Form 3160-5 (June 2015)

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

SUNDRY NOTICES AND REPORTS ON WELLS

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

5. Lease Serial No. NMNM97153

6.	If India	n. Allotte	or Tribe	Name

-enter an				
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.				
Page HOBBS O	7. If Unit or CA/Agreement	, Name and/or No.		
JUN 1 0 201	8. Well Name and No. VACA DRAW 9418 10	FED 12H		
DECEIVI	PAPI Well No.			
o. (include area code)	10. Field and Pool or Explor RED HILLS	ratory Area		
	11. County or Parish, State			
	LEA COUNTY, NM	•		
TE NATURE OF NOTICE	, REPORT, OR OTHER	DATA		
BMISSION TYPE OF ACTION				
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Iraulic Fracturing 🔲 Reclar	nation	Well Integrity		
v Construction		Other		
g and Abandon Tempo	rarily Abandon PI	nange to Original A		
g Back 🔲 Water	Disposal			
B LLC, sent to the Hobbs				
Title REGULATORY A	NALYST			
Date 05/08/2019				
AL OR STATE OFFICE (ISE			
TitlePETROLEUM ENGIN	IEER	Date 05/24/2019		
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PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: BTA OIL PRODUCERS LLC

LEASE NO.: | NMNM097153

WELL NAME & NO.: VACA DRAW 9418 FEDERAL 12H

SURFACE HOLE FOOTAGE: 220'/S & 1275'/W **BOTTOM HOLE FOOTAGE** 50'/N & 350'/W

LOCATION: | SECTION 10, T25S, R33E, NMPM

COUNTY: LEA

COA

H2S	€ Yes	∩ No	, ,
Potash	• None	Secretary	← R-111-P
Cave/Karst Potential	€ Low	↑ Medium	← High
Variance	None	Flex Hose	Other
Wellhead	Conventional	← Multibowl	Both
Other	□ 4 String Area	Capitan Reef	□ WIPP
Other	Fluid Filled	Cement Squeeze	Pilot Hole
Special Requirements	☐ Water Disposal	ГСОМ	☐ Unit

All Previous COAs Still Apply

A. CASING

- The 10-3/4 inch surface casing shall be set at approximately 1200 feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the 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 six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8** hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the 7-5/8 inch intermediate casing is:

Option 1 (Single Stage):

• Cement to surface. If cement does not circulate see B.1.a, c-d above.

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office.
- 3. The minimum required fill of cement behind the production casing is:
 - Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)
 - Chaves and Roosevelt Counties
 Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.
 During office hours call (575) 627-0272.
 After office hours call (575)
 - ☑ Eddy CountyCall the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822
 - ✓ Lea CountyCall the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612
- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

Change of Field and Pool, or Exploratory:

FROM RED HILLS / UPPER BONE SPRING SHALE TO BOBCAT DRAW / UPPER WOLFCAMP

BATCH DRILLING SEQUENCE OF THE 12H, 13H, 14H, 15H:

- -SPUD Vaca #15H rig up walked in, drill 14-3/4" hole and set 10-3/4" csg
- -Walk to Vaca Draw #14H, SPUD 14-3/4" hole and set 10-3/4" csg
- -Walk to Vaca Draw #13H, SPUD 14-3/4" hole and set 10-3/4" csg
- -Walk to Vaca Draw #12H, SPUD 14-3/4" hole and set 10-3/4" csg, test BOP, drill and set 7-5/8" csg
- -Walk to Vaca Draw #13H, test BOP, drill 9-7/8" hole and set 7-5/8" csg
- -Walk to Vaca Draw #14H, test BOP, drill 9-7/8" hole and set 7-5/8" csg
- -Walk to Vaca Draw #15H, test BOP, drill 9-7/8" hole, run triple combo, and set 7-5/8" csg, drill pilot hole, run quad combo, set open hole whipstock, drill and set 5-1/2" x 5" casing.
- -Walk to Vaca Draw #14H, test BOP, drill and set 5-1/2" x 5" csg
- -Walk to Vaca Draw #13H, test BOP, drill and set 5-1/2" x 5" csg
- -Walk to Vaca Draw #12H, test BOP, drill and set 5-1/2" x 5" csg
- -Rig release

Mud Program 12H: (Vaca Draw 9418 12H)

Original APD

- -Surface Section Fresh water 8.4 ppg
- -Intermediate Brine 10.0 10.2 ppg
- -2nd Intermediate Cut brine 8.6 9.2 ppg
- -Production OBM 11.5 12.0 ppg

Proposed Change

- -Surface Section Fresh water 8.4 ppg
- -Intermediate DBE 9.4 ppg
- -Production OBM 11.5 12.0 ppg

Casing Program

Casing Program 12H

Original APD

- -Surface 13-3/8" 54.5# J-55 STC set at 1200' in a 17-1/2" hole
- -Intermediate 9-5/8" 40# J-55 @ 5000' in a 12-1/4" hole
- -2nd Intermediate 7" 29# P-110 @ 12564' in a 8-3/4" hole
- -Liner 4-1/2" 11.6# P-110 liner from 11964' 17499'

Proposed Change

1200 See COA

- -10-3/4" 40.5# J-55 STC set at 1250' (TVD 1250') in a 14-3/4" hole
- -7-5/8" 29.7# P-110 @ 12020' (TVD 11978') in a 9-7/8" hole with DV tool at 5025' (TVD 5011')
- -11820' (TVD 11778') of 5-1/2" 23# P-110 BTC and 5734' of 5" 18# P-110 set at 17554' (TVD 12488') in a 6-3/4" hole

Cement Programs

Lead 530 sx; 2.87 cfs; 10.5 ppg 100% TXL; 40% excess Tail 200 sx; 1.18 cfs; 15.6 ppg; 100% Class H; 15% excess

-Liner Cement

Lead 470 sx; 1.22 cfs; 14.4 ppg; 50:50 Class H; 10% excess

Proposed Change

-Surface Cement

Lead 640 sx; 1.74 cfs; 13.5 ppg; 100% Class C; 100% excess Tail 200 sx; 1.34 cfs; 14.8 ppg; 100% Class C; 100% excess

-Intermediate Cement

Stage 1 Lead 480 sx; 2.64 cfs; 10.5 ppg; 50:50 Class H; 15% excess Stage 1 Tail 400 sx; 1.19 cfs; 15.6 ppg; 100% Class H; 15% excess Stage 2 Lead 740 sx; 2.19 cfs; 12.7 ppg 100% Class C; 50% excess Stage 2 Tail 150 sx; 1.33 cfs; 14.8 ppg; 100% Class C; 25% excess

-Production Cement

Tail 635 sx; 1.27 cfs; 14.8 ppg; 50% POZ 50% Class H; 10% excess

Variances:

- -5M BOP on 9-7/8" hole
- -10M BOP with 5M annular for 6-3/4" hole
- -Wave the centralizer requirements for the 5-1/2" and 5" casing in the 6-3/4" hole size. An expansion additive will be utilized in the cement slurry for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.