

**CAMECO RESOURCES
CROW BUTTE OPERATION**



**86 Crow Butte Road
P.O. Box 169
Crawford, Nebraska 69339-0169**

**(308) 665-2215
(308) 665-2341 – FAX**

May 8, 2009

Mr. Michael Linder, Director
Nebraska Department of Environmental Quality
P.O. Box 98922
Lincoln, NE 68509-8922

Subject: Class III UIC Permit NE0122611
April 2009 Monthly Restoration Report

Dear Mr. Linder:

Please find enclosed the April 2009 Monthly Restoration Reports for Mine Units 2, 3, 4, and 5. Wellfield recirculation continues in Mine Units 2 and 3 to create a hydrologic bleed in preparation for re-starting the RO circuit. Mine Units 4 and 5 are in ion exchange. The reverse osmosis (RO) units continue to be run on a limited basis to test for leaks and to verify that the instrumentation is performing properly.

The bioremediation study continues in Mine Unit 4. The injection of EOS into the formation was completed on April 8, 2009. The wells in the study area have been shut down for 30 days. When they are re-started, samples will be collected to determine the effect the EOS has had on the formation.

If you have any questions regarding this submittal, please feel free to contact me at (308) 665-2215, ext. 114.

Sincerely,
Cameco Resources
Crow Butte Operation

A handwritten signature in cursive script that reads "Larry Teahon". The signature is written in black ink on a white background.

Larry Teahon
Mgr. Health, Safety and Environmental Affairs

Enclosures: As Stated

cc: Mr. Dave Carlson, NDEQ Chadron Office

Mr. Steve Collings, Denver Office

Mr. Ron Burrows, NRC

CBO File

CROW BUTTE MINE
 MONTHLY RESTORATION REPORT
 APRIL 2009
 MINE UNIT 2

1. RESTORATION ACTIVITY DURING MONTH:

	YES	NO	
a. Groundwater Transfer		X	(if yes, complete part 2)
b. Groundwater Sweep		X	(if yes, complete part 3)
c. Groundwater Treatment		X	
d. Wellfield Recirculation (Used to maintain wellfield bleed)	X		PR83, P85I, PR88, PR91, PR92, P97, P85I, P105, P117I, P118, P119, P120, P121, and P124I.
e. Other (explain):		X	

2. LIST WELLS USED IN GROUNDWATER TRANSFER DURING THE MONTH:

3. LIST WELLS USED IN GROUNDWATER SWEEP DURING THE MONTH:

4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

No samples collected during the month.

CROW BUTTE MINE

MONTHLY RESTORATION REPORT

APRIL 2009

MINE UNIT 3

1. RESTORATION ACTIVITY DURING MONTH:

	YES	NO	
a. Groundwater Transfer		X	(if yes, complete part 2)
b. Groundwater Sweep		X	(if yes, complete part 3)
c. Groundwater Treatment		X	
d. Wellfield Recirculation (Used to maintain a wellfield bleed)	X		P239, P251, P252, P255, P262, I312, I315, I323, I351, I352, I357, I358, I366, I367, and I368
e. Other (explain):		X	

2. LIST WELLS USED IN GROUNDWATER TRANSFER DURING THE MONTH:

3. LIST WELLS USED IN GROUNDWATER SWEEP DURING THE MONTH:

4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

No samples collected during the month.

CROW BUTTE MINE
 MONTHLY RESTORATION REPORT
 APRIL 2009
 MINE UNIT 4

1. RESTORATION ACTIVITY DURING MONTH:

	YES	NO	
a. Groundwater Transfer		X	(if yes, complete part 2)
b. Groundwater Sweep		X	(if yes, complete part 3)
c. Groundwater Treatment	X		IX P395, P396, P405, P464, I555P
d. Wellfield Recirculation (Area recirculated to prepare it for bioremediation)		X	
e. Other (explain): Bioremediation test started on 12/17/08.	X		P380, P386, P421, P422, P423, and P424

2. LIST WELLS USED IN GROUNDWATER TRANSFER DURING THE MONTH:

3. LIST WELLS USED IN GROUNDWATER SWEEP DURING THE MONTH:

4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

P380, P386, P421, P422, P423, and P424.

Mine Unit 4 Restoration Data

Well	Date	U ₃ O ₈	V	Total CO ₃	pH	Ca	Na	Cl	SO ₄	Cond
P380	04/01/09	9.11		1095	7.12	79	903	472	647	4230
P380	04/07/09	8.88		1110	7.08	78	887	480	631	4200
P386	04/01/09	4.61		1155	7.23	90	965	497	710	4600
P386	04/07/09	4.49		1155	7.19	96	950	499	724	4580
P421	04/01/09	6.17		1035	7.26	77	904	474	638	4210
P421	04/07/09	6.07		1035	7.26	76	882	469	644	4200
P422	04/01/09	3.50		1035	7.30	84	876	458	642	4130
P422	04/07/09	3.69		1035	7.24	84	854	455	642	4110
P423	04/01/09	3.26		1035	7.21	83	907	474	680	4260
P423	04/07/09	3.17		1050	7.18	83	874	476	690	4240
P424	04/01/09	10.23		1035	7.25	76	914	507	722	4220
P424	04/07/09	10.55		1035	7.22	76	882	465	678	4210

CROW BUTTE MINE
 MONTHLY RESTORATION REPORT
 APRIL 2009
 MINE UNIT 5

1. RESTORATION ACTIVITY DURING MONTH:

	YES	NO	
a. Groundwater Transfer		X	(if yes, complete part 2)
b. Groundwater Sweep		X	(if yes, complete part 3)
c. Groundwater Treatment	X		IX P690, P691, P767, P796, P837, P1138, P1139, P1144, P1156, P1181, P1193, and I1202P.
d. Wellfield Recirculation		X	
e. Other (explain):		X	

2. LIST WELLS USED IN GROUNDWATER TRANSFER DURING THE MONTH:

3. LIST WELLS USED IN GROUNDWATER SWEEP DURING THE MONTH:

4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

No samples collected during the month.

