

FORM

6

Rev
11/20

State of Colorado

Oil and Gas Conservation Commission

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



DE ET OE ES

Document Number:

402568739

Date Received:

01/07/2021

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: Serna, Abe

Tel: (720) 661-7317

COGCC contact:

Email: abe.serna@state.co.us

Type of Well Abandonment Report: ☒ Notice of Intent to Abandon ☐ Subsequent Report of Abandonment

API Number 05-123-17842-00

Well Name: RUPERT

Well Number: 32-9

Location: QtrQtr: SWNE Section: 9 Township: 4N Range: 65W Meridian: 6

County: WELD

Federal, Indian or State Lease Number: 61338

Field Name: WATTENBERG

Field Number: 90750

Only Complete the Following Background Information for Intent to Abandon

Latitude: 40.328333

Longitude: -104.665278

GPS Data: GPS Quality Value: 1.7 Type of GPS Quality Value: PDOP Date of Measurement: 01/04/2010

Reason for Abandonment: ☐ Dry ☒ Production Sub-economic ☐ Mechanical Problems☐ OtherCasing to be pulled: ☒ Yes ☐ No Estimated Depth: 2500Fish in Hole: ☐ Yes ☒ No If yes, explain details belowWellbore 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-CODELL | 6789 | 7094 | | | |

Total: 1 zone(s)

Casing History

| Casing Type | Size of Hole | Size of Casing | Grade | Wt/Ft | Csg/Liner Top | Setting Depth | Sacks Cmt | Cmt Btm | Cmt Top | Status |
|-------------|--------------|----------------|-------|-------|---------------|---------------|-----------|---------|---------|--------|
| SURF | 12+1/4 | 8+5/8 | 24 | J-55 | 0 | 341 | 216 | 341 | 0 | VISU |
| 1ST | 7+7/8 | 4+1/2 | 11.6 | J-55 | 0 | 7206 | 325 | 7206 | 6270 | CBL |
| S.C. 1.1 | | | | | | | 195 | 4900 | 4170 | CBL |

Subsurface hazards include, but are not limited to, the following: overpressured zones, underpressured zones, major geologic faults, salt sections, H2S at concentrations greater than or equal to 100 ppm.

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 6739 with 2 sacks cmt on top. CIPB #2: Depth 4316 with 2 sacks cmt on top.
CIBP #3: Depth _____ with _____ sacks cmt on top. CIPB #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 100 sks cmt from 2550 ft. to 2300 ft. Plug Type: STUB PLUG Plug Tagged: ☐
Set 100 sks cmt from 1500 ft. to 1300 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 201 sacks half in. half out surface casing from 541 ft. to 0 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. of _____ inch casing

Surface Plug Setting Date: _____ Cut and Cap Date: _____ Number of Days from Setting Surface Plug to Capping or Sealing the Well: _____

*Wireline Contractor: _____ *Cementing Contractor: _____

Type of Cement and Additives Used: _____

Flowline/Pipeline has been abandoned per Rule 1105 ☐ Yes ☐ No

Technical Detail/Comments:

Rupert 32-9 (05-123-17842)/Plugging Procedure (Intent)
Producing Formation: Nio/Codell: 6789'-7091'
Upper Pierre Aquifer: 410'-1400'
TD: 7218' PBTD: 7136' (4/26/2017)
Surface Casing: 8 5/8" 24# @ 341' w/ 216 sxs cmt
Production Casing: 4 1/2" 11.6# @ 7206' w/ 520 sxs cmt (TOC @ 4100' - CBL)

Tubing: 2 3/8" tubing set @ 7069' (4/27/2017)

Proposed Procedure:

1. MIRU. Pull 2 3/8" tubing.
2. RU wireline company.
3. TIH with CIBP. Set BP at 6739'. Top with 2 sxs 15.8#/gal CI G cement. (Top of Niobrara/Codell Perfs @ 6789')
4. TIH with CIBP. Set BP at 4316'. Top with 2 sxs 15.8#/gal CI G cement. (Top of Sussex @ 4366')
5. TIH with casing cutter. Cut 4 1/2" casing @ 2500'. Pull cut casing.
6. TIH with tubing to 2550'. Mix and pump 100 sxs 15.8#/gal CI G cement down tubing. (Courtesy plug from 2550'-2300')
7. Wait a sufficient time to confirm static conditions. If at any time after placing this plug there is evidence of pressure or fluid migration, contact engineering before continuing operations
8. Pick up tubing to 1500'. Mix and pump 100 sxs 15.8#/gal CI G cement down tubing. (Pierre coverage from 1500'-1300')
9. Pick up tubing to 541'. Mix and pump 201 sxs 15.8#/gal CI G cement down tubing. Cement should circulate to surface.
10. 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: 1/7/2021 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.

