



40-8964

January 15, 2014

CERTIFIED MAIL # 7011 3500 0000 5274 2065

Mr. Robin Jones  
District 1 Supervisor  
Land Quality Division  
Wyoming Department of Environmental Quality  
122 W. 25<sup>th</sup> Street  
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**CAMECO RESOURCES**

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**December 2013 Excursion Report Summary Update, Cameco Resources, Smith Ranch-Highland Uranium Project, Permit 603 and 633**

Dear Mr. Jones:

Power Resources, Inc. d/b/a/ Cameco Resources (Cameco) is submitting the monthly Excursion Report Summary for the Smith Ranch-Highland Uranium Project. One (1) new excursion was reported during the month of December 2013, Monitor Well DM-004. The Cameco Excursion Report table is attached. Monitor Wells DM-003 and KMO-007 remained on excursion from the previous month.

Monitor Well DM-004 went on excursion status December 11, 2013. Confirmation monitoring results were received on December 12, 2013. Wyoming Department of Environmental Quality – Land Quality Division (WDEQ-LQD) was notified in person on December 13, 2013. Written notification followed in a letter dated December 17, 2013. At the time of verbal notification, Cameco expressed that the potential for this well to go on excursion was previously reported to the LQD April 26, 2013. The well is near Monitor Well DM-003 and is likely impacted by underground workings and the associated treatment currently taking place to restore the underground workings to mitigate the excursion at Well DM-003.

Monitor Well DM-003 showed an increase in all parameters during the report period, after showing a decrease the previous period. Initial startup of the underground workings treatment plan commenced on November 6, 2013 and operated through December 5, 2013. Cameco decided to suspend the treatment plan for further evaluation of the wells being used in the project. After confirmation of the excursion at Monitor Well DM-004 the LQD gave concurrence to again initiated flow for the underground workings treatment plan. Flow commenced on December 14, 2013 and continued through the report period.

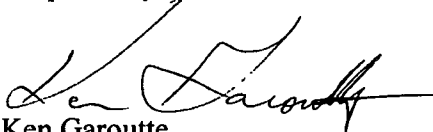
FSME20

Monitor Well KMO-007 continues to remain stable. Cameco will continue to submit sampling results and basic updates within the Monthly Excursion Updates.

Copies of the monitor well reports for these wells are attached. Also attached please find graphs tracking alkalinity, chloride, conductivity and water level trends for each well. Note that the water level graph represents depth of water where the monitor well report data sheet gives water level in elevation.

Please contact me at 307-358-6541, ext. 476 or [Kenneth\\_Garoutte@cameco.com](mailto:Kenneth_Garoutte@cameco.com) if you have questions.

Respectfully,



Ken Garoutte  
Safety, Health, Environment, Quality (SHEQ) Manager

KG/vg

Attachments: Cameco Resources Excursion Report  
Monitor Well Report and Trend Graphs for DM-003, DM-004 and KMO-007

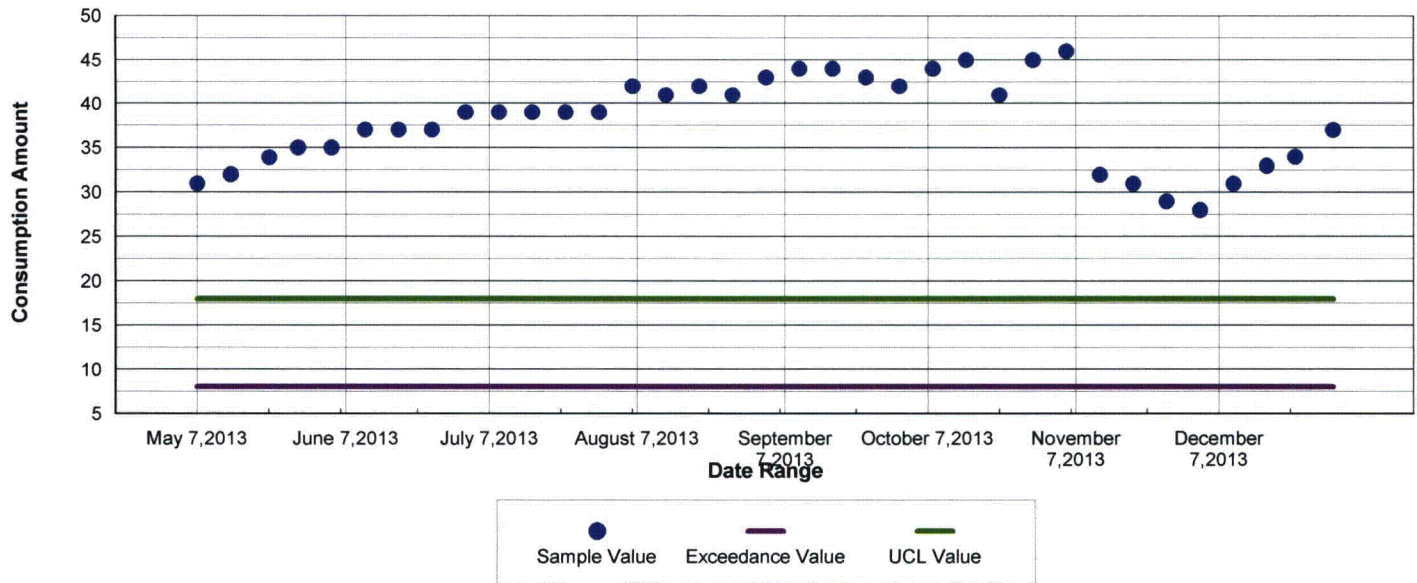
cc: File HUP 4.3.3.1 File SR 4.3.3.1  
Special Volume: Monthly Excursion Reports Summary Updates, Permit 603 and 633  
Mr. Doug Mandeville, NRC - CERTIFIED MAIL # 7011 3500 0000 5274 2072  
Document Control Desk, NRC - CERTIFIED MAIL # 7011 3500 0000 5274 2089

