



**CAMECO RESOURCES**

Smith Ranch-Highland  
Operation

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August 31, 2011

Mr. Lowell Spackman, District I Supervisor  
Land Quality Division  
Wyoming Department of Environmental Quality  
122 W. 25<sup>th</sup> Street  
Cheyenne, WY 82002

CERTIFIED MAIL #7010 0780 0001 6001 9879 RETURN RECEIPT REQUESTED

**RE:** Excursion Report Summary Update, Cameco Resources, Smith Ranch-Highland Uranium Project, Permit 603 and 633

Dear Mr. Spackman:

Power Resources, Inc. d/b/a/ Cameco Resources (Cameco) is submitting the monthly Excursion Report Summary for the Smith Ranch-Highland Uranium Project. During the month of August no new excursions were reported and the Cameco Excursion Report table is attached. Monitor well DM-003 and DM-010 remain on excursion.

Guideline 8 analyses sampling for well DM-010 were taken July 11, 2011 pursuant to Non Coal Rules in Chapter 11, Section 12 (d) (i) as the well had been on excursion for 30 days. The results have been received and are attached. Constituent levels in Monitor Well DM-003 stayed relatively stable throughout the month of August, 2011. Monitor Well DM-010 levels improved slightly through the month. A copy of the monitor well report for well DM-003 and DM-010 is attached. Additionally, graphs are attached for each well tracking alkalinity, chloride, and conductivity trends. A plan and compliance schedule for well DM-003 was submitted to LQD in a letter dated March 10, 2011 responding to 3<sup>rd</sup> Qtr. 2010 Excursion Monitoring Report comments from LQD. Accordingly, Cameco will commit to a third party review if the excursion at DM-003 has not been resolved by September 2011. Cameco has met with a hydrologic consultant from AQUI-VER on August 16, 2011 who is been retained to model the excursion events and develop recommendations. Cameco will continue to evaluate the benefit of pumping the underground drift area working proximal to Mine Unit D and continue the bleed in Mine Units C and E to maintain stability.

Please contact Larry Teahon @ 307-358-6541, ext 435 or [Larry\\_Teahon@cameco.com](mailto:Larry_Teahon@cameco.com) if you have questions.

Respectfully,



Brent Berg  
General Manager

BB/kg

Attachments: Cameco Resources Excursion Report,  
Guideline 8 Sample Results for DM-010  
Monitor Well Report and Trend Graphs for DM-003  
Monitor Well Report and Trend Graphs for DM-010

cc: File HUP 4.3.3.1      Mr. Doug Mandeville – NRC Project Manager (2 Copies)  
ec: CR-Cheyenne

**Cameco Resources Excursion Report**  
**Permit Nos. 603 & 633**  
**(July 2011)**

Well Identification	Initial Sample Date	Confirmation Sample Date	Excursion Status (on/off)	Parameters Exceeded	Verbal Notification Date	Written Notification Date	Excursion Resolution Date	LQD Concurrence Notification Date
DM-3	11/19/2009	11/20/2009	ON	Chloride Alkalinity	11/23/2009	11/25/2009		
DM-10	6/3/2011	6/6/2011	ON	Chloride Alkalinity	6/7/2011	6/10/2011		

