FORM 6 Rev 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: 400751848

Date Received: 12/15/2014

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, COGCC contact: Name: Carlile, Craig Tel: (970) 629-8279 Email: craig.carlile@state.co.us

API Number 05-123-16633-00

Well Name: HSR-MOORHEAD Well Number: 13-5

Location: QtrQtr: SWSW Section: 5 Township: 3N Range: 66W 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: 40.247878 Longitude: -104.808553

GPS Data:

Date of Measurement: 10/16/2008 PDOP Reading: 4.0 GPS Instrument Operator's Name: Cody Mattson

Reason for Abandonment: ☐ Dry ☒ Production for Sub-economic ☐ Mechanical Problems

☐ Other

Casing to be pulled: ☒ Yes ☐ No Estimated Depth: 1000

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
CODELL	7312	7327			
NIOBRARA	7030	7194			

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	453	320	453	0	VISU
1ST	7+7/8	4+1/2	11.6	7,432	200	7,432	5,910	CBL

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 6960 with 25 sacks cmt on top. CIPB #2: Depth 80 with 25 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 _____ 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: ☐

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 4580 ft. with 160 sacks. Leave at least 100 ft. in casing 4210 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 250 sacks half in. half out surface casing from 1100 ft. to 250 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:

6 MIRU workover rig. Bullhead down tubing with water w/ biocide to kill the well. ND wellhead. NU BOPs. Unseat landing jt.
7 Unseat Arrowset 1-X 10k packer and POOH. Stand back 2-3/8" tbg (229 jts) and lay down packer. Send back to Thunderbird Tools for re-dress.
8 MIRU Wireline. PU gauge ring for 4-1/2" 11.6# and RIH to 7000'.
9 RIH with 4-1/2" CIBP and set at 6960'. PT csg to 1000 psi for 15 minutes.
10 Notify Cementers to be on call.
11 RIH on 2-3/8" tbg while hydrotesting to 3000 psi to CIBP at 6960'. Tag plug and pick up 5'.
12 RU Cementers. Pump Niobrara plug consisting of 34.5 cu-ft (25 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. Calculated top in the 4-1/2" csg is 6600'.
13 PUH to 6000' and circulate hole clean with fresh water w/ biocide. POOH standing back 134 jts.
14 MIRU WL. PU and RIH with 2- 1' 3-1/8" perf guns with 3 spf, 0.59" diam, 4.72 penetration, 120° phasing. Shoot 1' of squeeze holes at 4580' and 4175'. RDMO WL.
15 PU 4-1/2" CICR and RIH w/2-3/8" tbg and set at 4210' +/- 10' per CCL. Establish circulation with rig pump using fresh water and biocide.
16 RU Cementers. Pump 5 bbls fresh water followed by 20 bbls Sodium Metasilicate followed by 5 bbls fresh water spacer. Pump Sussex Suicide plug: 184 cu-ft (160 sks) "G" w/ 0.25 pps cello flake, 0.4% CD-32, 0.4% ASA-301 with CaCl2 as necessary. Underdisplace by 3 bbls and sting out of CICR. Spot final 3 bbls on top of CICR. Mixed at 15.8 ppg, 1.15 cuft/sack. Volume is based on 8.25" hole plus 20% excess from 4580' to 4175' and 4-1/2" csg up to 4000'.
17 PUH to ~3800' and circulate hole clean with fresh water w/ biocide. POOH standing back 35 jts 2-3/8" tbg. Lay down stinger and remaining jts.
18 MIRU Wireline. Crack couplings or jet cut 4-1/2" csg at 1000'. RDMO WL. Circulate bottoms up using water and biocide to remove any gas from wellbore.
19 ND BOP and tubing head. Install a BOP on surface casing head with 4 1/2" pipe rams. Install 3000 psi ball valves on both casing head outlets. Install a choke or choke manifold on one outlet.
20 POOH and LD 4-1/2" csg. Remove the 4-1/2" pipe rams and Install 2-3/8" pipe rams.
21 RIH w/ 2-3/8" tbg 100' into the csg stub to 1100'.
22 MIRU Cementers. Fox Hills Suicide Squeeze: Pump mud flush of 10 bbls SAPP and 20 bbl water ahead of 332.5 cu-ft (250 sx) Type III w/cello flake and CaCl2 as deemed necessary, mixed at 1.33 cf per sack, 14.8 ppg. Plug size is based on 8.25" hole with 20% excess covering 1100' to surface csg shoe at 453' and capacity in the 8-5/8" csg to 250'.
23 PUH to 100' and circulate hole clean. POOH and WOC at least 4 hours per cementing company recommendation.
24 RIH and tag top of plug. Plug needs to be tagged at 253' or shallower. Contact Reed Boeger in Evans after tag to confirm. POOH and LD 2-3/8" tbg.
25 RU wireline. Run and set CIBP in the 8 5/8", 24# surface casing at 80'. PT CIBP and surface casing to 1000 psi for 15 minutes. Assuming successful test, RDMO wireline. RDMO WO Rig.
26 Instruct cementing and wireline contractors to e-mail copies of all job logs/job summaries to rscDJVendors@anadarko.com within 24 hrs of completion of the job.
27 Supervisor submit paper copies of all invoices, logs, and reports to Joleen Kramer.
28 Excavation crew to notify One Call to clear excavation area around wellhead and for flowlines.
29 Excavate hole around surface casing enough to allow welder to cut casing minimum 5' below ground level.
30 Welder cut casing minimum 5' below ground level.
31 Fill casing to surface using 4500 psi compressive strength cement, (NO gravel).
32 Spot weld on steel marker plate. Marker should contain Well name, Well number, legal location (1/4 1/4 descriptor) and API number.
33 Properly abandon flowlines per Rule 1103. File electronic Form 42 once abandonment complete.
34 Back fill hole with fill. Clean location, level.
35 Submit Form 6 to COGCC ensuring to provide 'As perf

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: 12/15/2014 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: 2/23/2015

CONDITIONS OF APPROVAL, IF ANY: Expiration Date: 8/22/2015

COA Type	Description
	1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU. 2) If unable to pull casing contact COGCC for plugging modifications. 3) For 1100' plug: pump plug and displace, shut-in, WOC 4 hours and tag plug – must be 400' or shallower. 4) Properly abandon flowlines as per Rule 1103. File electronic Form 42 once abandonment complete. 5) Please submit existing gyro survey data with Form 6 (s) Subsequent Report of Abandonment.

Attachment Check List

Att Doc Num	Name
400751848	FORM 6 INTENT SUBMITTED
400751851	PROPOSED PLUGGING PROCEDURE
400751854	WELLBORE DIAGRAM

Total Attach: 3 Files

General Comments

User Group	Comment	Comment Date
Permit	Well Completion Report dated 8/23/1993.	12/23/2014 11:25:30 AM

Total: 1 comment(s)