

Form 3160-3  
(June 2015)FORM APPROVED  
OMB No. 1004-0137  
Expires: January 31, 2018

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER 1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other 1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		5. Lease Serial No.  6. If Indian, Allottee or Tribe Name  7. If Unit or CA Agreement, Name and No.  8. Lease Name and Well No.
2. Name of Operator		9. API Well No. <b>30-015-50183</b>
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Exploratory
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		12. County or Parish
13. State		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- |   |   |
|---|---|
| 1. Well plat certified by a registered surveyor.<br>2. A Drilling Plan.<br>3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).<br>5. Operator certification.<br>6. Such other site specific information and/or plans as may be requested by the BLM. |
|---|---|

25. Signature	Name (Printed/Typed)	Date
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
Title		
Office		

Application approval 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.  
 Conditions of approval, if any, are attached.

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.



(Continued on page 2)

\*(Instructions on page 2)

## INSTRUCTIONS

**GENERAL:** This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

**ITEM I:** If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

**ITEM 4:** Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

**ITEM 14:** Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

**ITEMS 15 AND 18:** If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

**ITEM 22:** Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

**ITEM 24:** If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

## NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48( d) provide that you be furnished the following information in connection with information required by this application.

**AUTHORITY:** 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

**PRINCIPAL PURPOSES:** The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

**ROUTINE USE:** Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

**EFFECT OF NOT PROVIDING INFORMATION:** Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM connects this information to a new evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Connection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

## Additional Operator Remarks

### Location of Well

0. SHL: SESE / 992 FSL / 1150 FEL / TWSP: 26S / RANGE: 27E / SECTION: 3 / LAT: 32.066597 / LONG: -104.173563 ( TVD: 0 feet, MD: 0 feet )

PPP: NENE / 100 FNL / 530 FEL / TWSP: 26S / RANGE: 27E / SECTION: 10 / LAT: 32.06357 / LONG: -104.171622 ( TVD: 7822 feet, MD: 8290 feet )

BHL: SESE / 25 FSL / 530 FEL / TWSP: 26S / RANGE: 27E / SECTION: 15 / LAT: 32.034888 / LONG: -104.171142 ( TVD: 7670 feet, MD: 18727 feet )

### BLM Point of Contact

Name: Candy Vigil

Title: LIE

Phone: (575) 234-5982

Email: cvigil@blm.gov

### **Review and Appeal Rights**

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

**PECOS DISTRICT  
SURFACE USE  
CONDITIONS OF APPROVAL**

**CHEVRON USA INCORPORATED  
LEASE NO.: NMNM138826  
COUNTY: EDDY**

**SMOKE WAGON 10 15 FED COM 281H**

**Surface Hole Location: 992' FSL & 1150' FEL, Section 3, T. 26 S., R. 27 E.**

**Bottom Hole Location: 25' FSL & 530' FEL, Section 15, T. 26 S, R 27 E.**

**SMOKE WAGON 10 15 FED COM 281H**

**Surface Hole Location: 992' FSL & 1150' FEL, Section 3, T. 26 S., R. 27 E.**

**Bottom Hole Location: 100' FSL & 530' FEL, Section 15, T. 26 S, R 27 E.**

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Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

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## **I. GENERAL PROVISIONS**

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

## **II. PERMIT EXPIRATION**

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

## **III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES**

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

## **IV. NOXIOUS WEEDS**

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for

acceptable weed control methods, which include following EPA and BLM requirements and policies.

## **V. SPECIAL REQUIREMENT(S)**

### **Cave and Karst Conditions of Approval for APDs**

\*\* Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

#### **Cave/Karst Surface Mitigation**

The following stipulations will be applied to minimize impacts during construction, drilling and production:

##### **Construction:**

In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

##### **No Blasting:**

No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

##### **Pad Berming:**

- The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.
- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g., caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised. (Any access road crossing the berm cannot be lower than the berm height.)
- Following a rain event, all fluids will vacuumed off of the pad and hauled off-site and disposed at a proper disposal facility.

##### **Tank Battery Liners and Berms:**



Tank battery locations and all facilities will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing, or equivalent, to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

**Leak Detection System:**

A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating valves and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

**Automatic Shut-off Systems:**

Automatic shut off, check valves, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

**Cave/Karst Subsurface Mitigation**

The following stipulations will be applied to protect cave/karst and ground water concerns:

**Rotary Drilling with Fresh Water:**

Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

**Directional Drilling:**

Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

**Lost Circulation:**

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

**Abandonment Cementing:**

Upon well abandonment in cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

**Pressure Testing:**

Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

**FLOWLINES (SURFACE):**

- Flowlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize the possibility of leaks and spills from entering karst systems.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

**Watershed**

The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

A leak detection plan will be submitted to the BLM Carlsbad Field Office for approval prior to pipeline installation. The method could incorporate gauges

to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

## **Range**

### **Cattleguards**

Where a permanent cattleguard is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

### **Fence Requirement**

Where entry granted across a fence line, the fence must be H-braced or angle iron braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall consult with the private surface landowner or the grazing allotment holder prior to cutting any fence(s).

Figure 1. Pipe H-brace specifications

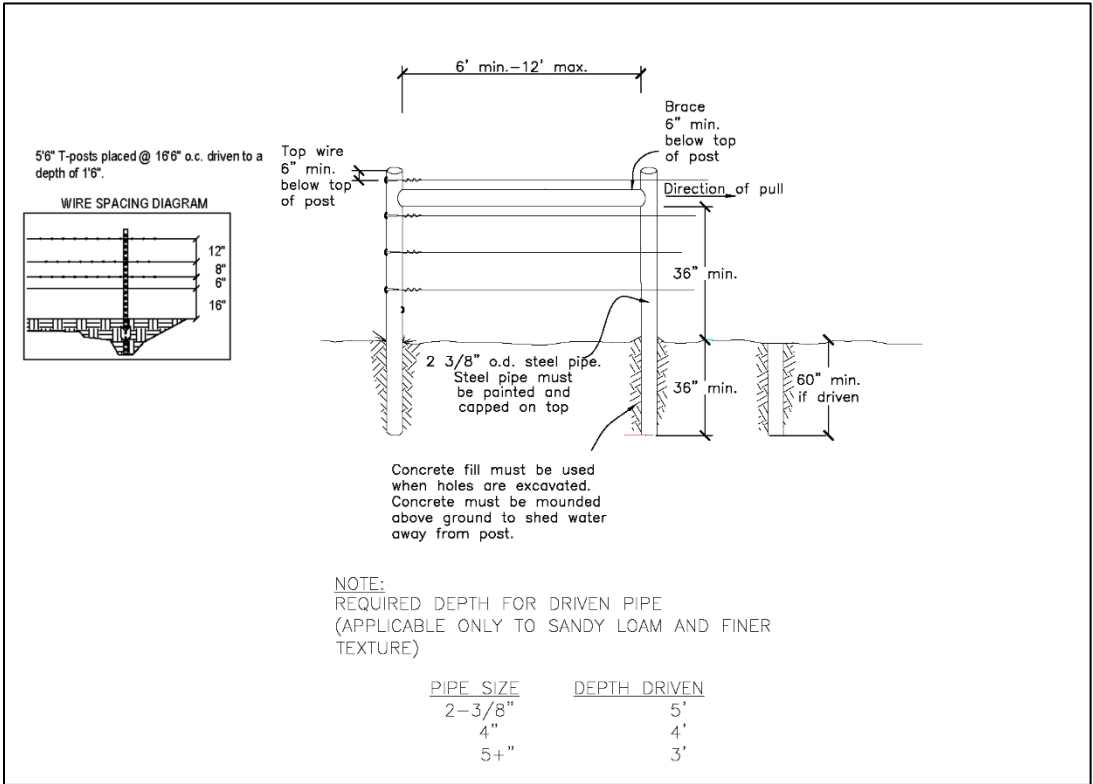
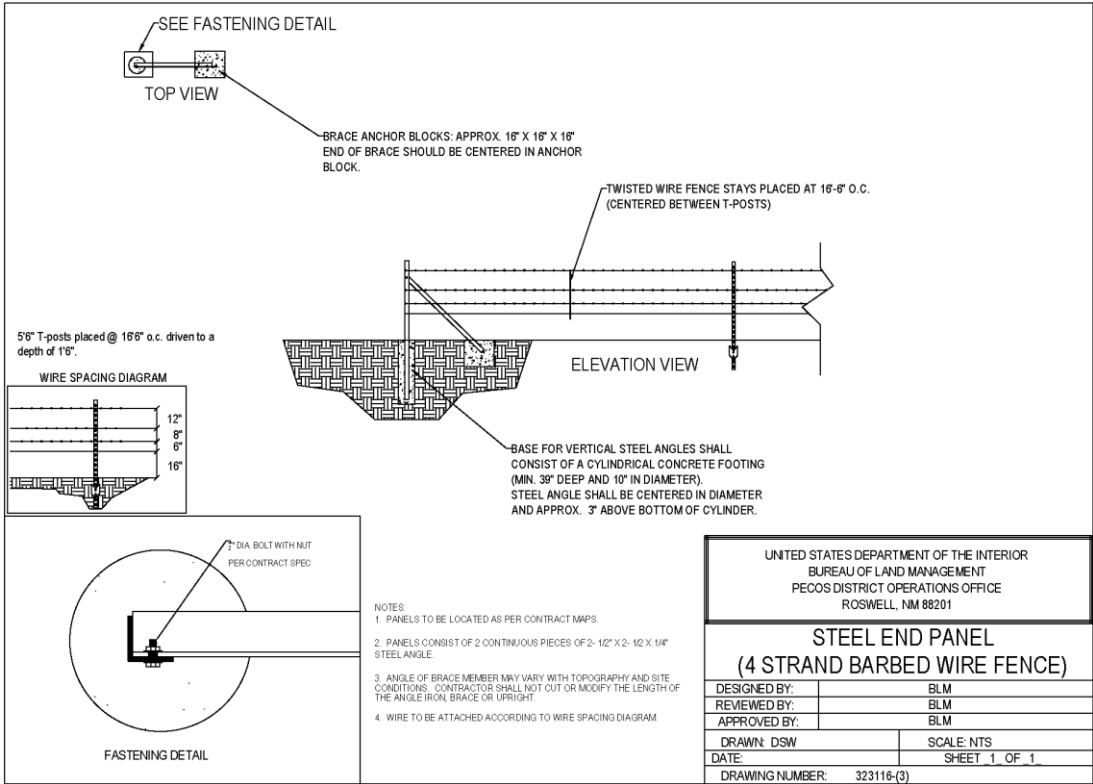


Figure 2. Angle iron brace specifications



### **Livestock Watering Requirement**

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

### **Texas Hornshell mussel (*Popenaias popeii*)-Federally Endangered**

The U.S. Fish and Wildlife Service (USFWS) was petitioned to list the Texas Hornshell mussel (*Popenaias popeii*) as an endangered species under the authority of Endangered Species Act (ESA) in 1989. The USFWS ruled that listing of the Hornshell was warranted but precluded in 2001. The Hornshell was proposed for listing as an endangered species in 2016. On March 12, 2018 it was listed as an endangered species.

