

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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.*

5. Lease Serial No.  
NMNM120901

6. If Indian, Allottee or Tribe Name

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

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

1. Type of Well  
 Oil Well  Gas Well  Other

8. Well Name and No.  
SND 12 01 FED 003 1H

2. Name of Operator  
CHEVRON USA INCORPORATED

Contact: LAURA BECERRA  
E-Mail: LBECERRA@CHEVRON.COM

9. API Well No.  
30-015-45420-00-X1

3a. Address  
6301 DEAUVILLE BLVD  
MIDLAND, TX 79706

3b. Phone No. (include area code)  
Ph: 432-687-7655

10. Field and Pool or Exploratory Area  
WILDCAT

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
Sec 12 T24S R31E SESE 367FSL 1210FEL  
32.225639 N Lat, 103.726898 W Lon

**Carlsbad Field Office**  
**OCD Artesia**

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 PD
	<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.

Chevron USA respectfully requests a change of TD from the originally approved 19,060' MD/9,036' TVD to 19,221' MD/9,090' TVD. Target formation has not changed, it will remain Lower Avalon.

A revised 9 Pt. Drilling Plan with highlighted changes has been attached.

RECEIVED

JUL 23 2019

DISTRICT II-ARTESIA O.C.D.

*All previous COAs shall apply.*

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

Electronic Submission #464598 verified by the BLM Well Information System  
For CHEVRON USA INCORPORATED, sent to the Carlsbad  
Committed to AFMSS for processing by PRISCILLA PEREZ on 05/08/2019 (19PP1974SE)

Name (Printed/Typed) LAURA BECERRA	Title REGULATORY SPECIALIST
Signature (Electronic Submission)	Date 05/08/2019

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

Approved By ZOTA STEVENS Title PETROLEUM ENGINEER Date 05/15/2019

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 Carlsbad

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 \*\***

*Rev 10-29-19*

**1. FORMATION TOPS**

The estimated tops of important geologic markers are as follows:

Elevation 3608

FORMATION	SUB-SEA TVD	KBTVD	MD
Rustler	2,783	825	
Salado	1,095	2,513	
Castile	544	3,064	
Lamar	(1,008)	4,616	
Bell Canyon	(1,045)	4,653	
Cherry Canyon	(1,936)	5,544	
Brushy Canyon	(3,145)	6,753	
Top Bone Spring Lime	(4,849)	8,457	
Avalon	(4,916)	8,524	
Lower Avalon (AVL_TGT1_SND)	(5,482)	9,090	19,221
Lower Avalon (AVL_TGT2_SND)	(5,663)	9,271	
First Bone Spring	(5,870)	9,478	
First Bone Spring Shale	(6,217)	9,825	
Second Bone Spring	(6,499)	10,107	
TBSG Carbonate (Base SBSG)	(6,826)	10,434	
SBTC	(7,074)	10,682	
Second Bone Spring Shale	(7,316)	10,924	
TB1C (Top)	(7,603)	11,211	
TB1C BASE	(7,659)	11,267	
Third Bone Spring	(7,814)	11,422	
Third Bone Spring (TBS_TGT1_SND)	(8,221)	11,829	
Wolfcamp	(8,258)	11,866	

**2. ESTIMATED DEPTH OF WATER, OIL, GAS & OTHER MINERAL BEARING FORMATIONS**

The estimated depths at which the top and bottom of the anticipated water, oil, gas, or other mineral bearing formations are expected to be encountered are as follows:

Substance	Formation	Depth
Deepest Expected Base of Fresh Water		400
Water	Castile	3,064
Water	Cherry Canyon	5,544
Oil/Gas	Brushy Canyon	6,753
Oil/Gas	Avalon	8,524
Oil/Gas	First Bone Spring	9,825
Oil/Gas	Second Bone Spring	10,924
Oil/Gas	Third Bone Spring	11,422
Oil/Gas	Wolfcamp A	11,866
Oil/Gas	Wolfcamp B	12,545

All shows of fresh water and minerals will be reported and protected.

**3. BOP EQUIPMENT**

Chevron will have a minimum of a 5,000 psi rig stack (see proposed schematic) for drill out below surface casing. The stack will be tested as specified in the attached testing requirements. Batch drilling of the surface, intermediate, and production will take place. A full BOP test will be performed unless approval from BLM is received otherwise. Flex choke hose will be used for all wells on the pad (see attached specs). BOP test will be conducted by a third party.

Chevron requests a variance to use a FMC Technologies UH-S Multibowl wellhead, which will be run through the rig floor on surface casing. BOPE will be nipped up and tested after cementing surface casing. Subsequent tests will be performed as needed, not to exceed 30 days. The field report from FMC Technologies and BOP test information will be provided in a subsequent report at the end of the well. Please see the attached wellhead schematic. An installation manual has been placed on file with the BLM office and remains unchanged from previous submittal.

