	03/05/14 20:32			9	10.2	mg/L				12.5	20	R
L16884-05AS	AS	03/05/14 20:33	WI131010-1	30	1	32.2	mg/L	104	90	110			
Chromium (1312	)		M6010B I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	2		1.91	mg/L	95.5	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.03	0.03			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.03	0.03			
WG359563LFB1	LFB	02/24/14 16:02	II140218-5	.501		.497	mg/L	99.2	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	U	mg/L				0	20	R
L16859-03MS	MS	02/24/14 16:20	ll140218-5	.501	U	.491	mg/L	98	75	125			
L16859-03MSD	MSD	02/24/14 16:23	ll140218-5	.501	U	.484	mg/L	96.6	75	125	1.44	20	
Conductivity @2	5C (131)	2-DI)	SM2510B										
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360167													
WG360167LCSW1	LCSW	03/04/14 13:12	PCN43577	1408.8		1441	umhos/cm	102.3	90	110			
WG359992PBS	PBS	03/04/14 13:13				10.4	umhos/cm		-4	4			
L16859-01DUP	DUP	03/04/14 13:16			520	535	umhos/cm		т	т	2.8	20	
WG360167LCSW2		03/04/14 13:34	PCN43577	1408.8	020	1420	umhos/cm	100.8	90	110	2.0	20	
				1700.0		1740	2000/001	100.0	00	110			

L16885-1403121518



#### **Reardon Steel LLC**

Copper (1312)			M6010B	ICP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	2		1.942	mg/L	97.1	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.03	0.03			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.03	0.03			
WG359563LFB1	LFB	02/24/14 16:02	ll140218-5	.5		.499	mg/L	99.8	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	U	mg/L				0	20	RA
L16859-03MS	MS	02/24/14 16:20	ll140218-5	.5	U	.513	mg/L	102.6	75	125			
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	.5	U	.508	mg/L	101.6	75	125	0.98	20	
Fluoride (1312 D	DI)		SM4500F	-C									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360168													
WG360168ICV	ICV	03/04/14 11:16	WC140227-	2		1.91	mg/L	95.5	95	105			
WG360168ICB	ICB	03/04/14 11:20		-		.12	mg/L	0010	-0.3	0.3			
WG360168LFB	LFB	03/04/14 11:28	WC140220-	5.015		4.59	mg/L	91.5	90	110			
WG359992PBS	PBS	03/04/14 11:33	WO HOLLO	0.010		.19	mg/L	01.0	-0.3	0.3			
L16859-01DUP	DUP	03/04/14 11:40			.9	.94	mg/L		0.0	0.0	4.3	20	RA
L16859-02AS	AS	03/04/14 11:52	WC140220-	5.015	1	6.37	mg/L	107.1	90	110		20	
L16885-02AS	AS	03/04/14 12:42	WC140220-	5.015	.8	5.32	mg/L	90.1	90	110			
Iron (1312)			M6010B	ICP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	ll140123-2	2		1.962	mg/L	98.1	90	110			
WG359719ICB	ICB	02/24/14 15:46	11140123-2	2		U	-	50.1	-0.06	0.06			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L mg/L		-0.06	0.06			
WG359563LFB1	LFB	02/24/14 16:02	II140218-5	1.0014		1.016	mg/L	101.5	-0.00	115			
L16859-01DUP	DUP	02/24/14 16:08	11402100	1.0014	U	.042	mg/L	101.0	00	110	200	20	RA
L16859-03MS	MS	02/24/14 16:20	II140218-5	1.0014	U	1.014	mg/L	101.3	75	125	200	20	101
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	1.0014	U	1.001	mg/L	101.0	75	125	1.29	20	
Lead (1312)			M6010B	ICP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
W0250740													
WG359719		00/04/14 15:40	111 401 02 0	4		2 0 7	m a //	05.7	00	110			
WG359719ICV	ICV	02/24/14 15:43	II140123-2	4		3.827	mg/L	95.7	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.09	0.09			
WG359563PBS	PBS	02/24/14 15:59	114 400 40 -	4 6 6 4		U	mg/L	400 4	-0.09	0.09			
WG359563LFB1	LFB	02/24/14 16:02	II140218-5	1.001		1.025	mg/L	102.4	85	115	<u> </u>	00	-
L16859-01DUP	DUP	02/24/14 16:08	114 400 40 -	4 6 6 4	U	U	mg/L	00.0		405	0	20	RA
L16859-03MS	MS	02/24/14 16:20	II140218-5	1.001	.11	1.109	mg/L	99.8	75	125	0.40	00	
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	1.001	.11	1.085	mg/L	97.4	75	125	2.19	20	