The Texas Hornshell mussel is a freshwater mussel with an elongate, subtrapezoidal shell that can reach a length of 108 mm. The shells are compressed and have greater width than height, with outer color variation ranging from olive green to dark brown.

Historically the Texas Hornshell mussel occurred in the Pecos-Rio Grande drainage. Due to an increase in salinity however, much of this habitat is no longer considered suitable. At the present time, this species is only found in four locations including, a 14 km stretch of the Black River in New Mexico, the Lower Rio Grande in Texas, the Devil's River in Texas, and the Delaware River in New Mexico. The mussel has a preferred substrate that includes small-grained materials such as sand, silt or clay and are often found occupying undercut riverbanks, ledges, crevices, travertine shelves and under large boulders. As filter-feeding organisms, they require clean, flowing water. This makes them susceptible to both point source and non-point source water pollution, and particularly, changes in salinity. Since they are very sensitive to pollution, they are good indicators of aquatic ecosystem health.

The mussel has a parasitic larval stage. These larvae, known as glochidia, will attach to a host species, (typically a fish) for a period of up to six weeks while they transform into juvenile mussels, at which point, they then fall off the host. Host fishes enable the Hornshell to achieve life cycle completion. In addition, they contribute the dispersal of genetics for the mussel. If movement of host species becomes restrictive due to the construction of dams and other barriers, the movement of the mussel will also become restricted resulting in detrimental mussel population numbers.

In June 2021, the USFWS proposed to designate 463.6 river miles of critical habitat for the Texas Hornshell mussel.

### **Candidate Conservation Agreement**

The Candidate Conservation Agreement (CCA) is a voluntary agreement designed to implement mitigation and conservation measures for the Texas Hornshell mussel in order to protect the species and its habitat. This agreement is a collaborative effort between Center of Excellence (CEHMM), Bureau of Land Management (BLM) and USFWS and facilitates cooperation between industry such as oil and gas developers, in addition to other stakeholders regarding the mussel as well as the other "Covered Species" that are included in the document. These other "Covered Species" include the Rio Grande River Cooter (*Pseudemys gorzugi*), the Gray Redhorse (*Moxostoma congestum*), the Blue Sucker (*Cycleptus elongates*) and the Pecos Springsnail

(*Pyrgulopsis pecosensis*). The CCA was developed for federal lands while a separate agreement, the Candidate Conservation Agreement with Assurances (CCAA), was developed for state and private lands. There are four designated riparian management zones that categorize the "Covered Area" of the CCA. These zones are described below:

Zone A: Occupied Habitat within the Black River and Delaware River.

Zone B: The Black and Delaware Rivers (excluding Zone A in each), Blue Springs, and their associated USGS 100-year floodplain.

Zone C: Ephemeral drainages to the Black and Delaware rivers, including Owl Draw.

Zone D: The area within the CCA Boundary, not otherwise described in management zones A, B, or C.

## **Impacts from the Proposed Action**

### **Direct and Indirect Effects**

#### **Texas Hornshell mussel (*Popenaias popeii*)-Federally Endangered**

The proposed project area falls within the "covered zones" of the CCA. This project would have a "may affect, not likely to adversely affect" determination regarding the Texas Hornshell mussel (USFWS Consultation # 02ENNM00-2017-F-0871). This project is "not likely to adversely affect" the proposed critical habitat for the species. In addition, the following mitigation measures will be implemented.

### **Mitigation Measures**

Oil and Gas Zone D - CCA Boundary requirements.

- Implement erosion control measures in accordance with the Reasonable and Prudent Practices for Stabilization ("RAPPS")
- Comply with SPCC requirements in accordance with 40 CFR Part 112;
- Comply with the United States Army Corp of Engineers (USACE) Nationwide 12 General Permit, where applicable;
- Utilize technologies (like underground borings for pipelines), where feasible;
- Educate personnel, agents, contractors, and subcontractors about the requirements of conservation measures, COAs, Stips and provide direction in accordance with the Permit.

#### **References:**

U.S. Fish and Wildlife Service and The Center of Excellence (CEHMM). (2017). Candidate Conservation Agreement for the Texas Hornshell (*Popenaias popeii*) and other Covered Species.

## **VI. CONSTRUCTION**

### **A. NOTIFICATION**

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

## **B. TOPSOIL**

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

## **C. CLOSED LOOP SYSTEM**

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

## **D. FEDERAL MINERAL MATERIALS PIT**

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

## **E. WELL PAD SURFACING**

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

## **F. EXCLOSURE FENCING (CELLARS & PITS)**

### **Exclosure Fencing**

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)



## **G. ON LEASE ACCESS ROADS**

### **Road Width**

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

### **Surfacing**

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

### **Crowning**

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

### **Ditching**

Ditching shall be required on both sides of the road.

### **Turnouts**

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

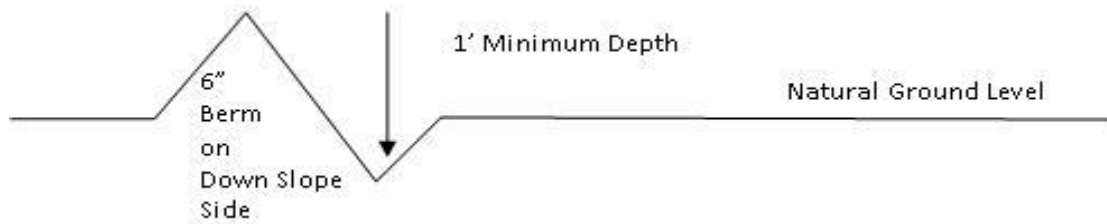
### **Drainage**

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outslowing and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

### **Cross Section of a Typical Lead-off Ditch**





All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

#### **Formula for Spacing Interval of Lead-off Ditches**

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{10\%} + 100' = 200' \text{ lead-off ditch interval}$$

#### **Cattle guards**

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

#### **Fence Requirement**

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

#### **Public Access**

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

**Construction Steps**

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes



Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

## VII. PRODUCTION (POST DRILLING)

### A. WELL STRUCTURES & FACILITIES

#### **Placement of Production Facilities**

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

#### **Exclosure Netting (Open-top Tanks)**

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

#### **Chemical and Fuel Secondary Containment and Exclosure Screening**

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

#### **Open-Vent Exhaust Stack Exclosures**

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production

equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

### **Containment Structures**

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

### **Painting Requirement**

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

## **B. PIPELINES**

### **STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES**

A copy of the Grant and attachments, including stipulations, survey plat(s) and/or map(s), shall be on location during construction. BLM personnel may request to review a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, Holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC § 2601 *et seq.* (1982) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant (see 40 CFR, Part 702-799 and in particular, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193). Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. Holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms

are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. § 9601, *et seq.* or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et seq.*) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way Holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way Holder on the Right-of-Way. This provision applies without regard to whether a release is caused by Holder, its agent, or unrelated third parties.

4. Holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. Holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

- a. Activities of Holder including, but not limited to: construction, operation, maintenance, and termination of the facility;
- b. Activities of other parties including, but not limited to:
  - (1) Land clearing
  - (2) Earth-disturbing and earth-moving work
  - (3) Blasting
  - (4) Vandalism and sabotage;

c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars (\$1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of Holder, regardless of fault. Upon failure of Holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he/she deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of Holder. Such action by the Authorized Officer shall not relieve Holder of any responsibility as provided herein.

6. All construction and maintenance activity shall be confined to the authorized

right-of-way width of 20 feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline shall be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline shall be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity shall be confined to existing roads or right-of-ways.

7. No blading or clearing of any vegetation shall be allowed unless approved in writing by the Authorized Officer.

8. Holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky or dune areas, the pipeline shall be "snaked" around hummocks and dunes rather than suspended across these features.

9. The pipeline shall be buried with a minimum of 24 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.

14. The holder shall not use the pipeline route as a road for purposes other than



routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

16. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, powerline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

17. Surface pipelines shall be less than or equal to 4 inches and a working pressure below 125 psi.

### **STANDARD STIPULATIONS FOR BURIED PIPELINE STIPULATIONS**

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the

Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of 36 inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be 30 feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed 20 feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed 30 feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.)*)



*intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.)*

- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately   6   inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

- |                        |                             |
|------------------------|-----------------------------|
| (X) seed mixture 1     | ( ) seed mixture 3          |
| ( ) seed mixture 2     | ( ) seed mixture 4          |
| ( ) seed mixture 2/LPC | ( ) Aplomado Falcon Mixture |

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

17. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

18. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

- a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
- b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

## **VIII. INTERIM RECLAMATION**

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

## **IX. FINAL ABANDONMENT & RECLAMATION**

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

### **Seed Mixture 1 for Loamy Sites**

Holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)\* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed shall be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed shall be planted using a drill equipped with a depth regulator to ensure proper depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture shall be evenly and uniformly planted over the disturbed area (small/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed shall be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre shall be doubled. The seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed\* per acre:

<u>Species</u>	<u>lb/acre</u>
Plains lovegrass ( <i>Eragrostis intermedia</i> )	0.5
Sand dropseed ( <i>Sporobolus cryptandrus</i> )	1.0
Sideoats grama ( <i>Bouteloua curtipendula</i> )	5.0
Plains bristlegrass ( <i>Setaria macrostachya</i> )	2.0

\*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	CHEVRON USA INCORPORATED
<b>LEASE NO.:</b>	NMNM121473
<b>LOCATION:</b>	Section 3, T.26 S., R.27 E., NMP
<b>COUNTY:</b>	Eddy County, New Mexico

<b>WELL NAME &amp; NO.:</b>	SMOKE WAGON 10 15 FED COM 28 1H
<b>SURFACE HOLE FOOTAGE:</b>	1017'/S & 1150'/E
<b>BOTTOM HOLE FOOTAGE:</b>	25'/S & 1585'/E

<b>WELL NAME &amp; NO.:</b>	SMOKE WAGON 10 15 FED COM 28 2H
<b>SURFACE HOLE FOOTAGE:</b>	992'/S & 1150'/E
<b>BOTTOM HOLE FOOTAGE:</b>	25'/S & 530'/E

COA

H2S	<input type="radio"/> Yes	<input checked="" 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
Cave/Karst Potential	<input type="radio"/> Critical		
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input type="radio"/> Multibowl	<input checked="" type="radio"/> Both
Other	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input type="checkbox"/> Fluid Filled	<input checked="" type="checkbox"/> Cement Squeeze	<input type="checkbox"/> Pilot Hole
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit

### A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

### B. CASING

#### Casing Design:

- The 13-3/8 inch surface casing shall be set at approximately **580** feet (a minimum of **70 feet (Eddy 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.
2. The **9-5/8** inch intermediate casing shall be set at approximately **2330** feet. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

**Option 1 (Single Stage):**

- Cement to surface. If cement does not circulate see B.1.a, c-d above.  
**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

**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.  
**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**
- ❖ In **Medium Cave/Karst Areas** if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
3. The minimum required fill of cement behind the **7** inch production casing is:

**Option 1 (Single Stage):**

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

**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 should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

**Operator has proposed to pump down 9-5/8" X 7" annulus. Operator must run a CBL from TD of the 7" casing to surface. Submit results to BLM.**

4. The minimum required fill of cement behind the **5 x 4-1/2** inch production liner is:
  - Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification.

