



July 31, 2013

CERTIFIED MAIL # 7012 2210 0002 5617 0376

Mr. Robin Jones, District 1 Supervisor
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East Impoundment (Evaporation Pond) Leak Monthly Update, Cameco Resources, Smith Ranch-Highland Uranium Project, Permit to Mine No. 633

Dear Mr. Jones:

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.

Work was started in February 2013 on replacement of the west impoundment liner. The liner was installed, anchored and seamed. Integrity testing, seam abutment welds and, backfilling of the toe ditch was completed during the month of May 2013.

The transfer of liquid from the east impoundment to the west impoundment through the dewatering containers was completed in June 2013. Removal of the solids in the east impoundment was planned for the report period, however due to recent rain events this has been delayed and is anticipated for August. Once the solids are removed, installation of the new liner will begin.

Because the transfer of liquid from the east to the west impoundment no water has been present in the east sump. No samples have been collected since June 19, 2013. Samples for the east sump will continued to be taken on a weekly and monthly basis, when obtainable. 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
02/05/2013	7.5	10.9
02/12/2013	1.9	9.0
02/20/2013	1.7	5.0
02/27/2013	1.9	8.0
03/14/2013	5.2	15.4
03/21/2013	1.7	7.0
03/27/2013	1.7	6.7
04/04/2013	1.7	6.0
04/10/2013	5.3	5.7
04/18/2013	1.6	3.1
04/24/2013	2.0	6.8
04/30/2013	1.5	6.6
05/08/2013	2.8	5.2
05/13/2013	2.5	5.7
05/20/2013	1.4	5.5
05/27/2013	1.4	6.4
06/04/2013	2.7	8.5
06/11/2013	2.1	6.3
06/19/2013	2.7	9.0

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	* 1405	927.8	-
01/08/2013	-	-	-	-	1720
01/09/2013	27.5	60.5	* 1491	585.6	-
01/17/2013	14.7	35.3	* 1258	723.1	-
01/23/2013	14.9	30.7	* 1050	623.9	-
01/30/2013	16.5	33.4	* 1164	633.6	-
02/05/2013	7.5	10.9	891	416.9	1910
02/12/2013	1.9	9.0	560	183.3	-
02/20/2013	1.7	5.0	651	183.3	-
02/27/2013	1.9	8.0	600	143.7	-
03/12/2013	-	-	-	-	966
03/14/2013	5.2	15.4	726	312.0	-
03/21/2013	1.7	7.0	542	128.0	-
03/27/2013	1.7	6.7	594	144.6	-
04/04/2013	1.7	6.0	842	112.0	-
04/10/2013	5.3	5.7	504	128.4	588
04/18/2013	1.6	3.1	453	101.8	-
04/24/2013	2.0	6.8	513	116.7	-
04/30/2013	1.5	6.6	527	102.9	-
05/08/2013	2.8	5.2	623	104.2	-
05/13/2013	2.5	5.7	503	103.3	524
05/20/2013	1.4	5.5	534	98.6	-
05/27/2013	1.4	6.4	519	116.4	-
06/04/2013	2.7	8.5	526	143.7	-
06/11/2013	2.1	6.3	504	116.7	620
06/19/2013	2.7	9.0	485	196.2	-

* Results were initially reported as inconclusive through lab analysis. After further lab analysis results were provided.

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 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
Mr. Doug Mandeville – NRC Certified Mail # 7012 2210 0002 5617 0383
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cc: Cameco-Cheyenne