CAMECO RESOURCES CROW BUTTE OPERATION

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

(308) 665-2215 (308) 665-2341 – FAX

November 22, 2011

CERTIFIED MAIL RETURN RECEIPT REQUESTED

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

Subject: Class III UIC Permit NE0122611 October 2011 Monthly Restoration Report

Dear Mr. Linder:

Please find enclosed the October 2011 Monthly Restoration Reports for Mine Units 2, 3, 4, 5 and 6. Mine Unit 2 was placed into recirculation on July 7, 2011 in order to homogenize the aquifer in preparation for stability monitoring. The reverse osmosis (RO) units continue to inject permeate and reductant into Mine Units 3 and 5. Mine Unit 4 remains in ion exchange. A hydrologic bleed was maintained in Mine Unit 6 for excursion control.

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

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Larry Teahon SHEQ Manager

Enclosures: As Stated

 cc: Lindsey Phillips, NDEQ Chadron Office Ron Burrows, NRC CBO File
 ec: CR - Cheyenne

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MONTHLY RESTORATION REPORT

OCTOBER 2011

MINE UNIT 2

1. RESTORATION ACTIVITY DURING MONTH:

a. Groundwater Transfer

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b. Groundwater Sweep

c. Groundwater Treatment

d. Wellfield Recirculation (Started on July 7, 2011).

e. Other (explain):

_			
	YES	NO	
		Х	(if yes, complete part 2)
		Х	(if yes, complete part 3)
		х	
	x		P97, P120, I188P, and P209.
		Х	

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:

P97, P120, I188P, and P209.

Mine Uni	t 2 Restoratio	on Data

Well	Date	U ₃ O ₈	V	Total CO3	pН	Ca	Na	CI	SO₄	Cond
P97	10/05/11	2.85								
P97	10/12/11	2.73								1788
P97	10/19/11	2.81								
P120	10/05/11	0.85								
P120	10/12/11	0.85								1036
P120	10/19/11	1.25								
1188P	10/05/11	1.73								
1188P	10/12/11	1.84								1205
1188P	10/19/11	2.12								
P209	10/05/11	1.23								
P209	10/12/11	1.58								1175
P209	10/19/11	1.91								

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MONTHLY RESTORATION REPORT

OCTOBER 2011

MINE UNIT 3

YES

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NO

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(if yes, complete part 2)

(if yes, complete part 3)

CM1-11, P228, P246, I298P,

RO and Reductant

I326P, I343P, RES1E, RES2E, and RES3E.

1. RESTORATION ACTIVITY DURING MONTH:

a. Groundwater Transfer
b. Groundwater Sweep
 c. Groundwater Treatment

d. Wellfield Recirculation

e. Other (explain):

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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:

CM1-11, P228, I298P, I326P, I343P, RES1E, RES2E, and RES3E.

Mine Unit 3 Restoration Data

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Well	Date	U ₃ O ₈	V	Total CO ₃	рН	Са	Na	CI	SO4	Cond
CM1-11	10/05/11	0.28								
CM1-11	10/12/11	0.62								1701
CM1-11	10/19/11	0.7 9								
P228	10/05/11	1.16								
P228	10/12/11	1.51								811
10000	400544	0.00								
1298P	10/05/11	0.00								
1298P	10/12/11	0.30								588
1298P	10/19/11	0.00								
1326P	10/05/11	1 60								
	10/05/11	1.62								040
1326P	10/12/11	1.87								943
1343P	10/05/11	2.78								
1343P	10/12/11	3.67								1297
1343P	10/19/11	3.83								1201
10-01	10/13/11	0.00								
RES1E	10/05/11	1.57								
RES1E	10/12/11	1.69								951
RES1E	10/19/11	1.78								-
RES2E	10/05/11	1.92								
RES2E	10/12/11	2.24								1304
RES2E	10/19/11	2.30								
RES3E	10/05/11	1.75								
RES3E	10/12/11	1.80								1082
RES3E	10/19/11	1.87								

MONTHLY RESTORATION REPORT

OCTOBER 2011

MINE UNIT 4

1. RESTORATION ACTIVITY DURING MONTH:

a.	Groundwater	Transfer
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b. Groundwater Sweep

c. Groundwater Treatment

d. Wellfield Recirculation

e. Other (explain):

YES	NO	
	X	(if yes, complete part 2)
	Х	(if yes, complete part 3)
X		IX P371, P393, P394, P429, P430, P434, P437, P438, P442, P443, P447, P450, P456, P461, I549P, I549P, I551P, and I613P.
	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:

P394, P429, P430, P437, P438, P442, P443, P447, P450, P456, P461, I549P, I551P, and I613P.