**C. PRESSURE CONTROL**

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2.

**Option 1:**

- a. 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.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **5000 (5M)** psi.



**Option 2:**

1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
  - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

**D. SPECIAL REQUIREMENT (S)****Communitization Agreement**

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, 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.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

**BOPE Break Testing Variance (Note: For 5M BOPE or less)**

- BOPE Break Testing is ONLY permitted for 5M BOPE or less.
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer prior to the commencement of any BOPE Break Testing operations.



- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required.
- The BLM is to be contacted (**575-361-2822 Eddy County**) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.

## 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)

☒ Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,  
(575) 361-2822

☒ Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)  
689-5981

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 2<sup>nd</sup> 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. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
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. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
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.

**B. PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including

lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

**NMK – 5-5-2022**

District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

District II  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-015-50183</b>	<sup>2</sup> Pool Code <del>30215</del> <b>64010</b>	<sup>3</sup> Pool Name WELCH: BONE SPRING
<sup>4</sup> Property Code <b>333570</b>	<sup>5</sup> Property Name SMOKE WAGON 10 15 FED COM 28	<sup>6</sup> Well Number 2H
<sup>7</sup> OGRID No. 4323	<sup>8</sup> Operator Name CHEVRON U.S.A. INC.	<sup>9</sup> Elevation 3248'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	3	26 SOUTH	27 EAST, N.M.P.M.		992'	SOUTH	1150'	EAST	EDDY

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	15	26 SOUTH	27 EAST, N.M.P.M.		25'	SOUTH	530'	EAST	EDDY

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
640	INFILL		

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<p><sup>16</sup></p> <p>SMOKE WAGON 10 15 FED COM 28 NO. 2H WELL</p> <p>X= 549,645' Y= 387,945' NAD 27 LAT. 32.066475° N LONG. 104.173071° W</p> <p>X= 590,829' Y= 388,002' NAD83/86 LAT. 32.066597° N LONG. 104.173563° W ELEV. +3248' NAVD88</p> <p><b>PROPOSED FIRST TAKE POINT</b></p> <p>X= 550,247' Y= 386,845' NAD 27 LAT. 32.063448° N LONG. 104.171130° W</p> <p>X= 591,431' Y= 386,902' NAD83/86 LAT. 32.063570° N LONG. 104.171622° W</p> <p><b>PROPOSED MID POINT</b></p> <p>X= 550,414' Y= 381,665' NAD 27 LAT. 32.049208° N LONG. 104.170619° W</p> <p>X= 591,598' Y= 381,722' NAD83/86 LAT. 32.049330° N LONG. 104.171111° W</p> <p><b>PROPOSED LAST TAKE POINT</b></p> <p>X= 550,412' Y= 376,487' NAD 27 LAT. 32.034972° N LONG. 104.170650° W</p> <p>X= 591,596' Y= 376,543' NAD83/86 LAT. 32.035094° N LONG. 104.171141° W</p> <p><b>CORNER COORDINATES TABLE (NAD 27)</b></p> <p>A - Y=392448.13, X=550882.93 B - Y=387009.20, X=545492.91 C - Y=386973.51, X=548133.83 D - Y=386955.67, X=549454.29 E - Y=386937.82, X=550774.76 F - Y=381711.59, X=545622.05 G - Y=381685.77, X=548282.84 H - Y=381672.86, X=549613.24 I - Y=381659.95, X=550943.63 J - Y=376414.09, X=545653.53 K - Y=376398.76, X=548297.64 L - Y=376391.10, X=549619.70 M - Y=376383.44, X=550941.76</p> <p><b>PROPOSED BOTTOM HOLE LOCATION</b></p> <p>X= 550,412' Y= 376,412' NAD 27 LAT. 32.034765° N LONG. 104.170651° W</p> <p>X= 591,596' Y= 376,468' NAD83/86 LAT. 32.034888° N LONG. 104.171142° W</p>		<p><b><sup>17</sup> OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Jennifer Van Curen</i> 9/11/21 Signature Date</p> <p>JENNIFER VAN CUREN Printed Name</p> <p>E-mail Address</p> <p><b><sup>18</sup> SURVEYOR CERTIFICATION</b></p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>07/09/2021 Date of Survey</p> <p>Signature and Seal of Professional Surveyor: <i>Steven M. Coleman</i> 22921</p> <p>Certificate Number 08/05/2021</p>
--	--	---

State of New Mexico  
Energy, Minerals and Natural Resources Department

Submit Electronically  
Via E-permitting

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

## NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

### Section 1 – Plan Description

Effective May 25, 2021

**I. Operator:** Chevron USA **OGRID:** 4323 **Date:** 8 / 25 / 21

**II. Type:** ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: \_\_\_\_\_

**III. Well(s):** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
SMOKE WAGON 10 15 FED COM 28 1H	<i>Pending</i>	UL:P, Sec 3, T26S-R27E	1017'FSL, 1150' FEL	1635 BBL/D	5841 MCF/D	2089 BBL/D
SMOKE WAGON 10 15 FED COM 28 2H	<i>Pending</i>	UL:P, Sec 3, T26S-R27E	992'FSL, 1150' FEL	1635 BBL/D	5841 MCF/D	2089 BBL/D

**IV. Central Delivery Point Name:** Hayhurst NM CTB 10 [See 19.15.27.9(D)(1) NMAC]

**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
SMOKE WAGON 10 15 FED COM 28 1H	<i>Pending</i>	June 2023	N/A	N/A	N/A	N/A
SMOKE WAGON 10 15 FED COM 28 2H	<i>Pending</i>	June 2023	N/A	N/A	N/A	N/A

**VI. Separation Equipment:** ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

**VII. Operational Practices:** ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

**VIII. Best Management Practices:** ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

### Section 2 – Enhanced Plan EFFECTIVE APRIL 1, 2022



Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

**IX. Anticipated Natural Gas Production:**

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

**X. Natural Gas Gathering System (NGGS):**

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

**XI. Map.** ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

**XII. Line Capacity.** The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

**XIII. Line Pressure.** Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

**XIV. Confidentiality:** ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

### **Section 3 - Certifications**

**Effective May 25, 2021**

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

***If Operator checks this box, Operator will select one of the following:***

**Well Shut-In.** ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

**Venting and Flaring Plan.** ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

### **Section 4 - Notices**

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: <i>Cindy Herrera-Murillo</i>
Name: Cindy Herrera-Murillo
Title: Sr HSE Regulatory affairs Coordinator
E-mail Address: eeof@chevron.com
Date: 8/23/2021
Phone: 575-263-0431
<b>OIL CONSERVATION DIVISION</b> <b>(Only applicable when submitted as a standalone form)</b>
Approved By:
Title:
Approval Date:
Conditions of Approval:

**VI. Separation Equipment:**

Separation equipment installed at each Chevron facility is designed for maximum anticipated throughput and pressure to minimize waste. Separation equipment is designed and built according to ASME Sec VIII Div I to ensure gas is separated from liquid streams according to projected production.

**VII./VIII. Operational & Best Management Practices:****1. General Requirements for Venting and Flaring of Natural Gas:**

- In all circumstances, Chevron will flare rather than vent unless flaring is technically infeasible and venting of natural gas will avoid a risk of an immediate and substantial adverse impact on safety, public health, or the environment.
- Chevron installs and operates vapor recovery units (VRUs) in new facilities to minimize venting and flaring. If a VRU experiences operating issues, it is quickly assessed so that action can be taken to return the VRU to operation or, if necessary, facilities are shut-in to reduce the venting or flaring of natural gas.

**2. During Drilling Operations:**

- Flare stacks will be located a minimum of 110 feet from the nearest surface hole location.
- If an emergency or malfunction occurs, gas will be flared or vented to avoid a risk of an immediate and substantial adverse impact on public health, safety or the environment and be properly reported to the NMOCD pursuant to 19.15.27.8.G.
- Natural gas is captured or combusted if technically feasible using best industry practices and control technologies, such as the use of separators (e.g., Sand Commanders) during normal drilling and completions operations.

**3. During Completions:**

- Chevron typically does not complete traditional flowback, instead Chevron will flow produced oil, water, and gas to a centralized tank battery and continuously recover salable quality gas. If Chevron completes traditional flowback, Chevron conducts reduced emission completions as required by 40 CFR 60.5375a by routing gas to a gas flow line as soon as practicable once there is enough gas to operate a separator. Venting does not occur once there is enough gas to operate a separator
- Normally, during completions a flare is not on-site. A Snubbing Unit will have a flare on-site, and the flare volume will be estimated.
- If natural gas does not meet pipeline quality specification, the gas is sampled twice per week until the gas meets the specifications.

**4. During Production:**

- An audio, visual and olfactory (AVO) inspection will be performed daily (at minimum) for active wells and facilities to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC. Inactive, temporarily abandoned, or shut-in wells and facilities will be inspected weekly. Inspection records will be kept for a minimum of five years and will be available upon request by the division.
- Monitor manual liquid unloading for wells on-site, takes all reasonable actions to achieve a stabilized rate and pressure at the earliest practical time and takes reasonable actions to minimize venting to the maximum extent practicable.
- In all circumstances, Chevron will flare rather than vent unless flaring is technically infeasible and venting of natural gas will avoid a risk of an immediate and substantial adverse impact on safety, public health, or the environment.
- Chevron's design for new facilities utilizes air-activated pneumatic controllers and pumps.
- If natural gas does not meet pipeline quality specification, the gas is sampled twice per week until the gas meets the specifications.
- Chevron does not produce oil or gas until all flowlines, tank batteries, and oil/gas takeaway are installed, tested, and determined operational.

5. Performance Standards

- Equipment installed at each facility is designed for maximum anticipated throughput and pressure to minimize waste. Tank pressure relief systems utilize a soft seated or metal seated PSVs, as appropriate, which are both designed to not leak.
- Flare stack has been designed for proper size and combustion efficiency. New flares will have a continuous pilot and will be located at least 100 feet from the well and storage tanks and will be securely anchored.
- New tanks will be equipped with an automatic gauging system.
- An audio, visual and olfactory (AVO) inspection will be performed daily (at minimum) for active wells and facilities to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC. Inactive, temporarily abandoned, or shut-in wells and facilities will be inspected weekly. Inspection records will be kept for a minimum of five years and will be available upon request by the division.

