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12/27/2020

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: Silver, Randy Tel: (720) 827-6688
 COGCC contact: Email: randy.silver@state.co.us

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

API Number 05-123-19682-00
 Well Name: LINKUS Well Number: 32-24
 Location: QtrQtr: SWNE Section: 24 Township: 1N Range: 68W Meridian: 6
 County: WELD Federal, Indian or State Lease Number: _____
 Field Name: WATTENBERG Field Number: 90750

Only Complete the Following Background Information for Intent to Abandon

Latitude: 40.039167 Longitude: -104.949167
 GPS Data: GPS Quality Value: 1.9 Type of GPS Quality Value: PDOP Date of Measurement: 07/23/2010

Reason for Abandonment: Dry Production Sub-economic Mechanical Problems
 Other _____

Casing to be pulled: Yes No Estimated Depth: 2500
 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
J SAND	8265	8290			
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	J55	24	0	855	340	855	0	VISU
1ST	7+7/8	4+1/2	J55	11.6	0	8392	190	8392	6538	CBL
S.C. 1.1						5143	285	5143	4242	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 8215 with 2 sacks cmt on top. CIBP #2: Depth 7372 with 2 sacks cmt on top.

CIBP #3: Depth 4703 with 2 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 100 sks cmt from 2550 ft. to 2300 ft. Plug Type: STUB PLUG Plug Tagged:

Set 100 sks cmt from 1420 ft. to 1220 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 361 sacks half in. half out surface casing from 1055 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:

Linkus 32-24 (05-123-19682)/Plugging Procedure (Intent)
Producing Formation: J-Sand: 8265'-8290'
Upper Pierre Aquifer: 500'-1320'
TD: 8416' PBD: 8358' (10/22/1998)
Surface Casing: 8 5/8" 24# @ 855' w/ 340 sxs cmt
Production Casing: 4 1/2" 11.6# @ 8392' w/ 190 sxs cmt (TOC @ 6538' - CBL)
S.C. 1.1 @ 5143' w/ 285 sxs cmt (TOC @ 4242' - CBL)

Tubing: 2 3/8" tubing set @ 8234' (10/22/1998)

Proposed Procedure:

1. MIRU pulling unit. Pull 2 3/8" tubing.
2. RU wireline company.
3. TIH with CIBP. Set BP at 8215'. Top with 2 sxs 15.8#/gal CI G cement. (Top of J-Sand perms @ 8265')
4. TIH with CIBP. Set BP at 7372'. Top with 2 sxs 15.8#/gal CI G cement. (Top of Niobrara @ 7422')
5. TIH with CIBP. Set BP at 4703'. Top with 2 sxs 15.8#/gal CI G cement. (Top of Sussex @ 4753')
6. TIH with casing cutter. Cut 4.5" casing at 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. 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
9. TIH with tubing to 1420'. Mix and pump 100 sxs 15.8#/gal CI G cement down tubing. (Pierre coverage from 1420'-1220').
10. Pick up tubing to 1055'. Mix and pump 361 sxs 15.8#/gal CI G cement down tubing. Cement should circulate to surface.
11. 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: 12/27/2020 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: Haverkamp, Curtis Date: 12/30/2020

CONDITIONS OF APPROVAL, IF ANY: _____

Expiration Date: 6/29/2021

COA Type	Description
	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.
	1) Provide 48 hour notice of plugging MIRU via electronic Form 42. 2) After placing the shallowest hydrocarbon isolating plug (4703'), 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. 3) Prior to placing the 1055' 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. 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 805' or shallower and provide 10 sx plug at the surface. 5) Leave at least 100' of cement in the wellbore for each plug. 6) Properly abandon flowlines per Rule 1105. File electronic Form 42 once abandonment of on-location flowlines 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. 7) With the Form 6 SRA operator must provide written documentation which positively affirms each COA has been addressed.
	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. 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. 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. If there is a need for sampling, contact COGCC engineering for verification of plugging procedure.

Attachment List

Att Doc Num	Name
402560671	FORM 6 INTENT SUBMITTED
402560672	WELLBORE DIAGRAM
402560673	WELLBORE DIAGRAM

Total Attach: 3 Files

General Comments

User Group	Comment	Comment Date
Engineer	DWR determination bottom Fox Hills: 703' Deepest water well 1 mile: 1040' Bottom Upper Pierre estimated from induction log: 1620'	12/30/2020
Permit	-Confirmed as-drilled well location. -No other forms in process. -Production reporting up-to-date. -Confirmed productive interval docnum: 836560. -Reviewed WBDs. -Pass.	12/29/2020

Total: 2 comment(s)