

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

**Carlsbad Field Office
Exploratory Copy**

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 <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMNM97120
2. Name of Operator CHISHOLM ENERGY OPERATING LLC Contact: JENNIFER ELROD Email: jelrod@chisholmenergy.com		6. If Indian, Allottee or Tribe Name
3a. Address 801 CHERRY STREET FORT WORTH, TX 76012	3b. Phone No. (include area code) Ph: 817-953-3728 Ext: 3728	7. If Unit or CA/Agreement, Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 5 T23S R26E 230FSL 1810FEL 32.326965 N Lat, 104.312920 W Lon		8. Well Name and No. BODACIOUS 5-32 FED COM 2BS 5H
		9. API Well No. 30-015-45836-00-X1
		10. Field and Pool or Exploratory Area PURPLE SAGE-WOLFCAMP (GAS)
		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	Change to Original A
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	PD

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.

12/17/2019

CHANGE IN CASING DESIGN DUE TO FORMATION CHANGE
FILED SUNDRY 12/12 TO REVISE FORMATION FROM WOLFCAMP TO BONE SPRING

CHANGE MD/TVD
FROM: 19134'MD/8822'TVD
TO: 16946'MD/6421'TVD

CHANGE SURF CSG SET DEPTH
FROM: 420'
TO: 400'

RECEIVED

JAN 27 2020

EMNRD-OCD ARTESIA

14. I hereby certify that the foregoing is true and correct. Electronic Submission #496187 verified by the BLM Well Information System For CHISHOLM ENERGY OPERATING LLC, sent to the Carlsbad Committed to AFMSS for processing by PRISCILLA PEREZ on 12/17/2019 (20PP0686SE)	
Name (Printed/Typed) JENNIFER ELROD	Title SR REGULATORY ANALYST
Signature (Electronic Submission)	Date 12/17/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>DYLAN ROSSMANGO</u>	Title <u>PETROLEUM ENGINEER</u>	Date <u>12/19/2019</u>
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 <u>Carlsbad</u>		

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)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

2/14/20

Additional data for EC transaction #496187 that would not fit on the form

32. Additional remarks, continued

CHANGE SURF CSG CMNT

FROM: 455 SXS @ 1.24 YIELD W/85% EXCESS

TO: 445 SXS @ 1.34 YIELD W/100% EXCESS

CHANGE INTERMEDIATE CSG CMNT

FROM: 540 SXS LEAD @ 2.28 YIELD W/150% EXCESS & 235 SXS TAIL @ 1.33 YIELD W/150% EXCESS

TO: 405 SXS LEAD @ 2.59 YIELD W/200% EXCESS & 370 SXS TAIL CMNT @ 1.33 YIELD W/200% EXCESS

CHANGE PRODUCTION CASING SET DEPTH

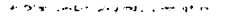
FROM: 19134'MD

TO: 16946'MD

CHANGE PRODUCTION CASING CMNT

FROM: 875 SXS LEAD @ 2.28 YIELD & 2405 SXS TAIL @ 1.18 YIELD

TO: 600 SXS LEAD @ 2.79 YIELD & 1840 SXS TAIL @ 1.51 YIELD



ft-RKB Tops

API # 30-025-XXXXX

Revised 12/16/19

ft-RKB	Tops	Wellbore Sketch	Hole Size	Casing	Drilling Fluids	Cement	OH Logs/Evaluation
500'	323 Capitan		17-1/2"	Surface: 13-3/8" 48.0# J55 STC	FW Spud Mud	Top of Cement: Surface 14.8 ppg, 1.34 cuft/sk 445 sks - 100% XS	
1,000'	1,560 Lamar 1,781 Delaware Mtn		12-1/4"	Intermediate: 9-5/8" 36# J55 LTC	Saturated Brine 10.0 - 10.2 ppg	Top of Lead: Surface 11.5 ppg, 2.59 cuft/sk 405 sks - 200% XS Top of Tail: 1,350' 14.8 ppg 1.33 cuft/sk 370 sks - 200% XS	
2,000'	2,465 Cherry Canyon						
3,000'							
4,000'							
5,000'	4,995 Bone Spring		8-3/4" Thru Curve 8-1/2" Lateral	Production: 5-1/2" 20# P110 CDC	Oil Based Mud 9.0 - 9.5 ppg	Top of Lead: Surface 11.3 ppg 2.79 cuft/sk 600 sks - 10% XS Top of Tail: 6,000' 13.2 ppg, 1.51 cuft/sk 1,840 sks - 10% XS	
5,500'	6,333 2nd BS SS						
6,000'	5,942 1st BS SS						
6,500'	6,333 2nd BS SS 6,594 3rd BS SS						
7,000'							