6. Measurement or Estimation of Vented and Flared Natural Gas

- Chevron estimates or measures the volume of natural gas that is vented, flared, or beneficially used during drilling, operations, regardless of the reason or authorization for such venting or flaring.
- Where technically practicable, Chevron will install meters on flares installed after May 25, 2021. Meters will conform to industry standards. Bypassing the meter will only occur for inspecting and servicing of the meter.

**Operator Name:** CHEVRON USA INCORPORATED**Well Name:** SMOKE WAGON 10 15 FED COM 28**Well Number:** 002H

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. -A variance to use a CoFlex hose with a metal protective covering that will be utilized between the BOP and Choke manifold. Please refer to the attached testing and specification documents. -A variance from the Onshore Order 2 where it states: "(A full BOP Test) shall be performed: when initially installed and whenever any seal subject to test pressure is broken." We propose to break test if able to finish the next hole section within 21 days of the previous full BOP test. No BOP components nor any break will ever surpass 21 days between testing. A break test will consist of a 250 psi low / 5,000 psi high for 10 min each test against the connection that was broken when skidding the rig. Upon the first nipple up of the pad a full BOP test will be performed. A full BOP test will be completed prior to drilling the production liner hole sections, unless the BOP connection was not broken prior to drilling that hole section (example: drilling straight from production into production liner hole section). A break test will only be performed on operations where BLM documentation states a 5M or less BOP can be utilized.

**Testing Procedure:** Stack will be tested as specified in the attached testing requirements, upon NU and not to exceed 30 days. Test BOP from 250 psi to 5000 psi in Ram and 250 psi to 3500 psi in annular. BOP/BOPE will be tested by an independent service company to 250 psi low and a minimum of the high pressure indicated above. Batch drilling of the surface, intermediate, and production will take place. A full BOP test will be performed each hole section unless approval from the 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.

**Choke Diagram Attachment:**

BLM\_Choke\_Hose\_Test\_Specs\_and\_Pressure\_Test\_Continental\_20210927173713.pdf

BLM\_5M\_Choke\_Manifold\_Diagram\_20210927173702.pdf

**BOP Diagram Attachment:**

BLM\_5M\_Annular\_10M\_Rams\_Stackup\_and\_Test\_Plan\_20210928130917.pdf

NM\_Slim\_Hole\_Wellhead\_6650\_psi\_UH\_S\_20210927173753.pdf

Sundry\_Summary\_\_\_HNM\_Pkg\_28\_\_\_All\_Wells\_20211020075952.pdf

2well\_rig\_layout\_20211020080943.pdf

**Section 3 - Casing**

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	450	0	450	3248	2798	450	J-55	54.5	BUTT	2.13	1.43	DRY	4.07	DRY	4.07
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	2374	0	2330	3143	918	2374	L-80	40	OTHER - BTC/LTC	1.24	1.64	DRY	2.78	DRY	2.78
3	PRODUCTION	8.75	7.0	NEW	API	N	0	7011	0	7480	3143	-4232	7011	P-110	29	OTHER - BLUE	1.63	1.15	DRY	2.39	DRY	2.39
4	PRODUCTION	6.125	5.0	NEW	API	N	6711	7611	6711	7480	-3463	-4232	900	P-110	18	OTHER - W513	1.39	1.1	DRY	1.32	DRY	1.32

**Operator Name:** CHEVRON USA INCORPORATED**Well Name:** SMOKE WAGON 10 15 FED COM 28**Well Number:** 002H

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
5	PRODUCTI ON	6.12 5	4.5	NEW	API	N	7611	18732	7611	7671	-4363	-4423	11121	P- 110	11.6	OTHER - W521	1.39	1.1	DRY	1.32	DRY	1.32

**Casing Attachments****Casing ID:** 1      **String**      SURFACE**Inspection Document:****Spec Document:****Tapered String Spec:****Casing Design Assumptions and Worksheet(s):**

13.375\_54.5ppf\_J55\_BTC\_20210927174637.pdf

**Casing ID:** 2      **String**      INTERMEDIATE**Inspection Document:****Spec Document:****Tapered String Spec:****Casing Design Assumptions and Worksheet(s):**

9.625\_40.0ppf\_L80IC\_BTC\_20210927174729.pdf



**Operator Name:** CHEVRON USA INCORPORATED**Well Name:** SMOKE WAGON 10 15 FED COM 28**Well Number:** 002H**Casing Attachments**

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**Casing ID:** 3      **String**      PRODUCTION**Inspection Document:****Spec Document:****Tapered String Spec:****Casing Design Assumptions and Worksheet(s):**7.0\_29.0ppf\_P110\_TSH\_Blue\_20210927174759.pdf

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**Casing ID:** 4      **String**      PRODUCTION**Inspection Document:****Spec Document:****Tapered String Spec:****Casing Design Assumptions and Worksheet(s):**5.0\_18.0ppf\_P110\_W513\_20210927174906.pdf

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**Casing ID:** 5      **String**      PRODUCTION**Inspection Document:****Spec Document:****Tapered String Spec:****Casing Design Assumptions and Worksheet(s):**4.5\_11.6ppf\_P110\_TSH\_W521\_20210927174612.pdf

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**Section 4 - Cement**

**Operator Name:** CHEVRON USA INCORPORATED**Well Name:** SMOKE WAGON 10 15 FED COM 28**Well Number:** 002H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	0	0	0	0	0		N/A	N/A
SURFACE	Tail		0	450	259	1.33	14.8	344	10	CLASS C	Extender, Antifoam, Retarder
INTERMEDIATE	Lead		0	1374	190	2.49	11.9	473	10	CLASS C	Extender, Antifoam, Retarder, Viscosifier
INTERMEDIATE	Tail		1374	2374	287	1.33	14.8	382	10	CLASS C	Extender, Antifoam, Retarder, Viscosifier
PRODUCTION	Lead		0	6011	444	2.2	11.9	978	10	CLASS C	Extender, Antifoam, Retarder, Viscosifier
PRODUCTION	Tail		6011	7011	118	1.4	14.5	165	10	CLASS C	Extender, Antifoam, Retarder, Viscosifier
PRODUCTION	Lead		6811	1873 2	753	1.84	13.2	1235	10	CLASS C	Extender, Antifoam, Retarder, Viscosifier

### Section 5 - Circulating Medium

**Mud System Type:** Closed**Will an air or gas system be Used?** NO**Description of the equipment for the circulating system in accordance with Onshore Order #2:****Diagram of the equipment for the circulating system in accordance with Onshore Order #2:**

**Describe what will be on location to control well or mitigate other conditions:** 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.

**Describe the mud monitoring system utilized:** 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.

### Circulating Medium Table

**Operator Name:** CHEVRON USA INCORPORATED**Well Name:** SMOKE WAGON 10 15 FED COM 28**Well Number:** 002H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	450	SPUD MUD	8.3	9.1							VISCOSITY: 28-30 FILTRATE: N/C
450	2374	OTHER : BRINE	8.9	10.5							VISCOSITY: 26-36 FILTRATE: 15-25
2374	7011	OTHER : WBM/BRINE	8.7	9.6							VISCOSITY: 26-36 FILTRATE: 15-25
7011	1873 2	OIL-BASED MUD	8.7	13							VISCOSITY: 50-70 FILTRATE: 5-10 Due to wellbore stability, the mud program may exceed the MW weight window needed to maintain overburden of pore pressure.

## Section 6 - Test, Logging, Coring

### List of production tests including testing procedures, equipment and safety measures:

Drill stem tests are not planned

The logging program will be as follows:

Mudlogs Logs: none planned

LWD Logs: MWD gamma Interval: Int. and Prod. Hole Timing: While drilling

### List of open and cased hole logs run in the well:

GAMMA RAY LOG,DIRECTIONAL SURVEY,

### Coring operation description for the well:

Conventional whole core samples are not planned; direction survey will be run - will send log(s) when run.

## Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 3829

**Anticipated Surface Pressure:** 2108

**Anticipated Bottom Hole Temperature(F):** 150

**Anticipated abnormal pressures, temperatures, or potential geologic hazards?** NO

**Describe:**

**Contingency Plans geohazards description:**

**Contingency Plans geohazards**

**Operator Name:** CHEVRON USA INCORPORATED**Well Name:** SMOKE WAGON 10 15 FED COM 28**Well Number:** 002H**Hydrogen Sulfide drilling operations plan required?** YES**Hydrogen sulfide drilling operations**

Chevron\_Standard\_H2S\_Contingency\_Plan\_v2\_20210927175659.pdf

**Section 8 - Other Information****Proposed horizontal/directional/multi-lateral plan submission:**

DefPlan100ft\_SmokeWagon1015FedCom282H\_R0.dpf\_20211020115246.pdf

SMOKE\_WAGON\_10\_15\_FED\_COM\_28\_2H\_20211020115255.pdf

**Other proposed operations facets description:**

Chevron formally requests authorization to use the spudder rig to spud the well and set surface and intermediate casing. The drilling rig will move in less than 90 days to continue drilling operations. Rig layouts attached.

\*\*\*Drilling plan attached contains a contingency cement program.

