

Document Number:  
401609280

Date Received:  
04/16/2018

**WELL ABANDONMENT REPORT**

This form is to be submitted as an Intent to Abandon whenever an abandonment is planned on a borehole. After the abandonment is complete, this form shall again be submitted as a Subsequent Report of the actual work completed. The approved intent shall be valid for six months after the approval date, after that period, a new intent will be required. Attachments required with the Intent to Abandon are wellbore diagrams of the current configuration and the proposed configuration with plugs set.

A Subsequent Report of Abandonment shall indicate the actual work completed. Attachments required with a Subsequent Report are a wellbore diagram showing plugs that were set and casing remaining in the hole, the job summaries from all plugging contractors used, including wireline and cementing (third party verification) and any logs that may have been run during abandonment.

OGCC Operator Number: 69175 Contact Name: Jenifer Hakkarinen

Name of Operator: PDC ENERGY INC Phone: (303) 8605800

Address: 1775 SHERMAN STREET - STE 3000 Fax: \_\_\_\_\_

City: DENVER State: CO Zip: 80203 Email: JEnifer.Hakkarinen@pdce.com

**For "Intent" 24 hour notice required,** Name: Kraich, Adam Tel: (970) 420-0536

**COGCC contact:** Email: adam.kraich@state.co.us

API Number 05-123-22990-00 Well Number: 23-27

Well Name: RICHTER

Location: QtrQtr: NESW Section: 27 Township: 7N Range: 64W Meridian: 6

County: WELD Federal, Indian or State Lease Number: \_\_\_\_\_

Field Name: WATTENBERG Field Number: 90750

Notice of Intent to Abandon       Subsequent Report of Abandonment

*Only Complete the Following Background Information for Intent to Abandon*

Latitude: 40.542420 Longitude: -104.539110

GPS Data: Date of Measurement: 08/07/2006 PDOP Reading: 1.9 GPS Instrument Operator's Name: H.L. Tracy

Reason for Abandonment:  Dry  Production Sub-economic  Mechanical Problems

Other \_\_\_\_\_

Casing to be pulled:  Yes  No Estimated Depth: 1900

Fish in Hole:  Yes  No If yes, explain details below

Wellbore has Uncemented Casing leaks:  Yes  No If yes, explain details below

Details: \_\_\_\_\_

**Current and Previously Abandoned Zones**

Formation	Perf. Top	Perf. Btm	Abandoned Date	Method of Isolation	Plug Depth
CODELL	7114	7124			

Total: 1 zone(s)

**Casing History**

Casing Type	Size of Hole	Size of Casing	Weight Per Foot	Setting Depth	Sacks Cement	Cement Bot	Cement Top	Status
SURF	12+1/4	8+5/8	24	589	325	589	0	VISU
1ST	7+7/8	4+1/2	10.5	7,274	145	7,274	6,227	CBL
S.C. 1.1				6,227	305	6,227	2,993	CBL

## Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 7064 with 2 sacks cmt on top. CIBP #2: Depth 6787 with 2 sacks cmt on top.  
 CIBP #3: Depth \_\_\_\_\_ with \_\_\_\_\_ sacks cmt on top. CIBP #4: Depth \_\_\_\_\_ with \_\_\_\_\_ sacks cmt on top.  
 CIBP #5: Depth \_\_\_\_\_ with \_\_\_\_\_ sacks cmt on top.

NOTE: Two(2) sacks cement required on all CIBPs.

Set 255 sks cmt from 2025 ft. to 1600 ft. Plug Type: STUB PLUG Plug Tagged:   
 Set 375 sks cmt from 800 ft. to 0 ft. Plug Type: OPEN HOLE Plug Tagged:   
 Set \_\_\_\_\_ sks cmt from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Plug Type: \_\_\_\_\_ Plug Tagged:   
 Set \_\_\_\_\_ sks cmt from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Plug Type: \_\_\_\_\_ Plug Tagged:   
 Set \_\_\_\_\_ sks cmt from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Plug Type: \_\_\_\_\_ Plug Tagged:   
 Perforate and squeeze at \_\_\_\_\_ ft. with \_\_\_\_\_ sacks. Leave at least 100 ft. in casing \_\_\_\_\_ CICR Depth  
 Perforate and squeeze at \_\_\_\_\_ ft. with \_\_\_\_\_ sacks. Leave at least 100 ft. in casing \_\_\_\_\_ CICR Depth  
 Perforate and squeeze at \_\_\_\_\_ ft. with \_\_\_\_\_ sacks. Leave at least 100 ft. in casing \_\_\_\_\_ CICR Depth  
(Cast Iron Cement Retainer Depth)  
 Set \_\_\_\_\_ sacks half in. half out surface casing from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Plug Tagged:   
 Set \_\_\_\_\_ sacks at surface  
 Cut four feet below ground level, weld on plate Above Ground Dry-Hole Marker:  Yes  No  
 Set \_\_\_\_\_ sacks in rat hole Set \_\_\_\_\_ sacks in mouse hole