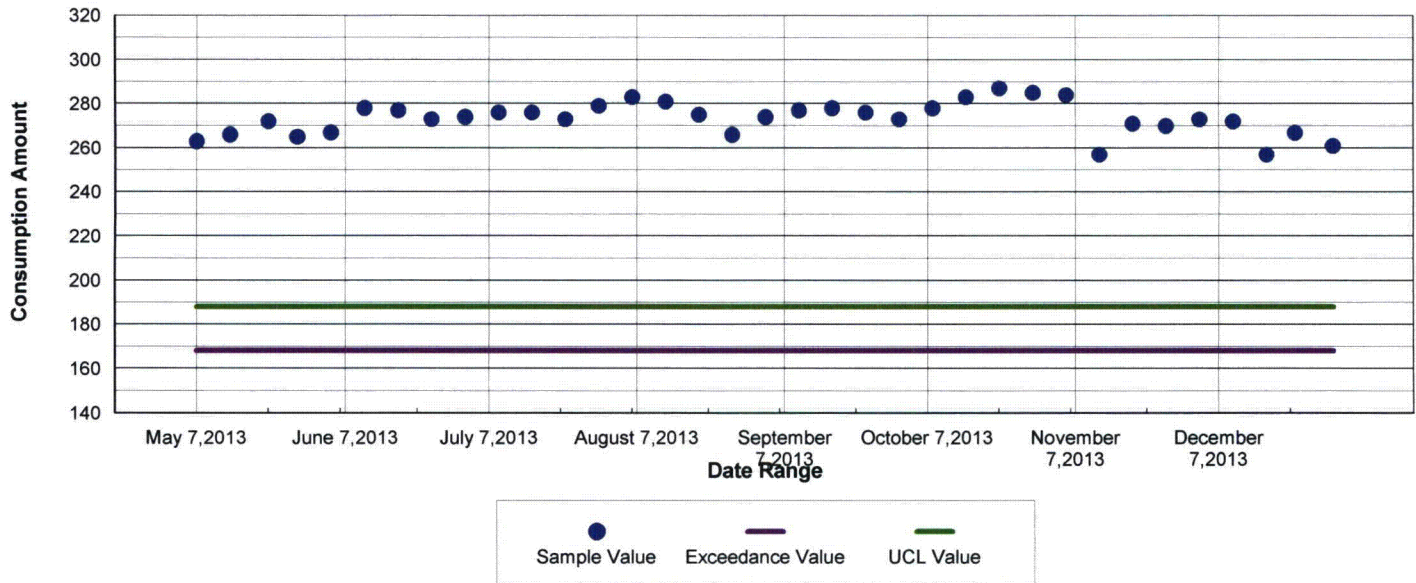
cc: Cameco-Cheyenne

**Cameco Resources Excursion Report**  
**Permit Nos. 603 & 633**  
**(December2013)**

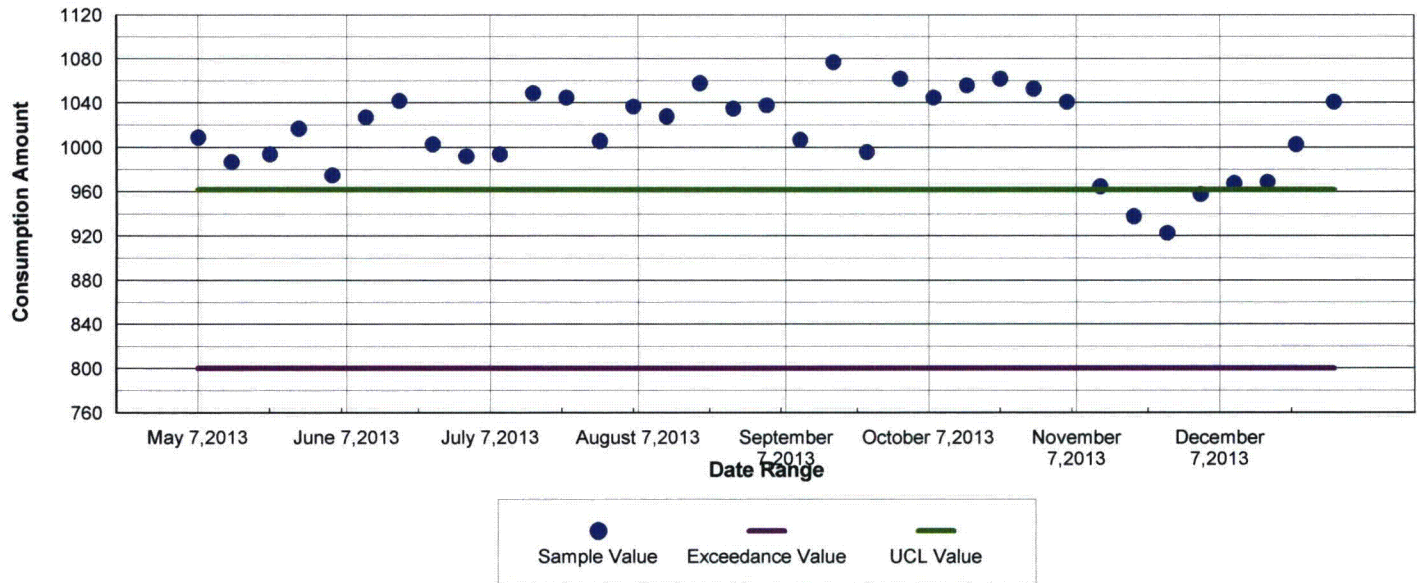
Well Identification	Initial Sample Date	Confirmation Sample Date	Excursion Status (on/off)	Parameters Exceeded	Verbal Notification Date	Written Notification Date	Excursion Resolution Date	LQD Concurrence Notification Date
DM-003	11/19/2009	11/20/2009	ON	Chloride Alkalinity	11/23/2009	11/25/2009		
KMO-007	3/8/2013	3/11/2013	ON	Alkalinity Conductivity	3/12/2013	3/19/2013		
DM-004	12/11/2013	12/12/2013	ON	Chloride Alkalinity	12/13/2013	12/17/2013		

