

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 2018

**NMOC**  
**SUNDRY NOTICES AND REPORTS ON WELLS**  
Do not use this form for proposals to drill a well in an abandoned well. Use form 3160-3 (APD) for such proposals.

**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No. COTTON DRAW UNIT 294H
2. Name of Operator DEVON ENERGY PRODUCTION COMPANY		9. API Well No. 30-015-44105
3a. Address 333 W. SHERIDAN AVE. OKLAHOMA CITY, OK 73102	3b. Phone No. (include area code) Ph: 405.228.2810	10. Field and Pool or Exploratory Area PADUCA; BONE SPRING
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 25 T24S R31E Mer NMP SWSE 230FSL 1905FEL		11. County or Parish, State EDDY COUNTY, NM

**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Upon review of the CBL, the TOC does not meet COA requirements. As per the COA the TOC needs to be 4170?, Isolation Scanner Cement Evaluation Log shows the TOC to be 4750?. The intermediate shoe is at 4370?. After discovering the low TOC on the cement evaluation log we attempted to establish injection down the 5-1/2"x9-5/8" annulus. We were able to achieve an injection rate of 4.5 bpm and 950 psi. Indicating that we will be able to perform a bradenhead squeeze down the 5-1/2"x9-5/8" annulus to remediate the low TOC. Attached is the Isolation Scanner Log and procedure to remediate the TOC with a bradenhead squeeze.

*SC 1-10-18*  
Accepted for record - NMOC

**BLM OIL CONSERVATION**  
ARTESIA DISTRICT  
JAN 09 2018

RECEIVED

*Submit subsequent report with details of work done*

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #396615 verified by the BLM Well Information System  
For DEVON ENERGY PRODUCTION COMPAN, sent to the Carlsbad  
Committed to AFMSS for processing by JENNIFER SANCHEZ on 12/20/2017 ()

Name (Printed/Typed) BRITTNEY WHEATON	Title REGULATORY PROFESSIONAL
Signature (Electronic Submission)	Date 12/01/2017

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By _____	Title _____	Date _____
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		
Office _____		

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\***

# CDU 294H – Bradenhead Squeeze Procedure

API: 3001544105

WBS: XX-113762.01.CMP

SHL: Sec 25 of 24S-31E

Eddy County, NM

## Objective:

1. The CDU 294H was drilled within the 2<sup>nd</sup> Bone Spring Sand and cased off with a 5-1/2" production casing string.
2. Attempt to establish injection rate down the 5-1/2"x9-5/8" annulus.
3. Perform bradenhead squeeze down the 5-1/2"x9-5/8" annulus to remediate top of cement on the production string. Bring TOC from 4750' to 3300'.
4. Run CBL to verify new TOC.

GL - 3,512.1'  
TD - 15,365'

KB - 3,538.1' (26')  
PBSD - 15,274' (FC)

Casing	OD	WT/FT	Grade	Top (ftKB)	Bottom (ftKB)	80% Collapse (psi)	80% Burst (psi)
Surface	13-3/8"	54.5#	J-55	26'	744'		
Intermediate	9-5/8"	40#	J-55	26'	4,370'		
Production	5-1/2"	17#	P-110RY	26'	15,365'	5,968	8,512

## Capacity:

5-1/2 17# Casing – (0.0232 bbl/ft)

5-1/2 17# Casing X 9-5/8 40# Casing – (0.0464 bbl/ft)

5-1/2 17# Casing X 8-3/4 Open Hole – (0.045 bbl/ft)

## EHS:

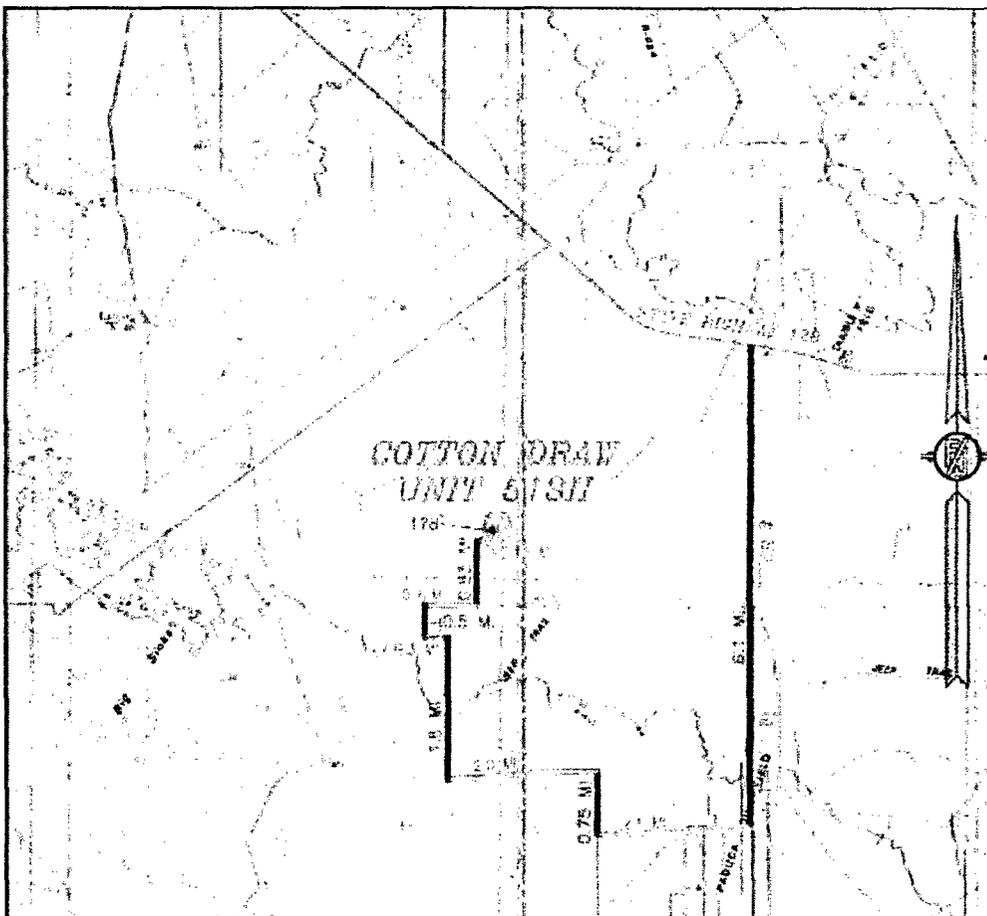
- All personnel will wear hard hats, safety glasses (side shields), FRC, and steel-toed boots while on location and follow all company policies
- Hold PJSM with all vendors on location discussing matters of safety, job procedure, and procedure execution contingencies. For any scope change or shift change, safety meetings need to be held with all personnel on location. Ensure safety shower is set on location and appropriate containments are set prior to start of frac.

