

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



DE ET OE ES

Replug By Other Operator

Document Number:

400584381

Date Received:

04/10/2014

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 05-123-08243-00

Well Name: APOLLO

Well Number: 1

Location: QtrQtr: NENE Section: 19 Township: 1N 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: 40.041259

Longitude: -104.700846

GPS Data:

Date of Measurement:

PDOP Reading:

GPS Instrument Operator's Name:

Reason for Abandonment:

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

Estimated Depth:

Fish in Hole: ☐ Yes☒ No

If yes, explain details below

Wellbore has Uncemented Casing leaks: ☐ Yes☒ No

If yes, explain details below

Details: This well was originally abandoned in 1978. Production casing could not be pulled due to cemented DV tool at 1112'. Well is to be re-entered to add cement coverage above the Niobrara, across the Sussex, and the Fox Hills into the surface casing. The CIBP @7000' will be drilled out and replaced with a CIBP w/cmt cap at 7800'.

Current and Previously Abandoned Zones

Formation	Perf. Top	Perf. Btm	Abandoned Date	Method of Isolation	Plug Depth
J SAND	7861	7876	02/03/1978	B PLUG CEMENT TOP	7000

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	260	225	260	0	VISU
1ST	7+7/8	4+1/2	11.6	7,960	300	7,960	6,970	CALC
S.C. 1.1				1,112	250	1,112	724	CALC

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 7800 with 2 sacks cmt on top. CIBP #2: Depth 100 with 8 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 10 sks cmt from 1062 ft. to 1162 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 6550 ft. with 190 sacks. Leave at least 100 ft. in casing 6580 CICR Depth

Perforate and squeeze at 4310 ft. with 630 sacks. Leave at least 100 ft. in casing 4340 CICR Depth

Perforate and squeeze at 120 ft. with 320 sacks. Leave at least 100 ft. in casing 150 CICR Depth

(Cast Iron Cement Retainer Depth)

Set _____ sacks half in. half out surface casing from _____ ft. to _____ ft. Plug Tagged: ☐

Set 8 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:

As-built well location GPS data will be submitted on the Form 6 Subsequent Report of Abandonment.

Perforate and squeeze at 6950'/6550' ft. with 190 sacks Leave at least 100 ft. in casing 6580' CICR Depth

Perforate and squeeze at 4920'/4310' ft. with 630 sacks Leave at least 100 ft. in casing 4340' CICR Depth

Perforate and squeeze at 710'/120' ft. with 320 sacks Leave at least 100 ft. in casing 150' CICR Depth

Purpose is to reenter and adequately replug prior to hydraulic stimulation of proposed horizontal well per DJ Basin Offset Policy dated December 16, 2013.

Closed loop system will be used.

Re-plug and re-entry procedure attached.

2 Locate and expose casing stub. (4 1/2" casing was cut off 4 feet below GL and may be cemented in 8 5/8" at surface.) Extend casing to GL and install 3M well head with 3000 psi ball valves in both outlets.

3 MIRU workover rig. NU 3000 psi BOP stack on casing head. PT BOP and csg head per approved Form 2. Function test BOPE . NU rotating head on BOP. Hook up return line to shale shaker on flat tank

4 PU 3 7/8" mill tooth bit, necessary drill collars and drill pipe/work string (WS). Drill through existing cement plug at surface (5 sk) using fresh water with biocide.

5 Once surface cement plug is drilled, displace hole with drilling mud and continue washing down to 5 sk cement cap on CIBP @ 7000' (calculated top ~6940').

6 Drill out cement and CIBP. (push CIBP to at least 7850'. Notify cementers to be on call. Volumes listed below may be adjusted per CBL.

7 TOOH standing back WS. LD bit and DCs.

8 MIRU WL. PU CIBP for 4 1/2" 11.6# csg. Run and set at 7800'. Dump bail 2 sx cement on CIBP. Fill csg with water. Run gyro survey from PBTD to surface. Run CBL from PBTD to surface. NOTE: It is important to check for cement in the 8 5/8" X 4 1/2" annulus at surface. If cement is not present it may be possible to recover some 4 1/2" casing. Forward results to Evans Engineering.

9 PU 2 - 1' 3-1/8" perf guns with 3 spf, 0.5" dia 120° phasing. Shoot 1' of squeeze holes at 6930' and 6530'. Adjust perf heights according to cement location on CBL. Desired bottom perf is 20' above TOC. Top perf should be adjusted to leave 400' of cement in the annulus above the Niobrara Top (7036').

