



February 1, 2013

CERTIFIED MAIL # 7011 3500 0000 5274 1716

Mr. Lowell Spackman, District 1 Supervisor  
Land Quality Division  
Wyoming Department of Environmental Quality  
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**East Impoundment (Evaporation Pond) Leak, Cameco Resources, Smith Ranch-Highland Uranium Project, Permit to Mine No. 633**

Dear Mr. Spackman:

Power Resources, Inc. d/b/a Cameco Resources (Cameco) is herein providing a monthly update to the Wyoming Department of Environmental Quality, Land Quality Division (LQD) and the Nuclear Regulatory Commission (NRC) regarding a leak into secondary containment (sump) discovered on November 4, 2011 at the East Impoundment, referred to as Evaporation Pond in Permit 633, Volume 1, Section 5.5.5.

Cameco received comments regarding TFN 5 5/331, Review of Source of Leak and Liner Repair Plan, from the LQD in a letter dated October 17, 2012. Relining of both the east and west impoundments was discussed during LQD's October 2012 Site Inspection. Cameco and LQD agreed that Cameco would provide a response, together with an as-built drawing, to the TFN comments once relining of the impoundments is complete.

During the month of January work was completed on the removal of solids in the west impoundment. An attempt was made at installation of the new liner, but was postponed due to unfavorable weather. High winds and low temperatures would have negatively impacted seam bonding of the new liner material, as well as pose a safety hazard for personnel completing the installment.

Samples for the east sump have continued to be taken on a weekly and monthly basis, when obtainable. In the 2012 monthly updates a collective list of sample results throughout the entire year were included. In order to minimize the length of future updates Cameco has removed the 2012 results from the tables below. Future monthly updates will contain only a collective list of sample results for 2013. Results are provided in the tables below.

### Weekly Sample Results

Sample Date	Chloride (g/L)	Conductivity (mS/cm)
01/02/2013	26.8	60.7
01/09/2013	27.5	60.5
01/17/2013	14.7	35.3
01/23/2013	14.9	30.7
01/30/2013	16.5	33.4

### Monthly Sample Results

Sample Date	Chloride (g/L)	Conductivity (mS/cm)	Bicarbonate (mg/L)	Uranium (ppm)	Sulfate (mg/L)
01/02/2013	26.8	60.7	* No Result	927.8	-
01/08/2013	-	-	-	-	1720
01/09/2013	27.5	60.5	* No Result	585.6	-
01/17/2013	14.7	35.3	* No Result	723.1	-
01/23/2013	14.9	30.7	* No Result	623.9	-
01/30/2013	16.5	33.4	* No Result	633.6	-

\* No Result – Results were inconclusive through lab analysis.

Results for the sump water continue to be elevated and are likely due to wash water from the work-over of deep disposal well#1 placed into the impoundment. It should be noted that due to the increase in concentrations, chloride is now being reported as g/L and not mg/L and conductivity is now reported as mS/cm and not  $\mu$ S/cm. Routine monitoring will continue to be conducted and reported in the monthly update to LQD.

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

Sincerely,



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

KG/vg

cc: File SR 4.3.3.1 File SR 4.3.3.4  
Special Volume: Impoundment Reports Start February 1999  
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