

FORM

6

Rev
11/20

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:

403148467

Date Received:

08/26/2022

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: Lindsay Frase

Name of Operator: KERR MCGEE OIL & GAS ONSHORE LP

Phone: (970) 515-1616

Address: P O BOX 173779

Fax:

City: DENVER State: CO Zip: 80217-

Email: Lindsay_Frase@oxy.com

For "Intent" 24 hour notice required,

Name: Carlile, Craig

Tel: (970) 629-8279

COGCC contact:

Email: craig.carlile@state.co.us

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

API Number 05-123-31127-00

Well Name: SHERWOOD L

Well Number: 30-30D

Location: QtrQtr: NWNW Section: 30 Township: 3N Range: 66W 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: 40.200835

Longitude: -104.827352

GPS Data: GPS Quality Value: 3.3 Type of GPS Quality Value: PDOP Date of Measurement: 12/17/2010

Reason for Abandonment: ☐ Dry ☒ Production Sub-economic ☐ Mechanical Problems☐ OtherCasing to be pulled: ☒ Yes ☐ No Estimated Depth: 630Fish in Hole: ☐ Yes ☒ No If yes, explain details belowWellbore 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	7432	7451			
J SAND	7892	7912			
NIOBRARA	7222	7313			

Total: 3 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	J-55	24	0	655	464	655	0	VISU
1ST	7+7/8	4+1/2	I-80	11.6	0	8103	650	8103	2573	CBL
S.C. 1.1	7+7/8	4+1/2	I-80	11.6	0	8113	215	1424	664	CBL

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 7830 with 2 sacks cmt on top. CIBP #2: Depth 300 with 90 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 5 sks cmt from 7084 ft. to 7020 ft. Plug Type: CASING Plug Tagged: ☐
Set 5 sks cmt from 4342 ft. to 4280 ft. Plug Type: CASING Plug Tagged: ☐
Set 15 sks cmt from 1560 ft. to 1400 ft. Plug Type: CASING Plug Tagged: ☐
Set 90 sks cmt from 300 ft. to 0 ft. Plug Type: CASING Plug Tagged: ☐
Set _____ sks cmt from _____ ft. to _____ ft. Plug Type: _____ Plug Tagged: ☐

Perforate and squeeze at 7114 ft. with 95 sacks. Leave at least 100 ft. in casing 7084 CICR Depth
Perforate and squeeze at 4372 ft. with 95 sacks. Leave at least 100 ft. in casing 4342 CICR Depth
Perforate and squeeze at 2300 ft. with 240 sacks. Leave at least 100 ft. in casing 1560 CICR Depth

(Cast Iron Cement Retainer Depth)

Set 160 sacks half in. half out surface casing from 1400 ft. to 580 ft. Plug Tagged: ☐

Set 90 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:

Vent perfs at 750', 1110' and 1325'. Will be covered with shoe plug.

BMPs

Signage for P&As:

Prior to commencing operations, KMG will post signs in conspicuous locations. The signs will indicate plugging and abandonment operations are being conducted, the well name, well, and the Operator's contact information. Signs will be placed so as not to create a potential traffic hazard.

Notifications:

Courtesy notifications will be sent to all parcel owners with building units within 1,500 feet of the location letting them know about our plugging and abandonment operations and providing contact information for Kerr McGee's response line and online resources.

Wellbore Pressure:

In some cases, wellbore pressure drawdown operations may occur approximately 1-2 days prior to Move In Rig Up (MIRU) of the workover rig. This is conducted to allow for reduced time that the workover rig is needed on location. These operations will be conducted in accordance with Form 4 and/or Form 6 requirements.

Water:

Water will be placed on dirt access roads to mitigate dust as needed.

Lighting:

Noise:

Operations will be in compliance with Table 423-1 requirements. Based off the rig sound signature, rig orientation will be considered to reduce noise levels to nearby building units.

