



THE PLUG & ABANDONMENT PROCESS



When a well is no longer economically producing oil and natural gas, the well is evaluated for retirement and will undergo a process called 'plug and abandonment,' or P&A as it is often called.

To retire, or P&A, a well, the operator must submit a plug and abandonment plan to the state regulatory authority, the Colorado Oil and Gas Conservation Commission (COGCC) for approval.

Once the plan is approved by the COGCC, the operator is required to inform the municipality where the well is located. Operators also communicate with surface land and mineral owners and surrounding neighbors regarding the retirement of the well.

How a Well is Retired



1 A workover rig arrives on-site. While the rig is on location, the well will be plugged per the plan approved by the COGCC. Cement is pumped into the well to cover and isolate the zones that produce oil and natural gas.



2 When the plugging operation is complete, the workover rig moves off the location, the well head is removed and the associated flowlines are excavated. Associated surface equipment (tanks, separators, etc.) may also be removed if it is not serving other active wells in the area.



3 The remaining portion of the well is cut a minimum of seven feet below the surface and an identifying marker is welded to the top of the plugged wellbore.



4 A final report is submitted to the COGCC to certify the wellbore has been plugged in accordance with the regulatory requirements.



5 The site is reclaimed, or restored, to match the existing landscape.



Anadarko Petroleum Corporation
P.O. Box 173779
Denver, CO 80217

Place
Stamp
Here

Hello,

We are writing to let you know about upcoming activity on an existing oil and natural gas well in your area. Please see the map on the reverse side for reference.

The subject well is scheduled to be plugged and reclaimed from oil and natural gas development. This procedure is commonly referred to as Plug and Abandonment and is regulated by the Colorado Oil and Gas Conservation Commission. During this operation the well will be plugged, and the associated wellhead removed. A work-over rig (pictured on the reverse side), cement and water trucks, emission control device (ECD), and other heavy equipment will be needed to conduct this operation.

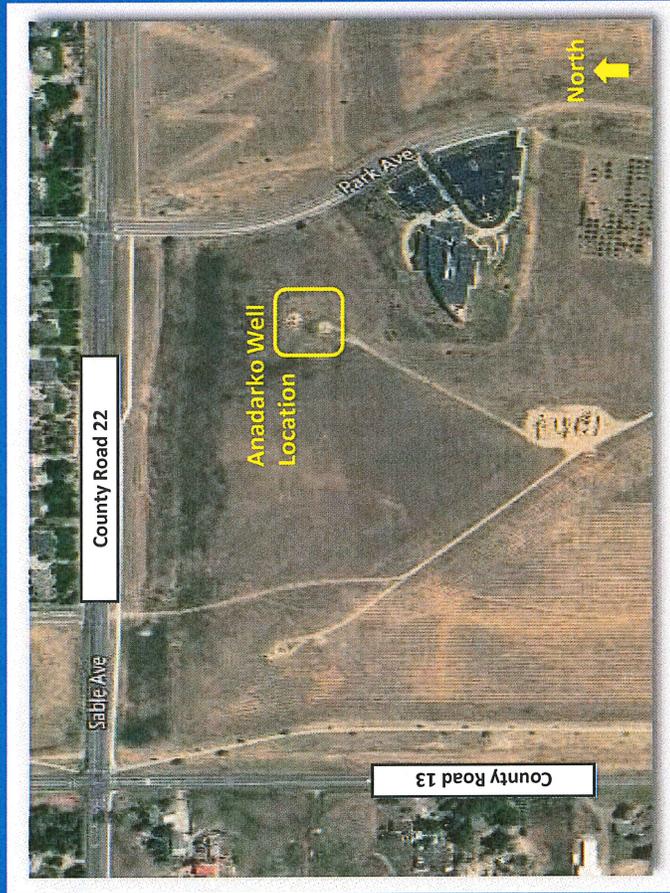
The work is scheduled to begin in the next few weeks and will take approximately one to two weeks. In an effort to reduce the inconvenience to the surrounding residents, crews will be working on site Monday through Saturday and will operate during daylight hours only. You may notice a slight increase in traffic and are likely to hear the activity during operations.

