

**CAMECO RESOURCES  
CROW BUTTE OPERATION**



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

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

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April 12, 2018

**USPS PRIORITY MAIL  
SIGNATURE CONFIRMATION**

Marty Link, Water Quality Division Administrator  
Nebraska Department of Environmental Quality  
P.O. Box 98922  
Lincoln, NE 68509-8922

Class I UIC Permit NE0211670  
Deep Disposal Well #1 (DDW #1) Well Workover

Dear Ms. Link:

In accordance with Part II, F (1) of Class I UIC Permit NE0211670, Crow Butte submitted for approval, a well workover procedure to be performed on the DDW #1. The workover was approved by the department by letter.

On January 1, 2018, the annulus pressure in the well declined significantly between 2:20 p.m. and 2:25 p.m. The decision was made to shut in the well at 3:15.

Integrated Petroleum Technologies was contracted to oversee the diagnosis and repair of the well, and Key Energy Services provided the rig and crew to perform the work. Through a number of pressure tests over a number of weeks, a small casing leak (.2 gpm @ 1000 psi) was identified near the 3000' level. Additionally, it was determined that the inside of the casing at the 3400'-3440' level was likely worn, providing a poor surface for the packer to seat.

In the approved workover request, CBO proposed installing a Weatherford Homco Patch, centered over the 2994'-3000' interval to repair the casing leak. Additionally, CBO proposed installing a Weatherford Metal Skin Patch in the 3400'-3440' level to provide a suitable surface area for the packer to seat. This work was completed during mid-March, then the well successfully passed MIT on March 18, 2018. It was returned to service on March 20, 2018.

# CROW BUTTE RESOURCES, INC.



Enclosed is the technical report detailing the workover that was performed on this well. If you have any questions regarding this submittal, please feel free to contact me at (308) 665-2215, ext. 117.

Sincerely,  
Cameco Resources  
Crow Butte Operation

A handwritten signature in black ink that reads "Walter D. Nelson". The signature is written in a cursive style with a long horizontal stroke at the end.

Walt Nelson  
SHEQ Coordinator

Enclosure

cc: **Ron Burrows** – NRC w/o Enclosure  
CBO - File  
ec: CR – Electronic File  
Kory Winters – NDEQ Field Office  
Amanda Jones – NDEQ Program Coordinator