**Chloride**  
**Trending Analysis**  
 Well : DM-003

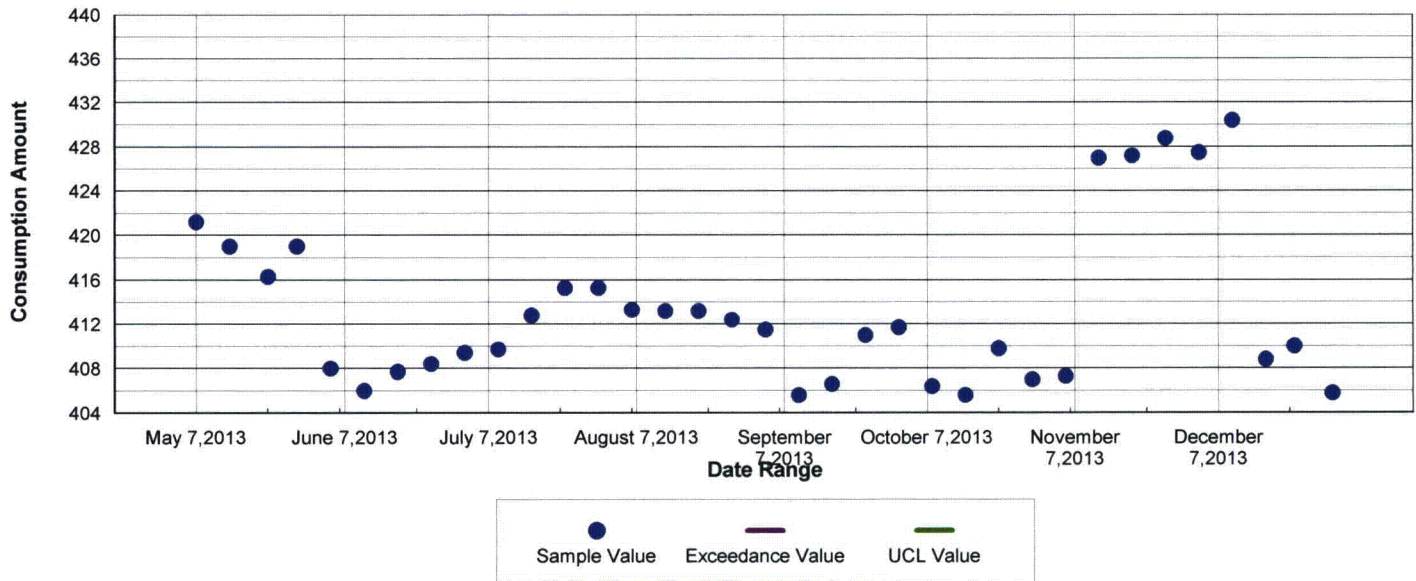








**Water Level  
Trending Analysis**  
Well : DM-003





**Cameco Resources**  
**Smith Ranch - Highland Operation**  
**Monitor Well Report**

Well ID: DM-003

	<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>
<i>NRC/WDEQ UCL</i>	18	188	962			
12/31/2013	37	261	1041	0	5090.6	
12/23/2013	34	267	1003	0	5086.4	
12/17/2013	33	257	969	0	5087.6	
12/10/2013	31	272	968	0	5066.0	
12/03/2013	28	273	958	0	5068.9	
11/26/2013	29	270	923	0	5067.6	
11/19/2013	31	271	938	0	5069.2	
11/12/2013	32	257	965	0	5069.4	
11/05/2013	46	284	1041	0	5089.1	
10/29/2013	45	285	1053	0	5089.4	
10/22/2013	41	287	1062	0	5086.6	
10/15/2013	45	283	1056	0	5090.8	
10/08/2013	44	278	1045	0	5090.0	
10/01/2013	42	273	1062	0	5084.7	
09/24/2013	43	276	996	0	5085.4	
09/17/2013	44	278	1077	0	5089.8	
09/10/2013	44	277	1007	0	5090.8	
09/03/2013	43	274	1038	0	5084.9	
08/27/2013	41	266	1035	0	5084.0	
08/20/2013	42	275	1058	0	5083.2	
08/13/2013	41	281	1028	0	5083.2	
08/06/2013	42	283	1037	0	5083.1	
07/30/2013	39	279	1006	0	5081.1	

