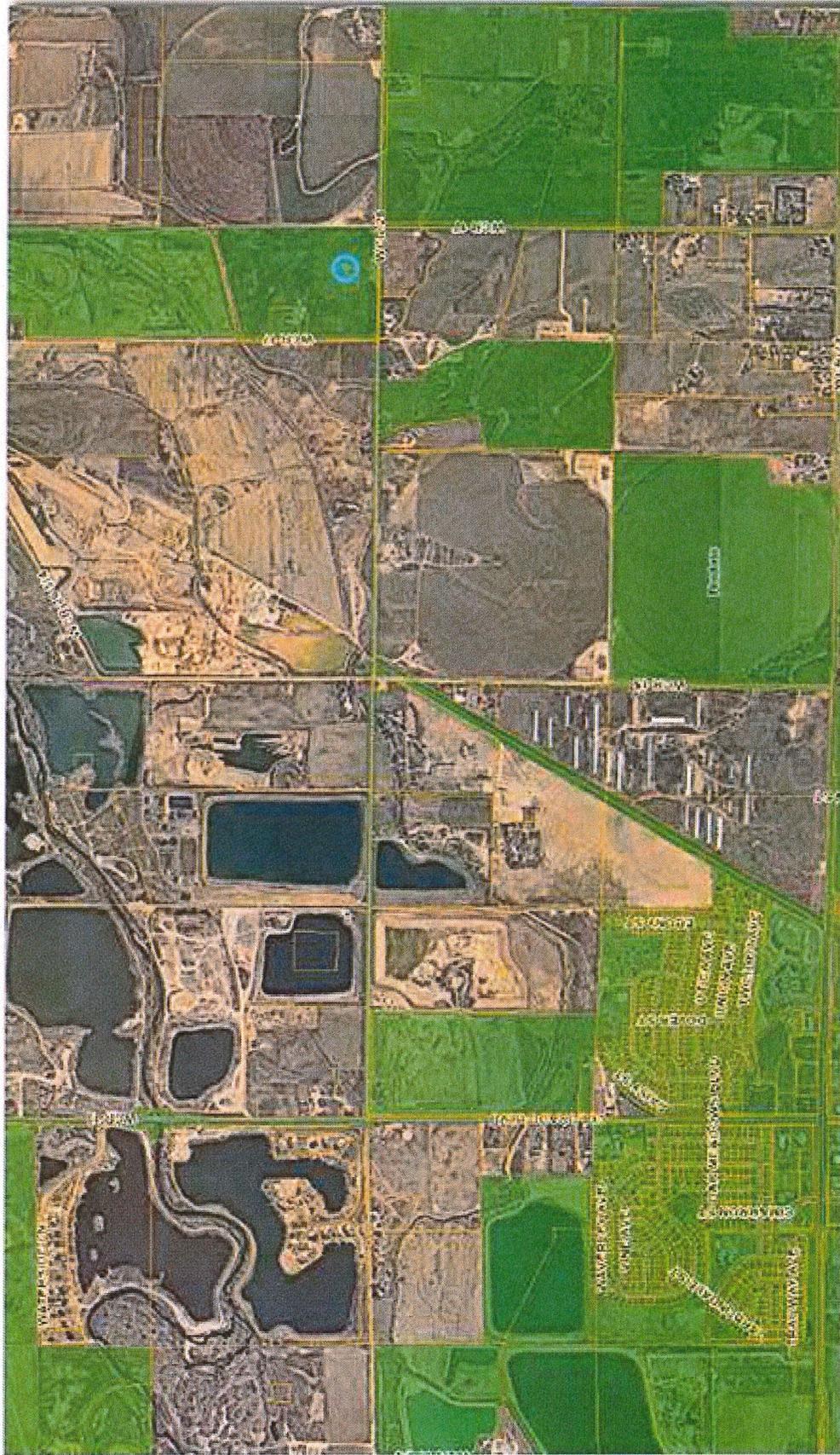


Varra 37-32X, Varra 20-32 & Varra 39-32



FORM
6

Rev
05/18

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:

401703946

Date Received:

07/16/2018

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

API Number 05-123-30935-01
Well Name: VARRA Well Number: 37-32X
Location: QtrQtr: SESE Section: 32 Township: 3N 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: 40.176286 Longitude: -104.906120
GPS Data:
Date of Measurement: 02/11/2011 PDOP Reading: 2.2 GPS Instrument Operator's Name: Renee Doiron
Reason for Abandonment: Dry Production Sub-economic Mechanical Problems
 Other _____
Casing to be pulled: Yes No Estimated Depth: 680
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	7415	7433			
NIOBRARA	7192	7290			