**4. CASING PROGRAM**

a. The proposed casing program will be as follows:

Purpose	From	To	Hole Size	Csg Size	Weight	Grade	Thread	Condition
Surface	0'	800'	17-1/2"	13-3/8"	54.5 #	J-55	STC	New
Intermediate	0'	4,600'	12-1/4"	9-5/8"	43.5 #	L-80	LTC	New
Production	0'	19,221'	8-1/2"	5-1/2"	20.0 #	P-110	TXP BTC	New

- b. Casing design subject to revision based on geologic conditions encountered.
- c. **\*\*\*A "Worst Case" casing design for wells in a particular area is used below to calculate the Casing Safety Factors. If for any reason the casing design for a particular well requires setting casing deeper than the following "worst case" design, then the Casing Safety Factors will be recalculated & sent to the BLM prior to drilling.**
- d. Chevron will fill casing at a minimum of every 20 jts (840') while running for intermediate and production casing in order to maintain collapse SF.

**SF Calculations based on the following "Worst Case" casing design:**

Casing String	Min SF Burst	Min SF Collapse	Min SF Tension	Min SF Tri-Axial
Surface	1.41	2.53	2.93	1.78
Intermediate	2.39	3.38	2.93	2.96
Production	1.29	2.49	4.37	1.55

The following worst case load cases were considered for calculation of the above Min. Safety Factors:

<b>Burst Design</b>	Surf	Int	Prod
Pressure Test- Surface, Int, Prod Csg P external: Mud weight above TOC, PP below P internal: Test psi + next section heaviest mud in csg	X	X	X
Displace to Gas- Surf Csg P external: Mud weight above TOC, PP below P internal: Dry Gas from Next Csg Point	X		
Gas over mud (60/40) - Int Csg/Liner P external: Mud weight above TOC, PP below P internal: 60% gas over 40% mud from Pilot hole TD PP		X	
Stimulation (Frac) Pressures- Prod Csg P external: Mud weight above TOC, PP below P internal: Max inj pressure w/ heaviest injected fluid			X
Tubing leak- Prod Csg (packer at KOP) P external: Mud weight above TOC, PP below P internal: Leak just below surf, 8.45 ppg packer fluid			X
<b>Collapse Design</b>			
Full Evacuation P external: Mud weight gradient P internal: none	X	X	X
Cementing- Surf, Int, Prod Csg P external: Wet cement P internal: displacement fluid - water	X	X	X
<b>Tension Design</b>			
100k lb overpull	X	X	X

**5. CEMENTING PROGRAM**

Slurry	Type	Top	Bottom	Weight	Yield	%Excess	Sacks	Water	Volume
				(ppg)	(cu.ft/sk)	Open Hole		gal/sk	bbls
Surface									
Tail	Class C	0'	800'	14.8	1.34	10	547	6.40	123
Intermediate Csg									
Lead	Class C	0'	3,600'	10.5	3.461	35	362	21.53	223
Tail	Class C	3,600'	4,600'	14.8	1.33	35	287	6.37	68
Production									
Lead 1	Class C	2,000'	8,350'	10.5	3.461	50	1562	21.53	347
Lead 2	Class C	8,350'	18,221'	13.2	1.85	15	1404	9.87	463
Tail	Acid Sol Class H	18,221'	19,221'	15	2.19	10	120	9.54	47

1. Final cement volumes will be determined by caliper.
2. Surface casing shall have at least one centralizer installed on each of the bottom three joints starting with the shoe joint.
3. Production casing will have one horizontal type centralizer on every joint for the first 1000' from TD, then every other joint to EOB, and then every third joint to KOP. Bowspring type centralizers will be run from KOP to intermediate casing.

**6. MUD PROGRAM**

From	To	Type	Weight	Viscosity	Filtrate
0'	800'	Spud Mud	8.3 - 8.9	28-30	N/C
800'	4,600'	OBM	9.0 - 10.1	28-31	N/C
4,600'	19,221'	OBM	8.3 - 9.5	10-15	15-25

A closed system will be utilized consisting of above ground steel tanks. All wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited in an approved sanitary landfill. Sanitary wastes will be contained in a chemical porta-toilet and then hauled to an approved sanitary landfill.

All fluids and cuttings will be disposed of in accordance with New Mexico Oil Conservation Division rules and regulations.

A mud test shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.

Visual mud monitoring equipment shall be in place to detect volume changes indicating loss or gain of circulating fluid volume. When abnormal pressures are anticipated -- a pit volume totalizer (PVT), stroke counter, and flow sensor will be used to detect volume changes indicating loss or gain of circulating fluid volume.

A weighting agent and lost circulating material (LCM) will be onsite to mitigate pressure or lost circulation as hole conditions dictate.

**7. TESTING, LOGGING, AND CORING**

The anticipated type and amount of testing, logging, and coring are as follows:

- a. Drill stem tests are not planned.
- b. The logging program will be as follows:

TYPE	Logs	Interval	Timing
Mudlogs	2 man mudlog	Int Csg to TD	Drill out of Surf Csg Shoe
LWD	MWD Gamma	Int. and Prod. Hole	While Drilling

- c. Conventional whole core samples are not planned.
- d. A Directional Survey will be run.

**8. ABNORMAL PRESSURES AND HYDROGEN SULFIDE**

- a. No abnormal pressure or temperatures are expected. Estimated BHP is:  psi
- b. Hydrogen sulfide gas is not anticipated. An H2S Contingency plan is attached with this APD in the event that H2S is encountered