Cameco

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July 1, 2013

CERTIFIED MAIL # 7012 2210 0002 5617 0345

Mr. Robin Jones
District 1 Supervisor
Land Quality Division
Wyoming Department of Environmental Quality
122 W. 25th Street
Cheyenne, WY 82002

June 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. Zero (0) new excursions were reported during the month of June 2013. The Cameco Excursion Report table is attached. Monitor Wells DM-003 and KMO-007 remained on excursion from the previous month.

Chloride concentrations in Monitor Well DM-003 for the month of June continue to be above the UCL but have stabilized. Alkalinity and conductivity fluctuated slightly through the report period. During the March 18, 2013 meeting with LQD, Cameco reviewed the underground workings treatment plan involving injection of clean water at the upslope of the workings in MU-C. Cameco began installation of the infrastructure needed to implement the treatment plan in May and continued through the report period. As described to LQD in a phone conversation between Pam Rothwell and Ken Garoutte on April 26, 2013, Cameco had observed that the concentrations in Monitor Well DM-004 had been trending upward and that the next sampling, scheduled June, may show the well on excursion. Concentrations in DM-004 did not result in excursion status for the June sample.

Chloride concentrations in Monitor Well KMO-007 show and increase from May but have remained stable during the report period. Alkalinity and conductivity concentrations are above the UCL parameter. Attached please find, as required by Wyoming Department of Environmental Quality (WDEQ) – Land Quality Division (LQD), Chapter 11, Section 13(b), the 90-day Compliance Plan and Schedule for Well KMO-007. Cameco continues to assess possible

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sources for the elevated concentrations in this well. Updates on the status of the Compliance Plan and Schedule will be submitted within the Monthly Excursion Updates.

As stated in the May Monthly Excursion Update, dated June 4, 2013, Cameco was in the process of running a mini stress test on the aquifer to be performed over 4 days, with a sample being taken once daily. The purpose of the mini test was to recognize and evaluate any change in the parameters that may take place. Water Quality results from this are attached.

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. Please 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 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 and KMO-007
KMO-007 Mini Aquifer data
KMO-007 90-day Compliance Plan and Schedule

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 # 7012 2210 0002 5617 0352
Document Control Desk, NRC - CERTIFIED MAIL # 7012 2210 0002 5617 0369

ec: Cameco-Cheyenne

Cameco Resources Excursion Report
Permit Nos. 603 & 633
(June 2013)

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		

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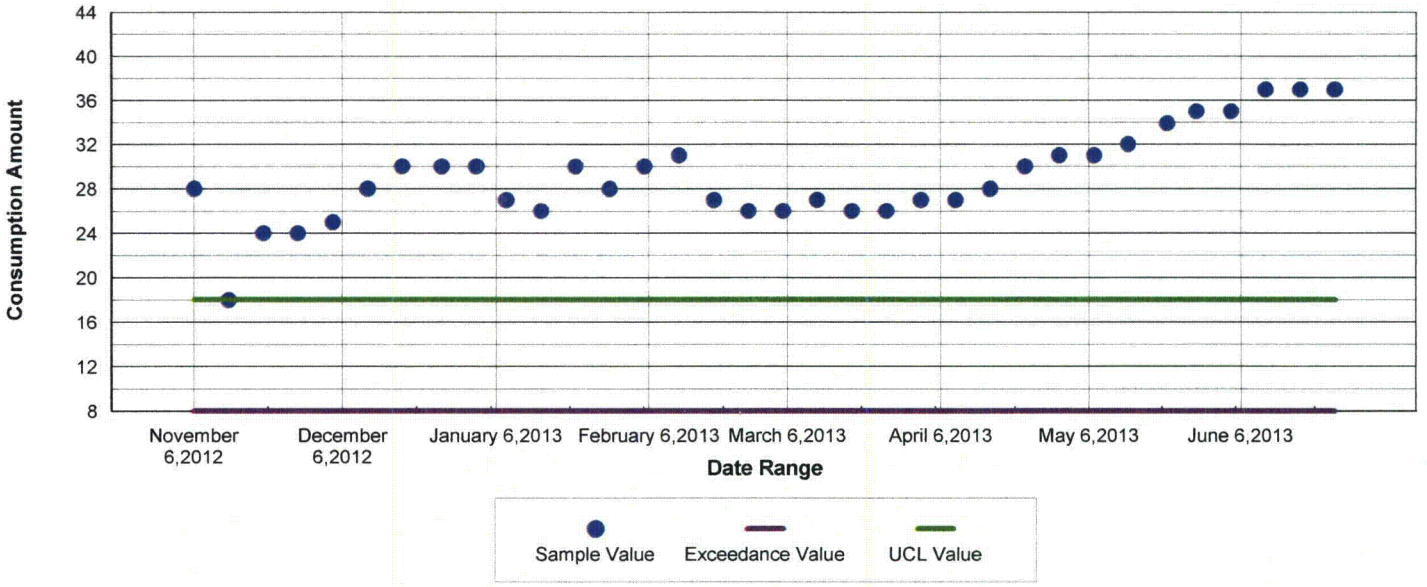
Cameco Resources
Smith Ranch - Highland

