

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON CARLSBAD FIELD OFFICE**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*5. Lease Serial No.  
669

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.  
ARABIAN 30-19 FED COM 4H9. API Well No.  
30-025-4378810. Field and Pool or Exploratory Area  
WC-025G-08S253235G;LWR BS11. County or Parish, State  
LEA COUNTY, NM

SUBMIT IN TRIPLICATE - Other instructions on page 2

## 1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

## 2. Name of Operator

DEVON ENERGY PRODUCTION COMPANY

Contact: LINDA GOOD

Email: linda.good@devn.com

## 3a. Address

333 WEST SHERIDAN AVE.  
OKLAHOMA CITY, OK 73102

## 3b. Phone No. (include area code)

Ph: 405-552-6558

## 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 30 T25S R32E Mer NMP SENE 2450FNL 1295FEL

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

## TYPE OF SUBMISSION

- ☒
- Notice of Intent
- 
- ☐
- Subsequent Report
- 
- ☐
- Final Abandonment Notice

## TYPE OF ACTION

- |   |   |  |   |
|---|---|--|---|
| <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen               | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off   |
| <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Hydraulic Fracturing | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity   |
| <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 recomple 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 recomple 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 4130', UltraView Cement Evaluation Log shows the TOC to be 5150'. The intermediate shoe is at 4330'. 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 3 bpm and 500 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. The frac date is scheduled for 10/12/17 so we would like to request to remediate the TOC following the frac job. Please find the attached procedure to remediate the TOC with a bradenhead squeeze.

The UltraView log is too large to attach and will be emailed to Severn & Hague

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

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

Electronic Submission #391115 verified by the BLM Well Information System  
For DEVON ENERGY PRODUCTION COMPANY, sent to the Hobbs  
Committed to AFMSS for processing by MUSTAFA HAQUE on 10/10/2017 ()

Name (Printed/Typed) LINDA GOOD

Title REGULATORY SPECIALIST

Signature (Electronic Submission)

Date 10/06/2017

## THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Mustafa Haque

Title

PETROLEUM ENGINEER

Date 10-12-2017

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

BUREAU OF LAND MANAGEMENT  
CARLSBAD FIELD 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 \*\*

MSS/OLD  
10/23/2017

## Arabian 30-19 Fed Com 4H – Bradenhead Squeeze Procedure

API: 3002543788

WBS: XX-112612.01.CMP

SHL: Sec 30 of 25S-32E – 2485' FNL & 1317' FEL

Lea County, NM

### Objective:

1. The Arabian 30-19 Fed Com 4H 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 5150' to 3300'.
4. Run CBL to verify new TOC. *Send CBL to BLM*

GL - 3,361.1'

TD - 17,635'

KOP - 9,721'

KB - 3,386.1' (25')

PBTD - 17,547' (FC)

Casing	OD	WT/FT	Grade	Top (ftKB)	Bottom (ftKB)	80% Collapse (psi)	80% Burst (psi)
Surface	13-3/8"	54.5#	J-55	25'	1,048'		
Intermediate	9-5/8"	40#	J-55	25'	4,330'		
Production	5-1/2"	17#	P-110RY	25'	17,635'	5,968	8,512

### Capacity:

5-1/2 17# Casing – (0.0232 bbl/ft)

5-1/2 17# Casing X 2-3/8" Tubing – (0.0178 bbl/ft)

5-1/2 17# Casing X 2-7/8" Tubing – (0.0152 bbl/ft)

Offset Wells: 1 offsets in same of near formation. See Frac Bash guideline.

Operator	Well	S-T-R	Surf Loc	Distance	Frac Stg	Current Well Status




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**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**

