

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**NMOCD**  
**Artesia**

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

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

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

|   |   |   |
|---|---|---|
| 1. Type of Well<br><input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other                            |   | 5. Lease Serial No.<br>NMNM113944                             |
| 2. Name of Operator<br>CHISHOLM ENERGY OPERATING, LLC<br>Contact: JENNIFER ELROD<br>Email: jelrod@chisholmenergy.com  |   | 6. If Indian, Allottee or Tribe Name                          |
| 3a. Address<br>801 CHERRY ST., SUITE 1200 - UNIT 20<br>FORT WORTH, TX 76102   | 3b. Phone No. (include area code)<br>Ph: 817-953-3728 | 7. If Unit or CA/Agreement, Name and/or No.                   |
| 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)<br>Sec 28 T26S R26E Mer NMP NWNW 150FNL 1270FWL<br>32.020086 N Lat, 104.302329 W Lon |   | 8. Well Name and No.<br>COTTONWOOD 28-33 FED 2BS 1H           |
|   |   | 9. API Well No.<br>30-015-43691                               |
|   |   | 10. Field and Pool or Exploratory Area<br>WELCH; BONE SPRINGS |
|   |   | 11. County or Parish, State<br>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 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 checked="" 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 recompleat 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 recompleat 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.

\*\*\*SET TUBING AND GAS LIFT INSTALLATION SUNDRY\*\*\*

10/16/2017-INSTALLED GAS LIFT SYSTEM (DESIGN ATTACHED)

SET 2 7/8" 6.5" TBG @ 7100'

*BC 11-8-17*  
Accepted for record - NMOCD

**NM OIL CONSERVATION**  
ARTESIA DISTRICT  
NOV 07 2017

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|  |                              |
|--|------------------------------|
| 14. I hereby certify that the foregoing is true and correct.<br><b>Electronic Submission #392561 verified by the BLM Well Information System For CHISHOLM ENERGY OPERATING, LLC, sent to the Carlsbad Committed to AFMSS for processing by JENNIFER SANCHEZ on 10/23/2017 ()</b> |                              |
| Name (Printed/Typed) JENNIFER ELROD  | Title SENIOR REGULATORY TECH |
| Signature (Electronic Submission)  | Date 10/19/2017              |

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

|   |             |
|---|-------------|
| Approved By _____   | Title _____ |
| 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 \*\***

# Weatherford

## Weatherford Gas-Lift Systems Pressure Valve Gas Lift Design Calculations

Company: Chisholm Energy Holdings LLC  
Field: New Mexico  
Well: 1H  
Lease: Cottonwood Federal 28-33

Date: 10-10-2017  
Designed By: B. Jirasek  
Design For: Paul Martinez

| #  | TVD<br>(ft) | MD<br>(ft) | TV<br>(ft) | TCF   | Port<br>Size<br>(in) | R       | DPC<br>(psi) | PT<br>(psi) | PSC<br>(psi) | PVC<br>(psi) | OP<br>(psi) | PSO<br>(psi) | PD<br>@60F<br>(psi) | PTRO<br>(psi) |
|----|-------------|------------|------------|-------|----------------------|---------|--------------|-------------|--------------|--------------|-------------|--------------|---------------------|---------------|
| 10 | 1750        | 1750       | 105        | 0.912 | 12                   | 0.115   | 45           | 766         | 1057         | 1102         | 1145        | 1100         | 1005                | 1135          |
| 9  | 2450        | 2452       | 110        | 0.903 | 12                   | 0.115   | 64           | 831         | 1019         | 1083         | 1115        | 1052         | 978                 | 1105          |
| 8  | 3000        | 3002       | 113        | 0.898 | 12                   | 0.115   | 79           | 826         | 997          | 1075         | 1108        | 1029         | 965                 | 1090          |
| 7  | 3550        | 3552       | 116        | 0.892 | 12                   | 0.115   | 94           | 822         | 978          | 1072         | 1104        | 1010         | 956                 | 1080          |
| 6  | 4100        | 4103       | 119        | 0.887 | 12                   | 0.115   | 109          | 817         | 958          | 1068         | 1100        | 991          | 947                 | 1070          |
| 5  | 4650        | 4653       | 121        | 0.883 | 12                   | 0.115   | 125          | 824         | 938          | 1062         | 1093        | 969          | 939                 | 1060          |
| 4  | 5175        | 5179       | 123        | 0.880 | 12                   | 0.115   | 139          | 819         | 917          | 1056         | 1087        | 947          | 930                 | 1050          |
| 3  | 5700        | 5704       | 125        | 0.878 | 12                   | 0.115   | 155          | 825         | 894          | 1049         | 1078        | 923          | 921                 | 1040          |
| 2  | 6200        | 6206       | 126        | 0.876 | 12                   | 0.115   | 169          | 820         | 872          | 1041         | 1070        | 900          | 912                 | 1030          |
| 1  | 6700        | 6758       |            |       | 16                   | Orifice |              | 800         |              |              | 1034        |              |                     |               |