Chloride
Trending Analysis
Well : DM-003



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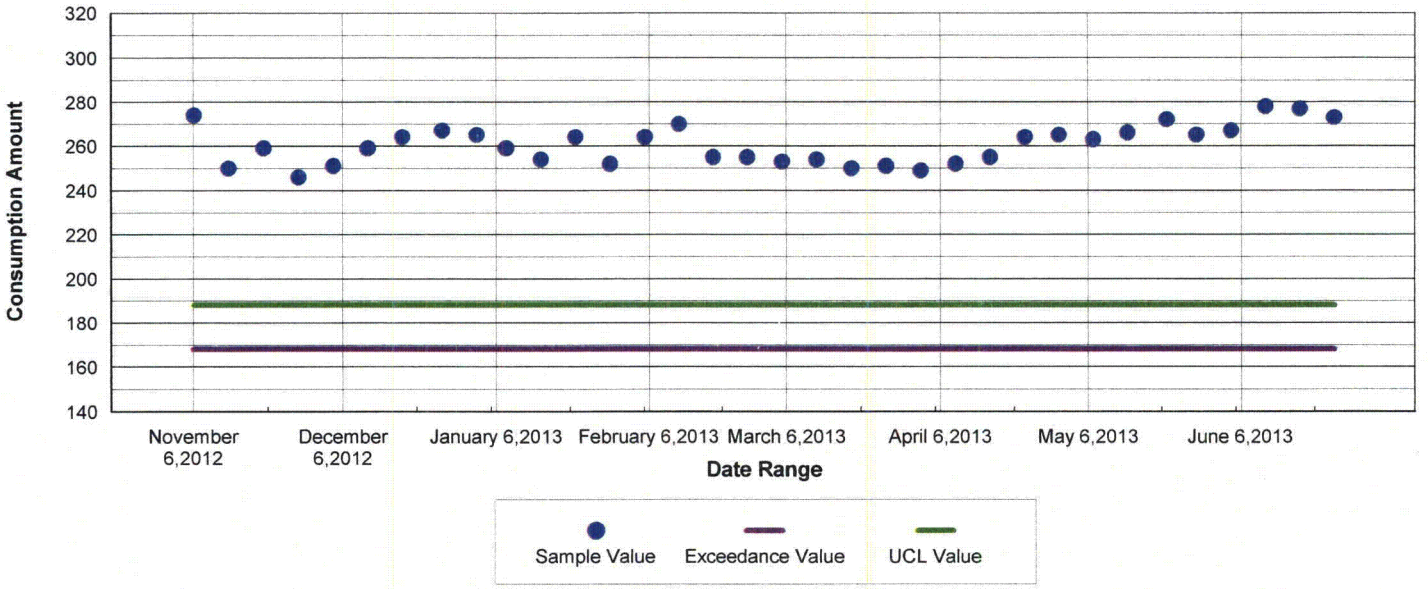
Smith Ranch - Highland