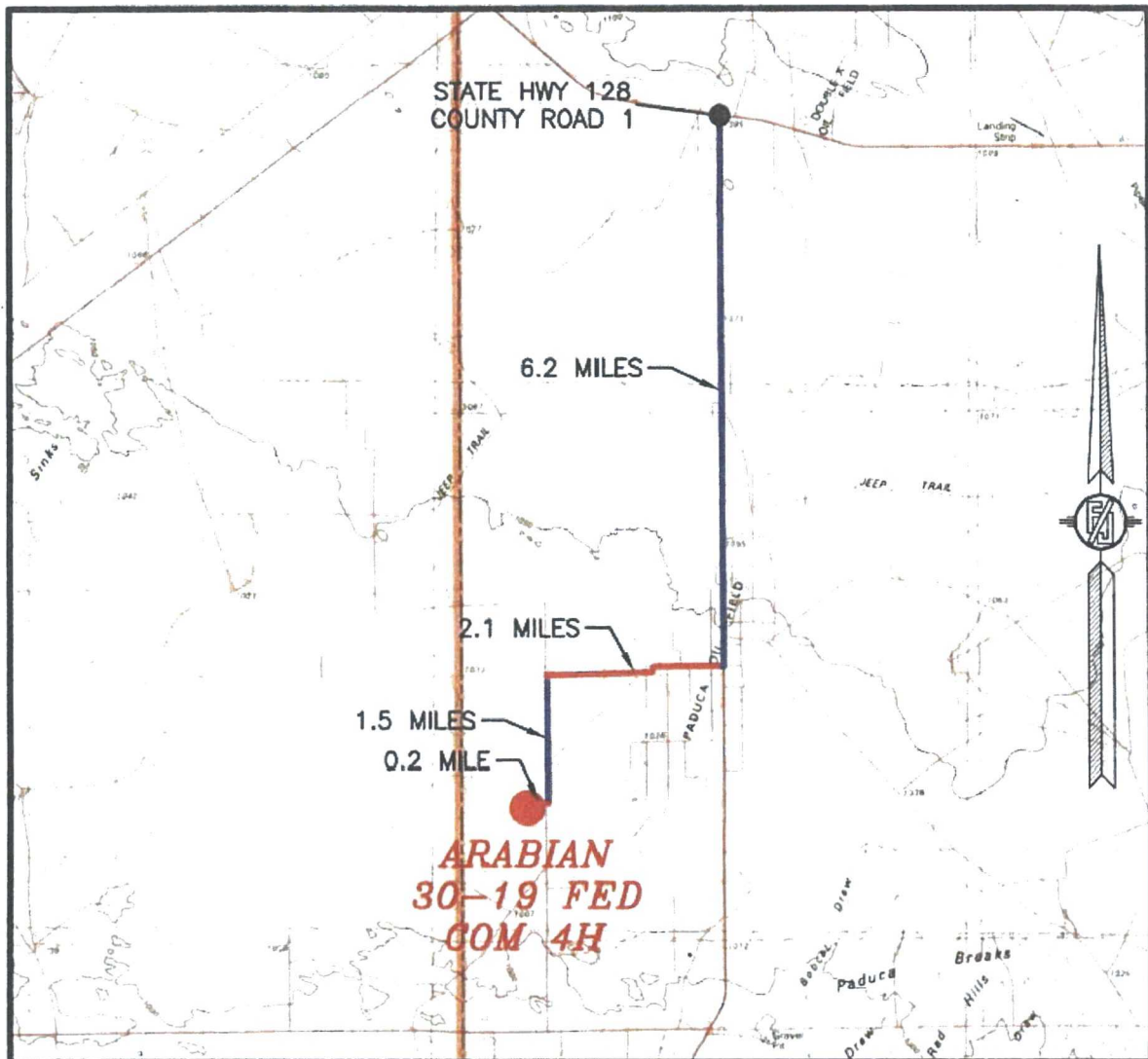
FROM THE INTERSECTION OF STATE HWY 128 & ORLA HWY (COUNTY ROAD 1) GO SOUTH ON ORLA HWY APPROX. 6.2 MILES TO MONSANTO ROAD, TURN RIGHT (WEST) ON MONSANTO ROAD GO APPROX 2.1 MILES TO A "T" INTERSECTION, TURN LEFT (SOUTH) ON LEASE ROAD GO APPROX 1.5 MILES TO A CALICHE ROAD ON RIGHT (WEST), TURN RIGHT (WEST) GO APPROX 0.2 MILE TO LOCATION ON LEFT (SOUTH) SIDE OF ROAD.

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

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**Devon Contacts**

Devon Contacts	Contact	Office	Office Phone	Cell Phone	E-mail Address
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:**
  - CBL already ran and TOC at 5150'.
  - Tied into 9-5/8"x 5-1/2" annulus and able to establish an injection rate of 3 bpm at 500 psi.
- **Marker Joint Tops (len): 8,742.6' (21.24'); 9,565.2' (20.99') MD**
- **Flotation Collar @ 9,754 MD ~1 deg incl**
  - Burst by drilling after floating casing, ID is same as casing (4.892")
  - Have had recent issues with running tools through flotation collar. Contact engineer and foreman before running any tools through this section.
- **TAM PosiFrac Toe Sleeve @ 17,497' MD - 4.25" ID**
- **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  
405-552-4641 [office]  
405-465-2076 [cell]  
[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 92 bbls of 12.9 lb/gal 35/65 Poz Class "C" w/ 6% bentonite .

**NOTE:** Ensure lab testing with slurry has been completed and results sent to engineer before at least 48 hrs before pumping and have a company rep contact the engineer to review lab testing. 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 and pump. RIH with RCBL log and log from 6,000' to 500' above where TOC is seen with 1500 psi on the well. Confirm new TOC and let engineer know TOC.
9. RDMO wireline, crane, lubricator and pump. Secure Wellhead.
10. Have CBL and cement report sent to Nick Ashley ([Nick.Ashley@dvn.com](mailto:Nick.Ashley@dvn.com)).

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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)





Haque, Mustafa &lt;mhaque@blm.gov&gt;

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**FW: Arabian 30-19 Fed Com 4H - Low TOC**

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**Ashley, Nick** <Nick.Ashley@dvn.com>  
To: "mhaque@blm.gov" <mhaque@blm.gov>  
Cc: "Good, Linda" <Linda.Good@dvn.com>

Tue, Oct 10, 2017 at 2:34 PM

In addition, during the frac job we will tie into the 5-1/2"x9-5/8" annulus, install a pressure transducer, and a pop-off set at 1500 psi. The pressure will be monitored and recorded at all times. Bradenhead squeeze will be performed following the frac job to remediate the low TOC.

Thanks,

Nick Ashley

Devon Energy

**From:** Ashley, Nick  
**Sent:** Friday, October 06, 2017 9:11 AM  
**To:** Good, Linda <Linda.Good@dvn.com>  
**Cc:** Wood, Daniel <Daniel.Wood@dvn.com>  
**Subject:** Arabian 30-19 Fed Com 4H - Low TOC

Linda,

Upon review of the CBL, the TOC does not meet COA requirements. As per the COA the TOC needs to be 4130', UltraView Cement Evaluation Log shows the TOC to be 5150'. The intermediate shoe is at 4330'. 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 3 bpm and 500 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. The frac date is scheduled for 10/12 so we would like to request to remediate the TOC following the frac job. Attached is the UltraView Log and procedure to remediate the TOC with a bradenhead squeeze.

Linda, let me know if you need any additional information.

Nick Ashley