**01/06/2014**





**Cameco Resources**  
**Smith Ranch - Highland Operation**  
**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			
07/23/2013	39	273	1045	0	5081.1	
07/16/2013	39	276	1049	0	5083.6	
07/09/2013	39	276	994	0	5086.7	
07/02/2013	39	274	992	0	5087.0	
06/25/2013	37	273	1003	0	5088.0	
06/18/2013	37	277	1042	0	5088.7	
06/11/2013	37	278	1027	0	5090.4	
06/04/2013	35	267	975	0	5088.4	
05/28/2013	35	265	1017	0	5077.4	
05/22/2013	34	272	994	0	5080.1	
05/14/2013	32	266	987	0	5077.4	
05/07/2013	31	263	1009	0	5075.2	
04/30/2013	31	265	983	0	5075.2	
04/23/2013	30	264	996	0	5064.4	
04/16/2013	28	255	941	0	5061.6	
04/09/2013	27	252	988	0	5059.8	
04/02/2013	27	249	941	0	5058.8	
03/26/2013	26	251	940	0	5059.5	
03/19/2013	26	250	910	0	5059.3	
03/12/2013	27	254	951	0	5061.3	
03/05/2013	26	253	891	0	5074.9	
02/26/2013	26	255	948	0	5060.4	
02/19/2013	27	255	938	0	5057.0	

**01/06/2014**

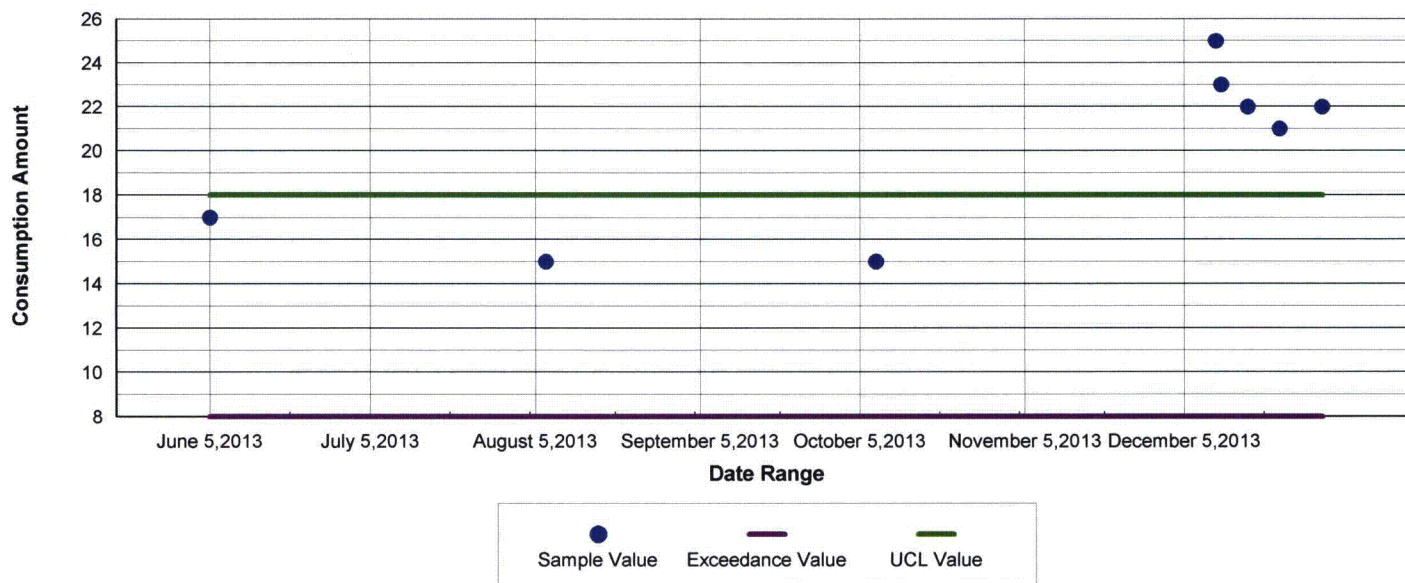


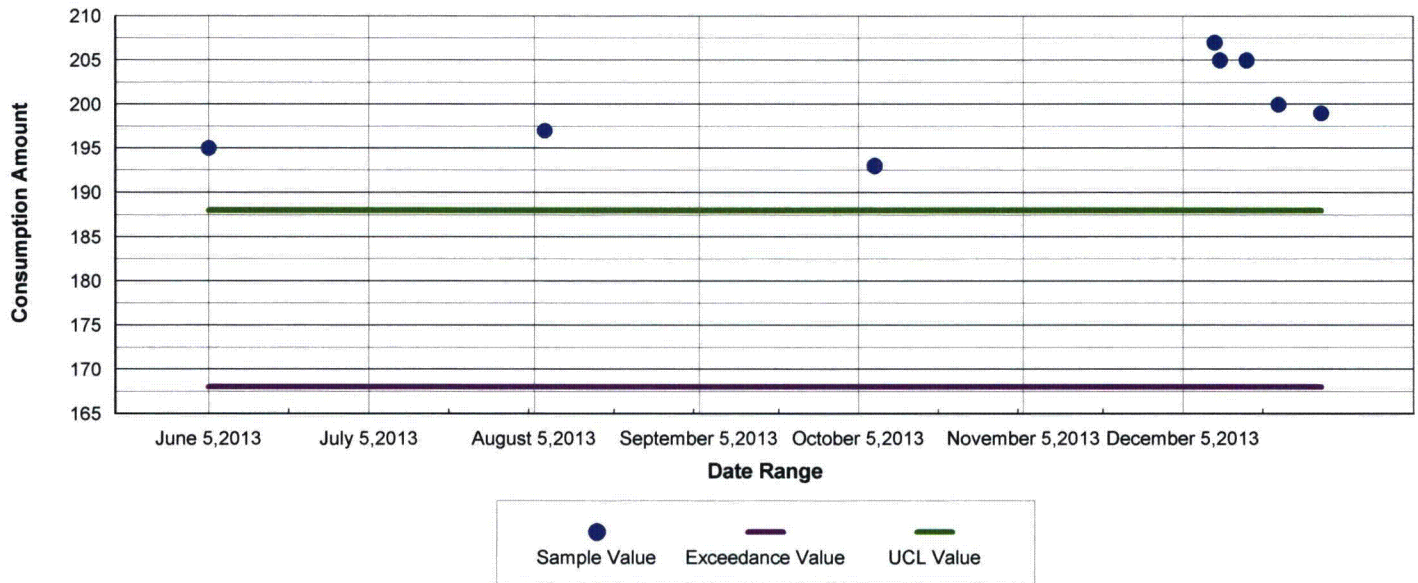
*Cameco Resources*  
*Smith Ranch - Highland Operation*  
*Monitor Well Report*