#### **Reardon Steel LLC**

Manganese (13 ⁻	12)		M6010B	ICP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	2		1.931	mg/L	96.6	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.015	0.015			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.015	0.015			
WG359563LFB1	LFB	02/24/14 16:02	II140218-5	.501		.5038	mg/L	100.6	85	115			
L16859-01DUP	DUP	02/24/14 16:08			2.01	1.737	mg/L				14.6	20	
L16859-03MS	MS	02/24/14 16:20	II140218-5	.501	4.43	4.918	mg/L	97.4	75	125			
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	.501	4.43	4.785	mg/L	70.9	75	125	2.74	20	M3
Mercury (1312)			M7470A	CVAA									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359693													
WG359693ICV	ICV	02/24/14 11:13	II140214-1	.005005		.00491	mg/L	98.1	95	105			
WG359693ICB	ICB	02/24/14 11:16				U	mg/L		-0.0002	0.0002			
WG359698													
WG359563PBS	PBS	02/24/14 12:46				U	mg/Kg		-0.0006	0.0006			
WG359563LFB1	LFB	02/24/14 12:48	II140203-2	.002002		.0019	mg/L	94.9	85	115			
L16859-01DUP	DUP	02/24/14 12:53			U	U	mg/L				0	20	RA
L16859-03MS	MS	02/24/14 12:59	II140203-2	.002002	U	.00191	mg/L	95.4	85	115			
L16859-03MSD	MSD	02/24/14 13:01	II140203-2	.002002	U	.00188	mg/L	93.9	85	115	1.58	20	
Molybdenum (1	312)		M6010B	ICP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	2		1.944	mg/L	97.2	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.06	0.06			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.06	0.06			
WG359563LFB1	LFB	02/24/14 16:02	II140218-5	.5		.496	mg/L	99.2	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	U	mg/L				0	20	RA
L16859-03MS	MS	02/24/14 16:20	II140218-5	.5	U	.499	mg/L	99.8	75	125			
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	.5	U	.494	mg/L	98.8	75	125	1.01	20	
Neutralization P	otential	as CaCO3	M600/2-7	78-054 3.2.3	3								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360249													
WG360249PBS	PBS	03/06/14 9:40				U	%		-0.1	0.1			
WG360249LCSS	LCSS	03/06/14 9:50	PCN33453	100		107.5	%	107.5	80	120			
	DUP	03/06/14 10:10			9.4	9.25	%				1.6	20	



#### **Reardon Steel LLC**

Nickel (1312)			M6010B I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	2		1.979	mg/L	99	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.024	0.024			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.024	0.024			
WG359563LFB1	LFB	02/24/14 16:02	ll140218-5	.5		.51	mg/L	102	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	U	mg/L				0	20	RA
L16859-03MS	MS	02/24/14 16:20	ll140218-5	.5	U	.5005	mg/L	100.1	75	125			
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	.5	U	.4959	mg/L	99.2	75	125	0.92	20	
Nitrate/Nitrite as	s N (131)	2-DI)	M353.2 - /	Automate	d Cadmiur	n Reduc	tion						
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360067													
WG360067ICV	ICV	02/28/14 21:46	WI140116-3	2.416		2.321	mg/L	96.1	90	110			
WG360067ICB	ICB	02/28/14 21:47				U	mg/L		-0.06	0.06			
WG360072													
WG360072LFB	LFB	02/28/14 23:13	WI140215-3	2		1.984	mg/L	99.2	90	110			
WG359992PBS	PBS	02/28/14 23:14				U	mg/L		-0.06	0.06			
L16859-01DUP	DUP	02/28/14 23:17			U	U	mg/L				0	20	RA
L16859-02AS	AS	02/28/14 23:19	WI140215-3	2	U	2.003	mg/L	100.2	90	110			
Nitrogen, ammo	onia (131	2-DI)	M350.1 - /	Automate	d Phenate								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360342													
WG360342ICV	ICV	03/07/14 11:15	WI131021-1	1.003		1.028	mg/L	102.5	90	110			
WG360342ICB	ICB	03/07/14 11:18				U	mg/L		-0.15	0.15			
WG360342LFB	LFB	03/07/14 11:19	WI140113-8	1		1.028	mg/L	102.8	90	110			
WG359992PBS	PBS	03/07/14 11:20				U	mg/L		-0.15	0.15			
L16859-01DUP	DUP	03/07/14 11:23			U	U	mg/L				0	20	RA
L16859-02AS	AS	03/07/14 11:25	WI140113-8	1	U	1	mg/L	100	90	110			
pH, Saturated P	aste		EPA 600/2	2-78-054,	section 3.	2.2							
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360293													
WG360293ICV	ICV	03/06/14 11:09	PCN42578	4		4	units	100	3.9	4.1			
L16859-01DUP	DUP	03/06/14 11:35			7.1	7.27	units				2.4	20	
Selenium (1312)	)		M6010B I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	4		4.056	mg/L	101.4	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.15	0.15			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.15	0.15			
WG359563LFB1	LFB	02/24/14 16:02	ll140218-5	1.001		1.021	mg/L	102	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	U	mg/L				0	20	RA
L16859-03MS	MS	02/24/14 16:20	ll140218-5	1.001	U	1.019	mg/L	101.8	75	125			
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	1.001	U	1.023	mg/L	102.2	75	125	0.39	20	
							-						