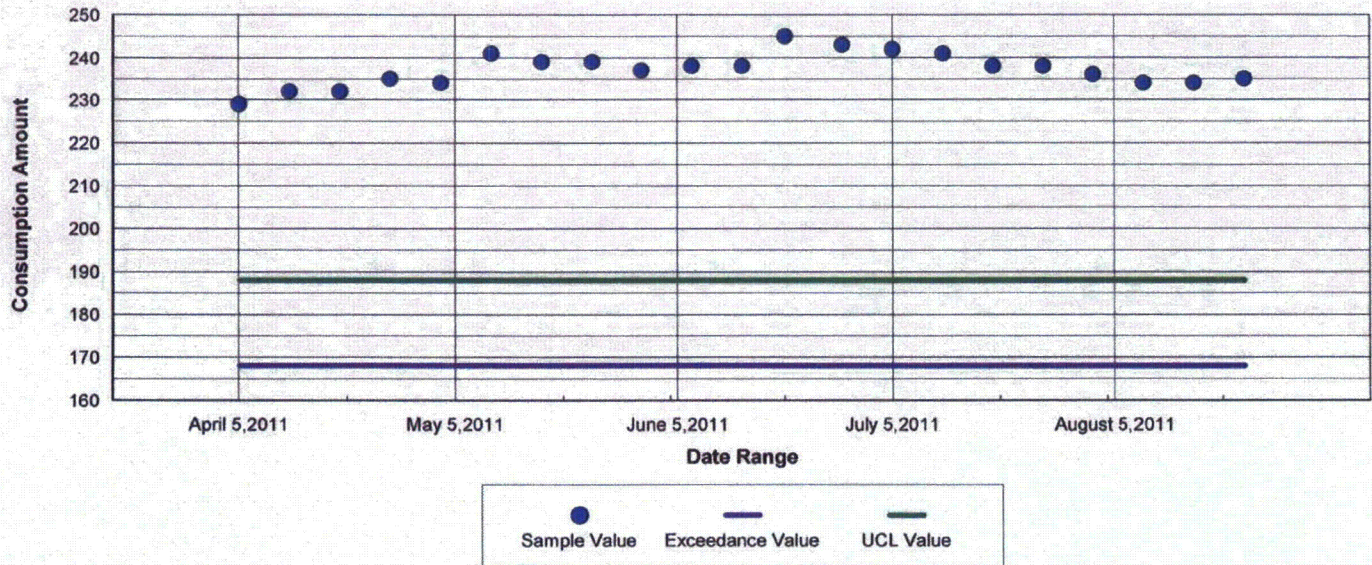


# Monitor Well Report

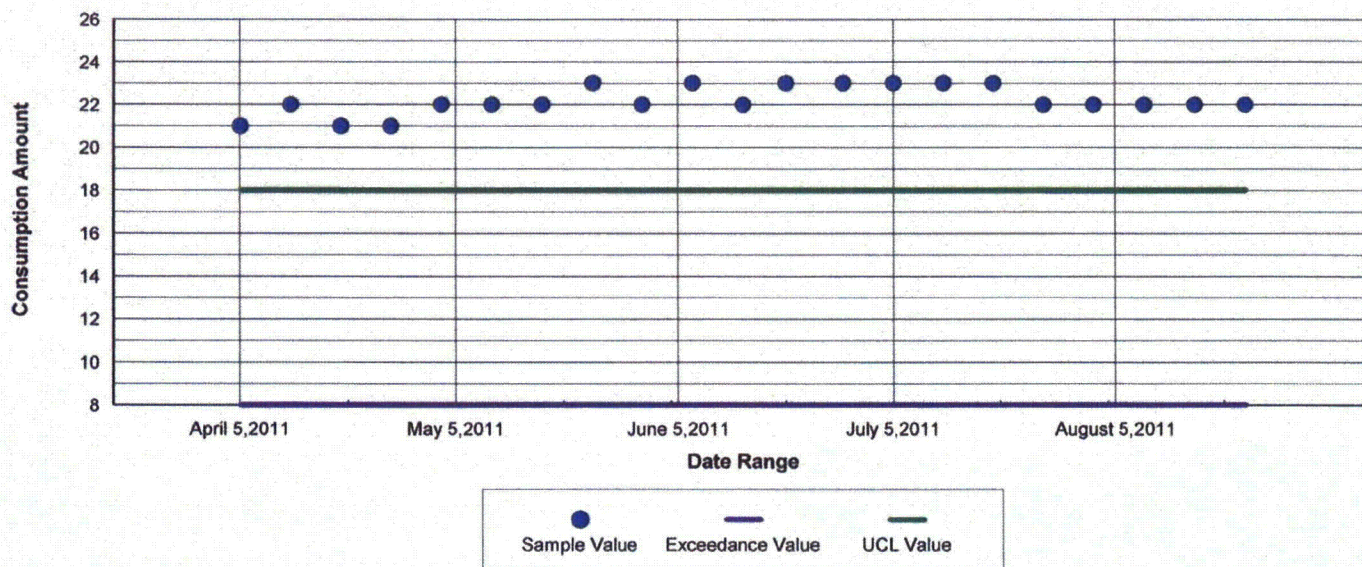
Well ID: DM-003

<i>NRC/WDEQ UCL</i>	<i>Chloride (mg/L)</i>	<i>Alkalinity (mg/L CaCO<sub>3</sub>)</i>	<i>Conductivity (µMhos/cm)</i>	<i>U<sub>3</sub>O<sub>8</sub> (mg/L)</i>	<i>Water Elevation</i>	<i>Comment</i>
	18	188	962			
08/23/2011	22	235	922	0	5099.6	Uranium below detection limit
08/16/2011	22	234	855	0	5099.6	Uranium below detection limit
08/09/2011	22	234	934	0	5103.4	Uranium below detection limit
08/02/2011	22	236	942	0	5104.4	Uranium below detection limit
07/26/2011	22	238	897	0	5107.9	Uranium below detection limit
07/19/2011	23	238	937	0	5112.6	Uranium below detection limit
07/12/2011	23	241	948	0	5110.3	Uranium below detection limit
07/05/2011	23	242	911	0	5106.8	Uranium below detection limit
06/28/2011	23	243	883	0	5102.6	Uranium below detection limit
06/20/2011	23	245	926	0	5093.9	Uranium below detection limit
06/14/2011	22	238	913	0	5095.4	Uranium below detection limit
06/07/2011	23	238	929	0	5099.1	Uranium below detection limit
05/31/2011	22	237	907	0	5099.7	Uranium below detection limit
05/24/2011	23	239	938	0	5103.9	Uranium below detection limit
05/17/2011	22	239	910	0	5107.2	Uranium below detection limit
05/10/2011	22	241	888	0	5099.6	Uranium below detection limit
05/03/2011	22	234	843	0	5100.5	Uranium below detection limit
04/26/2011	21	235	888	0	5104.0	Uranium below detection limit
04/19/2011	21	232	874	0	5107.2	Uranium below detection limit
04/12/2011	22	232	844	0	5107.6	Uranium below detection limit
04/05/2011	21	229	845	0	5108.8	Uranium below detection limit