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

Signed: _____ Print Name: Lindsay Frase
Title: Regulatory Tech Date: 8/26/2022 Email: Lindsay_Frase@oxy.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: 10/6/2022

CONDITIONS OF APPROVAL, IF ANY:

Expiration Date: 4/5/2023

COA Type

Description

	<p>Consistent with Rule 911.a, a Form 27 must be approved prior to cut and cap, conducting flowline abandonment, or removing production equipment. Allow 30 days for Director review of the Form 27; include the Form 27 document number on the Form 44 for offsite flowline abandonment (if applicable) and on the Form 6 Subsequent.</p> <p>Properly abandon flowlines per Rule 1105. If flowlines will be abandoned in place, include with the Form 27: pressure test results conducted in the prior 12 months as well as identification of any document numbers for a COGCC Spill/Release Report, Form 19, associated with the abandoned line.</p>
	<p>1) Provide electronic Form 42 Notice of MIRU 2 business days ahead of operations and electronic Form 42 Notice of Plugging Operations 48 hours prior to mobilizing for plugging operations. These are two separate notifications, required by Rules 405.e and 405.l.</p> <p>2) After placing plug at 2300' assure that all fluid migration has been eliminated by monitoring the well for a minimum of 8 hours before proceeding to the next plug. If at any time after placing this plug there is evidence of pressure or of fluid migration, contact COGCC engineering before continuing operations.</p> <p>3) Prior to placing cement across the base of the Upper Pierre: verify that all fluid (liquid and gas) migration has been eliminated. If evidence of fluid migration or pressure remains, contact COGCC Engineer for an update to plugging orders.</p> <p>4) After isolation has been verified, pump surface casing shoe plug. If surface casing cement is not circulated to surface, shut-in, WOC 4 hours then tag plug – must be at 580' or shallower and provide a minimum of 10 sx plug at the surface.</p> <p>5) Leave at least 100' of cement in the wellbore for each plug without mechanical isolation.</p> <p>6) With the Form 6 SRA operator must provide written documentation which positively affirms each COA listed above has been addressed.</p>

	<p>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.</p> <p>1) If, before opening the bradenhead valve, the beginning pressure is greater than 25 psi, sampling is required.</p> <p>2) If pressure remains at the conclusion of the test, or if any liquids were present during the test, sampling is required.</p> <p>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.</p> <p>If there is a need for sampling, contact COGCC engineering for verification of plugging procedure.</p>
	<p>This oil and gas location is within 0.5-mile of a CPW-mapped bald eagle nest area. Plugging and abandonment (P&A) should not occur from December 1 to July 31. If site conditions warrant that P&A activities must be performed from December 1 to July 31, Operator will consult with the regional CPW Energy Liaison to develop site specific measures to avoid, minimize, or mitigate impacts to wildlife.</p>
	<p>COA's provided by the operator as Best Management Practices under Technical Detail/ Comments:</p> <p>Operations will be in compliance with Table 423-1 requirements. Based off the rig sound signature, rig orientation will be considered to reduce noise levels to nearby building units.</p>
	<p>COA's provided by the operator as Best Management Practices under Technical Detail/ Comments:</p> <p>Courtesy notifications will be sent to all parcel owners with building units within 1,500 feet of the location letting them know about our plugging and abandonment operations and providing contact information for Kerr McGee's response line and online resources.</p>
	<p>COA's provided by the operator as Best Management Practices under Technical Detail/ Comments:</p> <p>Prior to commencing operations, KMG will post signs in conspicuous locations. The signs will indicate plugging and abandonment operations are being conducted, the well name, well, and the Operator's contact information. Signs will be placed so as not to create a potential traffic hazard.</p>
7 COAs	

Attachment List

<u>Att Doc Num</u>	<u>Name</u>
403148467	WELL ABANDONMENT REPORT (INTENT)
403148489	PROPOSED PLUGGING PROCEDURE
403148490	WELLBORE DIAGRAM
403190130	FORM 6 INTENT SUBMITTED

Total Attach: 4 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Engineer	DWR base of Fox Hills: 326' Deepest water well within 1 mile: 440' Bradenhead history > 400 psi. Samples appear thermogenic. Interpretation doc# 403049341 Base of Upper Pierre estimated 1430'	10/06/2022
OGLA	CPW has approved the COA. OGLA review is complete.	10/04/2022
OGLA	Well is in a Mule Deer Severe Winter Range corridor and winter concentration area. Although plugging and abandonment operations with heavy equipment will be allowed, the operator is strongly encouraged to avoid them between December 1 through April 30.	09/29/2022
Permit	Confirmed as-drilled well location. Production reporting up-to-date for this operator. Confirmed productive intervals docnum: 400156404. Reviewed WBD and procedure. Pass.	08/30/2022

Total: 4 comment(s)

OCCIDENTAL PETROLEUM CORPORATION

Please contact your area engineer with any questions concerning this procedure.