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Silver (1312)			M6010B I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	1.001		1.002	mg/L	100.1	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.03	0.03			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.03	0.03			
WG359563LFB1	LFB	02/24/14 16:02	ll140218-5	.5005		.503	mg/L	100.5	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	U	mg/L				0	20	RA
L16859-03MS	MS	02/24/14 16:20	ll140218-5	.5005	U	.504	mg/L	100.7	75	125			
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	.5005	U	.493	mg/L	98.5	75	125	2.21	20	
Sulfate (1312 DI	)		D516-02 -	- Turbidim	etric								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360357													
WG360357ICB	ICB	03/07/14 12:34				U	mg/L		-3	3			
WG360357ICV	ICV	03/07/14 12:34	WI140228-2	20		19	mg/L	95	90	110			
WG360357LFB	LFB	03/07/14 13:28	WI131010-2	9.99		9.2	mg/L	92.1	90	110			
WG359992PBS	PBS	03/07/14 13:28				U	mg/L		-3	3			
L16884-05AS	AS	03/07/14 13:30	WI131010-2	9.99	13.7	24.3	mg/L	106.1	90	110			
L16859-01DUP	DUP	03/07/14 13:47			195	201	mg/L				3	20	RA
Sulfur Organic I	Residual	1	M600/2-7	8-054 3 2	4								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360227													
L16859-01DUP	DUP	03/05/14 22:12			.77	.71	%				8.1	20	
Sulfur Pyritic Su	ılfide		M600/2-7	8-054 3 2	4								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
	<b>71</b>												
WG360227 L16859-01DUP	DUP	03/05/14 22:12			2.05	2.07	%				1	20	
	DOI	00/00/14 22.12				2.07	70					20	
Sulfur Sulfate	Turne	Analyzed	M600/2-7	8-054 3.2. QC	.4 Sample	Found	Unite	Dee	Lower	Linner	RPD	l instit	Qual
	Туре	Analyzeu	PCN/SCN	QU	Sample	Found	Units	Rec	Lower	Upper	RFD	Limit	Quai
WG360227													
L16859-01DUP	DUP	03/05/14 22:12			.5	.58	%				14.8	20	
Sulfur Total			M600/2-7	8-054 3.2	.4								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360227													
WG360227PBS	PBS	03/05/14 11:30				U	%		-0.03	0.03			
WG360227LCSS	LCSS	03/05/14 15:04	PCN44488	4.07		4.65	%	114.3	0.00	0.00			
L16859-01DUP	DUP	03/05/14 22:12			3.32	3.36	%				1.2	20	
	2.01	56.00.71 EE.1E			0.02	0.00	/0						



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Thallium (1312)			M6010B I0	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	4		3.89	mg/L	97.3	90	110			
WG359719ICB	ICB	02/24/14 15:46				U	mg/L		-0.3	0.3			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.3	0.3			
WG359563LFB1	LFB	02/24/14 16:02	II140218-5	2		1.96	mg/L	98	85	115			
L16859-01DUP	DUP	02/24/14 16:08			U	U	mg/L				0	20	RA
L16859-03MS	MS	02/24/14 16:20	II140218-5	2	U	1.93	mg/L	96.5	75	125			
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	2	U	1.9	mg/L	95	75	125	1.57	20	
Total Sulfur Minu	s Sulfa	ite	M600/2-78	3-054 3.2	.4								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360227													
L16859-01DUP	DUP	03/05/14 22:12			2.82	2.78	%				1.4	20	
Uranium (1312)			M6020 ICI	⊃-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG360134													
WG360134ICV	ICV	03/03/14 22:32	MS140218-2	.05		.05071	mg/L	101.4	90	110			
WG360134ICB	ICB	03/03/14 22:34				U	mg/L		-0.0003	0.0003			
WG359563PBS	PBS	03/03/14 22:42				U	mg/L		-0.0003	0.0003			
WG359563LFB2	LFB	03/03/14 22:43	MS140128-2	.05		.04992	mg/L	99.8	80	120			
L16859-01DUP	DUP	03/03/14 22:47			.0002	U	mg/L				200	20	RA
L16859-02MS	MS	03/03/14 22:51	MS140128-2	.05	U	.05238	mg/L	104.8	75	125			
L16859-02MSD	MSD	03/03/14 22:52	MS140128-2	.05	U	.05316	mg/L	106.3	75	125	1.48	20	
Vanadium (1312)			M6010B I0	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	2		1.95	mg/L	97.5	90	110			
WG359719ICB	ICB	02/24/14 15:46	111-0120-2	2		U	mg/L	51.5	-0.015	0.015			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.015	0.015			
WG359563LFB1	LFB	02/24/14 16:02	II140218-5	.5		.5048	mg/L	101	85	115			
L16859-01DUP	DUP	02/24/14 16:08	11102100	.0	U	U	mg/L	101	00	110	0	20	RA
L16859-03MS	MS	02/24/14 16:20	II140218-5	.5	U	.5011	mg/L	100.2	75	125	Ū	20	10
L16859-03MSD	MSD	02/24/14 16:23	II140218-5	.5	U	.4911	mg/L	98.2	75	125	2.02	20	
Zinc (1312)			M6010B I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG359719													
WG359719ICV	ICV	02/24/14 15:43	II140123-2	2		1.894	mg/L	94.7	90	110			
WG359719ICB	ICB	02/24/14 15:46		-		U	mg/L	2	-0.03	0.03			
WG359563PBS	PBS	02/24/14 15:59				U	mg/L		-0.03	0.03			
WG359563LFB1	LFB	02/24/14 16:02	II140218-5	.5005		.508	mg/L	101.5	85	115			
				.0000			-	101.0	50				
	DUP	02/24/14 16:08			17	148	ma/l				13.8	20	
L16859-01DUP L16859-03MS	DUP MS	02/24/14 16:08 02/24/14 16:20	ll140218-5	.5005	.17 1.08	.148 1.53	mg/L mg/L	95.9	75	125	13.8	20	