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**Directions:**

**DIRECTIONS TO LOCATION**

FROM STATE HIGHWAY 128 AND CR 1 (ORLA ROAD) GO SOUTH ON CR 1 6.1 MILES, TURN RIGHT ON CALICHE ROAD (MONSANTO ROAD) AND GO WEST 2.1 MILES, TURN RIGHT AND GO NORTH 0.75 OF A MILE, TURN LEFT AND GO WEST 2.0 MILES, TURN RIGHT AND GO NORTH 1.8 MILES, TURN LEFT AND GO WEST 0.3 OF A MILE, TURN RIGHT AND GO NORTH 0.5 OF A MILE, TURN RIGHT AND GO EAST 0.7 OF A MILE, TURN LEFT AND GO NORTH 0.83 OF A MILE, TURN RIGHT AND GO NORTHEAST 0.15 OF A MILE TO EXISTING CDU 99H PAD. FROM NORTHEAST PAD CORNER FOLLOW ROAD SURVEY FLAGS NORTH 178' TO THE SOUTHWEST PAD CORNER FOR THIS LOCATION.



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Nick Ashley, Completions Engineer  
405-552-4641 [office]  
405-465-2076 [cell]  
[Nick.Ashley@dvn.com](mailto:Nick.Ashley@dvn.com)

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**Devon Contacts**

<b>Devon Contacts</b>	<b>Contact</b>	<b>Office</b>	<b>Office Phone</b>	<b>Cell Phone</b>	<b>E-mail Address</b>
CMP Engineer	Nick Ashley	OKC	405-552-4641	1(405)465-2076	<a href="mailto:Nick.Ashley@dvn.com">Nick.Ashley@dvn.com</a>
Foreman CMP	Kelly Whitehead	Artesia	1(575)748-1834	1(575)513-4657	<a href="mailto:Kelly.Whitehead@dvn.com">Kelly.Whitehead@dvn.com</a>
Foreman CMP	Danny Velo	Artesia	1(575)746-5572	1(575)703-3360	<a href="mailto:Danny.Velo@dvn.com">Danny.Velo@dvn.com</a>
Sand Coordinator	Mark Briney	OKC	(405)552-4504	(405)833-4771	<a href="mailto:Mark.Briney@dvn.com">Mark.Briney@dvn.com</a>
CMP Manager	Dan Wood	OKC	(405)288-8514	(405)974-0892	<a href="mailto:Dan.Wood@dvn.com">Dan.Wood@dvn.com</a>

**Completion Notes:**

- **Previous Operations:**
  - o CBL already ran and TOC at 4750'.
  - o Tied into 9-5/8" x 5-1/2" annulus and able to establish an injection rate of 4.5 bpm at 950 psi.
  - o Production casing tested to 8500 psi for 30 min and Toe sleeve opened.
- All water pumped into the well must be treated with biocide and if fresh water is used it needs to be treated with 2% KCL substitute.

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Nick Ashley, Completions Engineer  
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[Nick.Ashley@dvn.com](mailto:Nick.Ashley@dvn.com)

## PROCEDURE:

1. MIRU cement truck and associated equipment. Tie into 9-5/8"x5-1/2" annulus.
2. Establish an injection rate. Verify injection rate of 5 bpm without exceeding 1500 psi. Monitor 5-1/2" casing pressure and the 13-3/8"x9-5/8" annulus pressure during injection. If able to establish an injection rate of 5 bpm without exceeding 1500 psi and no pressure communication was observed on the production and surface casing then proceed with the procedure.
3. Pump 20 BBL fresh water ahead.
4. Mix and pump 72 bbls of 12.9 lb/gal 35/65 Poz Class "C" w/ 6% bentonite. Cement volume includes 30% excess for the open hole section.

NOTE: Ensure lab testing with slurry has been completed and results sent to engineer. Verify thickening time meets job requirements.

5. Displace with 153 bbl of fresh water.
    - A. New TOC should be +/- 3300'
- NOTE: Verify volumes with engineer before pumping
6. Monitor annulus pressure for 15 min. If well goes on vacuum call foreman and engineer.
  7. Shut well in, RD from well and wait on cement for 48 hrs.
  8. MIRU wireline, crane, lubricator. RIH with RCBL and log from 6,000' to 500' above where TOC is seen with 2000 psi on well. Well should have ~2000 psi on the well from open toe sleeve. Confirm new TOC and let engineer know TOC.
  9. RDMO wireline, crane, lubricator. Secure Wellhead.
  10. Have CBL and cement report sent to Nick Ashley ([Nick.Ashley@dvn.com](mailto:Nick.Ashley@dvn.com)) and [DCWellFileWestern@dvn.com](mailto:DCWellFileWestern@dvn.com).

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