Mine Unit 4 Restoration Data

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Well	Date	U ₃ O ₈	v	Total CO ₃	рН	Ca	Na	CI	SO₄	Cond
P394	10/05/11	10.58								
P394	10/12/11	10.32								4420
P394	10/19/11	10.67								
P429	10/05/11	3.43								
P429	10/12/11	3.25								1062
P429	10/19/11	3.35								
P430	10/05/11	2.76								
P430	10/12/11	2.83								1036
P437	10/05/11	7.83								
P437	10/19/11	7.58								
P438	10/12/11	2.63								4060
P442	10/12/11	14.00								4080
P443	10/05/11	7.01								
P443	10/12/11	7.45								4010
P443	10/19/11	6.72								
P447	10/05/11	4.66								
P447	10/12/11	4.69								4100
P447	10/19/11	4.75								1100
P450	10/05/11	10.90								
P450	10/12/11	10.66								4570
		10.00								1010
P456	10/05/11	5.62								
P456	10/12/11	4.86								3660
P456	10/19/11	4.79								0000
1 100		4.70								
P461	10/05/11	9.45								
P461	10/12/11	9.51								5000
P461	10/19/11	9.10								5000
1401	10/13/11	9.10								
1549P	10/05/11	7.09								
1549P	10/12/11	6.61								4440
1549P	10/19/11	6.81								4440
13436	10/19/11	0.01								
1551P	10/05/11	12.11								
1551P	10/12/11	12.11								1010
1551P 1551P	10/19/11	11.42								4340
1001	10/19/11	11.00								
16120	10/05/44	2 CE								
1613P	10/05/11	3.65								4 400
1613P	10/12/11	2.63								1430

MONTHLY RESTORATION REPORT

OCTOBER 2011

MINE UNIT 5

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1. RESTORATION ACTIVITY DURING MONTH:

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	YES	NO	
a. Groundwater Transfer		Х	(if yes, complete part 2)
b. Groundwater Sweep	:	х	(if yes, complete part 3)
c. Groundwater Treatment	x		RO and Reductant BL5-5, I676P, P707, P709, P773, P790, P800, P807, I854P, P1075, P1099, P1117, and P1232.
d. Wellfield Recirculation		X	
e. Other (explain):		Х	
2. LIST WELLS USED IN GROUNDWATER TR	ANSFE	R DURI	NG THE MONTH:

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

4. LIST WELLS SAMPLED DURING MONTH AND ASSAY RESULTS:

BL5-5, I676P, P709, P773, P790, P800, I854P, P1075, and P1232.

Mine Unit 5 Restoration Data

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Well	Date	U ₃ U ₈	v	I OTAI CU3	рН	Са	Na	CI	5U4	Cond
BL5-5	10/05/11	0.53								
BL5-5	10/12/11	0.47								3310
BL5-5	10/19/11	0.94								
1676P	10/05/11	9.15								
1676P	10/12/11	9.16								3020
1676P	10/19/11	9.44								
P709	10/05/11	9.92								
P709	10/12/11	10.26								3410
P709	10/19/11	10.14								
P773	10/05/11	2.19								
P773	10/12/11	2.32								1828
P773	10/19/11	2.37								
P790	10/05/11	4.48								
P790	10/12/11	4.19								2214
P790	10/19/11	4.45								
P800	10/05/11	2.93								
P800	10/12/11	3.29								2640
P800	10/19/11	3.49								
1854P	10/05/11	2.78								
1854P	10/12/11	2.76								3760
1854P	10/19/11	2.78								
-										
P1075	10/05/11	4.96								
D (005										
P1232	10/05/11	10.86								

MONTHLY RESTORATION REPORT

OCTOBER 2011

MINE UNIT 6

1. RESTORATION ACTIVITY DURING MONTH:

a. Groundwater Transfer

b. Groundwater Sweep

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c. Groundwater Treatment

d. Wellfield Recirculation

e. Other (explain):

YES	NO	
	X	(if yes, complete part 2)
	X	(if yes, complete part 3)
	X	
	x	
x		Wellfield bleed for excursion control. P1567 and P1633.

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:

P1567

Mine Unit 6 Restoration Data

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Well	Date	U_3O_8	V	Total CO ₃	рН	Ca	Na	CI	SO4	Cond
P1567	10/05/11	11.29	-							
P1567	10/12/11	11.17								3850
P1567	10/19/11	10.86								

NRC FORM 253	II S N	UCLEAR REGULATORY COMMISSION	DATE OF REQUEST	CONTR	OL NUMBER	
(9-96)	MESSENGER/COURIER RECEIPT		DATE OF REQUEST		UL NUMBER	
			11-29-11			
TO:			OFFICE	BUILDING	ROOM NUMBER	
Mr.	Ron Burrow	us	FSME	TWFA	18F5	
FROM:			OFFICE	BUILDING	ROOM NUMBER	
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USPS Certified envelope			MESSE	NGER/COURIER SI	IGNATURE	
			MESSENGER/COURIER		DATE RECEIVED	
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SENDER:		MESSENGER/COURIER:	RECIPIENT:			
	 Complete "DATE OF REQUEST," "TO:," "FROM:," and unclassified "DESCRIPTION" blocks. Deliver package to recipient or next messen courier enroute to addressee. 			nger/ 1. Provide signature, date received, and time received in the appropriate blocks.		
2. Obtain MESSENGER/COURIER signature, date 2. Obtain MESSENGER/COURIER or RECIPI			IENT 2. Retain RECIPIENT'S COPY.			
	received, and time received in first blocks provided. 3. Retain "SENDER'S SUSPENSE COPY." signature, date received, and time received appropriate blocks provided.			I in the 3. Return original to mesenger/courier immediately, who will return it to the sender.		
S. Retain OLIVEL	13 SUSPENSE COFT.	appropriate blocks provided.	WIDW	All return it to the sende	er.	

NRC FORM 253 (9-96)

RECIPIENT'S COPY