**Other proposed operations facets attachment:**

CUSA\_Spudder\_Rig\_Data\_20211020093752.pdf

Hayhurst\_NM\_Pad\_27\_Gas\_Management\_Plan\_\_\_NMOCD\_20211011210942.pdf

Operational\_Best\_Management\_Practices\_V2\_20211011210948.pdf

**Other Variance attachment:**



## Smoke Wagon 10 15 Fed Com 28 2H R0 mdv 12Aug21 Proposal Geodetic Report (Def Plan)



**Report Date:** August 16, 2021 - 04:00 PM  
**Client:** Chevron  
**Field:** NM, Eddy County (NAD 27 EZ)  
**Structure / Slot:** Chevron Smoke Wagon 10 15 Fed Com 28 Pad / Smoke Wagon 10 15 Fed Com 28 2H  
**Well:** Smoke Wagon 10 15 Fed Com 28 2H  
**Borehole:** Smoke Wagon 10 15 Fed Com 28 2H  
**UWI / API#:** Unknown / Unknown  
**Survey Name:** Smoke Wagon 10 15 Fed Com 28 2H R0 mdv 12Aug21  
**Survey Date:** August 12, 2021  
**Tort / AHD / DDI / ERD Ratio:** 122.714 ° / 11815.369 ft / 6.540 / 1.510  
**Coordinate Reference System:** NAD27 New Mexico State Plane, Eastern Zone, US Feet  
**Location Lat / Long:** N 32° 3' 59.30942", W 104° 10' 23.05123"  
**Location Grid N/E Y/X:** N 387945.000 ftUS, E 549645.000 ftUS  
**CRS Grid Convergence Angle:** 0.0851 °  
**Grid Scale Factor:** 0.99991191  
**Version / Patch:** 2.10.824.0

