

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

EMNRD-OCD ARTESIA  
REC'D: 05/05/2020

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

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

8. Well Name and No.  
SND 12 01 FED 002 2H

9. API Well No.  
30-015-45511-00-X1

10. Field and Pool or Exploratory Area  
WILDCAT

11. County or Parish, State  
EDDY COUNTY, NM

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

1. Type of Well  
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator  
CHEVRON USA INCORPORATED

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

3a. Address  
6301 DEAUVILLE BLVD  
MIDLAND, TX 79706

3b. Phone No. (include area code)  
Ph: 432-687-7665

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
  
Sec 12 T24S R31E SESW 983FSL 1665FWL  
32.227341 N Lat, 103.734680 W Lon

**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 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.

Chevron respectfully requests the intermediate casing cement job as indicated in the revised 9 Pt. Drilling Plan attached to this sundry.

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

**Electronic Submission #507823 verified by the BLM Well Information System  
For CHEVRON USA INCORPORATED, sent to the Carlsbad  
Committed to AFMSS for processing by PRISCILLA PEREZ on 03/21/2020 (20PP1723SE)**

Name (Printed/Typed) LAURA BECERRA

Title REGULATORY SPECIALIST

Signature (Electronic Submission)

Date 03/20/2020

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

Approved By NDUNGU KAMAU

Title PETROLEUM ENGINEER

Date 05/03/2020

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 \*\***

Accepted

RWP 5/8/2020

## Revisions to Operator-Submitted EC Data for Sundry Notice #507823

|                | Operator Submitted   | BLM Revised (AFMSS)   |
|----------------|--|---|
| Sundry Type:   | APDCH<br>NOI   | APDCH<br>NOI  |
| Lease:         | NMNM104684   | NMNM120901  |
| Agreement:     |  |   |
| Operator:      | CHEVRON USA INC<br>6301 DEAUVILLE BLVD<br>MIDLAND, TX 79706<br>Ph: 432-687-7665                | CHEVRON USA INCORPORATED<br>6301 DEAUVILLE BLVD<br>MIDLAND, TX 79706<br>Ph: 432 687 7100          |
| Admin Contact: | LAURA BECERRA<br>REGULATORY SPECIALIST<br>E-Mail: LBECERRA@CHEVRON.COM<br><br>Ph: 432-687-7665 | LAURA BECERRA<br>REGULATORY SPECIALIST<br>E-Mail: LBECERRA@CHEVRON.COM<br><br>Ph: 432-687-7665    |
| Tech Contact:  | LAURA BECERRA<br>REGULATORY SPECIALIST<br>E-Mail: LBECERRA@CHEVRON.COM<br><br>Ph: 432-687-7665 | LAURA BECERRA<br>REGULATORY SPECIALIST<br>E-Mail: LBECERRA@CHEVRON.COM<br><br>Ph: 432-687-7665    |
| Location:      |  |   |
| State:         | NM   | NM  |
| County:        | EDDY   | EDDY  |
| Field/Pool:    | COTTON DRAW;BONE SPRING  | WILDCAT   |
| Well/Facility: | SND 12 01 FED 002 2H<br>Sec 12 T24S R31E Mer NMP SESW 983FSL 1665FWL                           | SND 12 01 FED 002 2H<br>Sec 12 T24S R31E SESW 983FSL 1665FWL<br>32.227341 N Lat, 103.734680 W Lon |

### Pad Summary

The table below lists all the wells for the given pad and their respective name and TVD's (ft) for their production target intervals:

| Well Name(s)         | Target TVD | Formation Desc. |
|----------------------|------------|-----------------|
| SND 12 01 FED 002 1H | AVALON     |                 |
| SND 12 01 FED 002 2H | AVALON     | 9036            |
| SND 12 01 FED 002 3H | AVALON     | 9036            |

### 1. FORMATION TOPS

The estimated tops of important geologic markers are as follows:

Elevation: 3552 ft

| FORMATION                 | SUB-SEA TVD | TVD   | MD     | LITHOLOGIES     | MIN. RESOURCES | PROD. FORMATION |
|---------------------------|-------------|-------|--------|-----------------|----------------|-----------------|
| Rustler                   | 2786        | 766   | 766    | ANHYD           | N/A            |                 |
| Castile                   | 562         | 2,990 | 2,990  | SALT            | N/A            |                 |
| Lamar                     | -1023       | 4,575 | 4,575  | LIMESTONE       | N/A            |                 |
| Bell Canyon               | -1074       | 4,626 | 4,626  | SAND STONE      | N/A            |                 |
| Cherry Canyon             | -1928       | 5,480 | 5,480  | SAND STONE      | N/A            |                 |
| Brushy Canyon             | -3208       | 6,760 | 6,760  | SAND STONE      | N/A            |                 |
| Bone Spring Lime          | -4871       | 8,423 | 8,475  | SHALE/LIMESTONE | N/A            |                 |
| Avalon                    | -4891       | 8,443 | 8,545  | SHALE           | Oil            |                 |
| Lateral TD (Lower Avalon) | -5484       | 9,036 | 18,807 | SHALE           | Oil            | Yes             |

| WELLBORE LOCATIONS | SUB-SEA TVD | RKB TVD | MD     |
|--------------------|-------------|---------|--------|
| SHL                | 3552        | -       | -      |
| KOP                | -4911       | 8,463   | 8,515  |
| FTP                | -5484       | 9,036   | 9,415  |
| LTP                | -5484       | 9,036   | 18,757 |

### 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 |                           | 500   |
| Water                                | Cherry Canyon             | 5,480 |
| Oil/Gas                              | Avalon                    | 8,443 |
| Oil/Gas                              | Lateral TD (Lower Avalon) | 9,036 |

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 per hole section, unless approval from BLM is received otherwise. Flex choke hose will be used for all wells on the pad (see attached specs and variance). 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. All tests performed by third party.

#### 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'   | 850'    | 16" or 17.5 | 13-3/8"  | 54.5 # | J-55  | BTC     | New       |
| Intermediate | 0'   | 8,423'  | 12-1/4"     | 9-5/8"   | 40.0 # | L80IC | LTC     | New       |
| Production   | 0'   | 18,807' | 8-1/2"      | 5-1/2"   | 20.0 # | P-110 | TXP BTC | New       |

| Proposed     | Hole Size   | Casing Size | Top (MD) | Btm (MD) | Top (TVD) | Btm (TVD) | Top (SSTVD) | Btm (SSTVD) | Grade | Weight | Joint type |
|--------------|-------------|-------------|----------|----------|-----------|-----------|-------------|-------------|-------|--------|------------|
| Surface      | 16" or 17.5 | 13-3/8"     | 0'       | 850'     | 0'        | 850'      | 3,552'      | 2,702'      | J-55  | 54.5 # | BTC        |
| Intermediate | 12-1/4"     | 9-5/8"      | 0'       | 8,423'   | 0'        | 8,423'    | 3,552'      | -4,871'     | L80IC | 40.0 # | LTC        |
| Production   | 8-1/2"      | 5-1/2"      | 0'       | 18,807'  | 0'        | 9,036'    | 3,552'      | -5,484'     | P110  | 20.0 # | TXP-BTC    |

b. Casing design subject to revision based on geologic conditions encountered.

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

c. 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:

|                      |         |       |                  |
|----------------------|---------|-------|------------------|
| Surface Casing:      | 1,550'  | ftTVD | (maximum depths) |
| Intermediate Casing: | 9,145'  | ftTVD | (maximum depths) |
| Production Casing:   | 23,551' | ftMD  | (maximum depths) |

| Casing String | Min SF Burst | Min SF Collapse | Min SF Tension | Min SF Tri-Axial |
|---------------|--------------|-----------------|----------------|------------------|
| Surface       | 1.65         | 1.58            | 1.64           | 1.88             |
| Intermediate  | 1.44         | 2.42            | 1.79           | 1.70             |
| Production    | 1.29         | 1.75            | 2.16           | 1.54             |

