

CAMECO RESOURCES

Smith Ranch-Highland Operation Mail: P.O. Box 1210 Glenrock, WY 82637 USA

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October 14, 2010

Mr. Lowell Spackman, District I Supervisor Land Quality Division Wyoming Department of Environmental Quality 122 W. 25th Street Chevenne, WY 82002

CERTIFIED MAIL #70083230000123814967 RETURN RECEIPT REQUESTED

RE: Replacement Monitoring Well KM-15A, Cameco Resources, Smith Ranch Highland Uranium Project, Permit 633

Dear Mr. Spackman:

Power Resources, Inc. d/b/a/ Cameco Resources (CR) is herein notifying Wyoming Department of Environmental Quality Land Quality Division (WDEQ/LQD) that monitor well KM-15 was replaced with monitor well KM-15A on September 8, 2010. KM-15A is an identical completion to the original KM-15 monitor well, and was installed at the same depth with same under-ream zone. Monitor well KM-15 has been renamed, as a production monitoring MP-well, to KMP-14. A wider under-ream zone was opened in the production monitoring well KMP-14, on August 11, 2010, to provide adequate production monitoring in coordination with Mine Unit K-North wellfield.

A water sample was collected from KMP-14 for routine analysis on September 17, 2010 indicating that the water quality appears to be similar to KM-15, as would be anticipated. The following table shows the water quality data. The original UCL values from KM-15 will be applied to production monitoring well KMP-14 in the interim. Upper Control Limit (UCL) values will be assigned to monitor well KM-15A following an assessment of additional sampling rounds.

An initial routine water sample was collected from monitor well KM-15A on September 16, 2010. Analysis indicates a lower constituent value for alkalinity and conductivity and a higher constituent value for chloride than the original well KM-15 baseline values. The table below shows the water quality data. The difference in water quality is a result of well development having been performed just prior to it being purged for sample collection.

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UCL Value		Chloride	Alkalinity	Conductivity
		18 mg/L	230 mg/L	769 uMhos/cm
Well ID	Date		Canadian - State	
KM-15*	8/2/2010	2	178	847
	Baseline	1	170	848
	8/20/2010	12	115	550
KMP-14**	8/23/2010	7	151	778
	9/3/2010	4	165	861
· · · · · · · · · · · · · · · · · · ·	9/17/2010	4	153	836
KM-15A***	9/16/2010	9	51	690

*last sample analyzed prior to widening underream zone

**samples collected from KMP-14 subsequent to being renamed

***1st sample collected from KM-15A

Monitor well KM-15A will continue to be sampled semi-monthly in accordance with WDEQ/LQD Chapter 11 Non Coal Rules and Regulations and mining permit 633. Guideline 8 samples have been collected from both wells for analysis by an off-site laboratory. A forthcoming report will be submitted to WDEQ/LQD discussing the assessment of sampling results for these two wells to confirm UCLs.

A revision to the Mine Unit K Hydrologic Test Document is attached which includes an Index of Change, the well installation diagrams for the KM-15A and KMP-14 and a reference map. A review of the latest surety shows sufficient funding of these wells.

Please contact me at (307) 358-6541, ext. 474 if you have questions.

Sincerely,

Angelo Kallas Safety, Health, Environment and Quality (SHEQ) Manager

AK/dk

Attachments: Mine Unit K Hydrologic Test Revision Package (Index of Change and Page Replacement, Map and Well Completion Reports)

NUCLEAR. The Clean Air Energy

cc: T. Cannon J. Brister File SR 4.3.3.1 D. Mandeville, USNRC (2 copies)

INDEX SHEET FOR MINE PERMIT AMENDMENTS OR REVISIONS

MINE COMPANY NAME: _____ Power Resources Inc. dba Cameco Resources ______ MINE NAME: _____ Smith Ranch – Highland Operation _____

Page 1 of 1						
Date <u>10/12/10</u>						
TFN						
PERMIT NO.: 633						

Statement: I, $\frac{A_{1}}{C_{0}}$, an authorized representative of <u>Power Resources</u>, Inc. d/b/a Cameco Resources declare that only the items listed on this and all consecutively numbered Index Sheets are intended as revisions to the current permit document. In the event that other changes inadvertently occurred due to this revision, those unintentional alterations will not be considered approved. Please initial and date. <u>Ax</u> 10 - 14 40

NOTES:

1) Include all revision or change elements and a brief description of or reason for each revision element.