**Survey / DLS Computation:** Minimum Curvature / Lubinski  
**Vertical Section Azimuth:** 179.090 ° (Grid North)  
**Vertical Section Origin:** 0.000 ft, 0.000 ft  
**TVD Reference Datum:** KB - 28ft (TBD)  
**TVD Reference Elevation:** 3276.000 ft above MSL  
**Seabed / Ground Elevation:** 3248.000 ft above MSL  
**Magnetic Declination:** 6.900 °  
**Total Gravity Field Strength:** 998.4311mgn (9.80665 Based)  
**Gravity Model:** GARM  
**Total Magnetic Field Strength:** 47581.927 nT  
**Magnetic Dip Angle:** 59.652 °  
**Declination Date:** August 12, 2021  
**Magnetic Declination Model:** HDGM 2021  
**North Reference:** Grid North  
**Grid Convergence Used:** 0.0851 °  
**Total Corr Mag North->Grid North:** 6.8146 °  
**Local Coord Referenced To:** Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	387945.00	549645.00	N 32 3 59.31 W 104 10 23.05	
Salado (SLDO)	28.00	0.00	128.87	28.00	0.00	0.00	0.00	0.00	387945.00	549645.00	N 32 3 59.31 W 104 10 23.05	
	100.00	0.00	128.87	100.00	0.00	0.00	0.00	0.00	387945.00	549645.00	N 32 3 59.31 W 104 10 23.05	
	200.00	0.00	128.87	200.00	0.00	0.00	0.00	0.00	387945.00	549645.00	N 32 3 59.31 W 104 10 23.05	
	300.00	0.00	128.87	300.00	0.00	0.00	0.00	0.00	387945.00	549645.00	N 32 3 59.31 W 104 10 23.05	
	400.00	0.00	128.87	400.00	0.00	0.00	0.00	0.00	387945.00	549645.00	N 32 3 59.31 W 104 10 23.05	
Build 1.5"/100ft	500.00	1.50	128.87	499.99	0.84	-0.82	1.02	1.50	387944.18	549646.02	N 32 3 59.30 W 104 10 23.04	
Castile (CSTL)	584.89	2.77	128.87	584.82	2.86	-2.81	3.48	1.50	387942.19	549648.48	N 32 3 59.28 W 104 10 23.01	
	600.00	3.00	128.87	599.91	3.35	-3.28	4.08	1.50	387941.72	549649.08	N 32 3 59.28 W 104 10 23.00	
	700.00	4.50	128.87	699.69	7.53	-7.39	9.17	1.50	387937.61	549654.17	N 32 3 59.24 W 104 10 22.94	
	800.00	6.00	128.87	799.27	13.39	-13.13	16.29	1.50	387931.87	549661.29	N 32 3 59.18 W 104 10 22.86	
	900.00	7.50	128.87	898.57	20.91	-20.51	25.44	1.50	387924.50	549670.44	N 32 3 59.11 W 104 10 22.76	
	1000.00	9.00	128.87	997.54	30.09	-29.51	36.62	1.50	387915.49	549681.61	N 32 3 59.02 W 104 10 22.63	
	1100.00	10.50	128.87	1096.09	40.92	-40.14	49.80	1.50	387904.87	549694.80	N 32 3 58.91 W 104 10 22.47	
	1200.00	12.00	128.87	1194.16	53.40	-52.38	64.99	1.50	387892.63	549709.99	N 32 3 58.79 W 104 10 22.30	
	1300.00	13.50	128.87	1291.70	67.52	-66.23	82.17	1.50	387878.78	549727.17	N 32 3 58.65 W 104 10 22.10	
Hold	1399.80	15.00	128.87	1388.42	83.24	-81.64	101.30	1.50	387863.37	549746.29	N 32 3 58.50 W 104 10 21.88	
	1400.00	15.00	128.87	1388.62	83.27	-81.67	101.34	0.00	387863.34	549746.33	N 32 3 58.50 W 104 10 21.88	
	1500.00	15.00	128.87	1485.21	99.83	-97.91	121.49	0.00	387847.10	549766.48	N 32 3 58.34 W 104 10 21.64	
	1600.00	15.00	128.87	1581.80	116.38	-114.15	141.64	0.00	387830.86	549786.62	N 32 3 58.18 W 104 10 21.41	
	1700.00	15.00	128.87	1678.40	132.94	-130.38	161.78	0.00	387814.63	549806.77	N 32 3 58.02 W 104 10 21.17	
	1800.00	15.00	128.87	1774.99	149.49	-146.62	181.93	0.00	387798.39	549826.92	N 32 3 57.86 W 104 10 20.94	
	1900.00	15.00	128.87	1871.59	166.05	-162.86	202.08	0.00	387782.16	549847.06	N 32 3 57.69 W 104 10 20.71	
	2000.00	15.00	128.87	1968.18	182.60	-179.10	222.23	0.00	387765.92	549867.21	N 32 3 57.53 W 104 10 20.47	
	2100.00	15.00	128.87	2064.77	199.16	-195.33	242.38	0.00	387749.68	549887.35	N 32 3 57.37 W 104 10 20.24	
	2200.00	15.00	128.87	2161.37	215.72	-211.57	262.52	0.00	387733.45	549907.50	N 32 3 57.21 W 104 10 20.00	
	2300.00	15.00	128.87	2257.96	232.27	-227.81	282.67	0.00	387717.21	549927.65	N 32 3 57.05 W 104 10 19.77	
Lamar (LMAR)	2374.33	15.00	128.87	2329.76	244.58	-239.88	297.65	0.00	387705.14	549942.62	N 32 3 56.93 W 104 10 19.60	
	2400.00	15.00	128.87	2354.56	248.83	-244.05	302.82	0.00	387700.97	549947.79	N 32 3 56.89 W 104 10 19.54	
Bell Canyon (BLCN)	2407.34	15.00	128.87	2361.65	250.04	-245.24	304.30	0.00	387699.78	549949.27	N 32 3 56.88 W 104 10 19.52	
	2500.00	15.00	128.87	2451.15	265.38	-260.29	322.97	0.00	387684.74	549967.94	N 32 3 56.73 W 104 10 19.30	
	2600.00	15.00	128.87	2547.74	281.94	-276.52	343.12	0.00	387668.50	549988.09	N 32 3 56.57 W 104 10 19.07	
	2700.00	15.00	128.87	2644.34	298.49	-292.76	363.27	0.00	387652.27	550008.23	N 32 3 56.41 W 104 10 18.84	
Drop 0.75"/100ft	2778.60	15.00	128.87	2720.26	311.51	-305.52	379.10	0.00	387639.50	550024.07	N 32 3 56.28 W 104 10 18.65	
	2800.00	14.84	128.87	2740.94	315.03	-308.98	383.39	0.75	387636.05	550028.36	N 32 3 56.25 W 104 10 18.60	
	2900.00	14.09	128.87	2837.77	331.01	-324.65	402.84	0.75	387620.38	550047.80	N 32 3 56.09 W 104 10 18.38	
	3000.00	13.34	128.87	2934.92	346.17	-339.52	421.29	0.75	387605.51	550066.25	N 32 3 55.94 W 104 10 18.16	
	3100.00	12.59	128.87	3032.37	360.52	-353.60	438.75	0.75	387591.43	550083.72	N 32 3 55.80 W 104 10 17.96	
	3200.00	11.84	128.87	3130.11	374.05	-366.87	455.22	0.75	387578.16	550100.18	N 32 3 55.67 W 104 10 17.77	
Cherry Canyon (CRCN)	3245.74	11.49	128.87	3174.90	379.97	-372.67	462.42	0.75	387572.36	550107.38	N 32 3 55.61 W 104 10 17.68	
	3300.00	11.09	128.87	3228.11	386.77	-379.34	470.70	0.75	387565.69	550115.65	N 32 3 55.55 W 104 10 17.59	
	3400.00	10.34	128.87	3326.37	398.66	-391.00	485.17	0.75	387554.03	550130.12	N 32 3 55.43 W 104 10 17.42	
	3500.00	9.59	128.87	3424.86	409.73	-401.86	498.64	0.75	387543.18	550143.59	N 32 3 55.33 W 104 10 17.26	
	3600.00	8.84	128.87	3523.57	419.97	-411.90	511.10	0.75	387533.13	550156.05	N 32 3 55.23 W 104 10 17.12	
	3700.00	8.09	128.87	3622.48	429.38	-421.14	522.56	0.75	387523.90	550167.51	N 32 3 55.13 W 104 10 16.99	
	3800.00	7.34	128.87	3721.58	437.97	-429.56	533.00	0.75	387515.48	550177.96	N 32 3 55.05 W 104 10 16.86	
	3900.00	6.59	128.87	3820.84	445.72	-437.16	542.44	0.75	387507.88	550187.39	N 32 3 54.98 W 104 10 16.76	
	4000.00	5.84	128.87	3920.25	452.64	-443.95	550.87	0.75	387501.09	550195.82	N 32 3 54.91 W 104 10 16.66	
	4100.00	5.09	128.87	4019.80	458.73	-449.92	558.28	0.75	387495.12	550203.23	N 32 3 54.85 W 104 10 16.57	
	4200.00	4.34	128.87	4119.46	463.99	-455.08	564.67	0.75	387489.96	550209.62	N 32 3 54.80 W 104 10 16.50	
	4300.00	3.59	128.87	4219.22	468.41	-459.41	570.05	0.75	387485.63	550215.00	N 32 3 54.75 W 104 10 16.44	
	4400.00	2.84	128.87	4319.06	471.99	-462.93	574.41	0.75	387482.11	550219.36	N 32 3 54.72 W 104 10 16.38	
Brushy Canyon (BCN)	4447.21	2.48	128.87	4366.22	473.39	-464.30	576.12	0.75	387480.74	550221.07	N 32 3 54.71 W 104 10 16.36	
	4500.00	2.09	128.87	4418.97	474.74	-465.62	577.76	0.75	387479.42	550222.70	N 32 3 54.69 W 104 10 16.35	
	4600.00	1.34	128.87	4518.92	476.65	-467.50	580.08	0.75	387477.55	550225.03	N 32 3 54.67 W 104 10 16.32	
	4700.00	0.59	128.87	4618.91	477.72	-468.55	581.39	0.75	387476.49	550226.34	N 32 3 54.66 W 104 10 16.30	
Hold Vertical	4778.19	0.00	128.87	4697.10	477.98	-468.80	581.70	0.75	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	4800.00	0.00	128.87	4718.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	4900.00	0.00	128.87	4818.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	5000.00	0.00	128.87	4918.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	5100.00	0.00	128.87	5018.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	5200.00	0.00	128.87	5118.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	5300.00	0.00	128.87	5218.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	5400.00	0.00	128.87	5318.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	5500.00	0.00	128.87	5418.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	5600.00	0.00	128.87	5518.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	5700.00	0.00	128.87	5618.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	5800.00	0.00	128.87	5718.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	5900.00	0.00	128.87	5818.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	6000.00	0.00	128.87	5918.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	6100.00	0.00	128.87	6018.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
Bone Spring Lime (BSGL)	6123.21	0.00	128.87	6042.12	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
<b>Avalon Upper (AVU)</b>	6173.26	0.00	128.87	6092.17	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	6200.00	0.00	128.87	6118.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	6300.00	0.00	128.87	6218.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	6400.00	0.00	128.87	6318.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	6500.00	0.00	128.87	6418.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
<b>Avalon Lower (AVL)</b>	6519.65	0.00	128.87	6438.56	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	6600.00	0.00	128.87	6518.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	6700.00	0.00	128.87	6618.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	6800.00	0.00	128.87	6718.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	6900.00	0.00	128.87	6818.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	7000.00	0.00	128.87	6918.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
<b>First Bone Spring (FBS)</b>	7010.74	0.00	128.87	6929.65	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	7100.00	0.00	128.87	7018.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
<b>First Bone Spring Shale (FBS_SH)</b>	7168.80	0.00	128.87	7087.71	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	7200.00	0.00	128.87	7118.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	7300.00	0.00	128.87	7218.91	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
<b>Build 10"/100ft</b>	7331.19	0.00	128.87	7250.10	477.98	-468.80	581.70	0.00	387476.24	550226.65	N 32 3 54.66 W 104 10 16.30	
	7400.00	6.88	178.15	7318.74	482.11	-472.92	581.83	10.00	387472.12	550226.78	N 32 3 54.62 W 104 10 16.30	
	7500.00	16.88	178.15	7416.47	502.66	-493.47	582.50	10.00	387451.57	550227.44	N 32 3 54.42 W 104 10 16.29	
<b>Second Bone Spring Upper (SBU)</b>	7540.70	20.95	178.15	7454.97	515.85	-506.66	582.92	10.00	387438.39	550227.87	N 32 3 54.29 W 104 10 16.29	
	7600.00	26.88	178.15	7509.15	539.88	-530.68	583.69	10.00	387414.37	550228.64	N 32 3 54.05 W 104 10 16.28	
	7700.00	36.88	178.15	7593.96	592.62	-583.40	585.39	10.00	387361.66	550230.34	N 32 3 53.53 W 104 10 16.26	
	7800.00	46.88	178.15	7668.32	659.28	-650.03	587.54	10.00	387295.02	550232.49	N 32 3 52.87 W 104 10 16.24	
	7900.00	56.88	178.15	7729.97	737.85	-728.57	590.07	10.00	387216.50	550235.02	N 32 3 52.09 W 104 10 16.21	
	8000.00	66.88	178.15	7777.04	825.92	-816.61	592.91	10.00	387128.47	550237.86	N 32 3 51.22 W 104 10 16.18	
	8100.00	76.88	178.15	7808.10	920.83	-911.48	595.97	10.00	387033.60	550240.92	N 32 3 50.28 W 104 10 16.14	
	8200.00	86.88	178.15	7822.21	1019.69	-1010.30	599.16	10.00	386934.79	550244.10	N 32 3 49.30 W 104 10 16.11	
<b>Landing Point FTP</b>	8239.55	90.84	178.15	7823.00	1059.21	-1049.81	600.43	10.00	386895.29	550245.38	N 32 3 48.91 W 104 10 16.09	
	8289.87	90.84	178.15	7822.26	1109.52	-1100.10	602.05	0.00	386845.00	550247.00	N 32 3 48.41 W 104 10 16.07	
	8300.00	90.84	178.15	7822.12	1119.65	-1110.22	602.38	0.00	386834.88	550247.33	N 32 3 48.31 W 104 10 16.07	
	8400.00	90.84	178.15	7820.66	1219.63	-1210.16	605.60	0.00	386734.95	550250.55	N 32 3 47.33 W 104 10 16.04	
	8500.00	90.84	178.15	7819.20	1319.60	-1310.10	608.82	0.00	386635.02	550253.77	N 32 3 46.34 W 104 10 16.00	
	8600.00	90.84	178.15	7817.74	1419.58	-1410.04	612.05	0.00	386535.09	550256.99	N 32 3 45.35 W 104 10 15.96	
	8700.00	90.84	178.15	7816.28	1519.55	-1509.97	615.27	0.00	386435.16	550260.21	N 32 3 44.36 W 104 10 15.93	
	8800.00	90.84	178.15	7814.83	1619.53	-1609.91	618.49	0.00	386335.23	550263.43	N 32 3 43.37 W 104 10 15.89	
	8900.00	90.84	178.15	7813.37	1719.51	-1709.85	621.71	0.00	386235.31	550266.65	N 32 3 42.38 W 104 10 15.86	
	9000.00	90.84	178.15	7811.91	1819.48	-1809.79	624.93	0.00	386135.38	550269.88	N 32 3 41.39 W 104 10 15.82	
	9100.00	90.84	178.15	7810.45	1919.46	-1909.72	628.15	0.00	386035.45	550273.10	N 32 3 40.40 W 104 10 15.79	
	9200.00	90.84	178.15	7809.00	2019.43	-2009.66	631.38	0.00	385935.52	550276.32	N 32 3 39.41 W 104 10 15.75	
	9300.00	90.84	178.15	7807.54	2119.41	-2109.60	634.60	0.00	385835.59	550279.54	N 32 3 38.42 W 104 10 15.71	
	9400.00	90.84	178.15	7806.08	2219.39	-2209.54	637.82	0.00	385735.66	550282.76	N 32 3 37.44 W 104 10 15.68	
	9500.00	90.84	178.15	7804.62	2319.36	-2309.47	641.04	0.00	385635.73	550285.98	N 32 3 36.45 W 104 10 15.64	
	9600.00	90.84	178.15	7803.17	2419.34	-2409.41	644.26	0.00	385535.81	550289.21	N 32 3 35.46 W 104 10 15.61	
	9700.00	90.84	178.15	7801.71	2519.31	-2509.35	647.49	0.00	385435.88	550292.43	N 32 3 34.47 W 104 10 15.57	
	9800.00	90.84	178.15	7800.25	2619.29	-2609.29	650.71	0.00	385335.95	550295.65	N 32 3 33.48 W 104 10 15.54	
	9900.00	90.84	178.15	7798.79	2719.27	-2709.22	653.93	0.00	385236.02	550298.87	N 32 3 32.49 W 104 10 15.50	
	10000.00	90.84	178.15	7797.33	2819.24	-2809.16	657.15	0.00	385136.09	550302.09	N 32 3 31.50 W 104 10 15.46	
	10100.00	90.84	178.15	7795.88	2919.22	-2909.10	660.37	0.00	385036.16	550305.31	N 32 3 30.51 W 104 10 15.43	
	10200.00	90.84	178.15	7794.42	3019.19	-3009.04	663.60	0.00	384936.24	550308.54	N 32 3 29.52 W 104 10 15.39	
	10300.00	90.84	178.15	7792.96	3119.17	-3108.97	666.82	0.00	384836.31	550311.76	N 32 3 28.53 W 104 10 15.36	
	10400.00	90.84	178.15	7791.50	3219.15	-3208.91	670.04	0.00	384736.38	550314.98	N 32 3 27.55 W 104 10 15.32	
	10500.00	90.84	178.15	7790.05	3319.12	-3308.85	673.26	0.00	384636.45	550318.20	N 32 3 26.56 W 104 10 15.29	
	10600.00	90.84	178.15	7788.59	3419.10	-3408.79	676.48	0.00	384536.52	550321.42	N 32 3 25.57 W 104 10 15.25	
	10700.00	90.84	178.15	7787.13	3519.08	-3508.72	679.71	0.00	384436.59	550324.64	N 32 3 24.58 W 104 10 15.21	
	10800.00	90.84	178.15	7785.67	3619.05	-3608.66	682.93	0.00	384336.67	550327.87	N 32 3 23.59 W 104 10 15.18	
	10900.00	90.84	178.15	7784.22	3719.03	-3708.60	686.15	0.00	384236.74	550331.09	N 32 3 22.60 W 104 10 15.14	
	11000.00	90.84	178.15	7782.76	3819.00	-3808.53	689.37	0.00	384136.81	550334.31	N 32 3 21.61 W 104 10 15.11	
	11100.00	90.84	178.15	7781.30	3918.98	-3908.47	692.59	0.00	384036.88	550337.53	N 32 3 20.62 W 104 10 15.07	
	11200.00	90.84	178.15	7779.84	4018.96	-4008.41	695.82	0.00	383936.95	550340.75	N 32 3 19.63 W 104 10 15.04	
	11300.00	90.84	178.15	7778.38	4118.93	-4108.35	699.04	0.00	383837.02	550343.97	N 32 3 18.64 W 104 10 15.00	
	11400.00	90.84	178.15	7776.93	4218.91	-4208.28	702.26	0.00	383737.09	550347.20	N 32 3 17.66 W 104 10 14.96	
	11500.00	90.84	178.15	7775.47	4318.88	-4308.22	705.48	0.00	383637.17	550350.42	N 32 3 16.67 W 104 10 14.93	
	11600.00	90.84	178.15	7774.01	4418.86	-4408.16	708.70	0.00	383537.24	550353.64	N 32 3 15.68 W 104 10 14.89	
	11700.00	90.84	178.15	7772.55	4518.84	-4508.10	711.93	0.00	383437.31	550356.86	N 32 3 14.69 W 104 10 14.86	
	11800.00	90.84	178.15	7771.10	4618.81	-4608.03	715.15	0.00	383337.38	550360.08	N 32 3 13.70 W 104 10 14.82	
	11900.00	90.84	178.15	7769.64	4718.79	-4707.97	718.37	0.00	383237.45	550363.30	N 32 3 12.71 W 104 10 14.79	
	12000.00	90.84	178.15	7768.18	4818.76	-4807.91	721.59	0.00	383137.52	550366.53	N 32 3 11.72 W 104 10 14.75	
	12100.00	90.84	178.15	7766.72	4918.74	-4907.85	724.81	0.00	383037.60	550369.75	N 32 3 10.73 W 104 10 14.71	
	12200.00	90.84	178.15	7765.27	5018.72	-5007.78	728.04	0.00	382937.67	550372.97	N 32 3 9.74 W 104 10 14.68	
	12300.00	90.84	178.15	7763.81	5118.69	-5107.72	731.26	0.00	382837.74	550376.19	N 32 3 8.75 W 104 10 14.64	
	12400.00	90.84	178.15	7762.35	5218.67	-5207.66	734.48	0.00	382737.81	550379.41	N 32 3 7.77 W 104 10 14.61	
	12500.00	90.84	178.15	7760.89	5318.64	-5307.60	737.70	0.00	382637.88	550382.63	N 32 3 6.78 W 104 10 14.57	
	12600.00	90.84	178.15	7759.43	5418.62	-5407.53	740.92	0.00	382537.95	550385.86	N 32 3 5.79 W 104 10 14.54	
	12700.00	90.84	178.15	7757.98	5518.60	-5507.47	744.14	0.00	382438.02	550389.08	N 32 3 4.80 W 104 10 14.50	
	12800.00	90.84	178.15	7756.52	5618.57	-5607.41	747.37	0.00	382338.10	550392.30	N 32 3 3.81 W 10	