COGCC Approved: McFarland, Nick Date: 1/11/2021

CONDITIONS OF APPROVAL, IF ANY: _____ Expiration Date: 7/10/2021

| COA Type | Description |
|-----------------|---|
| | In accordance with the Notice to Operators (NTO): Timing for COGCC Forms adopted on 05/01/2020, this Form 6 Notice of Intent to Abandon is valid for 12 months from the date of approval expiring on 1/11/2022. This NTO does not alter the deadlines for submission of, or compliance with any other Commission rule or Form. |
| | Operator shall implement measures to control venting, to protect health and safety, and to ensure that vapors and odors from well plugging operations do not constitute a nuisance or hazard to public welfare. |
| | <p>1) Provide 48-hour notice of plugging MIRU via electronic Form 42.</p> <p>2) The plug at 2550' needs to be placed and have an 8-hour WOC to assure that all fluid migration has been stopped. If at any time after placing this plug there is evidence of pressure or of fluid migration, contact COGCC engineering before continuing operations. If that doesn't isolate the flow, additional attempts in front of the surface shoe plug will need to be attempted. Other downhole potential squeeze opportunities may need to be looked at before the 1500' plug.</p> <p>3) Prior to placing the 1500' 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.</p> <p>4) After isolation has been verified, pump shoe plug and displace. If cement is not circulated to surface, shut-in, WOC 4 hours then tag plug – must be at 291' or shallower and provide at least 10 sx plug at the surface.</p> <p>5) Leave at least 100' of cement in the wellbore for each plug.</p> <p>6) Properly abandon flowlines as per Rule 1105. File electronic Form 42 once abandonment is complete. Within 90 days of an operator completing abandonment requirements for an off-location flowline or crude oil transfer line, the operator must submit a Flowline Report, Form 44.</p> <p>7) With the Form 6 SRA operator must provide written documentation which positively affirms each COA has been addressed.</p> |
| | <p>Prior to starting plugging operations a bradenhead test shall be performed if there has not been a reported bradenhead test within the 60 days immediately preceding the start of plugging operations.</p> <p>1) If, before opening the bradenhead valve, the beginning pressure is greater than 25 psi, sampling is required.</p> <p>2) If pressure remains at the conclusion of the test, or if any liquids were present during the test, sampling is required.</p> <p>The Form 17 shall be submitted within 10 days of the test. Sampling shall comply with Operator Guidance - Bradenhead Testing and Reporting Instructions. If samples are collected, copies of all final laboratory analytical results shall be provided to the COGCC within three (3) months of collecting the samples.</p> <p>If there is a need for sampling, contact COGCC engineering for verification of plugging procedure.</p> |

Attachment List

| Att Doc Num | Name |
|--------------------|-------------------------|
| 402568739 | FORM 6 INTENT SUBMITTED |
| 402568745 | WELLBORE DIAGRAM |
| 402568746 | WELLBORE DIAGRAM |

Total Attach: 3 Files

General Comments

| <u>User Group</u> | <u>Comment</u> | <u>Comment Date</u> |
|-------------------|---|---------------------|
| Permit | -Confirmed as-drilled well location. -No other forms in process. -Production reporting up-to-date. -Corrected btm perf per WBD's and docnum: 134352. -Reviewed WBDs. -Pass. | 01/11/2021 |
| Engineer | Most recent BH test 8/7/20 - 6 psi. Producing as of October 2020. SB5 Base of Fox Hills Aquifer: 265' Deepest water well within 1 mile: 360' # of wells: 76 Base of Upper Pierre: 1400' - Induction Log. Production within one mile: JSND, CODL, NBRR, SUSX | 01/11/2021 |

Total: 2 comment(s)