

Document Number:
 400997479
 Date Received:
 03/02/2016

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: 100322 Contact Name: BEN DANIELL
 Name of Operator: NOBLE ENERGY INC Phone: (720) 587-2487
 Address: 1625 BROADWAY STE 2200 Fax: _____
 City: DENVER State: CO Zip: 80202 Email: BEN.DANIELL@NBLENERGY.COM
For "Intent" 24 hour notice required, Name: Carlile, Craig Tel: (970) 629-8279
COGCC contact: Email: craig.carlile@state.co.us

API Number 05-123-29678-00 Well Name: HARSH H Well Number: 26-23D
 Location: QtrQtr: NWSE Section: 26 Township: 3N 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: 40.194791 Longitude: -104.627834
 GPS Data:
 Date of Measurement: 06/19/2009 PDOP Reading: 2.5 GPS Instrument Operator's Name: BRAIN DEROSE
 Reason for Abandonment: Dry Production Sub-economic Mechanical Problems
 Other BRADENHEAD
 Casing to be pulled: Yes No Estimated Depth: 1900
 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	7224	7239			
NIOBRARA	6973	7140			

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	677	291	677	13	VISU
1ST	7+7/8	4+1/2	11.6	7,413	760	7,413	1,977	CBL

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 6846 with 2 sacks cmt on top. CIBP #2: Depth _____ with _____ 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 50 sks cmt from 4500 ft. to 4000 ft. Plug Type: CASING Plug Tagged:
Set 150 sks cmt from 1900 ft. to 900 ft. Plug Type: STUB PLUG 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 255 sacks half in. half out surface casing from 777 ft. to 0 ft. Plug Tagged:
Set _____ 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:

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

Signed: _____ Print Name: ANGELA FIORE
Title: ENGINEERING TECHNICIAN Date: 3/2/2016 Email: ANGELA.FIORE@NBLENERGY.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: 3/24/2016

CONDITIONS OF APPROVAL, IF ANY: _____

Expiration Date: 9/23/2016

COA Type	Description
	<p>1) Provide 48 hour notice of plugging MIRU via electronic Form 42.</p> <p>2) Properly abandon flowlines as per Rule 1103. File electronic Form 42 once abandonment complete.</p> <p>3) For stub plug- Leave 50' plug in casing stub, pull out to continue plug, after pumping stub plug, shut down and wait on cement at minimum 4 hours. Check surface casing pressure, if pressure remains call COGCC for an update to plugging orders in order to verify gas migration has been eliminated.</p> <p>If surface casing is plug not circulated to surface then tag plug – must be 562' or shallower and provide 10 sx plug at the surface. Leave at least 100' cement in the casing for each plug.</p>
	<p>The operator will collect both production and bradenhead gas samples for laboratory analysis of gas composition and stable carbon isotopes. The compositional analysis at a minimum shall include Hydrogen, Argon, Oxygen, Carbon Dioxide, Nitrogen, Carbon Monoxide, Methane, Ethene, Ethane, Propene, Propane, Isobutane, Butane, Isopentane, Pentane, Hexanes +, Specific Gravity and British Thermal Units (BTU). Stable carbon isotope analysis shall include delta DC1, delta 13C1, delta 13C2, delta 13C3, delta 13C4, delta 13NC4, delta 13C5 (If Possible), delta 13NC5 (If Possible), delta 13C6+ (If Possible). And stable isotopes of CO2 if possible (delta 13 CO2 and Delta 18O CO2). Copies of all final laboratory analytical results shall be provided to the COGCC within three (3) months of collecting the samples. The analytical results shall be submitted to the COGCC in an approved electronic data deliverable format.</p> <p>If water is present in the bradenhead operators shall collect production and bradenhead water samples for laboratory analysis of Volatile Organic Compounds (VOCs) via EPA Method 8260 or similar and for Semi volatile Organic Compounds (SVOCs) via EPA method 8270 or similar. In addition, operators shall have the samples analyzed for the major cations and anions so that an evaluation of the water source may be conducted. The analysis shall include Na, K, Ca and Mg for cations and sulfate, chloride, bromide and total alkalinity (including bicarbonate, carbonate and total alkalinity) for anions, plus a measurement of total dissolved solids.</p> <p>In addition, field water analysis should be carried out according to API RP 45. Below is the list of measurements that should be carried out immediately in the field after collecting a sample of oilfield waters:</p> <ul style="list-style-type: none"> pH Temperature Alkalinity Dissolved oxygen CO2 H2S Total and soluble iron Turbidity on an unfiltered sample Total suspended solids with at least primary filtration and washing performed in the field Bacteria with filtering and/or culturing in the field and incubation and counting performed in the laboratory <p>Copies of all final laboratory analytical results shall be provided to the COGCC within three (3) months of collecting the samples. The analytical results shall be submitted to the COGCC in an approved electronic data deliverable format.</p>

Attachment Check List

Att Doc Num	Name
400997479	FORM 6 INTENT SUBMITTED
400999001	WELLBORE DIAGRAM
400999006	PROPOSED PLUGGING PROCEDURE
400999008	WELLBORE DIAGRAM

Total Attach: 4 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Public Room	Document verification complete 03/03/16	3/3/2016 12:28:06 PM

Total: 1 comment(s)