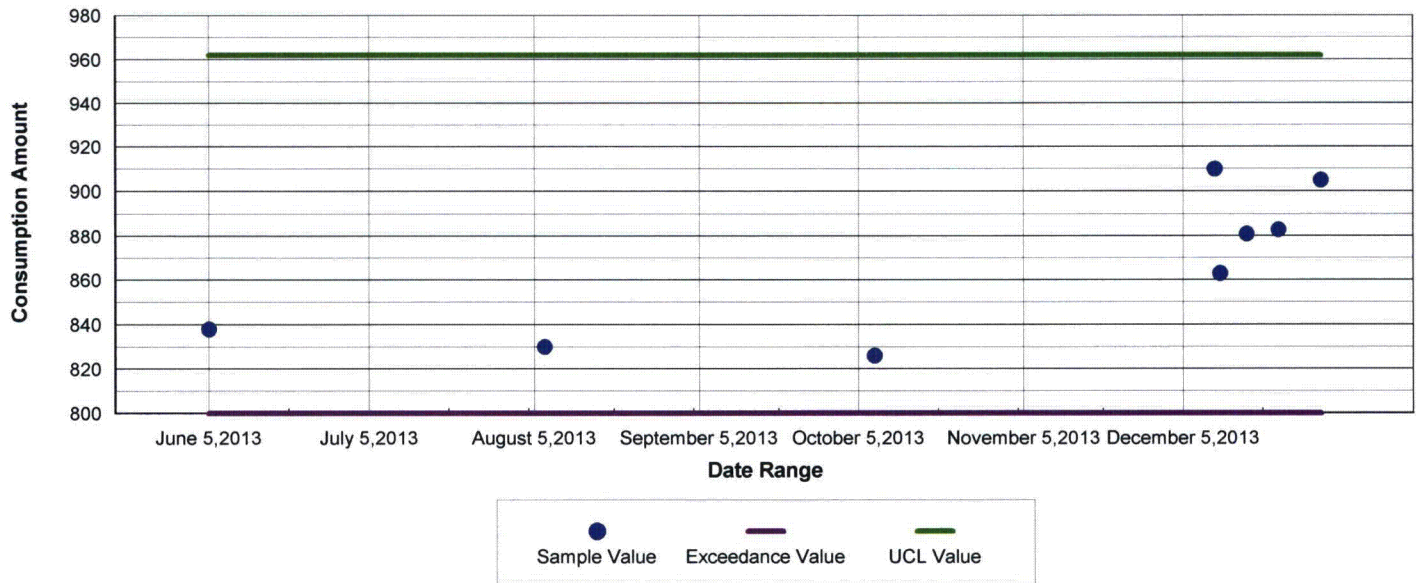
Well ID: DM-003

<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			
02/12/2013	31	270	991	0	5051.9	
02/05/2013	30	264	996	0	5052.5	
01/29/2013	28	252	958	0	5053.4	
01/22/2013	30	264	956	0	5054.9	
01/15/2013	26	254	918	0	5061.6	
01/08/2013	27	259	943	0	5061.8	
01/02/2013	30	265	978	0	5059.6	