2) List all revision or change elements in sequence by volume number; number index sheets sequentially as needed.

Volume Number	Page, Map or other Permit Entry to be REMOVED	Page, Map or other Permit Entry to be ADDED	Description of Change
Volume III-K	Page 7	Page 7 and Attached Map	Replacement page provides discussion of wells KM-15A and KMP-14. The attached map labeled <i>Mine Unit K – Permit 633 Monitor Well KM-015A Location</i> illustrates where the discussed wells are found in the wellfield. The attached map should follow right behind page 7.
Volume III-K		1 Completion/Recompletion Report for monitoring well	Add well completion report for well KM-15A to the Hydrologic Test Plan for Mine Unit K. The report should be placed behind the Appendix B "Completion Report" cover page.
Volume III-K		1 Completion/Recompletion Report for production monitoring well	Add well completion report for well KMP-14 to the Hydrologic Test Plan for Mine Unit K. The report should be placed right behind the new well completion report for KM-15A discussed above.

The monitor wells were constructed with 4.5-inch PVC casing; the monitor zones were underreamed to 10.5 inches. The KM and KMP wells were screened across the Lower O Sand (Table 3-1). The KM wells typically were screened over a 20- to 30-foot interval; based on the distance from the pumping well, no partial penetration effects were anticipated. The wells were developed using standard water well construction techniques, such as pumping, surging and/or air lifting. Completion reports for each well are provided in Appendix B.

On August 4, 2010 monitoring well KM-15 was renamed KMP-14. KMP-14 is a production monitoring well that will be utilized and monitored according to permit requirements. The production monitor well will assume the same UCLs as the original well as the aquifer is identical. KM-15A has been installed as a replacement outer ring monitoring well for Mine Unit K. It was installed identically to the original well.

3.3 ABANDONMENT OF EXISTING WELLS

Historic wells exist in MU K in the south-central portion of the wellfield (Figure 3-1). None of those wells were plugged prior to the primary MU K pump test (Test 1).

Since unexpected water level changes were observed in the southern portion of MU K (KMU-3 and KMU-4, in particular) during Test 1, PRI elected to plug the historic wells and perform additional testing (Tests 2 and 3; see Section 6.3.1 and Table 6-3). Those wells were abandoned in accordance with WS-35-11-404 and Chapter VIII of the LQD Rules and Regulations.

Page 7



CAMECO RESOURCES SMITH RANCH-HIGHLAND OPERATION COMPLETION AND RECOMPLETION REPORT



Rev 2

E File: EHS\Forms\SOP F 2248-1

Thursday, September 30, 2010

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1 of 1

CAMECO RESOURCES SMITH RANCH-HIGHLAND OPERATION COMPLETION AND RECOMPLETION REPORT

WELL NUMBER KMP-014		DATE	8/11/2010	8/11/2010		
HDR_HSE MON		CONTRACTOR		SINGLE WATER SERVIC		
HOLE_DIAMETER	'7-7/8'''	CAMECO REPRES.	Darryl Pa	Darryl Parrett		
CASING_SIZE	4.5"					
REAMED_DIAMETER	8.875	чи	NI RE	AMER		
LINER DATA				ADE 10		
PACKER TYPE Fi	gure K NUMBER 2	CASING T.D.		860		
LINER DIAMETER 3		UNDER-	\subseteq	829		
SCREEN TYPE R	egular SLOT 0.03			870		
CDAVEL						
GRAVEL				000		
SIZE	10/20 Mesh			900		
SACKS CALCULATED	N/A TAKEN 40					
COMMENTS:		Ä	FEET	FROM TO		
Well alias is KM-15 unde producttion monitoring (i	erream zone enlarged 20' to provide .e. MP well).	TOP ASS'Y	3	821 824		
		BLANK	5	824 829		
TAGGED TOP OF J COL	LAR 821					
		SCREEN	41	829 870		
		VALVE	2	870 872		

Rev 2 1 of 1 F 2248-1

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