Thank you for your patience while we perform work in your community. If you have any questions or wish to report an issue related to our operation, please do not hesitate to contact us via the Anadarko Colorado Response Line at 866.248.9577 or AnadarkoColorado@anadarko.com.

When you contact us, please reference this activity by the following name:
Kugel V 18-3 Plug and Reclaim

 **See reverse side for more details**

- Plug and Reclaim work is scheduled to begin in the next few weeks and will last approximately 1-2 weeks
- You will see a work over rig, cement and water trucks, emission control device (ECD) and other heavy equipment onsite
- When you contact us, please reference this activity by the following name: **Kugel V 18-3 Plug and Reclaim**



AREA OF OPERATIONS



Emission Control Device (ECD)



WELLHEAD



WORK-OVER RIG

Anadarko

www.Anadarko.com/colorado

Anadarko Colorado Response Line

866.248.9577

AnadarkoColorado@Anadarko.com

For more information about oil & natural gas development visit: <http://cogcc.state.co.us>

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:

401552643

Date Received:

02/22/2018

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: Gomez, Jason Tel: (970) 573-1277
COGCC contact: Email: jason.gomez@state.co.us

API Number 05-123-17256-00 Well Number: V 18-3
 Well Name: KUGEL
 Location: QtrQtr: NENW Section: 18 Township: 2N Range: 67W 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: 40.144100 Longitude: -104.936050
 GPS Data:
 Date of Measurement: 01/22/2010 PDOP Reading: 1.7 GPS Instrument Operator's Name: Joseph Collins
 Reason for Abandonment: Dry Production Sub-economic Mechanical Problems
 Other _____
 Casing 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: _____

Current and Previously Abandoned Zones

Formation	Perf. Top	Perf. Btm	Abandoned Date	Method of Isolation	Plug Depth
CODELL	7480	7499			

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	556	390	556	0	VISU
1ST	7+7/8	3+1/2	7.7	7,602	190	7,602	6,375	CBL
S.C. 1.1				7,602	407	5,112	3,830	CBL
S.C. 1.2				1,115	335	1,200	54	CBL

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 7430 with 25 sacks cmt on top. CIPB #2: Depth 4090 with 2 sacks cmt on top.
 CIBP #3: Depth 4850 with 2 sacks cmt on top. CIPB #4: Depth 80 with 4 sacks cmt on top.
 CIBP #5: Depth _____ with _____ sacks cmt on top.

NOTE: Two(2) sacks cement required on all CIBPs.

Set 25 sks cmt from 7430 ft. to 6850 ft. Plug Type: CASING Plug Tagged:
 Set 30 sks cmt from 1010 ft. to 506 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 _____ sacks half in. half out surface casing from _____ ft. to _____ ft. Plug Tagged:
 Set 4 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. _____ inch casing Plugging Date: _____
 of _____
 *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:

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: 2/22/2018 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: McCoy, Diane Date: 5/7/2018

CONDITIONS OF APPROVAL, IF ANY: _____ Expiration Date: 11/6/2018

COA Type	Description
	<p>1) Provide 48 hour notice of plugging MIRU via electronic Form 42.</p> <p>2) Properly abandon all flowlines as per Rule 1103. File electronic Form 42 once abandonment complete.</p> <p>3) Operator shall implement measures to control unnecessary and excessive venting, to protect the health and safety of the public, and to ensure that vapors and odors from well plugging operations do not constitute a nuisance or hazard to public welfare.</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>

Attachment Check List

Att Doc Num	Name
401552643	WELL ABANDONMENT REPORT (INTENT)
401552685	WELLBORE DIAGRAM
401552687	PROPOSED PLUGGING PROCEDURE
401631643	FORM 6 INTENT SUBMITTED

Total Attach: 4 Files

General Comments

User Group	Comment	Comment Date
Public Room	Pass	03/08/2018
Permit	pass	02/28/2018

Total: 2 comment(s)