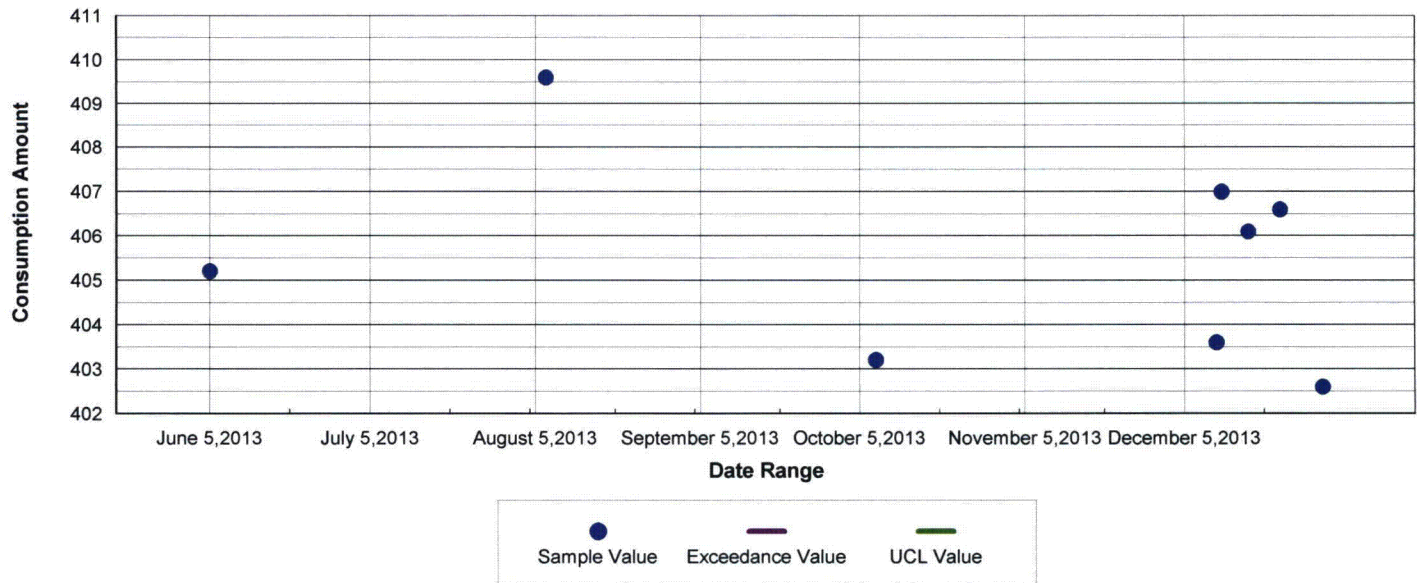
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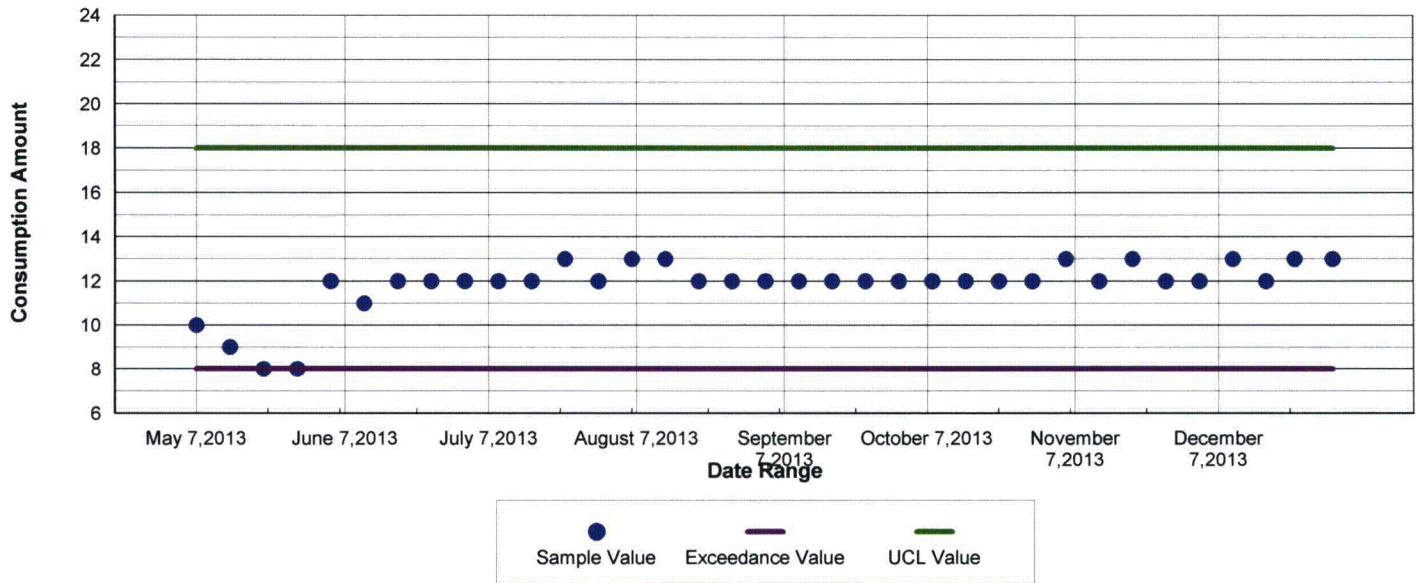