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# Inorganic Extended Qualifier Report

#### **Reardon Steel LLC**

## ACZ Project ID: L16885

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L16885-01	WG359719	Aluminum (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Antimony (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Arsenic (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Beryllium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Cadmium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Chromium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Copper (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Iron (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Lead (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Manganese (1312)	M6010B ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG359698	Mercury (1312)	M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359719	Molybdenum (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nickel (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Selenium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Silver (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Thallium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360134	Uranium (1312)	M6020 ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359719	Vanadium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360265	Chloride (1312 DI)	SM4500CI-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360168	Fluoride (1312 DI)	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360072	Nitrate/Nitrite as N (1312-DI)	M353.2 - Automated Cadmium	HD	Analysis is outside the intended scope of the method,

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			Reduction		which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360342	Nitrogen, ammonia (1312-DI)	M350.1 - Automated Phenate	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M350.1 - Automated Phenate	Q6	Sample was received above recommended temperature.
			M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360357	Sulfate (1312 DI)	D516-02 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			D516-02 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

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# Inorganic Extended Qualifier Report

## ACZ Project ID: L16885

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L16885-02	WG359719	Aluminum (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Antimony (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Arsenic (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Beryllium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Cadmium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Chromium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Copper (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Iron (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Lead (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Manganese (1312)	M6010B ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG359698	Mercury (1312)	M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359719	Molybdenum (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nickel (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Selenium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Silver (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Thallium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360134	Uranium (1312)	M6020 ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359719	Vanadium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360265	Chloride (1312 DI)	SM4500CI-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360168	Fluoride (1312 DI)	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360072	Nitrate/Nitrite as N (1312-DI)	M353.2 - Automated Cadmium	HD	Analysis is outside the intended scope of the method,

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			Reduction		which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360342	Nitrogen, ammonia (1312-DI)	M350.1 - Automated Phenate	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M350.1 - Automated Phenate	Q6	Sample was received above recommended temperature.
			M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360357	Sulfate (1312 DI)	D516-02 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			D516-02 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

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# Inorganic Extended Qualifier Report

## ACZ Project ID: L16885

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L16885-03	WG359719	Aluminum (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Antimony (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Arsenic (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Beryllium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Cadmium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Chromium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Copper (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Iron (1312)	M6010B ICP		Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Lead (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Manganese (1312)	M6010B ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG359698	Mercury (1312)	M7470A CVAA	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359719	Molybdenum (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nickel (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Selenium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Silver (1312)	M6010B ICP		Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Thallium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360134	Uranium (1312)	M6020 ICP-MS	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG359719	Vanadium (1312)	M6010B ICP	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360265	Chloride (1312 DI)	SM4500CI-E	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360168	Fluoride (1312 DI)	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360072	Nitrate/Nitrite as N (1312-DI)	M353.2 - Automated Cadmium	HD	Analysis is outside the intended scope of the method,

REPAD.15.06.05.01



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#### **Reardon Steel LLC**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
			Reduction		which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M353.2 - Automated Cadmium Reduction	Q6	Sample was received above recommended temperature.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360342	Nitrogen, ammonia (1312-DI)	M350.1 - Automated Phenate	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			M350.1 - Automated Phenate	Q6	Sample was received above recommended temperature.
			M350.1 - Automated Phenate	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG360357	Sulfate (1312 DI)	D516-02 - Turbidimetric	HD	Analysis is outside the intended scope of the method, which does not provide hold time information for soil extracts. No hold time is observed for collection to extraction. The referenced method hold time is observed for extraction-to-analysis.
			D516-02 - Turbidimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

