

FORM
6Rev
12/05

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:

400724792

Date Received:

11/05/2014

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: 47120

Contact Name: CHERYL LIGHT

Name of Operator: KERR MCGEE OIL & GAS ONSHORE LP

Phone: (720) 929-6461

Address: P O BOX 173779

Fax: (720) 929-7461

City: DENVER State: CO Zip: 80217-

Email: CHERYL.LIGHT@ANADARKO.COM

For "Intent" 24 hour notice required,

Name: Montoya, John

Tel: (970) 3974124

COGCC contact:

Email: john.montoya@state.co.us

API Number 05-123-21404-00

Well Name: HARKIS

Well Number: 34-2

Location: QtrQtr: SWSE Section: 2 Township: 2N Range: 65W Meridian: 6

County: WELD

Federal, Indian or State Lease Number:

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: 40.162062

Longitude: -104.628962

GPS Data:

Date of Measurement: 12/22/2009

PDOP Reading: 2.8

GPS Instrument Operator's Name: Cody Mattson

Reason for Abandonment:

☐ Dry☒ Production for Sub-economic☐ Mechanical Problems☐ OtherCasing to be pulled: ☒ Yes☐ No

Estimated Depth: 1340

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	7550	7610			
DAKOTA	7758	7765	06/24/2003	B PLUG CEMENT TOP	7690

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	8+5/8	24	822	339	822	0	VISU
1ST	7+7/8	4+1/2	11.6	7,799	306	7,799	6,095	CBL
S.C. 1.1				4,800	375	4,800	3,060	CBL

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 7500 with 70 sacks cmt on top. CIBP #2: Depth 80 with 25 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 70 sks cmt from 7500 ft. to 6420 ft. Plug Type: CASING Plug Tagged: ☐
Set 30 sks cmt from 4450 ft. to 4050 ft. Plug Type: CASING 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 310 sacks half in. half out surface casing from 1440 ft. to 620 ft. Plug Tagged: ☒

Set 25 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 Plugging Date: _____

*Wireline Contractor: _____ *Cementing Contractor: _____

Type of Cement and Additives Used: _____

Flowline/Pipeline has been abandoned per Rule 1103 ☐ Yes ☐ No *ATTACH JOB SUMMARY

Technical Detail/Comments:

5. Check and record Bradenhead pressure. If Bradenhead valve is not accessible, re-plumb so that valve is above GL.

6. MIRU, kill as necessary using clean fresh water with biocide and circulate. ND WH. NU BOP. Unseat landing jt, LD.

7. Notify cementers to be on call. Provide volumes listed below:

7.1 Niobrara Balanced Plug: 96 cu ft/ 70 sx "G" w/20% silica flour, 0.4% CD-32, 0.4% ASA-301 and R-3 to achieve 2:30 pump time, mixed at 15.8 ppg and 1.38 cuft/sk yield (1080' inside 4-1/2" casing).

7.2 SX Balanced Plug: 33 cu ft/ 30 sx class "G" w/ 0.4% CD-32, 0.4% ASA-301 mixed at 15.8 ppg and 1.15 cf/sx (400' inside 4-1/2" casing, no excess).

7.3 Stub Plug: 412 cu ft/ 310 sx Type III CaCl₂ cement w/0.25 pps cello flake mixed at 14.8 ppg and 1.33 cf/sx (100' inside 4-1/2" csg, 519' in 9" OH + 40% excess, and 201' in 8-5/8" surface casing).

8. TOOH 2-3/8" production tubing. Stand back.

9. RU WL. RIH gauge ring to 7690' to try and tag existing CIBP. Note: Existing CIBP was set in 2003 so there might be fill on CIBP. TOOH.

10. RIH bailer to CIBP at 7690' and dump 2 sx class "G" cmt. POOH. RD WL.

11. RIH CIBP w/ 2-3/8" tbq. Set at +/- 7500'. PT CIBP to 1000 psi. Circulate 120 bbls water to get all gas out of the hole. POOH.

12. RU WL. Run CBL from top of CIBP to surface. Send results to Tyler.Davis@anadarko.com and Brent.Marchant@anadarko.com. Check cement interval with WBD. If CBL cement doesn't match with WBD existing cement, contact engineering and do not proceed. RD WL. Note: it is important to get a good quality CBL.