*Cameco Resources*  
*Smith Ranch - Highland Operation*  
*Monitor Well Report*

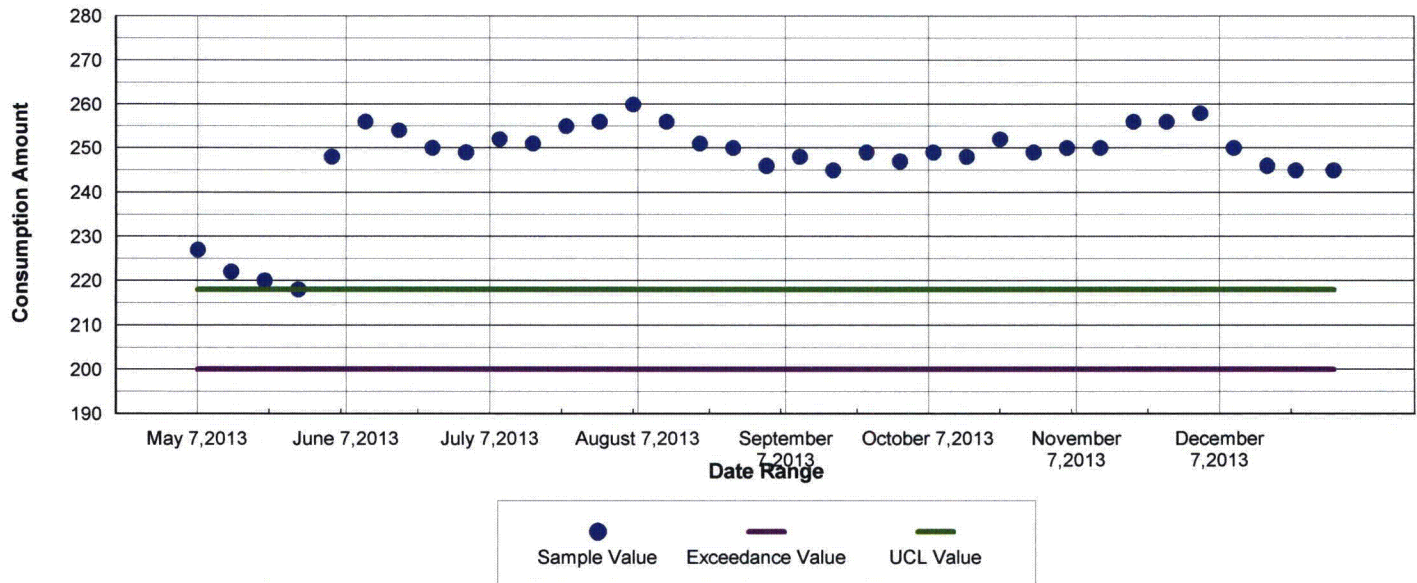
Well ID: DM-004

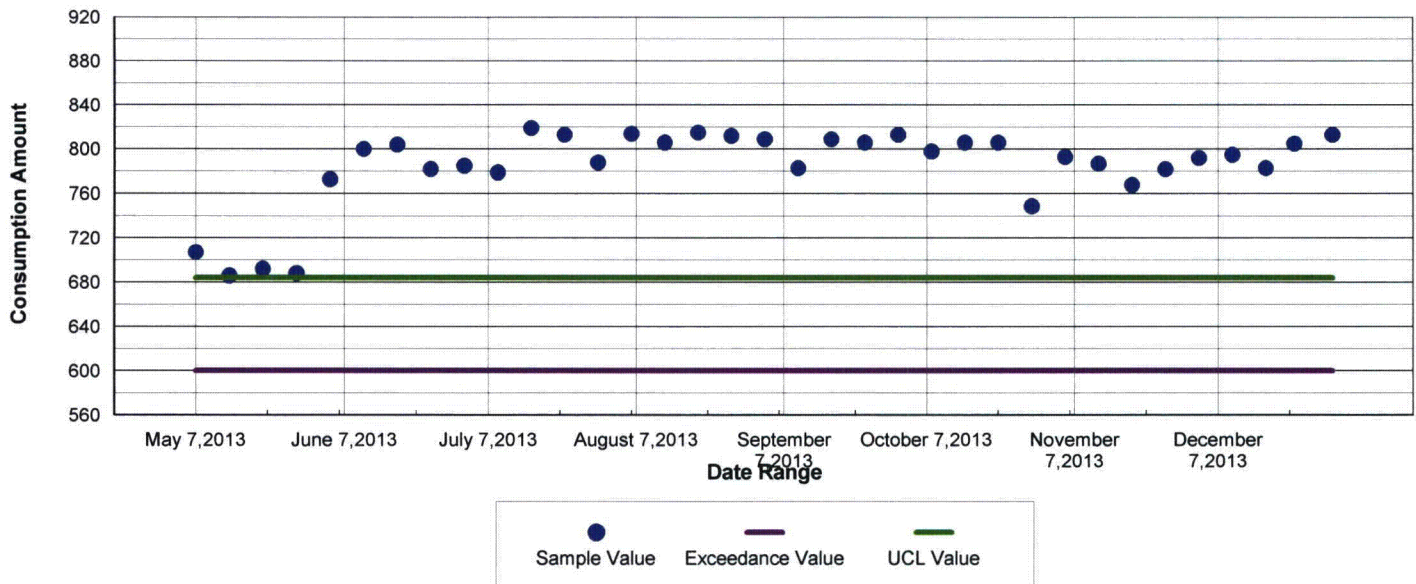
<i>NRC/WDEQ UCL</i>	<i>Chloride (mg/L)</i>	<i>Alkalinity (mg/L CaCO<sub>3</sub>)</i>	<i>Conductivity (μMhos/cm)</i>	<i>U<sub>3</sub>O<sub>8</sub> (mg/L)</i>	<i>Water Elevation</i>	<i>Comment</i>
	18	188	962			
12/31/2013	22	199	905	0	5090.2	
12/23/2013	21	200	883	0	5086.2	
12/17/2013	22	205	881	0	5086.7	
12/12/2013	23	205	863	0	5085.8	
12/11/2013	25	207	910		5089.2	
10/08/2013	15	193	826		5089.6	
08/07/2013	15	197	830		5083.2	
06/05/2013	17	195	838		5087.6	
04/08/2013	18	206	888		5060.0	
02/06/2013	18	200	878		5057.6	