8/25/2022

PLUG and ABANDONMENT PROCEDURE

SHERWOOD L30-30D

API: 05-123-31127

**Step Description**

1	Review Previous Open Wells Reports/Well History. If you have questions or concerns, contact Foreman/Engineer.
2	COA: Provide 48 hour notice to COGCC prior to rig up per request on approved Form 6 (e.g. call field coordinator, submit Form 42, etc.).
3	Notify Automation Removal Group at least 24 hours prior to rig move. Request they catch and remove plunger, isolate production equipment, and remove any automation prior to rig MIRU.
4	MIRU Slickline. Pull production equipment and tag bottom. Record tag depth, casing/tubing pressures and fluid level in Open Wells. Gyro was run on 11/01/10. RDMO Slickline.
5	Prepare location for base beam equipped rig. Install perimeter fence as needed.
6	COA: Verify Form 17 (State Bradenhead Test) has been run within 60 days of RU.
7	Refer to the Rockies Well Services Guidelines document whenever rigging up BOP and WL, or whenever tripping in or out of the well. Consult with Foreman/Engineer before deviating from these guidelines. All cement jobs (excluding injections squeezes) must be pumped at 4-6 BPM. All cement plugs pumped through tubing must use the Diverter tool. Final top-out can be pumped between 2-4 BPM.
8	Upon RU, check and record bradenhead pressure. If bradenhead valve is not accessible, re-plumb so that valve is above GL. Blow down bradenhead and leave open during working hours. Re-check pressure each day and input value in the "Casing press." box in Open Wells.
9	MIRU AND J-SAND CIBP
10	MIRU WO rig. Verify BOP and wellhead rating, inspect for appropriate API standards, pressure test BOP. Kill well as necessary using biocide treated fresh water. ND WH. NU BOP. Unland tbq. **Barrier Management** Fluid will be the only barrier while NU BOP. Stop and review JSA.
11	TOOH and SB 7084' of 2-3/8" tbq. LD remaining 2-3/8" tbq.
12	MIRU WL. PU and RIH with (4-1/2", 11.6#) gauge ring to 7840'. POOH.
13	PU and RIH with (4-1/2", 11.6#) CIBP and set at +/- 7830' (no CCL coverage here). POOH. RIH and dump 2 sx cement on CIBP. POOH.
14	NIO INJ SQUEEZE
15	PU and TIH with (4-1/2", 11.6#) CICR on 2-3/8" tbq. Set CICR at 7084'.
16	MIRU cementers. Attempt to establish injection max pressure 4000 psi with water. If it won't inject then sting out and spot cement a bbl short of EOT then sting back in, in the next step. Max pressure is 3450 psi with tubing full of cement unless pressure is applied to annulus.
17	Pump Niobrara Injection Squeeze: 100 sx (27.1 bbl or 152 cf) of the Niobrara Cement blend: Class G with 0.4% B547 Gas Block (Latex) and 0.4% D255 FLA (Fluid Loss) and 35% D066 Silica Flour and 0.2% D800 (Retardant) and 0.3% D065 (Dispersant). Underdisplace by 1 bbls. Volume is based on 30' in the casing below the CICR, cement squeezed into formation, and 64' on top of the CICR. Collect wet and dry samples of cement to be left on rig. RDMO cementers.
18	Pull out of cement to 6900' and reverse clean with 2x bottoms up. TOOH, SB 4342' of 2-3/8" tbq. LD remaining tbq.
19	SUSSEX SQUEEZE
20	PU and RIH with one 4', 3-1/8" deep penetrating perf gun with 4 spf. Shoot squeeze holes at 4372'. POOH. RDMO WL.
21	PU and TIH with (4-1/2", 11.6#) CICR on 2-3/8" tbq. Set CICR at 4342'.
22	MIRU cementers. Pump Sussex Squeeze: 100 sx (21.2 bbl or 119 cf) of the Sussex AGM: Class G with 0.4% B547 Gas Block (Latex) and 2% D053 Expansion (Gyp) and 0.25% D255 FLA (Fluid Loss) 0.3% D065 (Dispersant). Underdisplace by 1 bbls. Volume is based on 30' in the casing below the CICR, cement squeezed into formation, and 62' on top of the CICR. Collect wet and dry samples of cement to be left on rig. RDMO Cementers.
23	TOOH and reverse clean at 4000' with 2x bottoms up. SB 1560' of 2-3/8" tbq. LD stinger, and remaining tbq.
24	PIERRE ROLL-OVER