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	1,172	740	1,172	0	VISU
1ST	7+7/8	4+1/2	11.6	8,010	1,003	8,010	714	CBL

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 7830 with 2 sacks cmt on top. CIPB #2: Depth 7120 with 25 sacks cmt on top.
CIBP #3: Depth 4030 with 2 sacks cmt on top. CIPB #4: Depth 80 with 25 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 7120 ft. to 6770 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 _____ 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 120 sacks half in. half out surface casing from 1375 ft. to 630 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 1105 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: Staff Regulatory Analyst Date: 7/16/2018 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: 8/6/2018

CONDITIONS OF APPROVAL, IF ANY: _____ Expiration Date: 2/5/2019

COA Type	Description
	<p>1) Provide 48 hour notice of plugging MIRU via electronic Form 42.</p> <p>2) Properly abandon on-location flowlines per Rule 1105. File electronic Form 42 once abandonment complete. Within 30 days of an operator completing abandonment requirements for an off-location flowline or crude oil transfer line the operator must submit a Flowline Report, Form 44.</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
401703946	WELL ABANDONMENT REPORT (INTENT)
401704270	PROPOSED PLUGGING PROCEDURE
401704271	WELLBORE DIAGRAM
401725087	FORM 6 INTENT SUBMITTED

Total Attach: 4 Files

General Comments

User Group	Comment	Comment Date
Engineer	Production records indicate this well has been SI since October 2016. All shut-in wells must pass a mechanical integrity test or be plugged and abandoned within two years of the initial shut-in date, this form 6 intent does not extend that due date.	08/06/2018
Well File Verification	Pass	07/23/2018
Permit	Ready to pass form. Niobrara and Codell productive intervals confirmed via doc# 400151636.	07/20/2018

Total: 3 comment(s)

FORM
6

Rev
05/18

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
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Document Number:

401703943

Date Received:

07/16/2018

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

API Number 05-123-30928-00 Well Number: 20-32
 Well Name: VARRA
 Location: QtrQtr: SESE Section: 32 Township: 3N 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: 40.176282 Longitude: -104.906074
 GPS Data:
 Date of Measurement: 02/11/2011 PDOP Reading: 5.1 GPS Instrument Operator's Name: Renee Doiron

Reason for Abandonment: Dry Production Sub-economic Mechanical Problems
 Other _____

Casing to be pulled: Yes No Estimated Depth: 200

Fish in Hole: Yes No If yes, explain details below

Wellbore has Uncemented Casing leaks: Yes No If yes, explain details below

Details: Stage Tool at 444'

Current and Previously Abandoned Zones

Formation	Perf. Top	Perf. Btm	Abandoned Date	Method of Isolation	Plug Depth
CODELL	7448	7468			
NIOBRARA	7193	7328			

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	1,167	730	1,167	0	VISU
1ST	7+7/8	4+1/2	11.6	8,053	1,020	8,053	474	CBL
			Stage Tool	444	25	460	234	CBL

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 7880 with 2 sacks cmt on top. CIBP #2: Depth 7110 with 25 sacks cmt on top.
CIBP #3: Depth 4030 with 2 sacks cmt on top. CIBP #4: Depth 80 with 25 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 7110 ft. to 6760 ft. Plug Type: CASING Plug Tagged:
Set 7 sks cmt from 1510 ft. to 1450 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 1540 ft. with 18 sacks. Leave at least 100 ft. in casing 1510 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 110 sacks half in. half out surface casing from 1370 ft. to 150 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 1105 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: Staff Regulatory Analyst Date: 7/16/2018 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: 8/6/2018

CONDITIONS OF APPROVAL, IF ANY: _____ Expiration Date: 2/5/2019

COA Type	Description
	<p>1) Provide 48 hour notice of plugging MIRU via electronic Form 42.</p> <p>2) Properly abandon on-location flowlines per Rule 1105. File electronic Form 42 once abandonment complete. Within 30 days of an operator completing abandonment requirements for an off-location flowline or crude oil transfer line the operator must submit a Flowline Report, Form 44.</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>4) After pumping squeeze, shut down and shut well in at minimum 8 hours; verify gas migration has been eliminated. If evidence of gas migration or pressure remains contact COGCC Engineer for an update to plugging orders.</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>