Alkalinity
Trending Analysis
Well : DM-003



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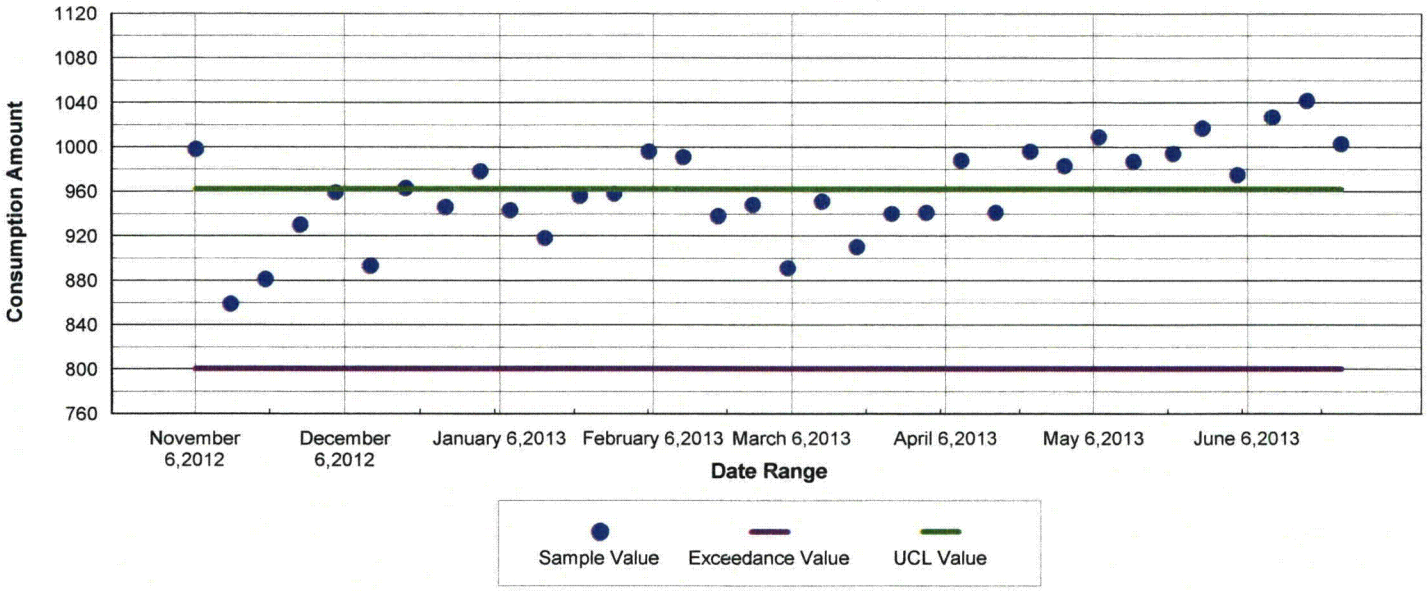
Smith Ranch - Highland

Conductivity Trending Analysis

Well : DM-003



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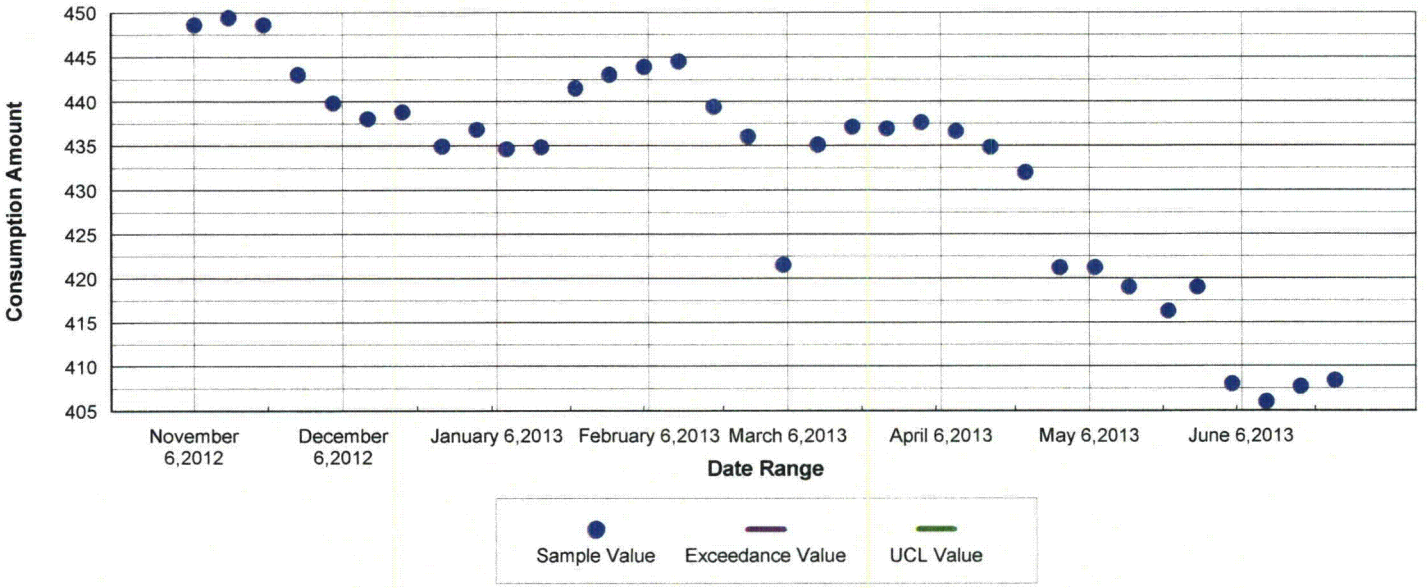
Smith Ranch - Highland