ACZ L	.aboratories, teamboat Springs, CO 80	<b>Inc.</b> 487 (800) 334-549.	3			adioC nalytic		
<b>Reardon Steel LL</b> Project ID: Sample ID: Locator:	<b>C</b> PDH-025			ACZ Sar Date S Date Re Sample	ampled eceived	: 02/09 : 02/18	<b>85-01</b> )/14 0:0 3/14	0
Gross Alpha & Beta (13 M9310	312)						Pre	p Method:
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha (1312) Gross Beta (1312)	02/26/14 0:17 02/26/14 0:17		0.28 5.8	2.2 4.3	2.4 5.7	pCi/L pCi/L	*	thf thf
Radium 226 (1312) M903.1							Pre	p Method:
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (1312)	03/04/14 0:15		0.43	0.35	0.58	pCi/L	*	jrd
Radium 228 (1312) M9320 Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	Pre	p Method: Analyst

Radium 228 (1312)

03/11/14 14:07

0.78

1.8

1.9

pCi/L

nco

ACZ 2773 Downhill Drive	Laboratories, Steamboat Springs, CO 804	<b>Inc.</b> 487 (800) 334-549	3			adioC alytic		istry sults
<b>Reardon Steel L</b> Project ID: Sample ID: Locator:	LC PDH-038			ACZ San Date Sa Date Re Sample	ampled eceived	: 02/09 : 02/18	8 <b>5-02</b> 9/14 0:0 3/14	0
Gross Alpha & Beta ( M9310	1312)						Pre	p Method:
Parameter Gross Alpha (1312) Gross Beta (1312)	Measure Date 02/26/14 0:18 02/26/14 0:18	Prep Date	Result 1.4 8.1	Error(+/-) 3.1 4.5	LLD 2.9 5.8	Units pCi/L pCi/L	XQ *	Analyst thf thf
Radium 226 (1312) M903.1							Pre	p Method:
Parameter Radium 226 (1312)	Measure Date 03/04/14 0:17	Prep Date	Result 0.18	Error(+/-) 0.21	LLD 0.49	Units pCi/L	XQ *	Analyst jrd
Radium 228 (1312) M9320							Pre	p Method:
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst

Radium 228 (1312)

03/11/14 14:07

1.6

2.3

2.3

pCi/L

nco

ACZ 2773 Downhill Drive	Laboratories, Steamboat Springs, CO 80	<b>Inc.</b> 487 (800) 334-549.	3			adioC alytic		istry sults
<b>Reardon Steel L</b> Project ID: Sample ID: Locator:	LC PDH-049			Date Re	ampled	: 02/09 : 02/18	<b>85-03</b> )/14 0:0 }/14	0
Gross Alpha & Beta ( M9310	1312)						Pre	p Method:
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha (1312)	02/26/14 0:20		-1.6	2	2.5	pCi/L	*	thf
Gross Beta (1312)	02/26/14 0:20		4.7	4.2	5.8	pCi/L		thf
Radium 226 (1312) M903.1							Pre	p Method:
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (1312)	03/04/14 0:18		0.37	0.28	0.5	pCi/L	*	jrd
Radium 228 (1312) M9320							Pre	p Method:
Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst

Radium 228 (1312)

03/11/14 14:07

0.51

1.8

1.9

pCi/L

nco



## Radiochemistry Reference

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

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

#### QC Sample Types

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

QC Sample Type Explanation	s
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.

#### Method Prefix Reference

÷	litea i tenx i	
	М	EPA methodology, including those under SDWA, CWA, and RCRA
	SM	Standard Methods for the Examination of Water and Wastewater.
	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.
(4)	An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification
	qualifier associated with the result.
_	

For a complete list of ACZ's Extended Qualifiers, please click:

http://www.acz.com/public/extquallist.pdf

REP003.09.12.01



## Radiochemistry QC Summary

#### Reardon Steel LLC

Alpha			M9310										Uni	i <b>ts:</b> pCi/L		
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
WG360086																
WG359561PBW	PBW	02/26/14						-1.3	1.4	1.8			3.6			
WG359561LCSW	LCSW	02/26/14	RC130807-3	81.06				82	8.7	1.8	101.2	83	133			
L16859-01DUP	DUP-RER	02/26/14			2.8	3	2.6	.34	2.3	2.7				0.65	2	
L16859-02DUP	DUP-RER	02/26/14			0.96	2.4	2.4	.11	1.7	2				0.29	2	
L16859-03MS	MS	02/26/14	RC130807-3	81.06	-2	2.4	3.1	60	9.4	2.7	76.5	83	133			M2
Beta			M9310										Uni	i <b>ts:</b> pCi/L		
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
WG360086																
WG359561PBW	PBW	02/26/14						.36	3.3	5.4			10.8			
WG359561LCSW	LCSW	02/26/14	PCN44617	100				110	7.7	4.8	110	70	129			
L16859-01DUP	DUP-RER	02/26/14			12	5.1	5.7	2.7	4.6	5.8				1.35	2	
L16859-02DUP	DUP-RER	02/26/14			7	4.4	5.7	.83	3.7	5.2				1.07	2	
L16884-01MS	MS	02/26/14	PCN44617	100	7.9	4.3	5.7	120	8.3	5.4	112.1	70	129			
Radium 226 (13	312)		M903.1										Uni	i <b>ts:</b> pCi/L		
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
WG360181																
WG359561PBW	PBW	03/04/14						.46	0.42	0.86			1.72			
WG359561LCSW	LCSW		PCN44713	66.67				77	2	0.38	115.5	43	148			
L16859-01DUP	DUP-RER	03/04/14			0.36	0.17	0.3	.26	0.36	0.71				0.25	2	
L16859-03DUP	DUP-RER	03/04/14			-0.33	0.27	0.44	.27	0.29	0.51				1.51	2	
L16859-02MS	MS	00/04/44	PCN44713	66.67	0.21	0.35	0.57	110	3.1	0.87	164.7	43	148			M1

## Radiochemistry QC Summary

#### Reardon Steel LLC

Radium 228 (13	312)		M9320										Uni	ts: pCi/L		
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec	Lower	Upper	RPD/RER	Limit	Qual
WG360519																
WG359561LCSW	LCSW	03/11/14	PCN44304	63.92				34	3.2	1.7	53.2	47	123			
WG359561PBW	PBW	03/11/14						.67	2.5	2.6			5.2			
L16859-01DUP	DUP-RER	03/11/14			1.9	2.9	3	28	2.1	2.3				0.61	2	
L16859-02MS	MS	03/11/14	PCN44304	63.92	-0.47	1.4	1.5	41	4.2	2.3	64.9	47	123			
L16884-01DUP	DUP-RER	03/11/14			0.1	1.7	1.9	1.2	2.5	2.6				0.36	2	

# 4C **AGZ** Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487

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#### **Reardon Steel LLC**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L16885-01	WG360086	Gross Alpha (1312)	M9310	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG360181	Radium 226 (1312)	M903.1	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L16885-02	WG360086	Gross Alpha (1312)	M9310	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG360181	Radium 226 (1312)	M903.1	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.
L16885-03	WG360086	Gross Alpha (1312)	M9310	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG360181	Radium 226 (1312)	M903.1	M1	Matrix spike recovery was high, the recovery of the associated control sample (LCS or LFB) was acceptable.



Sulfate (1312 DI)

#### **Reardon Steel LLC**

### ACZ Project ID: L16885

#### Radiochemistry

he following parameters are	not offered for certification or a	are not covered by NELAC certificate #ACZ.
Radium	226 (1312)	M903.1
oil Analysis		
he following parameters are	not offered for certification or a	are not covered by NELAC certificate #ACZ.
Neutrali	zation Potential as CaCO3	M600/2-78-054 3.2.3
pH, Sat	urated Paste	EPA 600/2-78-054, section 3.2.2
Sulfur C	Organic Residual	M600/2-78-054 3.2.4
Sulfur P	Pyritic Sulfide	M600/2-78-054 3.2.4
Sulfur S	Sulfate	M600/2-78-054 3.2.4
Sulfur T	otal	M600/2-78-054 3.2.4
Total St	ulfur minus Sulfate	M600/2-78-054 3.2.4
/et Chemistry		
he following parameters are	not offered for certification or a	are not covered by NELAC certificate #ACZ.
Chloride	e (1312 DI)	SM4500CI-E
Conduc	tivity @25C (1312-DI)	SM2510B
Fluoride	e (1312 DI)	SM4500F-C
Nitrate/I	Nitrite as N (1312-DI)	M353.2 - Automated Cadmium Reduction
Nitroger	n, ammonia (1312-DI)	M350.1 - Automated Phenate

D516-02 - Turbidimetric

ACZ	Laboratories, Inc.
	Steamboat Springs, CO 80487 (800) 334-5493

#### Re

## Sample Receipt

Reardon Steel LLC AC	CZ Project ID:		L16885
D	ate Received:	02/18/20	14 10:03
	Received By:		mtb
	Date Printed:	2/	/18/2014
Receipt Verification			NIA
1) Is a foreign soil permit included for applicable samples?	YE	S NO	NA X
2) Is the Chain of Custody or other directive shipping papers present?	Х		
3) Does this project require special handling procedures such as CLP protocol?			Х
4) Are any samples NRC licensable material?			Х
5) If samples are received past hold time, proceed with requested short hold time analys	ses? X		
6) Is the Chain of Custody complete and accurate?	Х		
7) Were any changes made to the Chain of Custody prior to ACZ receiving the samples	? X		
A change was made in the Hold Time Question section prior t ACZ custody.			
Samples/Containers			
	YE	S NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	Х		
10) Do the sample labels and Chain of Custody match for Sample ID, Date, and Time?	Х		
11) For preserved bottle types, was the pH checked and within limits?			Х
12) Is there sufficient sample volume to perform all requested work?	Х		
13) Is the custody seal intact on all containers?			Х
14) Are samples that require zero headspace acceptable?			Х
15) Are all sample containers appropriate for analytical requirements?	Х		
16) Is there an Hg-1631 trip blank present?			Х
17) Is there a VOA trip blank present?			Х
18) Were all samples received within hold time?	X		