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

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

## 5. CEMENTING PROGRAM

| Slurry  | Type             | Top     | Bottom  | Sacks | Yield      | Density | %Excess   | Water  | Volume | Additives  |
|---|------------------|---------|---------|-------|------------|---------|-----------|--------|--------|--|
| Surface   |                  |         |         |       | (cu ft/sk) | (ppg)   | Open Hole | gal/sk | cuft   |  |
| Tail  | Class C          | 0'      | 850'    | 884   | 1.34       | 14.8    | 125       | 6.40   | 1184   | Extender,<br>Antifoam,<br>Retarder                 |
| Intermediate Csg  |                  |         |         |       |            |         |           |        |        |  |
| Planned Single stage cement   |                  |         |         |       |            |         |           |        |        |  |
| 1st Lead  | Class C          | 0'      | 7,423'  | 382   | 2.56       | 11.9    | 0         | 14.66  | 978    | Extender,<br>Antifoam,<br>Retarder,<br>Viscosifier |
| 1st Tail  | Class C          | 7,423'  | 8,423'  | 382   | 1.33       | 14.8    | 50        | 6.38   | 507    | Extender,<br>Antifoam,<br>Retarder,<br>Viscosifier |
| Second Stage Intermediate Cement Option 1   |                  |         |         |       |            |         |           |        |        |  |
| 2nd Lead (contingent)   | Class C          | 0'      | 3,533'  | 864   | 2.56       | 11.9    | 100       | 14.66  | 2213   | Extender,<br>Antifoam,<br>Retarder,<br>Viscosifier |
| 2nd Tail (contingent)   | Class C          | 3,533'  | 4,533'  | 382   | 1.33       | 14.8    | 50        | 6.38   | 507    | Extender,<br>Antifoam,<br>Retarder,<br>Viscosifier |
| Second Stage Intermediate Cement Option 2   |                  |         |         |       |            |         |           |        |        |  |
| 2nd Lead (Contingent<br>top out job)  | Class C          | 0'      | 6,760'  | 3184  | 1.33       | 14.8    | 100       | 14.66  | 4235   | Extender,<br>Antifoam,<br>Retarder,<br>Viscosifier |
| Production  |                  |         |         |       |            |         |           |        |        |  |
| Lead 1  | Class C          | 7,000'  | 8,500'  | 877   | 2.46       | 11.9    | 50        | 14.05  | 2158   | Extender,<br>Antifoam,<br>Retarder,<br>Viscosifier |
| Note: Cement pumped will be aimed to surpass COA requirements, only "minimum" TOC values are denoted here |                  |         |         |       |            |         |           |        |        |  |
| Lead 2  | Class C          | 8,500'  | 17,807' | 1556  | 1.85       | 13.2    | 35        | 9.87   | 2878   | Extender,<br>Antifoam,<br>Retarder,<br>Viscosifier |
| Tail  | Acid Sol Class H | 17,807' | 18,807' | 115   | 2.19       | 15      | 10        | 9.54   | 252    | Extender,<br>Antifoam,<br>Retarder,<br>Viscosifier |

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 solid body type centralizer on every joint in the lateral, then every other joint in curve. Bowspring type centralizers will be run from KOP to intermediate casing and surface.

## 6. MUD PROGRAM

| From   | To      | Type            | Weight    | Viscosity | Filtrate | Notes   |
|--------|---------|-----------------|-----------|-----------|----------|---|
| 0'     | 850'    | Fresh water mud | 8.3 - 9.0 | 28-30     | N/C      |   |
| 850'   | 8,423'  | Brine/OBM       | 8.3 - 10  | 28-31     | 15-25    |   |
| 8,423' | 18,807' | OBM             | 8.5 - 11  | 10-15     | 15-25    | Due to wellbore stability, the mud program may exceed the MW window needed to maintain overbalance to pore pressure |

A closed system will be used 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. And transporting of E&P waste will follow EPA regulations and accompanying manifests.

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:

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

| TYPE    | Logs         | Interval                                 | Timing                        |
|---------|--------------|--|-------------------------------|
| Mudlogs | 2 man mudlog | Surface casing shoe through prod hole TD | While drilling or circulating |
| LWD     | MWD Gamma    | Int. and Prod. Hole                      | While Drilling                |

- Conventional whole core samples are not planned.
- A directional survey will be run.

## 8. ABNORMAL PRESSURES AND HYDROGEN SULFIDE

- No abnormal pressure or temperatures are expected. Estimated BHP is: 4,171 psi
- Hydrogen sulfide gas is not anticipated. An H2S Contingency plan is attached with this APD in the event that H2S is encountered