Water Level
Trending Analysis
Well : DM-003



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Smith Ranch - Highland Operation

Monitor Well Report

Well ID: DM-003

	Chloride (mg/L)	*Alkalinity (mg/L $CaCO_3$)*	*Conductivity (µMhos/cm)*	*U_3O_8 (mg/L)*	*Water Elevation*	*Comment*
NRC/WDEQ UCL	18	188	962			
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	
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	

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Smith Ranch - Highland Operation

Monitor Well Report

Well ID: DM-003

	Chloride (mg/L)	*Alkalinity (mg/L $CaCO_3$)*	*Conductivity (µMhos/cm)*	*U_3O_8 (mg/L)*	*Water Elevation*	*Comment*
NRC/WDEQ UCL	18	188	962			
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	
12/26/2012	30	267	946	0	5061.5	
12/18/2012	30	264	963	0	5057.6	
12/11/2012	28	259	893	0	5058.4	
12/04/2012	25	251	959	0	5056.6	
11/27/2012	24	246	930	0	5053.4	
11/20/2012	24	259	881	0	5047.8	
11/13/2012	18	250	859	0	5047.0	
11/06/2012	28	274	998	0	5047.8	
10/30/2012	30	278	998	0	5048.2	
10/23/2012	34	293	1077	0	5054.0	
10/16/2012	37	303	1037	0	5058.7	
10/09/2012	35	300	1045	0	5047.8	
10/02/2012	38	303	1046	0	5048.2	
09/25/2012	36	304	1027	0	5050.8	
09/18/2012	34	292	960	0	5055.6	
09/11/2012	25	249	874	0	5074.0	
09/04/2012	25	246	936	0	5075.6	
08/28/2012	24	250	963	0	5076.8	
08/21/2012	25	254	931	0	5066.5	
08/14/2012	25	246	905	0	5080.8	

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Smith Ranch - Highland Operation

Monitor Well Report

Well ID: DM-003

	Chloride (mg/L)	*Alkalinity (mg/L $CaCO_3$)*	*Conductivity (µMhos/cm)*	*U_3O_8 (mg/L)*	*Water Elevation*	*Comment*
NRC/WDEQ UCL	18	188	962			
08/07/2012	25	248	952	0	5085.2	
07/31/2012	24	241	901	0	5085.6	
07/24/2012	24	243	894	0	5078.9	
07/17/2012	24	242	911	0	5080.1	
07/10/2012	24	244	966	0	5079.6	
07/03/2012	25	250	928	0	5078.4	
06/26/2012	25	256	924	0	5072.4	
06/19/2012	26	256	956	0	5069.0	
06/12/2012	26	248	894	0	5076.4	
06/05/2012	25	247	894	0	5076.4	