Casing Program: Bodacious 5-32 Fed Com 2B5 5H

Open Hole Size (Inches)	Casing Depth; From (ft)	Casing Setting Depth (ft) MD	Casing Setting Depth (ft) TVD	Casing Size (inches)	Casing Weight (lb/ft)	Casing Grade	Thread	Condition	Anticipated Mud Weight (ppg)	Burst (psi)	Burst SF (1.125)	Collapse (psi)	Collapse SF (1.125)	Body Tension (klbs)	Joint Tension (klbs)	Air Weight (lbs)	Bouyant Weight (lbs)	Body Tension SF (1.8)	Joint Tension SF (1.8)
Surface																			
17.5"	0'	400'	400'	13 3/8"	48.0	J-55	STC	New	9	2370	12.66	740	3.95	744,000	433,000	19,200	16,559	44.93	26.15
Intermediate																			
12.25"	0'	1,850'	1,850'	9 5/8"	36	J-55	LTC	New	10.2	3520	3.59	2020	3.09	564,000	453,000	66,600	56,219	10.03	8.06
Production																			
8.75"	0	16,946'	6,421'	5" 1/2	20	P-110	BTC	New	9.5	12360	3.90	11100	3.50	641,000	667,000	128,420	109,777	5.84	6.08

Casing Design Criteria and Casing Loading Assumptions:

Surface		
Tension A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	9 ppg	
Collapse A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	9 ppg	
Burst A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	9 ppg	
Intermediate		
Tension A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	10.2 ppg	
Collapse A 1.125 design factor with 1/3 TVD internal evacuation and collapse force equal to a mud gradient of:	10.2 ppg	
Burst A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	10.2 ppg	
Production		
Tension A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	9.5 ppg	
Collapse A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	9.5 ppg	
Burst A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	9.5 ppg	

**PECOS DISTRICT
DRILLING OPERATIONS
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Chisholm Energy Operating LLC
LEASE NO.:	NMNM97120
WELL NAME & NO.:	Bodacious 5-32 Fed Com 2BS 5H
SURFACE HOLE FOOTAGE:	230' FSL & 1810' FEL
BOTTOM HOLE FOOTAGE:	100' FNL & 400' FEL
LOCATION:	Section 5, T 23S, R 26E, NMPM
COUNTY:	Eddy County, New Mexico

H2S	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input type="radio"/> Low	<input checked="" type="radio"/> Medium	<input type="radio"/> High
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input checked="" type="radio"/> Conventional	<input type="radio"/> Multibowl	<input type="radio"/> Both
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit

All other previous Conditions of Approval still apply.

A. CASING

1. The 13-3/8" surface casing shall be set at approximately **400'** (a minimum of 25' into the Rustler Anhydrite and above the salt) and cemented to surface.
 - a. **If cement does not circulate to surface**, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of **6 hours** after pumping cement, ideally between 8-10 hours after.
 - b. WOC time for a primary cement job will be a minimum of **8 hours** or **500 psi** compressive strength, whichever is greater. This is to include the lead cement.
 - c. If cement falls back, remedial cementing will be done prior to drilling out the shoe.
 - d. WOC time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 psi compressive strength, whichever is greater.
2. The 9-5/8" intermediate casing shall be set at approximately **1850'** and cemented to surface.
 - a. **If cement does not circulate to surface**, see A.1.a, c & d.
 - b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

3. The 5-1/2" production casing shall be cemented with at least **200' tie-back** into the previous casing. Operator shall provide method of verification.
 - a. If cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

B. PRESSURE CONTROL

1. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M) psi**.
2. Required safety valves, with appropriate wrenches and subs for the drill string being utilized, will be in the open position and accessible on the rig floor.

C. SPECIAL REQUIREMENTS

1. Submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
 - a. The well sign on location shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

DR 12/19/2019