13. RU Cementers. Pump Niobrara Balanced Plug: 96 cu ft/ 70 sx "G" w/20% silica flour, 0.4% CD-32, 0.4% ASA-301 and R-3 15.8 ppg and 1.38 cuft/sk yield to place cement from 7500' to 6420'.

14. PUH to 6200'. Circulate 100 bbls water containing biocide to clear tubing. PUH and LD all but 4450' of tbq.

15. RU Cementers. Pump SX Balanced Plug: 33 cu ft/ 30 sx class "G" w/ 0.4% CD-32, 0.4% ASA-301 mixed at 15.8 ppg and 1.15 cf/sx to place cement from 4450' to 4050'.

16. PUH to 3700'. Circulate 60 bbls water containing biocide to clear tubing. WOC 4 hours.

17. Tag TOC at or above 4050' w/ 2-3/8" OD tubing. If plug is tagged deeper than 4050' contact engineering. Then, TOOH and LD all but 1440' of tbq.

18. RU WL. Shoot off casing at or below 1340'. RDMO WL. Circulate water containing biocide to remove any gas.

19. NDBOP, NDTH.

20. Install BOP on casing head with 4-1/2" pipe rams.

21. TOOH with 4-1/2" casing, LD.

22. RIH with 2-3/8" OD tubing to 1440'.

23. RU Cementers. Pump 10 bbl SAPP with a minimum of 20 bbl fresh water spacer. Spot Stub Plug: 412 cu ft/ 310 sx Type III CaCl₂ cement w/0.25 pps cello flake mixed at 14.8 ppg and 1.33 cf/sx from 1440' to 620' (9" OH + 40%).

24. PUH to ~300'. Circulate 20 bbls water containing biocide to clear tubing.

25. TOOH. WOC 4 hrs. Tag Cement. Cement top needs to be above 620'. Proceed assuming TOC is above 620'. Otherwise, call production engineer.

26. MIRU WL. RIH 8-5/8" CIBP to 80'. Set, PT to 1000 psi for 15 min. If tests, RDMO WL and WO rig.

27. Instruct cementing and wireline contractors to e-mail copies of all job logs/job summaries and invoices to rscDJVendors@anadarko.com within 24 hrs of the completion of the job.

28. Supervisor submit paper copies of all invoices, logs, and reports to Joleen Kramer.

29. Excavation crew to notify One Call to clear excavation area around wellhead and for flowlines.

30. Excavate hole around surface casing enough to allow welder to cut 8 5/8" casing minimum 5' below ground level.

31. Welder cut 8 5/8" casing minimum 5' below ground level.

32. MIRU ready cement mixer. Use 4500 psi compressive strength cement, (NO gravel) fill stubout.

33. Spot weld on steel marker plate. Marker should contain Well name, Well number, legal location (1/4 1/4 descriptor) and API number.

34. Obtain GPS location data as per COGCC Rule 215 and send to rscDJVendors@anadarko.co

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: _____ Print Name: CHERYL LIGHT
 Title: SR. REGULATORY ANALYST Date: 11/5/2014 Email: DJREGULATORY@ANADARKO.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: SCHLAGENHAUF, MARK Date: 12/24/2014

CONDITIONS OF APPROVAL, IF ANY: _____ Expiration Date: 6/23/2015

<u>COA Type</u>	<u>Description</u>
	1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU. 2) Run CBL and email to COGCC. If CBL does not show adequate Niobrara or Sussex isolation it must be added as part of this plugging procedure. 3) If unable to pull casing contact COGCC for plugging modifications. 4) For 1440' plug: pump plug and displace, shut-in, WOC 4 hours and tag plug – must be 772' or shallower. 5) Properly abandon flowlines as per Rule 1103. File electronic Form 42 once abandonment complete. 6) Please submit gyro survey data with Form 6 (s) Subsequent Report of Abandonment.

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
400724792	FORM 6 INTENT SUBMITTED
400724800	PROPOSED PLUGGING PROCEDURE
400724801	WELLBORE DIAGRAM

Total Attach: 3 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Well Completion Report dated 9/29/2003.	11/19/2014 3:20:54 PM

Total: 1 comment(s)