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	15300.00	90.84	180.04	7720.04	8117.97	-8106.78	769.39	0.00	379838.95	550414.32	N 32 2 39.08 W	104 10 14.25
	15400.00	90.84	180.04	7718.58	8217.95	-8206.77	769.32	0.00	379738.97	550414.25	N 32 2 38.09 W	104 10 14.26
	15500.00	90.84	180.04	7717.12	8317.92	-8306.76	769.25	0.00	379638.99	550414.18	N 32 2 37.10 W	104 10 14.26
	15600.00	90.84	180.04	7715.66	8417.90	-8406.74	769.18	0.00	379539.01	550414.11	N 32 2 36.11 W	104 10 14.26
	15700.00	90.84	180.04	7714.20	8517.88	-8506.73	769.12	0.00	379439.03	550414.05	N 32 2 35.12 W	104 10 14.26
	15800.00	90.84	180.04	7712.74	8617.85	-8606.72	769.05	0.00	379339.05	550413.98	N 32 2 34.13 W	104 10 14.27
	15900.00	90.84	180.04	7711.28	8717.83	-8706.71	768.98	0.00	379239.07	550413.91	N 32 2 33.14 W	104 10 14.27
	16000.00	90.84	180.04	7709.82	8817.80	-8806.70	768.91	0.00	379139.09	550413.84	N 32 2 32.15 W	104 10 14.27
	16100.00	90.84	180.04	7708.36	8917.78	-8906.69	768.84	0.00	379039.11	550413.78	N 32 2 31.16 W	104 10 14.27
	16200.00	90.84	180.04	7706.90	9017.75	-9006.68	768.78	0.00	378939.13	550413.71	N 32 2 30.17 W	104 10 14.28
	16300.00	90.84	180.04	7705.44	9117.73	-9106.67	768.71	0.00	378839.15	550413.64	N 32 2 29.18 W	104 10 14.28
	16400.00	90.84	180.04	7703.98	9217.71	-9206.66	768.64	0.00	378739.17	550413.57	N 32 2 28.19 W	104 10 14.28
	16500.00	90.84	180.04	7702.52	9317.68	-9306.65	768.57	0.00	378639.19	550413.51	N 32 2 27.20 W	104 10 14.28
	16600.00	90.84	180.04	7701.06	9417.66	-9406.64	768.51	0.00	378539.21	550413.44	N 32 2 26.21 W	104 10 14.29
	16700.00	90.84	180.04	7699.60	9517.63	-9506.63	768.44	0.00	378439.23	550413.37	N 32 2 25.22 W	104 10 14.29
	16800.00	90.84	180.04	7698.14	9617.61	-9606.62	768.37	0.00	378339.25	550413.30	N 32 2 24.23 W	104 10 14.29
	16900.00	90.84	180.04	7696.68	9717.58	-9706.61	768.30	0.00	378239.27	550413.23	N 32 2 23.24 W	104 10 14.29
	17000.00	90.84	180.04	7695.22	9817.56	-9806.60	768.24	0.00	378139.29	550413.17	N 32 2 22.25 W	104 10 14.30
	17100.00	90.84	180.04	7693.76	9917.54	-9906.58	768.17	0.00	378039.31	550413.10	N 32 2 21.27 W	104 10 14.30
	17200.00	90.84	180.04	7692.30	10017.51	-10006.57	768.10	0.00	377939.33	550413.03	N 32 2 20.28 W	104 10 14.30
	17300.00	90.84	180.04	7690.84	10117.49	-10106.56	768.03	0.00	377839.35	550412.96	N 32 2 19.29 W	104 10 14.30
	17400.00	90.84	180.04	7689.38	10217.46	-10206.55	767.97	0.00	377739.37	550412.90	N 32 2 18.30 W	104 10 14.31
	17500.00	90.84	180.04	7687.92	10317.44	-10306.54	767.90	0.00	377639.39	550412.83	N 32 2 17.31 W	104 10 14.31
	17600.00	90.84	180.04	7686.46	10417.41	-10406.53	767.83	0.00	377539.41	550412.76	N 32 2 16.32 W	104 10 14.31
	17700.00	90.84	180.04	7685.00	10517.39	-10506.52	767.76	0.00	377439.43	550412.69	N 32 2 15.33 W	104 10 14.31
	17800.00	90.84	180.04	7683.54	10617.36	-10606.51	767.70	0.00	377339.45	550412.63	N 32 2 14.34 W	104 10 14.32
	17900.00	90.84	180.04	7682.08	10717.34	-10706.50	767.63	0.00	377239.47	550412.56	N 32 2 13.35 W	104 10 14.32
	18000.00	90.84	180.04	7680.62	10817.32	-10806.49	767.56	0.00	377139.49	550412.49	N 32 2 12.36 W	104 10 14.32
	18100.00	90.84	180.04	7679.16	10917.29	-10906.48	767.49	0.00	377039.50	550412.42	N 32 2 11.37 W	104 10 14.32
	18200.00	90.84	180.04	7677.70	11017.27	-11006.47	767.43	0.00	376939.52	550412.36	N 32 2 10.38 W	104 10 14.33
	18300.00	90.84	180.04	7676.24	11117.24	-11106.46	767.36	0.00	376839.54	550412.29	N 32 2 9.39 W	104 10 14.33
	18400.00	90.84	180.04	7674.78	11217.22	-11206.45	767.29	0.00	376739.56	550412.22	N 32 2 8.40 W	104 10 14.33
	18500.00	90.84	180.04	7673.32	11317.19	-11306.44	767.22	0.00	376639.58	550412.15	N 32 2 7.41 W	104 10 14.33
	18600.00	90.84	180.04	7671.86	11417.17	-11406.42	767.16	0.00	376539.60	550412.09	N 32 2 6.42 W	104 10 14.34
LTP	18652.61	90.84	180.04	7671.10	11469.77	-11459.03	767.12	0.00	376487.00	550412.05	N 32 2 5.90 W	104 10 14.34
	18700.00	90.84	180.04	7670.40	11517.15	-11506.41	767.09	0.00	376439.62	550412.02	N 32 2 5.43 W	104 10 14.34
Smoke Wagon 10 15 Fed Com 28 2H - BHL	18727.63	90.84	180.04	7670.00	11544.77	-11534.04	767.07	0.00	376412.00	550412.00	N 32 2 5.16 W	104 10 14.34

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 3 \*\*\* 3-D 97.071% Confidence 3.0000 sigma  
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	28.000	1/100.000	30.000	30.000	B001Mb_MWD+HRGM-Depth Only	Smoke Wagon 10 15 Fed Com 28 2H / Smoke Wagon 10 15 Fed Com 28 2H R0 mdv 12Aug21
	1	28.000	18727.628	1/100.000	30.000	30.000	B001Mb_MWD+HRGM	Smoke Wagon 10 15 Fed Com 28 2H / Smoke Wagon 10 15 Fed

...Smoke Wagon 10 15 Fed Com 28 2H\Smoke Wagon 10 15 Fed Com 28 2H R0 mdv 12Aug21



## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	CHEVRON USA INCORPORATED
<b>LEASE NO.:</b>	NMNM121473
<b>LOCATION:</b>	Section 3, T.26 S., R.27 E., NMP
<b>COUNTY:</b>	Eddy County, New Mexico

<b>WELL NAME &amp; NO.:</b>	SMOKE WAGON 10 15 FED COM 28 1H
<b>SURFACE HOLE FOOTAGE:</b>	1017'/S & 1150'/E
<b>BOTTOM HOLE FOOTAGE:</b>	25'/S & 1585'/E

<b>WELL NAME &amp; NO.:</b>	SMOKE WAGON 10 15 FED COM 28 2H
<b>SURFACE HOLE FOOTAGE:</b>	992'/S & 1150'/E
<b>BOTTOM HOLE FOOTAGE:</b>	25'/S & 530'/E

COA

H2S	<input type="radio"/> Yes	<input checked="" 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
Cave/Karst Potential	<input type="radio"/> Critical		
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input type="radio"/> Multibowl	<input checked="" type="radio"/> Both
Other	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input type="checkbox"/> Fluid Filled	<input checked="" type="checkbox"/> Cement Squeeze	<input type="checkbox"/> Pilot Hole
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit

### A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

### B. CASING

#### Casing Design:

1. The 13-3/8 inch surface casing shall be set at approximately **580** feet (a minimum of **70 feet (Eddy 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.
2. The **9-5/8** inch intermediate casing shall be set at approximately **2330** feet. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

**Option 1 (Single Stage):**

- Cement to surface. If cement does not circulate see B.1.a, c-d above.  
**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

**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.  
**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**
- ❖ In **Medium Cave/Karst Areas** if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
3. The minimum required fill of cement behind the **7** inch production casing is:

**Option 1 (Single Stage):**

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

**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 should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

**Operator has proposed to pump down 9-5/8" X 7" annulus. Operator must run a CBL from TD of the 7" casing to surface. Submit results to BLM.**

4. The minimum required fill of cement behind the **5 x 4-1/2** inch production liner is:
  - Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification.

**C. PRESSURE CONTROL**

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2.

**Option 1:**

- a. 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.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **5000 (5M)** psi.

**Option 2:**

1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
  - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

**D. SPECIAL REQUIREMENT (S)****Communitization Agreement**

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, 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.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

**BOPE Break Testing Variance (Note: For 5M BOPE or less)**

- BOPE Break Testing is ONLY permitted for 5M BOPE or less.
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer prior to the commencement of any BOPE Break Testing operations.

- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required.
- The BLM is to be contacted **(575-361-2822 Eddy County)** 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.

## 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)

☒ Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,  
(575) 361-2822

☒ Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)  
689-5981

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 2<sup>nd</sup> 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. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
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. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
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.