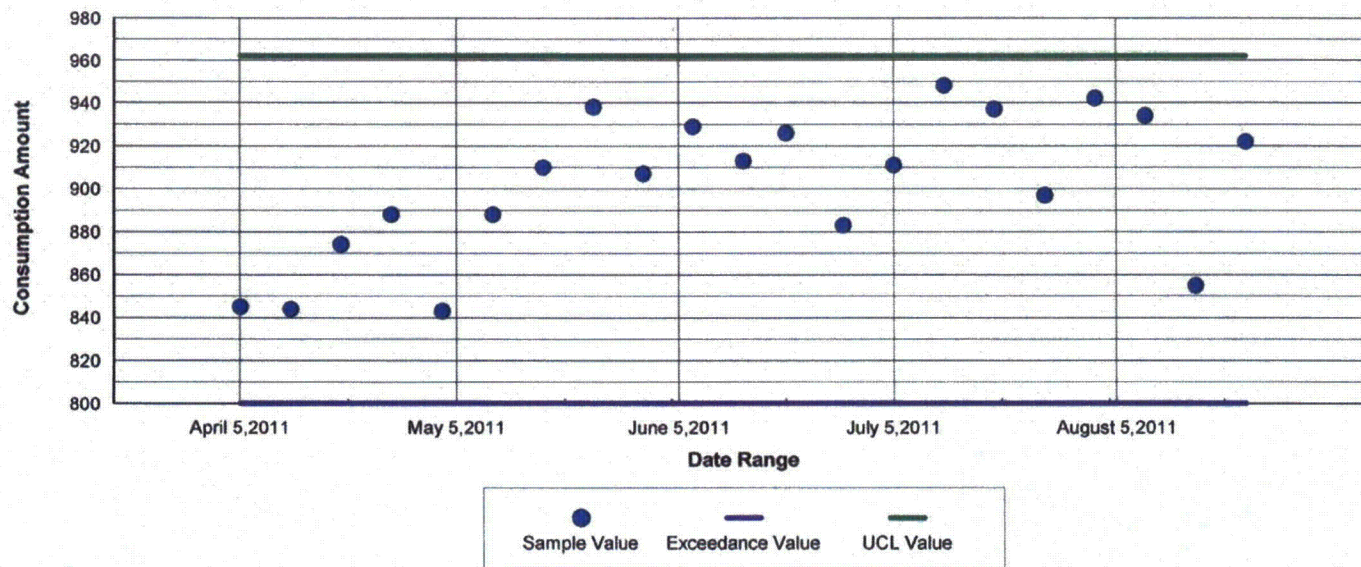














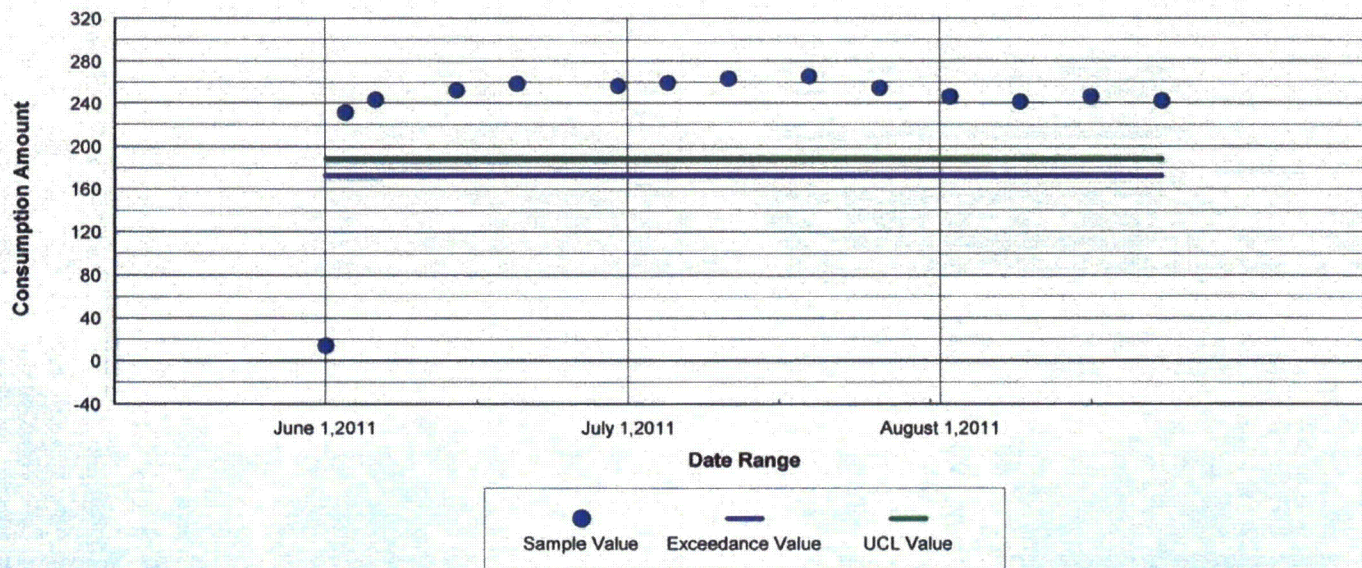
**Cameco Resources**

**Monitor Well Report**

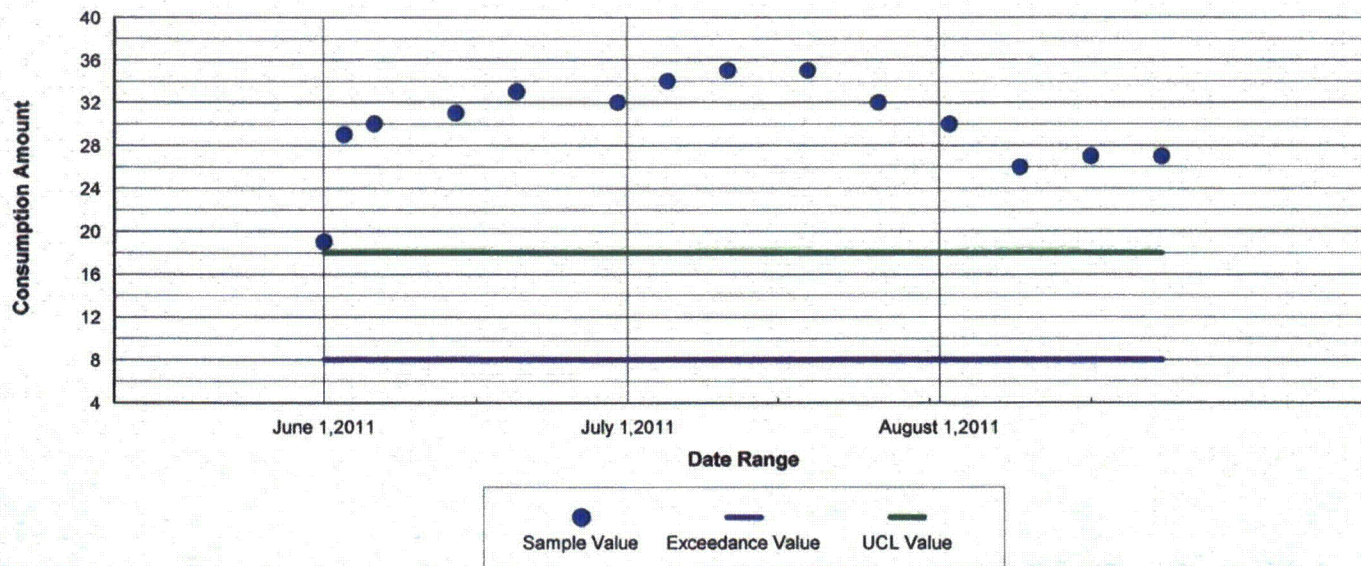
**Well ID: DM-010**

<b>NRC/WDEQ UCL</b>	<b>Chloride (mg/L)</b>	<b>Alkalinity (mg/L CaCO<sub>3</sub>)</b>	<b>Conductivity (µMhos/cm)</b>	<b>U<sub>3</sub>O<sub>8</sub> (mg/L)</b>	<b>Water Elevation</b>	<b>Comment</b>
	18	188	962			
08/23/2011	27	242	979	0	5067.7	Uranium below detection limit
08/16/2011	27	246	920	0	5074.4	Uranium below detection limit
08/09/2011	26	241	988	0	5064.0	Uranium below detection limit
08/02/2011	30	246	1016	0	5058.2	Uranium below detection limit
07/26/2011	32	254	1025	0	5055.6	Uranium below detection limit
07/19/2011	35	265	1052	0	5115.4	Uranium below detection limit
07/11/2011	35	263	1002	0	5112.5	Uranium below detection limit
07/05/2011	34	259	1045	0	5109.2	Uranium below detection limit
06/30/2011	32	256	1040	0	5080.3	Uranium below detection limit
06/20/2011	33	258	990	0	5078.4	Uranium below detection limit
06/14/2011	31	252	1002	0	5067.8	Uranium below detection limit
06/06/2011	30	243	947	0	5067.9	Uranium below detection limit
06/03/2011	29	231	968		5061.4	
06/01/2011	19	14	537		5060.7	Resample & Retest
04/05/2011	8	139	654		5089.5	

