Cameco

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January 7, 2016

CERTIFIED MAIL # 7015 0640 0001 4722 6472

Mr. Robin Jones, District 1 Supervisor
Land Quality Division
Wyoming Department of Environmental Quality
200 West 17th Street, Lower Level
Cheyenne, Wyoming 82002

December 2015 Excursion Report Summary, Cameco Resources, Smith Ranch-Highland Uranium Project, Permit 633

Dear Mr. Jones:

Power Resources, Inc. d/b/a/ Cameco Resources (Cameco) is submitting the December 2015 Monthly Excursion Report Summary for the Smith Ranch-Highland Uranium Project. The Cameco Excursion Report table is attached. Monitor Well DM-003A remained on excursion from the previous report period and Monitor Well DM-004A went on excursion during the report period, December 2015

During the report period, concentrations at Monitor Well DM-003A continue to remain above the UCL's, however, all parameters remained stable through the report period. Monitor Well DM-004A was confirmed on excursion during the report period. Analytical results for the routine sample collected December 1, 2015 indicated a potential exceedance in two of the three UCL parameters, chloride and alkalinity. A confirmation sample was collected on December 2, 2015 indicating an exceedance in only one of the three UCL parameters, chloride. A second confirmation was collected December 3, 2015. Results of that analyses were received on December 4, 2015 and confirmed the excursion, exceeding two of the three UCL parameters, chloride and alkalinity.

Cameco plans to continue with the current pumping regime as the results demonstrate that a positive impact is being made on the water quality in Monitor Well DM-003A. As an additional component of the DM-003A excursion control effort and now the DM-004A excursion control efforts, Cameco has installed a recovery well (DX-113) between the monitor well ring and Mine Unit D patterns. Flow rates between recovery well DX-113 and recovery at the mine unit patterns will be adjusted to create a groundwater gradient from the monitor ring toward the patterns. This is anticipated to enhance recovery of the plume at DM-003A and aid in correction of the excursions at both DM-003A and DM-004A. Recovery well DX-113 was drilled in

NM5501

November 2015 and completed in December 2015. Completion of the trenching required to pipe water from DX-113 to Header House D-1 is anticipated to be completed in January 2016, with production to be initiated shortly thereafter.

In the Notification of Excursion for DM-004A, dated December 8, 2015, Cameco requested that Wyoming Department of Environmental Quality – Land Quality Division (WDEQ-LQD) make a determination if the water quality changes do or do not fit the intended definition of an excursion as outlined in W.S. § 35-11-103(f)(ii). Further discussion was had with WDEQ-LQD during a meeting held on December 17, 2015. In that discussion it was agreed that WDEQ-LQD would respond to Cameco's request and state that the water quality at both Monitor Well DM-003A and Monitor Well DM-004A does not fit the intended definition of an excursion. In that response WDEQ-LQD will propose an adequate sampling plan going forward and will request that the sample result information be reported in the annual report.

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 Table
Monitor Well Reports for DM-003A
Monitor Well Reports for DM-004A

cc: File SR 4.3.3.3
Special Volume: Monthly Excursion Reports Summary Updates Permit 633
Mr. Doug Mandeville, NRC - CERTIFIED MAIL # 7015 0640 0001 4722 6489
Document Control Desk, NRC - CERTIFIED MAIL # 7015 0640 0001 4722 8582

ec: Cameco-Casper

Cameco Resources Excursion Report
Permit No 633
December 2015

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-003A (Replacement well for DM-003)	8/26/2014	N/A	**ON**	Chloride Alkalinity	Made Previously as DM-003			
DM-004A	12/1/2015	N/A	**ON**	Chloride Alkalinity	12/4/2015	12/8/2015		

