

**CAMECO RESOURCES**

Smith Ranch-Highland  
Operation

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December 7, 2017

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40-8964

Mr. Mark Rogaczewski, District 3 Supervisor  
Wyoming Department of Environmental Quality  
Land Quality Division  
2100 West 5th Street  
Sheridan, Wyoming 82801

**November 2017 Excursion Report Summary, Cameco Resources, North Butte ISR Project,  
Permit 632**

Dear Mr. Rogaczewski:

Power Resources, Inc. d/b/a/ Cameco Resources (Cameco) is submitting the November 2017 Monthly Excursion Report Summary for the North Butte ISR Project. Monitor Well NB2M-059 and NB2M-069 were confirmed on excursion November 16, 2017. Monitor Well NB2M-059 exceeded the Upper Control Limits (UCL) in chloride and alkalinity, and Monitor Well NB2M-060 exceeded the UCL's in chloride, alkalinity and conductivity. Verbal notification was made by phone to Luke McMahan, Wyoming Department of Environmental Quality (WDEQ) – Land Quality Division (LQD) District 3, on November 17, 2017, with written notification following in a letter dated November 20, 2017.

Preferential pumping was initiated and continues in an effort to reduce the concentrations at both wells. Attached please find the sampling data for both Monitor Well NB2M-059 and NB2M-060. Monitor Well NB2M-059 showed a significant decrease in chloride and alkalinity, below the UCLs, after two weeks of excursion mitigation efforts. Monitor Well NB2M-060, however, does not appear to be responding to the mitigation efforts and has increased slightly. Excursion control efforts will be continued and adjusted as necessary to ensure that concentrations at Monitor Well NB2M-060 are reduced. It is Cameco's practice to continue weekly sampling until three (3) consecutive weekly samples show concentrations below the UCL's. Weekly samples will continue at both wells until this is achieved, at which time a courtesy email will be sent to LQD stating that the regular sampling schedule will resume.

NMSSD1  
NMSS

Please call Ken Garoutte at (307) 358-6541 ext. 476 or email at [Kenneth\\_Garoutte@cameco.com](mailto:Kenneth_Garoutte@cameco.com) if you have questions.

Respectfully,



Larry Reimann  
Manager, Compliance & Licensing

LR/vg

Attachment: Monitor Well Reports for NB2M-059 and NB2M-060

cc: File NB 4.3.3.3  
Mr. Doug Mandeville, NRC - CERTIFIED MAIL # 7015 3010 0002 0309 8612  
Document Control Desk, NRC - CERTIFIED MAIL # 7015 3010 0002 0309 8629

cc: Cameco Distribution

xc: LQD - Cheyenne



**Cameco Resources**  
**North Butte Operation**  
**Monitor Well Report**

*Well Name: NB2M-059*

<i>NRC/WDEQ</i>	<i>Chloride</i>	<i>Alkalinity</i>	<i>Conductivity</i>	<i>U3O8</i>	<i>Water Elevation</i>
<i>UCL</i>	<i>(mg/L)</i>	<i>(mg/L CaCO3)</i>	<i>(µMho/cm)</i>	<i>(mg/L)</i>	
	20.0	105	1732		
11/27/2017	10.0	77	1251	0.10	4741.33
11/20/2017	30.0	150	1553		4750.73
11/16/2017	31.0	165	1611		4770.23
11/14/2017	30.0	157	1546		4769.33
10/24/2017	13.0	64	1240		4773.63
10/11/2017	11.0	73	1242		4772.33
09/25/2017	17.0	91	1345		4759.63
09/13/2017	17.0	92	1369		4787.13
08/23/2017	9.0	43	1171		4775.53
08/08/2017	8.0	34	1156		4782.13
07/25/2017	8.0	35	1104		4775.23
07/11/2017	8.0	51	1073		4776.93
06/20/2017	7.0	48	1089		4779.13
06/06/2017	7.0	53	1090		4778.23
05/23/2017	8.0	41	1162		4775.23
05/08/2017	8.0	36	1116		4770.23
04/24/2017	8.0	46	1115		4772.93
04/12/2017	4.0	50	1137		4775.73
03/21/2017	11.0	36	1146		4788.93
03/07/2017	8.0	28	1140		4788.63
02/22/2017	7.0	34	1106		4790.03
02/08/2017	5.0	49	1090		4788.03
01/24/2017	7.0	56	1146		4792.93
01/11/2017	7.0	60	1151		4786.33



**Cameco Resources**  
**North Butte Operation**  
**Monitor Well Report**

*Well Name: NB2M-060*

<i>NRC/WDEQ UCL</i>	<i>Chloride (mg/L)</i>	<i>Alkalinity (mg/L CaCO3)</i>	<i>Conductivity (μMho/cm)</i>	<i>U3O8 (mg/L)</i>	<i>Water Elevation</i>
	20.0	105	1732		
11/27/2017	63.0	395	2276	4.60	4747.60
11/20/2017	59.0	406	2205	4.70	4757.20
11/16/2017	61.0	425	2308		4772.30
11/14/2017	62.0	452	2310		4771.20
10/24/2017	19.0	149	1447		4771.70
10/11/2017	9.0	76	1238		4769.80
09/25/2017	7.0	52	1192		4755.30
09/13/2017	7.0	69	1211		4778.60
08/23/2017	8.0	76	1227		4785.40
08/08/2017	8.0	79	1261		4846.00
07/25/2017	8.0	76	1205		4852.20
07/11/2017	8.0	31	1054		4780.40
06/20/2017	7.0	63	1133		4782.80
06/06/2017	7.0	37	1107		4780.90
05/23/2017	7.0	47	1178		4779.80
05/08/2017	6.0	40	1123		4766.80
04/24/2017	7.0	35	1122		4775.10
04/12/2017	7.0	58	1163		4779.90
03/21/2017	6.0	44	1127		4789.00
03/07/2017	7.0	34	1137		4786.50
02/22/2017	7.0	45	1122		4788.20
02/08/2017	7.0	34	1083		4794.40
01/24/2017	7.0	60	1166		4796.00
01/11/2017	6.0	34	1107		4787.60