TV : Temperature of Valve

TCF : Temperature correction Factor

R : Ap/Ab

DPC : Casing Press. at Depth - Casing Press. at Surface

PT : Tubing Pressure

PSC : Closing Pressure at Surface

PVC : Closing Pressure at Depth [PVC = PSC + DPC]

OP : Opening Pressure at Depth [OP = ( PVC - PTR ) / ( 1 - R )]

PSO : Surface Opening Pressure [PSO = OP - DPC]

PD AT F : Bellows Pressure at Base Temperature [PD AT F = TCF X PVC]

PTRO : Test Rack Opening Pressure [PTRO = ( PD AT F ) / ( 1 - R )]

Shipping Date:

Ship Via: WFT Truck

Shipping Ticket:

Setup By:

Final Test By:

File: Chisholm Energy Holdings LLC Cottonwood 28-33 1H.val

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DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTNMOCD  
ArtesiaFORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**  
*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.  
NMLC029395A

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.  
TONY FEDERAL 39. API Well No.  
30-015-3047010. Field and Pool or Exploratory Area  
[96831]CEDAR LAKE; GLOR11. County or Parish, State  
EDDY CO COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator  
APACHE CORPORATIONContact: EMILY FOLLIS  
E-Mail: Emily.Follis@apachecorp.com3a. Address  
303 VETERANS AIRPARK LANE SUITE 1000  
MIDLAND, TX 797053b. Phone No. (include area code)  
Ph: 432-818-1801

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

Sec 18 T17S R31E NWSW 2310FSL 330FWL

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

| TYPE OF SUBMISSION                                    | TYPE OF ACTION                                |   |  |   |
|---|---|---|--|---|
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| <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 Workover Operations |
|   | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon     | <input type="checkbox"/> Temporarily Abandon       |   |
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Apache performed the following: WO procedures

Accepted for record - NMOCD

07/13/17 JSA/SFTY MTG, MIRU, L/T, NO GOOD, PUMP STUCK, WORK TO GET OFF RHR, POH W/RODS, 50#/CSG, BLED DN &amp; KILL, NU BOP, TAC NOT SET, RIH, TAG @ PBTD/5154', TALLY OUT OF HOLE W/145 JTS, 2' SUB, 2 JTS, TAC, 14 JTS, BJ, SN, HOLE IN BJ, SI, SDFN

07/14/17 JSA/SFTY MTG, 40#, BLED DN &amp; KILL, RU RENEGADE WL, RIH W/3 1/8" PERFORATING GUNS, CORRELATE TO LOGS, PERF YESO AS FOLLOWS: 4600', 4627', 4652', 4656', 4670', 4681' @ 3 SPF 120 DEGREE PHASING W/GEO FRAC - IQ CHARGES @ .4" EHD (18 HOLES), POH W/GUNS, RD WL, SI, RD

07/18/17 JSA/SFTY MTG, 50#, BLED DN &amp; KILL, RU TBG TSTRS, PU PKR &amp; TST TBG IN HOLE, RD TBG TSTRS, LD 15 JTS, ND BOP, SET PKR @ 4579/145 JTS, NU WELLHD, RIH W/RODS, POH &amp; LD RODS, RD MO

NMOIL CONSERVATION

ARTESIA DISTRICT

NOV 07 2017

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14. Thereby certify that the foregoing is true and correct.

Electronic Submission #392753 verified by the BLM Well Information System  
For APACHE CORPORATION, sent to the Carlsbad  
Committed to AFMSS for processing by JENNIFER SANCHEZ on 10/23/2017 ( )

Name (Printed/Typed) EMILY FOLLIS

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 10/23/2017

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

2017

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

BUREAU OF LAND MANAGEMENT  
CARLSBAD FIELD OFFICE

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(Instructions on page 2)

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

**Additional data for EC transaction #392753 that would not fit on the form**

**32. Additional remarks, continued**

07/19/17 EMPTY FRAC TANKS DUE TO CONTAMINATED CHEMICALS, REFILL W/196 BBLS FRESH  
08/03/17 JSA/SFTY MTG, RU REPLACEMENT PUMP TRK, TEST LINES @ 6000#, CONT PUMP ACID BALL JOB AS  
FOLLOWS: 96 BBLS 15% HCL @ 15BPM/2250#, DROP (5) 7/8" RCN BALL SEALERS, 714 BBLS 15% GELLED ACID @  
16 BPM/3300#, DROPPING 5 BALLS EACH 60 BBLS, NO BALL ACTION, FLUSH W/60 BBLS FRESH, ISP/VAC, SI, RD  
ELITE, SDFN

08/12/17 JSA/SFTY MTG, 40#, BLED DN & KILL, ND BOP, SET TAC, NU WELL HD, PU & RIH W/PUMP & RODS,  
L/T @ 500#, GOOD PUMP ACTION, HANG ON, RDMO