Chain of Custody Related Remarks

**Client Contact Remarks** 

**Shipping Containers** 

Cooler Id	Temp (°C)	Rad ( $\mu R/Hr$ )
NA19179	6.7	9

Custody Seal Intact? ------N/A

#### Was ice present in the shipment container(s)?

No - Wet or gel ice was not present in the shipment container(s).

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

		(	1688	5		
		boratories, Inc. at Springs, CO 80487 (800) 33		CHAIN of	CUSTODY	
	Report to:					
	Name: Mike Thomps,	m	Address: 4	River St., PO ston, (0) 814	Box 297	
	Company: Reurdon 57		Silve	ston (0 8/4)	33	
	E-mail: mtorpardo	nsteel.us	] Telephone:	170 426 2924		
	Copy of Report to:					
	Name: Karmen King Company: Grayling		E-mail:	king@aguatox	.us	
				9704262920		
	Invoice to:	<u></u>		10,	B. 247	
	Name: Mike Thomps Company: Reardon S		Address: 4	1 River St., P.O Iverton, CO 814	. Nox C17 23	
	E-mail: mterrard	mitral us		970426 2924	<u>,,</u>	
r		Iding time (HT), or if insufficie			(TES) X	
	analysis before expiration, sl	hall ACZ proceed with request	ted short HT analyses?	res	NO CON	
	If "NO" then ACZ will contact client for further Are samples for SDWA Com	instruction. If neither "YES" nor "NO" is indica	Yes	No X		
	If yes, please include state forms. Results will be reported to PQL for Colorado.					
		Sampler's site Inform	ation State: <u> </u>	Carl Sip code	Time Zone	
	Check box if observe Dayligh PROJECT INFORMATION			YSES REQUESTED (attach list or u	ise quote number)	
	Quote #: ABA - SPL					
	PO#:	0-7372	Containers			
	Reporting state for compliance	testing:	en	1 10 Let	er 70	
	Check box if samples include N			lease Rea		
	SAMPLE IDENTIFICATIO	ON DATE:TIME	Matrix #	Chote		
	PD17-025	02/09/14	Rock (			
	PDH-038		Rock 1			
	PD17-049	•	Rock 1			
÷	· · · · · · · · · · · · · · · · · · ·		<u></u>			
ll ustody	······································					
Cus Cus						
<u> </u>						
di c						
		GW (Ground Water) · WW (Waste	Water) · DW (Drinking Wate	/r) · SL (Sludge) · SO (Soil) · OL	(Oil) · Other (Specify)	
L16885 Chain of	REMARKS Please include EDD Reporting Please return unused sample material after analyzing					
				A CONTRACT OF A CONTRACT OF A CONTRACT		
		e refer to ACZ's terms & con				
	RELINQUISHED					
1	MAXU- MUNK /	hompson 02/13/1	4/1600	MC	21814 1000	

FRMAD050.12.12.12

White - Return with sample. Yellow - Retain for your records.





Mike Thompson Reardon Steel LLC 4 River Street Silverton, CO 81433 Page 1 of 3 2/10/2014

## Quote Number: ABA-SPLP-PASTE

Matrix: Soil

Mine Waste Samples for SPLP & ABA & Sat.Paste Analysis

Parameter	Method	Detection Limit	Cost/Sample
Inorganic Prep			
Total Hot Plate Digestion	M3010A ICP-MS		\$0.00
Total Hot Plate Digestion	M3010A ICP		\$0.00
Metals Analysis		•	
Aluminum (1312)	M6010B ICP	0.03 mg/L	\$0.00
Antimony (1312)	M6010B ICP	0.03 mg/L	\$0.00
Arsenic (1312)	M6010B ICP	0.04 mg/L	\$0.00
Barium (1312)	M6010B ICP	0.003 mg/L	\$0.00
Beryllium (1312)	M6010B ICP	0.01 mg/L	\$0.00
Cadmium (1312)	M6010B ICP	0.005 mg/L	\$0.00
Chromium (1312)	M6010B ICP	0.01 mg/L	\$0.00
Copper (1312)	M6010B ICP	0.01 mg/L	\$0.00
Iron (1312)	M6010B ICP	0.02 mg/L	\$0.00
Lead (1312)	M6010B ICP	0.03 mg/L	\$0.00
Manganese (1312)	M6010B ICP	0.005 mg/L	\$0.00
Mercury (1312)	M7470A CVAA	0.0002 mg/L	\$23.40
Molybdenum (1312)	M6010B ICP	0.02 mg/L	\$0.00
Nickel (1312)	M6010B ICP	0.008 mg/L	\$0.00
Selenium (1312)	M6010B ICP	0.05 mg/L	\$0.00
Silver (1312)	M6010B ICP	0.01 mg/L	\$0.00
Thallium (1312)	M6010B ICP	0.1 mg/L	\$0.00
Uranium (1312)	M6020 ICP-MS	0.0001 mg/L	\$17.10
Vanadium (1312)	M6010B ICP	0.005 mg/L	\$0.00
Zinc (1312)	M6010B ICP	0.01 mg/L	\$0.00
Misc.			
Electronic Data Deliverable			\$0.00
Quality Control Summary			\$0.00
Setup charge for ICP (1312)			\$75.00
Setup Charge for ICPMS			\$20.00
Radiochemistry			
Gross Alpha & Beta (1312)	M9310	2 to 4 pCi/L	\$46.80
Radium 226 (1312)	M903.1	0.4 pCi/L	\$82.80
Radium 228 (1312)	M9320	1.5 pCi/L	\$90.00