Attachment Check List

Att Doc Num	Name
401703943	WELL ABANDONMENT REPORT (INTENT)
401704231	PROPOSED PLUGGING PROCEDURE
401704232	WELLBORE DIAGRAM
401724812	FORM 6 INTENT SUBMITTED

Total Attach: 4 Files

General Comments

User Group	Comment	Comment Date
Engineer	Production records indicate this well has been SI since November 2016. All shut-in wells must pass a mechanical integrity test or be plugged and abandoned within two years of the initial shut-in date, this form 6 intent does not extend that due date.	08/02/2018
Well File Verification	Pass	07/23/2018
Permit	Ready to pass form. Niobrara and Codell productive intervals confirmed via doc# 400151623.	07/20/2018

Total: 3 comment(s)

FORM
6
Rev
05/18

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: 401703947			
Date Received: 07/24/2018			

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

API Number 05-123-30932-00 Well Number: 39-32
 Well Name: VARRA
 Location: QtrQtr: SESE Section: 32 Township: 3N 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: 40.176283 Longitude: -104.906013
 GPS Data:
 Date of Measurement: 02/11/2011 PDOP Reading: 3.8 GPS Instrument Operator's Name: Renee Doiron
 Reason for Abandonment: Dry Production Sub-economic Mechanical Problems
 Other _____
 Casing to be pulled: Yes No Estimated Depth: 410
 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	7397	7417			
NIOBRARA	7156	7277			

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	1,174	780	1,174	0	VISU
1ST	7+7/8	4+1/2	11.6	8,004	990	8,004	470	CBL

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 7830 with 2 sacks cmt on top. CIBP #2: Depth 7070 with 25 sacks cmt on top.
 CIBP #3: Depth 4018 with 2 sacks cmt on top. CIBP #4: Depth 80 with 25 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 7070 ft. to 6720 ft. Plug Type: CASING Plug Tagged:
 Set 25 sks cmt from 1470 ft. to 1390 ft. Plug Type: OPEN HOLE 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 140 sacks half in. half out surface casing from 1375 ft. to 360 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. _____ inch casing Plugging Date: _____
 of _____
 *Wireline Contractor: _____ *Cementing Contractor: _____
 Type of Cement and Additives Used: _____
 Flowline/Pipeline has been abandoned per Rule 1105 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: Staff Regulatory Analyst Date: 7/24/2018 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: 8/6/2018

CONDITIONS OF APPROVAL, IF ANY: _____ Expiration Date: 2/5/2019

COA Type	Description
	<p>1) Provide 48 hour notice of plugging MIRU via electronic Form 42.</p> <p>2) Properly abandon on-location flowlines per Rule 1105. File electronic Form 42 once abandonment complete. Within 30 days of an operator completing abandonment requirements for an off-location flowline or crude oil transfer line the operator must submit a Flowline Report, Form 44.</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>4) After pumping plug across area that was section milled, shut down and shut well in at minimum 8 hours; verify gas migration has been eliminated. If evidence of gas migration or pressure remains contact COGCC Engineer for an update to plugging orders.</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>

Attachment Check List

Att Doc Num	Name
401703947	WELL ABANDONMENT REPORT (INTENT)
401712637	PROPOSED PLUGGING PROCEDURE
401712638	WELLBORE DIAGRAM
401724990	FORM 6 INTENT SUBMITTED

Total Attach: 4 Files

General Comments

User Group	Comment	Comment Date
Engineer	Production records indicate this well has been SI since November 2016. All shut-in wells must pass a mechanical integrity test or be plugged and abandoned within two years of the initial shut-in date, this form 6 intent does not extend that due date.	08/06/2018
Well File Verification	Pass	07/26/2018
Permit	Ready to pass form. Niobrara and Codell productive intervals confirmed via doc# 400151415.	07/25/2018
Permit	Returned to draft for: - edits to the "Zones" tab and the wellbore diagram	07/23/2018
Permit	Waiting on Operator response for: - "Zones" tab: the Niobrara productive interval is listed as Form 6 NB perf 7516-7227 , but on the the most recent form 5A doc# 400151415 for this well lists NB perf 7156-7277 .	07/20/2018

Total: 5 comment(s)



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.