25	MIRU WL. PU and RIH with two 4', 3-1/8" perf guns with 4 spf. Shoot 16 squeeze holes at 2300' and 16 squeeze holes at 1500'. RDMO WL.
26	PU and TIH with (4-1/2", 11.6#) packer on 2-3/8" tbg. Set packer at 1560'.
27	Initiate circulation at low rate monitoring returns for fluid. Add mud thinner to hydrate/clean mud. Slowly increase circulation rate to 4-6 BPM using mud thinner and gel polymer sweeps as needed.
28	Pump 55 bbls of 160F HSF (0.5 gals/bbl or 1.5 lbs/bbl) and let soak for ~2 hours.
29	Continue circulating at 4-6 BPM if possible. If returns show hydrocarbons or a 1 hr build-up shows pressure, swab and vent well and clean open tank. Circulate clean fluid before pumping cement.
30	Release packer. TOOH, SB 2-3/8" tbg. LD packer.
31	Discuss with engineer if swabbing and venting is needed.
32	PU and TIH with (4-1/2", 11.6#) CICR on 2-3/8" tbg. Set CICR at 1560'.
33	MIRU cementers. Pump 10 bbls (min) of pre-flush, followed by 5 bbls fresh water spacer. Pump Squeeze: 255 sx (55 bbl or 309 cf) of the Lower AGM blend: Class G with 0.4% B547 Gas Block (Latex) and 1% S001 CC (Calcium Chloride) and 4% D053 Expansion (Gyp). Underdisplace by 2.5 bbls. Volume is based on 740' in the casing below the CICR, 800' in the casing-hole annulus with 25% excess, and 160' on top of the CICR. Collect wet and dry samples of cement to be left on rig. RDMO Cementers.
34	Pull out of cement. TOOH to 1400'. Reverse clean with 2x bottoms up.
35	TOOH and SB 1400' of 2-3/8" tbg. LD stinger, and remaining tbg.
36	COA: WOC 8 hours. If there is evidence of pressure or fluid migration, contact Engineering as there will need to be additional remediation attempts before the SC shoe plug.
37	PAWNEE VENT PERFS
38	MIRU WL. PU and RIH with three 4', 3-1/8" perf guns with 4 spf. Shoot 16 squeeze holes at 1325', 1110' and 750'. RDMO WL.
39	Do not circulate or break down perfs. Swab down as far as you can and vent.
40	Discuss next steps with engineer.
41	CUT AND PULL CASING
42	PU and TIH with mechanical cutter on 2-3/8" tbg. Cut 4-1/2", 11.6# casing at 630'. TOOH and LD cutter.
43	Attempt to establish circulation with biocide treated fresh water.
44	ND BOP. ND TH. Un-land casing. Rig max pull shall be 100,000#. Max pull over string weight shall be 50,000#. If unable to unland, contact Foreman/Engineer. **Barrier Management** Fluid will be the only barrier while unlanding casing. Stop and review JSA.
45	Install BOP on casing head with 4-1/2", 11.6# pipe rams. **Barrier Management** Fluid will be the only barrier while NU BOP. Stop and review JSA.
46	TOOH and LD all 4-1/2", 11.6# casing. Remove 4-1/2", 11.6# pipe rams and install 2-3/8" pipe rams.
47	SHOE PLUG
48	TIH with 2-3/8" tbg to 1400'. Establish circulation to surface with biocide treated fresh water and circulate bottoms up.
49	Initiate circulation at low rate monitoring returns for fluid. Add mud thinner to hydrate/clean mud. Slowly increase circulation rate to 4-6 BPM using mud thinner and gel polymer sweeps as needed.
50	Pump 30 bbls of 160F HSF (0.125 gals/bbl or 0.5 lbs/bbl) and let soak for ~1 hour.
51	Continue circulating at 4-6 BPM if possible. If returns show hydrocarbons or a 1 hr build-up shows pressure, swab and vent well and clean open tank. Circulate clean fluid before pumping cement.
52	COA: Verify and document that all pressure and fluid migration has been eliminated prior to placing the SC shoe plug at 1400'. If there is evidence of pressure or fluid migration, contact Engineering.
53	MIRU cementers. Pump Surface Casing Shoe Plug: Pump 140 sx (30.2 bbl or 170 cf) of the Upper AGM blend: Class G with 0.4% B547 Gas Block (Latex) and 1.5% S001 CC (Calcium Chloride) and 4% D053 Expansion (Gyp). Volume is based on 770' in 4-1/2", 11.6# production casing with no excess. 280' in the 8-5/8", 24# surface casing with no excess. The plug is designed to cover 1400'-350'. Plug length exceeds 500'. Consult with Foreman or Engineer on splitting up the plug. Collect wet and dry samples of cement to be left on rig. RDMO Cementers.
54	COA: If cement was not circulated to surface, then WOC 4 hours. Tag TOC. TOC must be 580' or shallower. If tag is too deep or there is evidence of pressure or fluid migration, contact Engineering.