REPAD.09.06.05.01

ACZ Laboratories, Inc. 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

## Analytical Quote

Mike Thompson			Page 2 of 3
Reardon Steel LLC			2/10/2014
4 River Street			
Silverton, CO 81433			
Sample Preparation			
Air Dry at 34 Degrees C	USDA No. 1, 1972		\$7.20
Crush and Pulverize	EPA-600/2-78-054 3.1.3		\$10.80
Saturated Paste Extraction	USDA No. 60 (2)		\$16.20
Sieve-2000 um (2.0mm)	ASA No.9, 15-4.2.2		\$10.80
Synthetic Precip. Leaching Procedure	M1312, DI Water		\$67.50
Synthetic Precip. Leaching Procedure	M1312-RC		\$67.50
Synthetic Precip. Leaching Procedure	M1312		\$67.50
Soil Analysis			
Acid Generation Potential (calc on Sulfur to	tal) M600/2-78-054 3.2.4	Calculation	\$0.00
Acid Neutralization Potential (calc)	M600/2-78-054 1.3	Calculation	\$0.00
Acid-Base Potential (calc on Sulfur total)	M600/2-78-054 1.3	Calculation	\$0.00
Neutralization Potential as CaCO3	M600/2-78-054 3.2.3	0.1 %	\$14.40
pH, Saturated Paste	EPA 600/2-78-054, section 3.2.2	0.1 units	\$7.20
Sample Weight	Rad Disposal Compliance	g	\$6.30
Sulfur Forms	M600/2-78-054 3.2.4	0.01 %	\$58.00
Wet Chemistry			
Chloride (1312 DI)	SM4500CI-E	1 mg/L	\$9.90
Conductivity @25C (1312-DI)	SM2510B	1 umhos/cm	\$7.20
Fluoride (1312 DI)	SM4500F-C	0.1 mg/L	\$9.90
Nitrate/Nitrite as N (1312-DI)	M353.2 - Automated Cadmium Redu	0.02 mg/L	\$9.90
Nitrogen, ammonia (1312-DI)	M350.1 - Automated Phenate	0.05 mg/L	\$9.90
Sulfate (1312 DI)	SM4500 SO4-D	10 mg/L	\$11.70
		Cost/Sample:	\$747.00

This quote is based on a Standard Turn Around Time of approximately 28 days for radiochemistry analysis of solid matrices. All projects received are subject to a \$125.00 Minimum Charge. Soil preparation charges may fluctuate dependant on the condition of samples upon receipt. Please note that method detection limits are estimates and may be elevated depending on sample matrix.

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Mike Thompson Reardon Steel LLC 4 River Street Silverton, CO 81433 Page 3 of 3 2/10/2014

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#### CONTRACT DETAILS

Pricing includes shipment of all standard sample containers and related paperwork by UPS Ground Service. Please allow three to five days for delivery when ordering containers. ACZ must be notified prior to receiving samples of all special requests such as electronic data deliverables or special reporting regirements. The client will be charged for special sample containers or express shipping and additional charges may apply for non-standard requests.

This quotation is valid for six months from the bid date unless specified otherwise in the bid. All bids must be signed and returned to ACZ before the project(s) is received. The authorized signature represents acceptance of the pricing as well as the general terms and conditions of ACZ Laboratories, Inc. which may be downloaded from our web site at http://www.acz.com/PDF/termsconditions.pdf. Please note that MDL's in this quote may possibly increase due to sample matrix or samples with high TDS.

All orders that require shipping of coolers are subject to a minimum charge of \$200.00. Local orders without shipping are subject to a minimum charge of \$125.00. Samples may incur a \$11.00/sample disposal fee for any samples deemed to be hazardous.

ACZ Representative (Authorized signature and date)

Client Representative (Authorized signature and date)

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