

FORM
6Rev
05/18

State of Colorado

Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109



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Document Number:

401781194

Date Received:

10/02/2018

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: Valerie Danson

Name of Operator: PDC ENERGY INC

Phone: (970) 506-9272

Address: 1775 SHERMAN STREET - STE 3000

Fax:

City: DENVER State: CO Zip: 80203

Email: valerie.danson@pdce.com

For "Intent" 24 hour notice required,

Name: _____ Tel: _____

COGCC contact:

Email: _____

API Number 05-123-13225-00

Well Name: M & M

Well Number: 4-10

Location: QtrQtr: NWNW Section: 10 Township: 5N Range: 65W Meridian: 6

County: WELD

Federal, Indian or State Lease Number: 67480

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: 40.418688

Longitude: -104.657164

GPS Data:

Date of Measurement: 05/04/2010

PDOP Reading: 2.3

GPS Instrument Operator's Name: Chuck Kraft

Reason for Abandonment:

☐ Dry☐ Production Sub-economic☐ Mechanical Problems☐ Other _____Casing to be pulled: ☐ Yes☐ No

Estimated Depth: _____

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 |
|-----------|-----------|-----------|----------------|---------------------|------------|
| NIOBRARA | 6664 | 6884 | 09/13/2018 | B PLUG CEMENT TOP | 6626 |
| CODELL | 6976 | 6986 | 06/02/2008 | B PLUG CEMENT TOP | 6948 |

Total: 2 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 | 9+5/8 | 32 | 309 | 325 | 3,009 | 0 | VISU |
| 1ST | 7+7/8 | 4+1/2 | 11.6 | 7,090 | 175 | 7,090 | 6,178 | CBL |
| | | | Stage Tool | 3,958 | 353 | 3,958 | 1,854 | CBL |

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 6626 with 2 sacks cmt on top. CIBP #2: Depth _____ with _____ 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 <u>50</u> sks cmt from <u>4277</u> ft. to <u>3605</u> ft. | Plug Type: <u>CASING</u> | Plug Tagged: <input type="checkbox"/> |
| Set <u>255</u> sks cmt from <u>1634</u> ft. to <u>903</u> ft. | Plug Type: <u>STUB PLUG</u> | Plug Tagged: <input type="checkbox"/> |
| Set <u>363</u> sks cmt from <u>616</u> ft. to <u>0</u> ft. | Plug Type: <u>OPEN HOLE</u> | Plug Tagged: <input type="checkbox"/> |
| Set _____ sks cmt from _____ ft. to _____ ft. | Plug Type: _____ | Plug Tagged: <input type="checkbox"/> |
| Set _____ sks cmt from _____ ft. to _____ ft. | Plug Type: _____ | Plug Tagged: <input type="checkbox"/> |

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: 1500 ft. 4+1/2 inch casing Plugging Date: 09/13/2018
of

*Wireline Contractor: Ranger Energy Services *Cementing Contractor: C&J Energy Services

Type of Cement and Additives Used: Type III Portland 14.8 PPG Cement & Class G 15.8 PPG Cement

Flowline/Pipeline has been abandoned per Rule 1105 ☐ Yes ☐ No *ATTACH JOB SUMMARY

Technical Detail/Comments:

M&M 4-10 (05-123-13225)
Producing Formation: Niobrara: 6664'-6884' Codell: 6976'-6986'
Upper Pierre Aquifer: 373'-1331'
TD: 7102' PBTD: 6938'
Surface Casing: 9 5/8" 32.3# @ 309' w/ 325 sxs
Production Casing: 4 1/2" 11.6# & 15.1# @ 7090' w/ 175 sxs cmt (TOC @ 6178' - CBL). Casing patch @ 3958' w/ perms @ 3964' w/ 353 sxs cmt (TOC @ 1854' - CBL).

Procedure:

1. MIRU pulling unit. Pull 2 3/8" tubing.
2. RU wireline company.
3. TIH with CIBP. Set BP at 6626'. Top with 2 sxs 15.8#/gal CI G cement.
4. TIH with tubing to 4277'. RU cementing company. Mix and pump 50 sxs 15.8#/gal CI G cement down tubing. TOOH with tubing. TOC at 3605'.
5. TIH with casing cutter. Cut 4 1/2" casing at 1500'. Pull cut casing.
6. TIH with tubing to 1634'. Mix and pump 255 sxs 14.8#/gal Type III cement w/ 2% CaCl down tubing (coverage from 1634'-903'). TOC at 903'.
7. Pick up tubing to 616'. Mix and pump 363 sxs 14.8#/gal Type III cement down tubing. Cement 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: Valerie Danson
Title: Reg Tech Date: 10/2/2018 Email: valerie.danson@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.

COGCC Approved: Jacobson, Eric

Date: 1/7/2019

CONDITIONS OF APPROVAL, IF ANY:

COA Type

Description

| | |
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Attachment Check List

Att Doc Num

Name

| | |
|-----------|-----------------------------|
| 401781194 | FORM 6 SUBSEQUENT SUBMITTED |
| 401782062 | CEMENT JOB SUMMARY |
| 401782150 | WELLBORE DIAGRAM |

Total Attach: 3 Files

General Comments

User Group

Comment

Comment Date

| | | |
|--|--|---------------------|
| | | Stamp Upon Approval |
|--|--|---------------------|

Total: 0 comment(s)