55	Pull out of cement. TOO H to 300'. Forward circulate tbg clean with fresh water. Pull up and apply 200 psi. Maintain 200 psi for 2 hours.
56	Note: Plug can be tagged after a 4 hour WOC, but must have a 6 hour WOC prior to pressure testing.
57	TOOH & SB 300' of tubing. WOC 4 hours
58	SURFACE PLUG
59	ND 7-1/16" BOP. NU 9" or 11" BOP. RIH with bit and scraper. Clean csg and tag TOC. Circulate Clean. POOH. PT casing to 500 psi. Contact engineering if test fails.
60	MIRU WL. PU and RIH with (8-5/8", 24#) CIBP and set at 300'. POOH. RDMO WL.
61	TIH 2-3/8" tubing to 300' and pump 20 bbls of 160F HSF (0.125 gals/bbl or 0.5 lbs/bbl) to fill Csg & Flush Csg Valves. Let soak for 1 hour.
62	MIRU Cementers. Pump Surface Plug: Pump 90 sx (19.4 bbl or 109 cf) of the Surface AGM blend: Class G with 0.4% B547 Gas Block (Latex) and 2% S001 CC (Calcium Chloride) and 4% D053 Expansion (Gyp). Volume based on 300' inside 8-5/8", 24# surface casing with no excess. Cement will be from 300' to surface. Verify and document cement to surface. Collect wet and dry samples of cement to be left on rig.
63	TOOH . Insert ~5' of 2-3/8" Tbg. Circulate FW to clean Csg & Csg Valves. LD final joint of 2-3/8" Tbg. RDMO cementers. ND BOP. Install night cap. RDMO WO rig.
64	Instruct cementing and wireline contractors to e-mail copies of all job logs/job summaries to rscDJVendors@anadarko.com within 24 hours of completion of the job.
65	Supervisor submit paper copies of all invoices, logs, and reports to VWP Engineering Specialist.
66	Excavation crew to notify One Call to clear excavation area around wellhead and for flow lines.
67	Excavate hole around surface casing enough to allow welder to cut casing a minimum 5' below ground level.
68	Welder cut casing minimum 5' below ground level.
69	Spot weld on steel marker plate. Marker should contain Well name, Well number, legal location (1/4 1/4 descriptor) and API number.
70	Obtain GPS location data as per COGCC Rule 215 and send to rscDJVendors@anadarko.com.
71	Properly abandon flow lines per Rule 1103. File electronic Form 42 once abandonment is complete.
72	Back fill hole with fill. Clean location, and level.
73	Submit Form 6 to COGCC ensuring to provide 'As performed' WBD identifying operations completed.