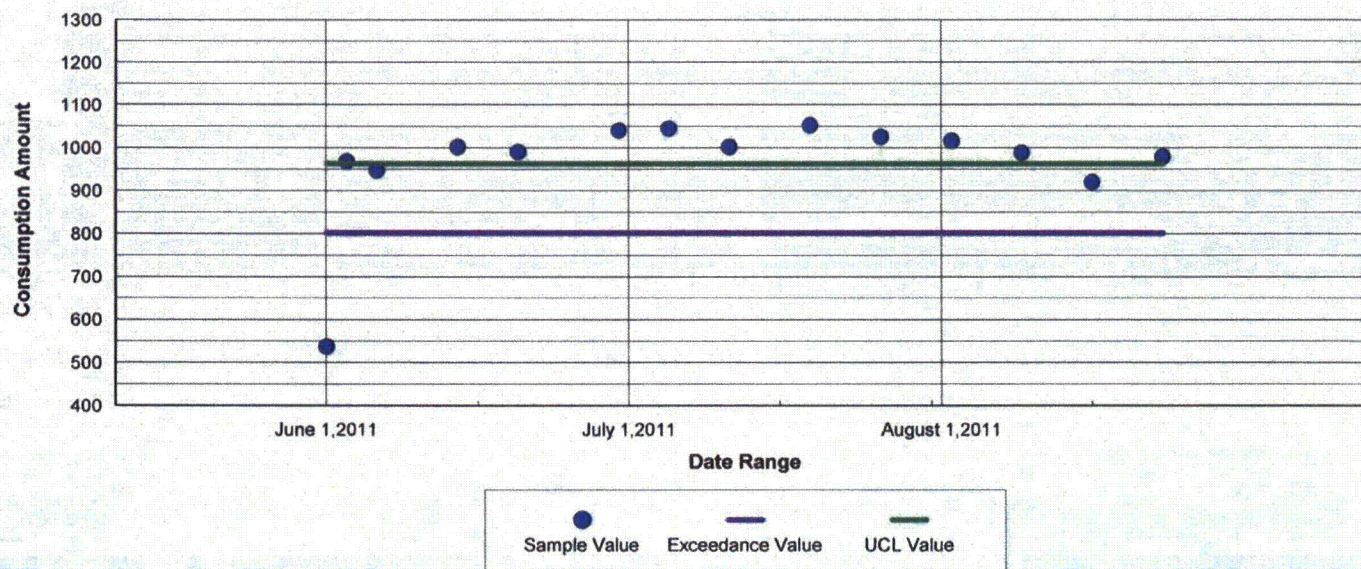
















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## ANALYTICAL SUMMARY REPORT

August 18, 2011

Power Resources dba Cameco Resources  
762 Ross Rd (Douglas, WY 82633)  
Glenrock, WY 82637

Workorder No.: C11070341

Project Name: SR-HUP

Energy Laboratories, Inc. Casper WY received the following 1 sample for Power Resources dba Cameco Resources on 7/11/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C11070341-001	DM-10	07/11/11 12:52	07/11/11	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Alkalinity QA Calculations Conductivity Sample Filtering Fluoride E300.0 Anions Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Metals Preparation by EPA 200.2 Gross Alpha, Gross Beta Radium 226, Dissolved Radium 228, Dissolved Solids, Total Dissolved

This report was prepared by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing. All samples are reported on an as received basis unless otherwise indicated. Samples corrected for dry weight indicate units that have -dry appended.

If you have any questions regarding these test results, please call.

Report Approved By:

*Stephanie D Waldrop*  
Reporting Supervisor

Digitally signed by  
Stephanie Waldrop  
Date: 2011.08.18 16:11:58 -06:00





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## LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Power Resources dba Cameco Resources  
**Project:** SR-HUP  
**Lab ID:** C11070341-001  
**Client Sample ID:** DM-10

