

Document Number:
 401037971
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 02/01/2017

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: 10439 Contact Name: CAROL PRUITT
 Name of Operator: CARRIZO NIOBRARA LLC Phone: (713) 328-1000
 Address: 500 DALLAS STREET #2300 Fax: (713) 328-1060
 City: HOUSTON State: TX Zip: 77002 Email: CAROL.PRUITT@CRZO.NET
For "Intent" 24 hour notice required, Name: _____ Tel: _____
COGCC contact: Email: _____

API Number 05-001-06541-00 Well Number: 4
 Well Name: STATE OF COLORADO AB
 Location: QtrQtr: SWSE Section: 16 Township: 2S Range: 66W Meridian: 6
 County: ADAMS Federal, Indian or State Lease Number: 1501
 Field Name: HOLSTER Field Number: 36600

Notice of Intent to Abandon Subsequent Report of Abandonment

Only Complete the Following Background Information for Intent to Abandon

Latitude: 39.872780 Longitude: -104.778970
 GPS Data:
 Date of Measurement: 08/17/2006 PDOP Reading: 2.0 GPS Instrument Operator's Name: L. ROBBINS
 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
D SAND	8312	8328	04/24/2015	B PLUG CEMENT TOP	8270
J SAND	8385	8408	04/24/2015	B PLUG CEMENT TOP	8270

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	23	344	350	344	0	VISU
1ST	8+3/4	5+1/2	14	8,509	200	8,509	7,520	CBL
S.C. 1.1				2,600	60	2,600	2,268	CBL
S.C. 1.2				370	60	370	310	CALC
	8+3/4	5+1/1	Stage Tool	1,560	300	1,560	760	CBL

Plugging Procedure for Intent and Subsequent Report

CIBP #1: Depth 8270 with 2 sacks cmt on top. CIBP #2: Depth 7600 with 40 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 2440 ft. to 2580 ft. Plug Type: CASING Plug Tagged:
 Set 15 sks cmt from 1400 ft. to 1580 ft. Plug Type: CASING Plug Tagged:
 Set 60 sks cmt from 278 ft. to 1000 ft. Plug Type: CASING Plug Tagged:
 Set 25 sks cmt from 210 ft. to 410 ft. Plug Type: CASING Plug Tagged:
 Set 60 sks cmt from 310 ft. to 370 ft. Plug Type: ANNULUS Plug Tagged:

Perforate and squeeze at 650 ft. with 40 sacks. Leave at least 100 ft. in casing 600 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 10 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: 07/08/2015
 *Wireline Contractor: FTS International(JW WireLine) *Cementing Contractor: Sangel
 Type of Cement and Additives Used: G with .25% polyflake, .5%CACL2, .3%CFR-2, .3% CFL-3, .4% CDF-4P
 Flowline/Pipeline has been abandoned per Rule 1105 Yes No *ATTACH JOB SUMMARY

Technical Detail/Comments:

A casing leak was found when we started the P&A operations between 310' and 370'. The leak was squeezed with 60 sacks of class G cement on 7/1/15. The cement was drilled out and casing tested to 500 psi on 7/2/15. Normal plugging operations resumed on 7/7/15.

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

Signed: _____ Print Name: CAROL PRUITT
 Title: REGULAORY COMPLIANCE Date: 2/1/2017 Email: CAROL.PRUITT@CRZO.NET

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: Mangama, Christelle Date: 8/17/2018

CONDITIONS OF APPROVAL, IF ANY:

COA Type	Description

Attachment Check List

Att Doc Num	Name
401037971	FORM 6 SUBSEQUENT SUBMITTED
401038065	CEMENT BOND LOG
401038068	CEMENT JOB SUMMARY
401038071	CEMENT JOB SUMMARY
401038079	CEMENT JOB SUMMARY
401038084	WIRELINER JOB SUMMARY
401038090	OTHER
401197411	WELLBORE DIAGRAM

Total Attach: 8 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Engineer	Cement at ~2600' documented on CBL calculated from CBL data; HUC squeezed as part of abandonment - 60 sx from 370' to 310' added as S.C. 1.2	02/28/2018
Engineer	rt'd to DRAFT	01/19/2017
Engineer	<p>Hi there – got a call from a developer about this well being abandoned and so I looked at the attached SROA.</p> <p>The Formation tab info isn't 'executable' as presented – I wouldn't be able to abandon the deeper Jsand after the shallower Dsand</p> <p>The stage tool cement should now be correct for the results of the CBL and the well file – not repeated from NOIA and it is now verified with a CBL – not CALC</p> <p>Cement Job Summary Doc # 401038068 doesn't agree with the NOIA/CBL approved plugging procedure or the supplied plugged wellbore diagram (Job date 7/1/15 plug inside casing from 1000' to 287' (calc))</p> <p>Now it gets better than that - Cement Job Summary Doc # 401038071 has a job date of 7/6/15 with the job setting 2 plugs - #1 7580' – 7150' and plug #2 2580' -2486' – but supposedly 4 days before these plugs, a plug was set at 1000' – so these are both below that – how was the 2486' plug tagged?</p> <p>Cement Job Summary Doc # 401038079 - July 7 has four plugs –timing is okay with #401038071 - issue with this one, the shoe plug was supposed to be perforated and 50 sx pumped – instead appears to be set inside the casing and only 25 sx; plug #4 is listed as 10 sx of 15.8 ppg cement with 201' coverage inside 5-1/2" casing (so 25 sx listed for plug 3 giving 209' of coverage and plug 4 10 sx giving 200')</p> <p>I have a note from 4/27/15 – so both plugs at 650' and 450' were supposed to be perforated and pumped Based on the CBL – please place 10 sx inside the casing at 2580'; 15 sx at 1580' inside the casing; then the proposed perfs at 650' and placing 40sx there if circulation can be established and then the plug at the shoe at 405'.</p> <p>Then from 6/24/15 appear to have a hole in surface casing - will pump shoe plug first to stabilize</p> <p>The implication there is that will get cement behind the casing and see if that helps address the hole in the surface casing before going further</p> <p>The wireline tickets have a BP being set at 1000' on 6/30 – did that stay in the hole? 7/7 Sanjel ticket has a plug at 1457'. The next wireline entry does have perfs at 650' with a retainer – were the 40 sx just pumped through and nothing placed on top? Sequentially goes next seemingly to the Sanjel ticket(these are from the same day) and it appears that the shoe cement is only inside the casing and the same with the surface plug.</p>	01/17/2017

Total: 3 comment(s)