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401781194

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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 50 sks cmt from 4277 ft. to 3605 ft. Plug Type: CASING Plug Tagged:
 Set 255 sks cmt from 1634 ft. to 903 ft. Plug Type: STUB PLUG Plug Tagged:
 Set 363 sks cmt from 616 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:
 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/ perfs @ 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:

<u>COA Type</u>	<u>Description</u>

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
401781194	FORM 6 SUBSEQUENT SUBMITTED
401782062	CEMENT JOB SUMMARY
401782150	WELLBORE DIAGRAM

Total Attach: 3 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)