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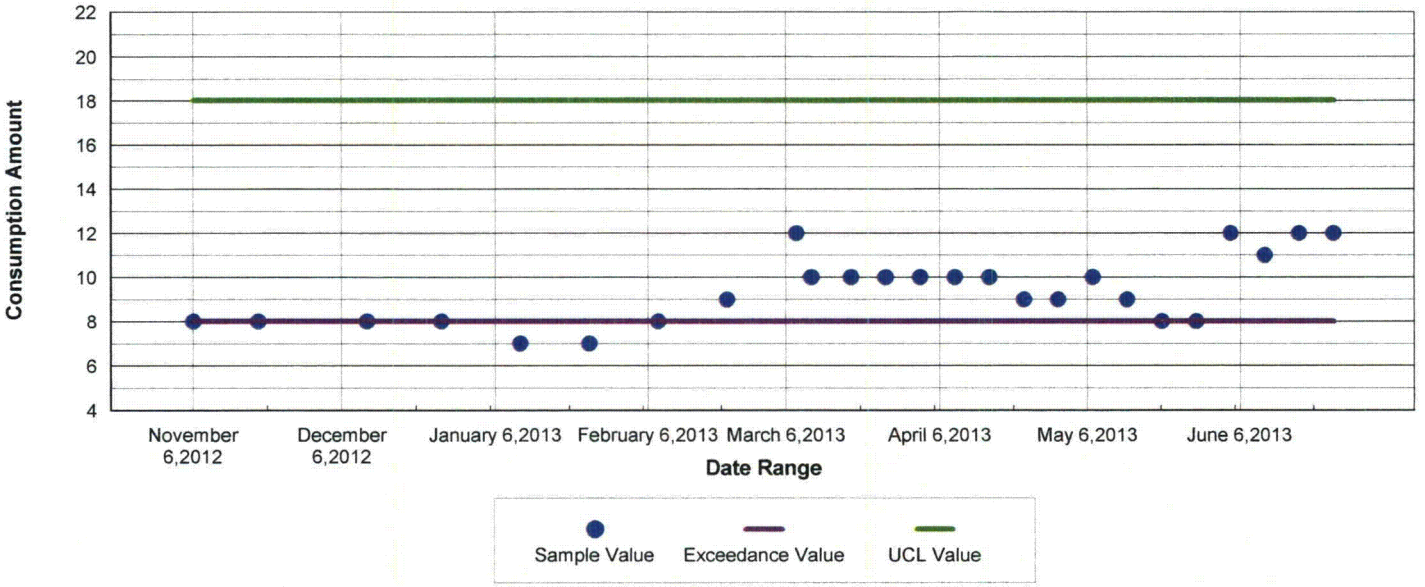
Smith Ranch - Highland

Chloride
Trending Analysis
Well : KMO-007



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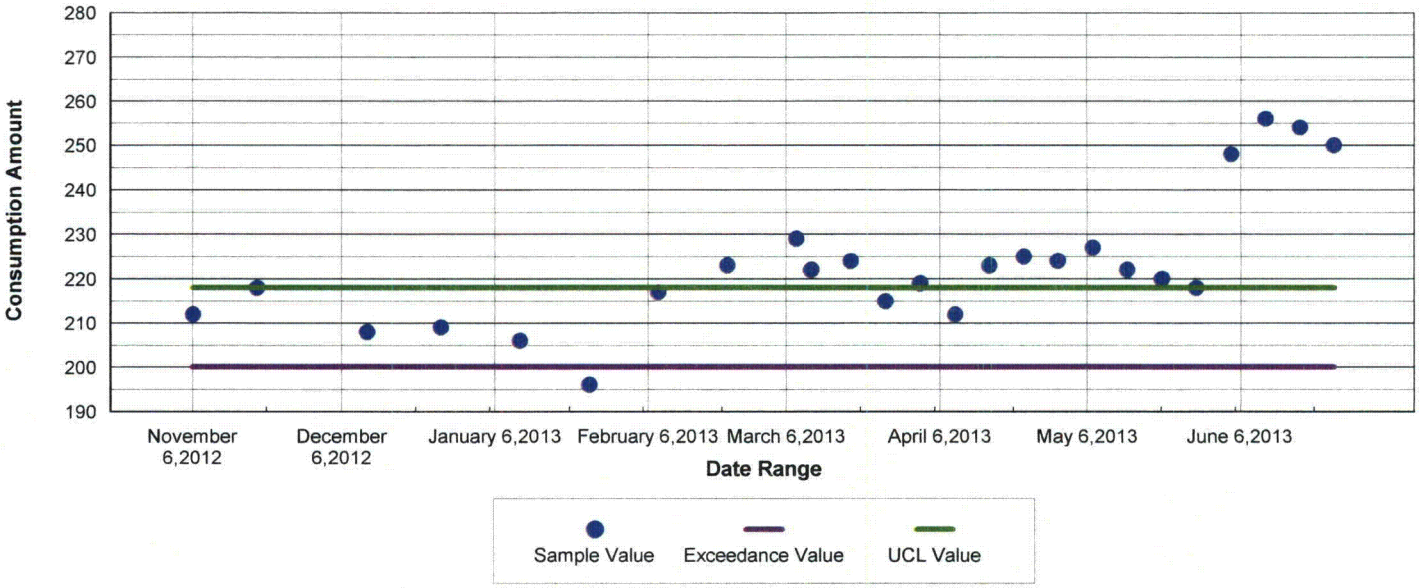
Alkalinity
Trending Analysis
Well : KMO-007