**Report Date:** 08/18/11  
**Collection Date:** 07/11/11 12:52  
**Date Received:** 07/11/11  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Carbonate as CO <sub>3</sub>	ND	mg/L		5		A2320 B	07/12/11 15:41 / jba
Bicarbonate as HCO <sub>3</sub>	324	mg/L		5		A2320 B	07/12/11 15:41 / jba
Calcium	137	mg/L		1		E200.7	07/13/11 23:46 / cp
Chloride	33	mg/L		1		E300.0	07/13/11 19:05 / ljl
Fluoride	0.2	mg/L		0.1		A4500-F C	07/18/11 12:08 / jba
Magnesium	29	mg/L		1		E200.7	07/13/11 23:46 / cp
Nitrogen, Ammonia as N	0.16	mg/L		0.05		A4500-NH3 G	07/13/11 13:38 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	07/12/11 15:09 / dc
Potassium	11	mg/L		1		E200.7	07/13/11 23:46 / cp
Silica	23.3	mg/L		0.2		E200.7	07/13/11 23:46 / cp
Sodium	45	mg/L		1		E200.7	07/13/11 23:46 / cp
Sulfate	255	mg/L	D	4		E300.0	07/13/11 19:05 / ljl
<b>PHYSICAL PROPERTIES</b>							
Conductivity @ 25 C	1020	umhos/cm		1		A2510 B	07/12/11 14:37 / lmc
pH	7.83	s.u.		0.01		A4500-H B	07/12/11 14:37 / lmc
Solids, Total Dissolved TDS @ 180 C	687	mg/L		10		A2540 C	07/13/11 14:48 / lmc
<b>METALS - DISSOLVED</b>							
Aluminum	ND	mg/L		0.1		E200.7	07/13/11 23:46 / cp
Arsenic	ND	mg/L		0.001		E200.8	07/15/11 11:02 / sml
Barium	ND	mg/L		0.1		E200.7	07/13/11 23:46 / cp
Boron	ND	mg/L		0.1		E200.7	07/13/11 23:46 / cp
Cadmium	ND	mg/L		0.005		E200.7	07/13/11 23:46 / cp
Chromium	ND	mg/L		0.05		E200.7	07/13/11 23:46 / cp
Copper	ND	mg/L		0.01		E200.8	07/15/11 11:02 / sml
Iron	0.11	mg/L		0.03		E200.7	07/13/11 23:46 / cp
Lead	ND	mg/L		0.001		E200.8	07/15/11 11:02 / sml
Manganese	0.05	mg/L		0.01		E200.7	07/13/11 23:46 / cp
Mercury	ND	mg/L		0.001		E200.8	07/15/11 11:02 / sml
Molybdenum	ND	mg/L		0.1		E200.7	07/13/11 23:46 / cp
Nickel	ND	mg/L		0.05		E200.7	07/13/11 23:46 / cp
Selenium	ND	mg/L		0.001		E200.8	07/15/11 11:02 / sml
Uranium	0.0474	mg/L		0.0003		E200.8	07/15/11 11:02 / sml
Vanadium	ND	mg/L		0.1		E200.7	07/13/11 23:46 / cp
Zinc	ND	mg/L		0.01		E200.8	07/15/11 11:02 / sml
<b>METALS - TOTAL</b>							
Iron	0.32	mg/L		0.03		E200.7	07/14/11 21:32 / cp
Manganese	0.05	mg/L		0.01		E200.7	07/14/11 21:32 / cp

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.





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## LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

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**Project:** SR-HUP  
**Lab ID:** C11070341-001  
**Client Sample ID:** DM-10

**Report Date:** 08/18/11  
**Collection Date:** 07/11/11 12:52  
**Date Received:** 07/11/11  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>RADIONUCLIDES - DISSOLVED</b>							
Gross Alpha	130	pCi/L				E900.0	08/17/11 11:29 / ep
Gross Alpha precision (±)	9.0	pCi/L				E900.0	08/17/11 11:29 / ep
Gross Alpha MDC	7.0	pCi/L				E900.0	08/17/11 11:29 / ep
Gross Beta	35.0	pCi/L				E900.0	08/17/11 11:29 / ep
Gross Beta precision (±)	4.0	pCi/L				E900.0	08/17/11 11:29 / ep
Gross Beta MDC	5.6	pCi/L				E900.0	08/17/11 11:29 / ep
Radium 226	7.2	pCi/L				E903.0	08/01/11 12:15 / trs
Radium 226 precision (±)	0.51	pCi/L				E903.0	08/01/11 12:15 / trs
Radium 226 MDC	0.14	pCi/L				E903.0	08/01/11 12:15 / trs
Radium 228	2.1	pCi/L				RA-05	07/26/11 09:24 / plj
Radium 228 precision (±)	0.7	pCi/L				RA-05	07/26/11 09:24 / plj
Radium 228 MDC	1	pCi/L				RA-05	07/26/11 09:24 / plj
<b>DATA QUALITY</b>							
A/C Balance (± 5)	-0.420	%				Calculation	07/15/11 15:01 / kbh
Anions	11.6	meq/L				Calculation	07/15/11 15:01 / kbh
Cations	11.5	meq/L				Calculation	07/15/11 15:01 / kbh
Solids, Total Dissolved Calculated	699	mg/L				Calculation	07/15/11 15:01 / kbh
TDS Balance (0.80 - 1.20)	0.980					Calculation	07/15/11 15:01 / kbh

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
MDC - Minimum detectable concentration

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.