### Additional Plugging Information for Subsequent Report Only

Casing Recovered: \_\_\_\_\_ ft. \_\_\_\_\_ inch casing Plugging Date: \_\_\_\_\_  
 of \_\_\_\_\_  
 \*Wireline Contractor: \_\_\_\_\_ \*Cementing Contractor: \_\_\_\_\_  
 Type of Cement and Additives Used: \_\_\_\_\_  
 Flowline/Pipeline has been abandoned per Rule 1103  Yes  No \*ATTACH JOB SUMMARY

Technical Detail/Comments:

Richter 23-27 (05-123-22990)/Plugging Procedure (Intent)  
 Producing Formation: Codell: 7114'-7124'  
 Upper Pierre Aquifer: 720'-1752'  
 TD: 7320' PBTD: 7225'  
 Surface Casing: 8 5/8" 24# @ 589' w/ 325 sxs  
 Production Casing: 4 1/2" 10.5# @ 7274' w/ 450 sxs cmt (TOC @ 2993' - CBL).  
 Tubing: 2 3/8" tubing set @ 7072' (9/1/2005).  
 Proposed Procedure:  
 1. MIRU pulling unit. Pull 2 3/8" tubing.  
 2. RU wireline company.  
 3. TIH with CIBP. Set BP at 7064'. Top with 2 sxs 15.8#/gal CI G cement.  
 4. TIH with CIBP. Set BP at 6797'. Top with 2 sxs 15.8#/gal CI G cement.  
 5. TIH with casing cutter. Cut 4 1/2" casing at 1900'. Pull cut casing.  
 6. TIH with tubing to 2025'. RU cementing company. Mix and pump 255 sxs 15.8#/gal CI G cement w/ 2% CaCl down tubing (cement coverage from 2025'-1600'). TOOH with tubing.  
 7. Pick up tubing to 800'. Mix and pump 375 sxs 15.8#/gal CI G cement down tubing. Cement should circulate to surface.  
 8. Cut surface casing 6' below ground level and weld on cap.

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: \_\_\_\_\_ Print Name: Jenifer Hakkarinen  
 Title: Reg Tech Date: 4/16/2018 Email: Jenifer.Hakkarinen@pdce.com

Based on the information provided herein, this Well Abandonment Report (Form 6) complies with COGCC Rules and applicable orders and is hereby approved by PROVEN, STEVE

COGCC Approved:

Date: 4/27/2018

**CONDITIONS OF APPROVAL, IF ANY:**

Expiration Date: 10/26/2018

<b>COA Type</b>	<b>Description</b>
	1) Provide 48 hour notice of plugging MIRU via electronic Form 42. 2) Prior to placing the 800' plug: verify that all fluid migration (liquid or gas) has been eliminated. If evidence of fluid migration or pressure remains, contact COGCC Engineer for an update to plugging orders. 3) After isolation has been verified, pump plug and displace. If cement is not circulated to surface, shut-in, WOC 4 hours then tag plug – must be at 539' or shallower and provide 10 sx plug at the surface. Leave at least 100' of cement in the casing for each plug. 4) Properly abandon flowlines as per Rule 1103. File electronic Form 42 once abandonment is complete.
	Operator shall implement measures to control unnecessary and excessive venting, to protect the health and safety of the public, and to ensure that vapors and odors from well plugging operations do not constitute a nuisance or hazard to public welfare.
	Prior to starting plugging operations a Bradenhead test shall be performed. 1) If, before opening the Bradenhead valve, the beginning pressure is greater than 25 psi, sampling is required. 2) If pressure remains at the conclusion of the test, or if any liquids were present during the test, sampling is required. 3) If sampling is required contact COGCC engineering for an confirmation of plugging requirements prior to placing any plugs. Sampling shall comply with Operator Guidance - Bradenhead Testing and Reporting Instructions. The Form 17 shall be submitted within 10 days of the test.

### Attachment Check List

<b>Att Doc Num</b>	<b>Name</b>
401609280	FORM 6 INTENT SUBMITTED
401609291	WELLBORE DIAGRAM
401609292	WELLBORE DIAGRAM

Total Attach: 3 Files

### General Comments

<b>User Group</b>	<b>Comment</b>	<b>Comment Date</b>
Engineer	WBD for proposed plugging is mis-labeled as actual but has the correct information.	04/27/2018
Engineer	1) Deepest Water Well within 1 mile = 505'. 2) Fox Hills Bottom- N/A, per SB5.	04/26/2018
Well File Verification	Pass	04/18/2018

Total: 3 comment(s)