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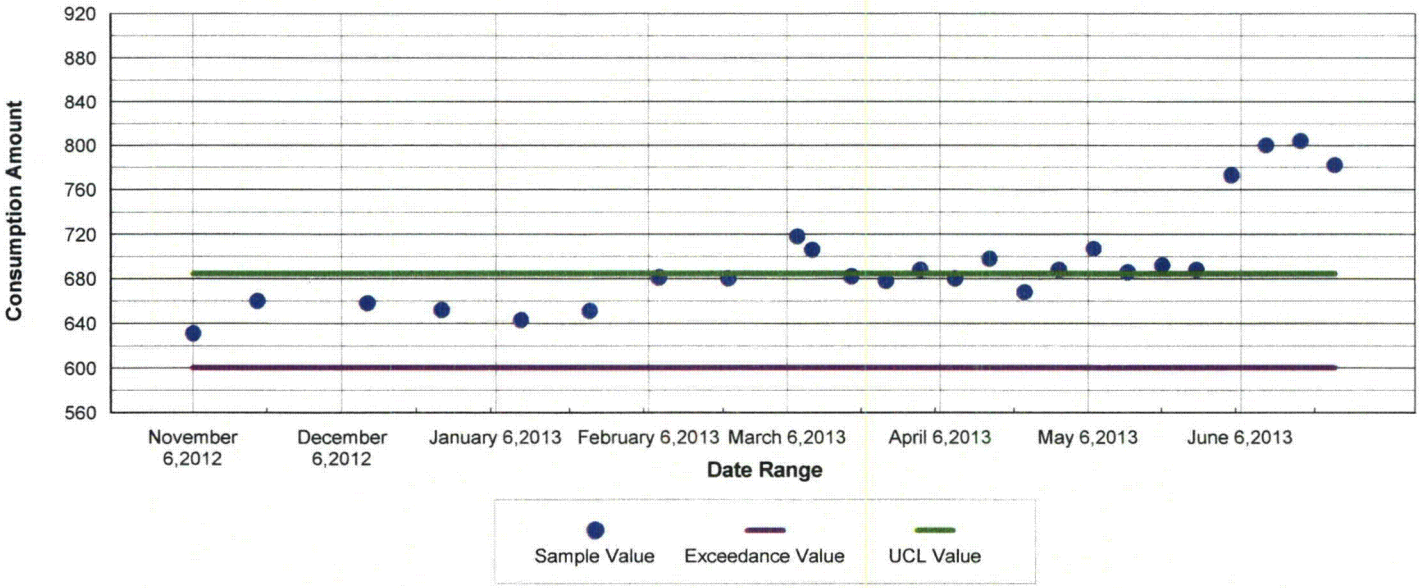
Smith Ranch - Highland

