

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



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Document Number:

402782958

Date Received:

08/17/2021

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: 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: 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 05-123-13971-00

Well Name: ANDERSON

Well Number: 31-13

Location: QtrQtr: NWNE Section: 13 Township: 6N Range: 65W Meridian: 6

County: WELD

Federal, Indian or State Lease Number: 56016

Field Name: GREELEY

Field Number: 32760

Only Complete the Following Background Information for Intent to Abandon

Latitude: 40.492060

Longitude: -104.608920

GPS Data: GPS Quality Value: 1.7 Type of GPS Quality Value: Date of Measurement: 08/17/2010

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	6683	7004			

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	0	318	175	318	0	VISU
1ST	7+7/8	4+1/2		11.6	0	7160	220	7160	6150	CBL

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 6633 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>10</u> sks cmt from <u>3388</u> ft. to <u>3257</u> ft.	Plug Type: <u>CASING</u>	Plug Tagged: <input type="checkbox"/>
Set <u>100</u> sks cmt from <u>2550</u> ft. to <u>2300</u> ft.	Plug Type: <u>STUB PLUG</u>	Plug Tagged: <input type="checkbox"/>
Set <u>100</u> sks cmt from <u>1460</u> ft. to <u>1260</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 3574 ft. with 90 sacks. Leave at least 100 ft. in casing 3389 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 194 sacks half in. half out surface casing from 518 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 Number of Days from Setting Surface Plug to Capping or Sealing the Well: _____
 Surface Plug Setting Date: _____ Cut and Cap Date: _____

*Wireline Contractor: _____ *Cementing Contractor: _____

Type of Cement and Additives Used: _____

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

Technical Detail/Comments:

Anderson 31-13 (05-123-13971)/Plugging Procedure (Intent)
 Producing Formation: Niobrara/Codell: 6683'-7004'
 Upper Pierre Aquifer: 380'-1360'
 TD: 7160' PBTD: 7022' (10/22/14)
 Surface Casing: 8 5/8" 24# @ 318' w/ 175 sxs cmt
 Production Casing: 4 1/2" 11.6# @ 7160' w/ 220 sxs cmt (TOC @ 6150' - CBL)

Tubing: 2 3/8" tubing set @ 6976' (10/22/14)
 Proposed Procedure:

1. MIRU pulling unit. Pull 2 3/8" tubing.
2. RU wireline company.
3. TIH with CIBP. Set BP at 6633'. Top with 2 sxs 15.8#/gal CI G cement. (Top of Nio perms @ 6683')
4. TIH with perf gun. Shoot lower squeeze holes at 3574' and upper squeeze holes at 3374'.
5. TIH with CICR. Set CICR at 3389'. RU cementing company. Sting in and pump 100 sxs 15.8#/gal CI G cement. Sting out and leave 10 sxs (of the 100 sxs) cement on top of CICR. (Top of Parkman @ 3624')
6. TIH with casing cutter. Cut 4 1/2" casing @ 2500'. Pull cut casing.
7. TIH with tubing to 2550'. RU cementing company. Mix and pump 100 sxs 15.8#/gal CI G cement down tubing. (Stub plug from 2550'-2300')
8. TIH with tubing to 1460'. Mix and pump 100 sxs 15.8#/gal CI G cement down tubing. (Pierre coverage from 1460'-1260')
9. 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.
10. Pick up with tubing to 518'. Mix and pump 194 sxs 15.8#/gal CI G cement down tubing. Cement should circulate to surface.
11. Well casing cut and capped per COGCC guidelines at a depth as not to interfere with soil cultivation.

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: 8/17/2021 _____ 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: JENKINS, STEVE _____ Date: 8/25/2021 _____

CONDITIONS OF APPROVAL, IF ANY: _____ Expiration Date: 2/24/2022 _____

Condition of Approval

COA Type

Description

	<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>1) Provide 48 hours notice of plugging MIRU via electronic Form 42.</p> <p>2) After placing the shallowest hydrocarbon isolating plug (1460'), operator must wait a sufficient time to confirm static conditions. If at any time after placing this plug there is evidence of pressure or of fluid migration, contact COGCC engineering before continuing operations.</p> <p>3) Prior to placing the 518' plug: verify that all fluid migration (liquid and 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 plug and displace. If cement is not circulated to surface, shut-in, WOC 4 hours then tag plug – must be at 268' or shallower and provide 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. Pursuant to Rule 911.a. Closure of Oil and Gas Facilities, Operator will submit Site Investigation and Remediation Workplans via Form 27 for COGCC prior approval before cutting and capping the plugged well, conducting flowline abandonment, and removing production equipment. Pursuant to Rule 1105.f. Abandonment Verification, within 90 days of an operator completing abandonment requirements for a flowline or crude oil transfer line, an operator must submit a Field Operations Notice, Form 42-Abandonment of Flowlines for on-location flowlines, and a Flowline Report, Form 44, for off-location flowlines or crude oil transfer lines.</p> <p>7) With the Form 6 SRA operator must provide written documentation which positively affirms each COA has been addressed.</p>
	<p>1) Operator will implement measures to capture, combust, or control emissions 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 health, welfare and the environment. Due to proximity of building units (BUs) all blowdown gases will be controlled.</p> <p>2) Prior to commencing operations, at a minimum, the operator will provide an informational sheet to the owners/occupants of BUs that are adjacent to the parcel on which the well is located. The sheet will include the operator's contact information and the nature, timing, and expected duration of the plugging and abandonment (PA) operations.</p> <p>3) This oil and gas location is located in proximity to an irrigation ditch. At a minimum, Operator will review the stormwater program and implement stormwater best management practices (BMPs) and erosion control measures as needed to prevent fine-grained sediment and impacted stormwater runoff from entering surface water.</p>

3 COAs

Attachment List

<u>Att Doc Num</u>	<u>Name</u>
402782958	FORM 6 INTENT SUBMITTED
402782973	WELLBORE DIAGRAM
402782974	WELLBORE DIAGRAM

Total Attach: 3 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Engineer	1) Deepest Water Well within 1 mile = 495'. 2) Fox Hills Bottom- N/A, per SB5.	08/25/2021
Engineer	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 8/25/2022. This NTO does not alter the deadlines for submission of, or compliance with any other Commission rule or Form.	08/25/2021
Permit	Verified as-drilled GPS. Verified perf zone. Verified production reporting. Permitting review complete.	08/20/2021

Total: 3 comment(s)