01/06/2014



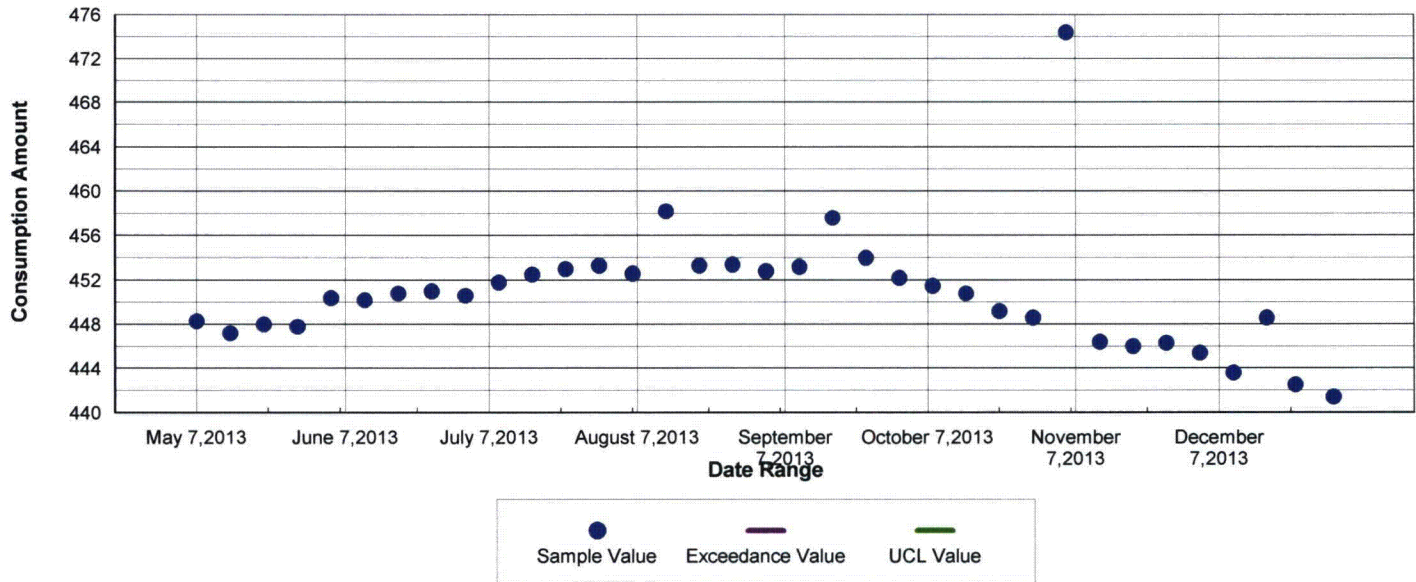
**Alkalinity**  
**Trending Analysis**  
Well : KMO-007







**Water Level  
Trending Analysis**  
Well : KMO-007





**Cameco Resources**  
**Smith Ranch - Highland Operation**  
**Monitor Well Report**

Well ID: KMO-007

<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	218	684			
12/31/2013	13	245	813	0	5219.4	
12/23/2013	13	245	805	0	5218.3	
12/17/2013	12	246	783	0	5212.2	
12/10/2013	13	250	795	0	5217.2	
12/03/2013	12	258	792	0	5215.4	
11/26/2013	12	256	782	0	5214.5	
11/19/2013	13	256	768	0	5214.8	
11/12/2013	12	250	787	0	5214.4	
11/05/2013	13	250	793	0	5186.4	
10/29/2013	12	249	749	0	5212.2	
10/22/2013	12	252	806	0	5211.6	
10/15/2013	12	248	806	0	5210.0	
10/08/2013	12	249	798	0	5209.3	
10/01/2013	12	247	813	0	5208.6	
09/24/2013	12	249	806	0	5206.8	
09/17/2013	12	245	809	0	5203.2	
09/10/2013	12	248	783	0	5207.6	
09/03/2013	12	246	809	0	5208.0	
08/27/2013	12	250	812	0	5207.4	
08/20/2013	12	251	815	0	5207.5	
08/13/2013	13	256	806	0	5202.6	
08/06/2013	13	260	814	0	5208.2	
07/30/2013	12	256	788	0	5207.5	

01/06/2014



**Cameco Resources**  
**Smith Ranch - Highland Operation**  
**Monitor Well Report**

Well ID: KMO-007

<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	218	684			
07/23/2013	13	255	813	0	5207.8	
07/16/2013	12	251	819	0	5208.3	
07/09/2013	12	252	779	0	5209.0	
07/02/2013	12	249	785	0	5210.2	
06/25/2013	12	250	782	0	5209.8	
06/18/2013	12	254	804	0	5210.0	
06/11/2013	11	256	800	0	5210.6	
06/04/2013	12	248	773	0	5210.4	
05/28/2013	8	218	688	0	5213.0	
05/21/2013	8	220	692	0	5212.8	
05/14/2013	9	222	686	0	5213.6	
05/07/2013	10	227	707	0	5212.5	
04/30/2013	9	224	688	0	5212.6	
04/23/2013	9	225	668	0	5213.2	
04/16/2013	10	223	698	0	5215.0	
04/09/2013	10	212	680	0	5213.4	
04/02/2013	10	219	688	0	5216.2	
03/26/2013	10	215	678	0	5218.0	
03/19/2013	10	224	682	0	5219.6	
03/11/2013	10	222	706		5219.9	
03/08/2013	12	229	718		5220.8	
02/22/2013	9	223	680		5223.7	
02/08/2013	8	217	681		5228.0	

01/06/2014



*Cameco Resources*  
*Smith Ranch - Highland Operation*  
*Monitor Well Report*

*Well ID: KMO-007*

<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	218	684			
01/25/2013	7	196	651		5254.2	
01/11/2013	7	206	643		5233.2	

*01/06/2014*