Conductivity Trending Analysis

Well : KMO-007



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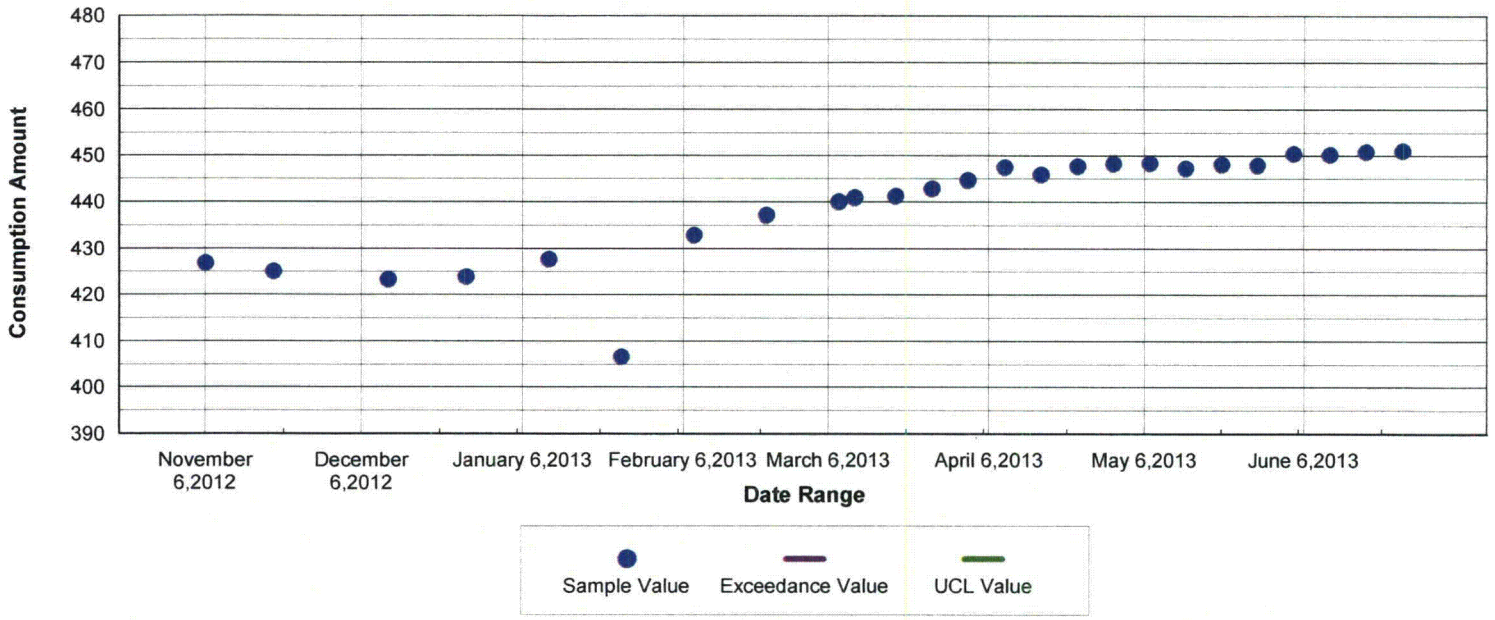
Smith Ranch - Highland

Water Level Trending Analysis

Well : KMO-007



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Smith Ranch - Highland Operation

Monitor Well Report

Well ID: KMO-007

	Chloride (mg/L)	*Alkalinity (mg/L $CaCO_3$)*	*Conductivity (µMhos/cm)*	*U_3O_8 (mg/L)*	*Water Elevation*	*Comment*
NRC/WDEQ UCL	18	218	684			
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	
01/25/2013	7	196	651		5254.2	
01/11/2013	7	206	643		5233.2	
12/26/2012	8	209	652		5237.0	
12/11/2012	8	208	658		5237.6	

06/27/2013

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Smith Ranch - Highland Operation

Monitor Well Report

Well ID: KMO-007

	Chloride (mg/L)	*Alkalinity (mg/L $CaCO_3$)*	*Conductivity (µMhos/cm)*	*U_3O_8 (mg/L)*	*Water Elevation*	*Comment*
NRC/WDEQ UCL	18	218	684			
11/19/2012	8	218	660		5235.8	
11/06/2012	8	212	631		5234.0	
10/23/2012	7	213	638		5233.8	
10/08/2012	6	206	609		5234.8	
09/25/2012	7	210	629		5234.2	
09/11/2012	6	205	611		5234.8	
08/21/2012	7	212	640		5235.2	
08/07/2012	7	207	610		5233.9	
07/24/2012	7	205	617		5232.9	
07/10/2012	6	206	606		5232.2	
06/22/2012	6	205	596		5232.6	
06/08/2012	7	199	617		5231.6	