## B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including

lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

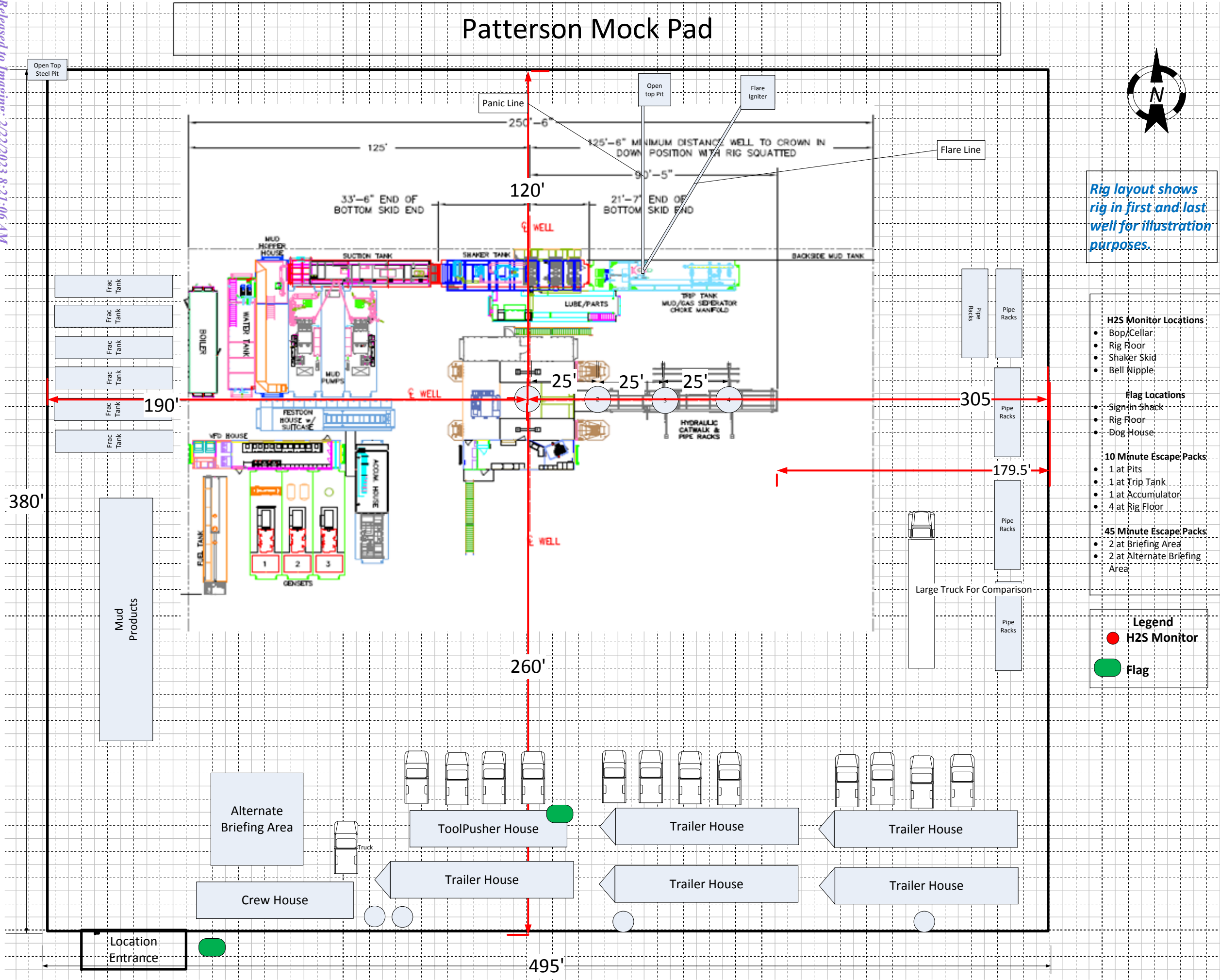
Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

**NMK – 5-5-2022**



Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

## Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

## First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

## Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

# Drilling Plan Data Report

06/29/2022

APD ID: 10400081142

Submission Date: 10/29/2021

Operator Name: CHEVRON USA INCORPORATED

Well Name: SMOKE WAGON 10 15 FED COM 28

Well Number: 002H

Well Type: OIL WELL

Well Work Type: Drill

Highlighted data  
reflects the most  
recent changes

Show Final Text

## Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
7710415	SALADO	3147	0	0	ANHYDRITE, SALT	NONE	N
7710427	CASTILE	2591	556	583	ANHYDRITE, SALT	NONE	N
7710417	LAMAR	846	2301	2374	SANDSTONE	NONE	N
7710418	BELL CANYON	814	2333	2407	LIMESTONE, SANDSTONE	NONE	N
7710419	CHERRY CANYON	0	3147	3246	LIMESTONE, SANDSTONE, SILTSTONE	NONE	N
7710420	BRUSHY CANYON	-1191	4338	4447	LIMESTONE, SHALE, SILTSTONE	NONE	N
7710421	BONE SPRING LIME	-2867	6014	6123	SHALE, SILTSTONE	NONE	N
7710422	AVALON SAND	-2917	6064	6173	SHALE	NONE	N
7710423	BONE SPRING 1ST	-3754	6901	7011	SANDSTONE, SHALE	NATURAL GAS, OIL	N
7710424	BONE SPRING 2ND	-4280	7427	7540	SANDSTONE, SHALE	NATURAL GAS, OIL	N
7710425	BONE SPRING	-4676	7823	8239	SANDSTONE, SHALE	NATURAL GAS, OIL	Y

## Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 9383

**Equipment:** Chevron will have a minimum of a 5,000 psi rig stack for drill out below surface casing. The stack will be tested as specified in the attached testing requirements. Batch drilling of the surface, production, and production liner will take place. A full BOP test will be performed per hole section, unless approval from BLM is received otherwise (see variance request below). 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.

**Requesting Variance?** YES

**Variance request:** Chevron is requesting the following variances: -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.

# BLOWOUT PREVENTER SCHEMATIC

Operation:

Intermediate &amp; Production Drilling Operations

Minimum System operation pressure

5,000 psi

## BOP Stack

Part	Size	Pressure Rating	Description
<b>A</b>	13-5/8"	N/A	Rotating Head/Bell nipple
<b>B</b>	13-5/8"	5,000	Annular
<b>C</b>	13-5/8"	10,000	Blind Ram
<b>D</b>	13-5/8"	10,000	Pipe Ram
<b>E</b>	13-5/8"	10,000	Mud Cross
<b>F</b>	13-5/8"	10,000	Pipe Ram

## Kill Line

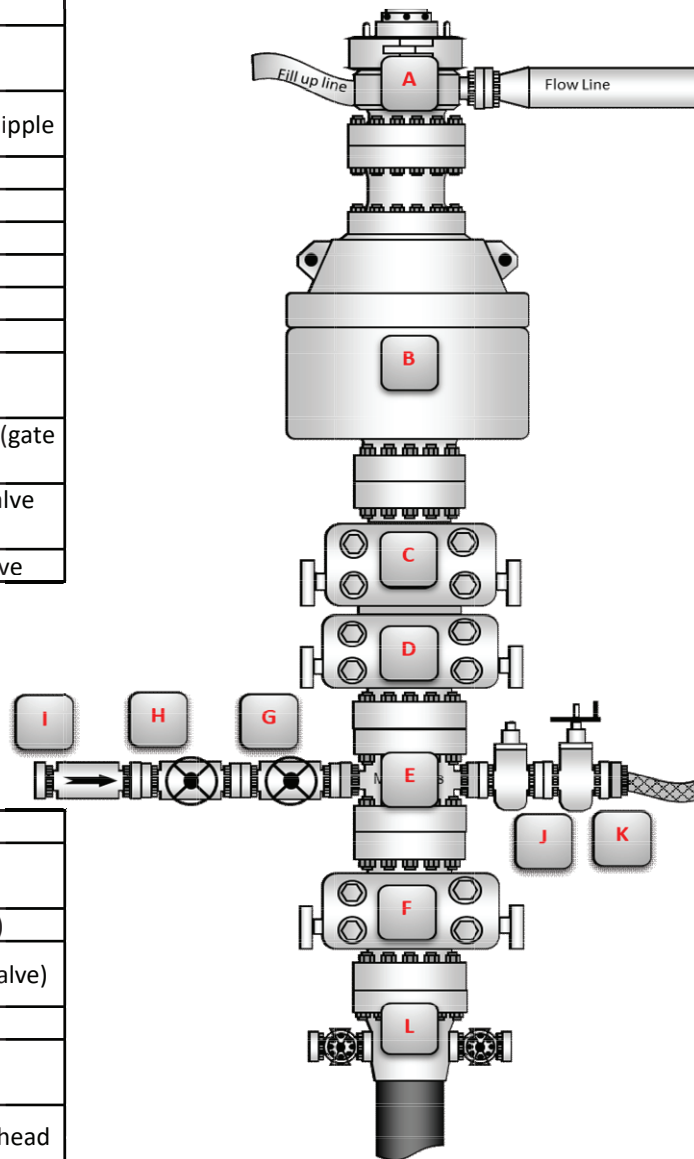
Part	Size	Pressure Rating	Description
<b>G</b>	2"	10,000	Inside Kill Line Valve (gate valve)
<b>H</b>	2"	10,000	Outside Kill Line Valve (gate valve)
<b>I</b>	2"	10,000	Kill Line Check valve

## Choke line

Part	Size	Pressure Rating	Description
<b>J</b>	3"	10,000	HCR (gate valve)
<b>K</b>	3"	10,000	Manual HCR (gate valve)

## Wellhead

Part	Size	Pressure Rating	Description
<b>L</b>	13-5/8"	5,000	FMC Multibowl wellhead



### BOP Installation Checklist: The following items must be verified and checked off prior to pressure testing BOP equipment

The installed BOP equipment meets at least the minimum requirements (rating, type, size, configuration) as shown on this schematic. Components may be substituted for equivalent equipment rated to higher pressures. Additional components may be put into place as long as they meet or exceed the minimum pressure rating of the system.

All valves on the kill line and choke line will be full opening and will allow straight flow through.

Manual (hand wheels) or automatic locking devices will be installed on all ram preventers. Hand wheels will also be install on all manual valves on the choke and kill line.

A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve will remain open unless accumulator is inoperative.

Upper kelly cock valve with handle will be available on rig floor along with saved valve and subs to fit all drill string connections in use.



**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

COMMENTS  
  
Action 158436

COMMENTS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 158436
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

COMMENTS

Created By	Comment	Comment Date
kpickford	Defining well Smoke Wagon 1H 30-015-50182	11/28/2022

**District I**

1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**

811 S. First St., Artesia, NM 88210  
 Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**

1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 158436

**CONDITIONS**

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 158436
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

**CONDITIONS**

Created By	Condition	Condition Date
kpickford	Will require a name change complying with OCD policy prior to putting the well into production.	1/3/2023
kpickford	Notify OCD 24 hours prior to casing & cement	1/3/2023
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104	1/3/2023
kpickford	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	1/3/2023
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing	1/3/2023
kpickford	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	1/3/2023