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Cameco Resources

Smith Ranch - Highland Operation

Monitor Well Report

Well ID: DM-003A

	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			
12/29/2015	32	269	1000	0	810.6	
12/22/2015	32	275	968	0	811.3	
12/15/2015	33	279	990	0	814.7	
12/08/2015	34	276	1009	0	819.8	
12/01/2015	35	293	1013	0	825.1	
11/24/2015	34	279	1003	0	824.1	
11/17/2015	34	283	973	0	820.7	
11/10/2015	33	281	986	0	818.9	
11/03/2015	33	278	1004	0	834.4	
10/27/2015	34	282	972	0	833.1	
10/20/2015	37	280	1015	0	833.6	
10/13/2015	35	278	1024	0	832.4	
10/06/2015	34	279	1019	0	834.4	
09/29/2015	33	281	1034	0	834.0	
09/22/2015	28	282	1025	0	836.0	
09/15/2015	35	274	1011	0	840.5	
09/08/2015	34	270	1022	0	840.1	
09/01/2015	35	276	1040	0	837.4	
08/25/2015	35	292	1040	0	835.6	
08/18/2015	35	291	1046	0	833.2	
08/11/2015	35	291	1019	0	830.7	
08/04/2015	35	277	1024	0	831.2	
07/28/2015	34	283	1024	0	834.4	

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Cameco Resources

Smith Ranch - Highland Operation

Monitor Well Report

Well ID: DM-003A

	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			
)7/21/2015	37	279	1058	0	834.4	
)7/14/2015	36	288	1067	0	835.1	
)7/07/2015	39	288	1083	0	838.2	
)6/30/2015	40	301	1104	0	844.1	
)6/23/2015	40	306	1090	0	845.7	
)6/16/2015	39	306	1108	0	844.0	
)6/09/2015	41	302	1094	0	841.9	
)6/02/2015	41	293	1110	0	840.3	
)5/26/2015	42	306	1090	0	837.3	
)5/19/2015	34	311	1131	0	836.8	
)5/12/2015	46	314	1165	0	839.2	
)5/05/2015	47	315	1201	0	841.4	
)4/28/2015	49	331	1158	0	837.3	
)4/21/2015	48	331	1166	0	838.2	
)4/15/2015	48	337	1168	0	838.8	
)4/07/2015	49	322	1201	0	827.0	
)4/01/2015	49	311	1201	0	826.7	
)3/24/2015	49	323	1195	0	827.4	
)3/17/2015	49	324	1149		825.0	
)3/10/2015	46	326	1223	0	824.8	
)3/04/2015	42	324	1164	0	827.5	
)2/24/2015	50	326	1128	0	826.2	
)2/17/2015	50	327	1160	0	825.8	

1/06/2016

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Cameco Resources

Smith Ranch - Highland Operation

Monitor Well Report

Well ID: DM-003A

	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			
)2/10/2015	48	324	1128	0	827.0	
)2/03/2015	50	329	1168	0	826.3	
)1/27/2015	50	324	1202	0	827.0	
)1/20/2015	49	317	1122	0	826.8	
)1/13/2015	49	318	1132	0	826.7	
)1/06/2015	52	344	1148	0	829.8	
12/31/2014	51	325	1176	0	834.8	
12/23/2014	48	343	1171	0	832.2	
12/16/2014	50	321	1162	0	826.2	
12/09/2014	50	319	1155	0	826.6	
12/02/2014	51	326	1145	0	829.9	

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Smith Ranch - Highland Operation

Monitor Well Report

Well ID: DM-004A

	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			
12/29/2015	18	182	822	0	821.3	
12/22/2015	19	190	807	0	822.3	
12/15/2015	20	195	829	0	826.0	
12/08/2015	20	204	840	0	831.3	
12/03/2015	19	194	810	0	834.2	
12/02/2015	19	185	813		834.7	
12/01/2015	19	190	808		834.8	
10/06/2015	18	187	825		836.8	
08/11/2015	17	189	802		844.8	
06/09/2015	15	181	791		843.0	
04/15/2015	14	183	786		841.6	
02/19/2015	14	176	806		836.2	
02/02/2015	14	174	807		836.1	
12/23/2014	14	157	746		835.1	