KMO-007 Summary - Aquifer Test Week of May 28-31, 2013

Well Name	Date	Depth to water	Chloride (UCL 18)	Alkalinity (UCL 218)	Conductivity (UCL 684)	Uranium
KMO-007	5/28/2013	447.8	8	218	688	0
	5/29/2013	453.2	10.8	190	707	0.0353
	5/30/2013	456.0	11.1	243	771	<0.1
	5/31/2013	461.0	11.3	241	760	0.1
KMO-005	5/28/2013	449.6	NA	NA	NA	NA
	5/29/2013	454.3	NA	NA	NA	NA
	5/30/2013	456.6	NA	NA	NA	NA
	5/31/2013	458.2	NA	NA	NA	NA
KMO-006	5/28/2013	435.6	NA	NA	NA	NA
	5/29/2013	439.7	NA	NA	NA	NA
	5/30/2013	441.6	NA	NA	NA	NA
	5/31/2013	442.8	NA	NA	NA	NA
KMO-008	5/28/2013	442.2	NA	NA	NA	NA
	5/29/2013	448.2	NA	NA	NA	NA
	5/30/2013	450.3	NA	NA	NA	NA
	5/31/2013	451.8	NA	NA	NA	NA
KMO-009	5/28/2013	472.8	NA	NA	NA	NA
	5/29/2013	478.6	NA	NA	NA	NA
	5/30/2013	480.9	NA	NA	NA	NA
	5/31/2013	482.2	NA	NA	NA	NA

Plan and Compliance Schedule, 90-day Submittal
Excursion at Well KMO-007
Cameco Resources, Permit 633
July 1, 2013

Introduction

Monitor Well KMO-007 went on excursion status March 8, 2013. Confirmation monitoring results were received on March 12, 2013. Analytical results on March 11, 2013 for the routine sample taken on March 8, 2013 indicated a potential exceedance in two of the three parameters, alkalinity and conductivity. Verbal notification to Wyoming Department of Environmental Quality-Land Quality Division (WDEQ-LQD) was given on March 12, 3013 and written notification was provided in a letter dated March 19, 2013. Guideline 8 sampling (Guideline 8 plus additional excursion parameters) was conducted on April 9, 2013 and the results were attached to the May Monthly Excursion Report Summary Update letter dated June 4, 2013 with a request from Cameco to confer with LQD technical specialist about the results.

Investigation To Date

- February 27, 3013 Conducted mechanical integrity testing (MIT) of KMO-007. The well passed the MIT.

- April 26 to May 1, 2013 Completed mini pump test of production aquifer to see if communication between the production aquifer and the overlying aquifer was present. No communication detected.

- May 15 and May 16, 2013 Conducted MIT's on 8 of the surrounding wells, which resulted in no well failures.

- May 27 to May 29, 3013 Conducted a mini stress test of the overlying aquifer to recognize any change in chemical parameters and response in adjacent aquifers. Data results show concentrations increased daily. Surrounding MO-wells showed consistent water level drawdown radially outward from the pumped well, and no response was detected in the production zone aquifer. This test was discussed in the May Excursion Monthly Update, dated June 4, 2013, with data results to be included in the June Excursion Monthly Update.

- Currently in the process of researching past MIT well failures. 5 year MIT's were conducted in Mine Unit K during 2012.

Plan Going Forward

- Cameco will review well failure history and further analyze stress test results.
- Cameco will review well construction details for Monitor KMO-007.
- Cameco will meet with LQD to review findings and conclusions of source investigation.
- Cameco will Identify and Implement an Excursion Control Plan

Compliance Schedule

- July 31, 3013 Completion of review of well failure history and analysis of stress test results
- August 2013 Meet with LQD to review findings and conclusions of source investigation
- 4th Quarter 2013 Identify, Submit and Implement an Excursion Control Plan

Progress of the investigation will be provided in the monthly Excursion Report Summary Update letters. Cameco infers that Monitor Well KMO-007 will be off excursion by March 2014.