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

DE	ET	OE	ES

Document Number: 400705612

Date Received:

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: REBECCA HEIM

Name of Operator: KERR MCGEE OIL & GAS ONSHORE LP Phone: (720) 929-6361

Address: P O BOX 173779 Fax: (720) 929-7361

City: DENVER State: CO Zip: 80217- Email: REBECCA.HEIM@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 05-123-15250-00

Well Name: LEONARD Well Number: L17-2

Location: QtrQtr: NWNE Section: 17 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: 40.230240 Longitude: -104.799010

GPS Data:

Date of Measurement: 06/20/2006 PDOP Reading: 2.0 GPS Instrument Operator's Name: Paul Tappy

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

☐ Other

Casing to be pulled: ☒ Yes ☐ No Estimated Depth: 1120

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	7393	7419	11/05/2013	BRIDGE PLUG	7246

Total: 1 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	558	290	558	0	VISU
1ST	7+7/8	2+7/8	7.9	7,547	300	7,547	6,630	CBL

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 7246 with 20 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 20 sks cmt from 7236 ft. to 6300 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: ☐

Set _____ sks cmt from _____ ft. to _____ ft. Plug Type: _____ Plug Tagged: ☐

Perforate and squeeze at 4600 ft. with 340 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 450 sacks half in. half out surface casing from 1120 ft. to 350 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:

PLUG AND ABANDOMENT PROCEDURE (SEE ATTACHED PROCEDURE
Leonard L 17-2
Step Description of Work
1 Provide 48 hr notice to COGCC prior to rig up per request on approved Form 6 (e.g. call field coordinator, submit Form 42, etc.). Call IOC (970-506-5980) at least 24 hr prior to rig move. Request they catch isolate production equipment and remove any automation prior to rig MIRU.
2 There is no tbg reported in the well. A 1.66" IJ tbg work string wil be needed. Sand was spotted to 7236' on RBP @ 7246' (11/5/2013).
3 Check and report surface casing pressure. If surface casing is not accessible at ground level, re-plumb so valve is at ground level.
4 Prepare location for base beam equipped rig. Install perimeter fence as needed.
5 MIRU, kill well as necessary using clean fresh water with biocide. ND WH. NU BOP.
6 Pressure test 2 7/8" 7.9# casing and RBP to 2500 psi for 15 minutes.
7 PU 1.66" IJ work string and RIH open-ended to sand on RBP @ 7236'. Hydro-test tbg to 3000 psi.
8 RU cementers and equalize a balanced plug above RBP from 7236' to 6300' as follows: 20 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. (28 cuft of slurry).
9 Pull and LD tbg to ~6000' and reverse circulate clean w/fresh water treated with biocide.
10 TOOH and stand back 4100' 1.66" tbg. LD remainder.
11 PU 1 - 1', 1 11/16" perf gun with 3 spf. Shoot 1' of squeeze holes at 4600'.
12 RU Cementers. Establish circulation down 2 7/8" csg taking returns on surface csg. Pump 5 bbl water w/ biocide, 20 bbl Sodium Metasilicate, and another 5 bbl spacer immediately preceding cement. Note: If unable to circulate, consult Evans Engineering.
13 Pump Sussex cement consisting of 340 sx class "G" w/ 0.4% CD-32, 0.4% ASA-301 mixed at 15.8 ppg and 1.15 cf/sk. (390 cuft of slurry). Follow cement with a wiper plug for 2 7/8" tbg and displace w/21 bbls water to leave cement top @ 4100' in 2 7/8". Use no cello-flake in this cement due to small squeeze perfs. Cement volume based on 500' annular coverage in 11" hole with 20% excess. Shut well in and WOC per cementing company recommendation.
14 PU 1.66" IJ tbg and tag plug at 4100'. POOH and LD tbg.
15 ND BOP and wellhead. Install BOP on surface casing head with 2 7/8" pipe rams. Install 3000 psi ball valves on both casing head outlets. Install a choke or choke manifold on one outlet.
16 RU WL, RIH w/ chemical cutter or jet cutter and cut 2 7/8" casing at 1120'. Circulate bottoms up using drilling mud and continue circulating to remove any gas from wellbore. RD WL. NOTE: If 2 7/8" csg did not pass PT in step #6, TOOH and hydro-test in 2500 psi before proceeding to step 17.
17 RU cementers. Pump 10 bbl SAPP (Sodium Acid Pyrophosphate) followed by 20 bbl (min) fresh water spacer immediately preceding cement.
18 Pump a balanced plug 1120'-350': 450 sx (598 cuft.) Type III cement w/ 0.25 pps cello flake and CaCl2 as deemed necessary mixed at 14.8 ppg and 1.33 cf/sk (design to fill 562' in 11" OH + 40% excess and 208' in 8 5/8"surface casing).
19 TOOH and LD 2 7/8" tbg. WOC per cementing company recommendation. Tag plug; TOC should be 458' or higher. If not, Consult Evans engineering before proceeding.
20 MIRU WL. RIH 8 5/8" CIBP to 80'. Set and PT to 1000 psi for 15 min. If tests, RDMO WL and WO rig.
21 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.
22 Supervisor submit paper copies of all invoices, logs, and reports to Joleen Kramer.
23 Excavation crew to notify One Call to clear excavation area around wellhead and for flowlines.
24 Excavate hole around surface casing enough to allow welder to cut 8 5/8" casing minimum 5' below ground level.
25 Welder cut 8 5/8" casing minimum 5' below ground level.
26 Fill casing to surface using 4500 psi compressive strength cement, (NO gravel).
27 Spot weld o

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: _____ 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: _____ Date: _____

CONDITIONS OF APPROVAL, IF ANY: Expiration Date: _____

Attachment Check List

Att Doc Num	Name
400705617	PROPOSED PLUGGING PROCEDURE
400705618	WELLBORE DIAGRAM

Total Attach: 2 Files

General Comments

User Group	Comment	Comment Date

Total: 0 comment(s)