10 PU CICR. RIH and set at 6560'+/-20' pending collar locator on CBL. RD WL.

11 RIH w/ WS and stinger for CICR while hydrotesting to 3,000 psi.

12 RU Cementers. Pump Niobrara Suicide: 190 sx 50/50 Poz "G" w/ 20% silica flour, 3% gel, 0.1% sodium metasilicate and 0.4% FL-52 mixed at 13.5 ppg and 1.71 cf/sk (11"+ hole 20% Caliper Log in file) to place suicide squeeze between perfs. Underdisplace and sting out of CICR to leave 3 bbls on top of retainer.

13 PUH 6 stands. Circulate with water containing biocide to clear tubing. TOH standing back ~ 4300' of WS.

14 RUWL & PU 2 - 1' 3-1/8" perf guns with 3 spf, 0.5" dia 120° phasing. Shoot 1' of squeeze holes at 4920' and 4310'.

15 PU CICR. RIH and set at 4340'+/-20' pending collar locator on CBL. RD WL.

16 RIH w/ WS and stinger.

17 RU Cementers. Pump 5 bbl water w/ biocide, 20 bbl Sodium Metasilicate solution, and another 5 bbl spacer immediately preceding cement.

18 Pump SX Suicide: 630 sx class "G", w/0.25 pps cello flake, 0.4% CD-32, 0.4% ASA-301 mixed at 15.8 ppg and 1.15 cf/sx (165.4bbls) (13.5"+20% Caliper Log in file) to place suicide squeeze between perfs. Underdisplace and sting out of CICR to leave 3 bbls on top of retainer.

19 PUH 6 stands. Circulate water containing biocide to clear WS. TOOH and WOC 4 hours.

20 RUWL & PU 2 - 1' 3-1/8" perf guns with 3 spf, 0.5" dia 120° phasing. Shoot 1' of squeeze holes at 710' and 120' pending CBL.

21 PU CICR. RIH and set at 150'+/-20' pending collar locator on CBL. RD WL.

22 RIH w/ WS and stinger.

23 RU Cementers. Pump Surface Suicide: 320 sx Type III CaCl2 cement mixed at 14.0 ppg and 1.53 cf/sk (140' inside 8 5/8" Casing and 450' in 13" OH + 20% excess, and 1 bbl on top of CICR)

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: 4/10/2014 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: 4/14/2014

CONDITIONS OF APPROVAL, IF ANY: _____ Expiration Date: 10/13/2014

COA Type	Description
	<p>Note changes to plugging procedure:</p> <p>1) Provide 48 hour notice of plugging MIRU via electronic Form 42.</p> <p>2) Not necessary to drill out existing CIBP@7000' w/5sxs and add deeper plug unless operator needs deeper gyro data.</p> <p>3) No CBL on file. Run CBL to verify the top of primary cement is at least 200' over Niobrara and adequately isolates the Laramie-Fox Hills, Lower Arapahoe, and Upper Arapahoe aquifers. If cement does not exist as required, provide this coverage as part of this plugging project. Use CBL results to verify the setting depth of and stage cement pumped through the DV tool. If DV tool cement missing, add cement behind production casing or cut casing to ensure aquifer isolation.</p> <p>4) Add 10 sxs in casing across and 50' above and below DV tool as part of this plugging project.</p> <p>5) Properly abandon flowlines as per Rule 1103. File electronic Form 42 once abandonment complete.</p> <p>6) Reported "as drilled" data is inaccurate. Submit accurate "as drilled" GPS data on Subsequent Report of Abandonment. GPS data must meet the requirements of Rule 215.</p> <p>7) Please submit gyro survey data with Form 6 (s) Subsequent Report of Abandonment.</p> <p>8) Provide an "As Plugged" wellbore diagram identifying the specific plugging completed.</p>

Attachment Check List

Att Doc Num	Name
2238252	OTHER
400584381	FORM 6 INTENT SUBMITTED
400587075	OTHER
400587076	WELLBORE DIAGRAM
400587077	PROPOSED PLUGGING PROCEDURE

Total Attach: 5 Files

General Comments

User Group	Comment	Comment Date
Permit	Operator added well name to email. Operator is on short deadline. Ok to accept. Added comments for operator. Ready to pass.	4/14/2014 1:36:15 PM
Permit	"Surface Owner Consent" is incomplete - no well name. Missing comments.	4/14/2014 9:40:25 AM

Total: 2 comment(s)