

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. <span style="color: red;">30-015-56623</span>	
3a. Address		3b. Phone No. (include area code)	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		10. Field and Pool, or Exploratory  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. 2. A Drilling Plan. 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). 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the BLM.	
25. Signature		Name (Printed/Typed)	
Title		Date	
Approved by (Signature)		Name (Printed/Typed)	
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 an 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: LOT 02 / 2245 FNL / 155 FWL / TWSP: 24S / RANGE: 29E / SECTION: 30 / LAT: 32.1895938 / LONG: -104.0315109 ( TVD: 0 feet, MD: 0 feet )  
PPP: SENE / 1360 FNL / 330 FEL / TWSP: 24S / RANGE: 28E / SECTION: 25 / LAT: 32.19203 / LONG: -104.0331105 ( TVD: 9780 feet, MD: 10171 feet )  
PPP: SWNE / 1360 FNL / 1365 FEL / TWSP: 24S / RANGE: 28E / SECTION: 25 / LAT: 32.192043 / LONG: -104.0364547 ( TVD: 9780 feet, MD: 11205 feet )  
BHL: SWNW / 1360 FNL / 330 FWL / TWSP: 24S / RANGE: 28E / SECTION: 25 / LAT: 32.1920887 / LONG: -104.048363 ( TVD: 9780 feet, MD: 14889 feet )

### BLM Point of Contact

Name: MARIAH HUGHES

Title: Land Law Examiner

Phone: (575) 234-5972

Email: mhughes@blm.gov

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### **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.

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**PECOS DISTRICT  
SURFACE USE  
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	3R OPERATING LLC
LEASE NO.:	NMNM107384
COUNTY:	Eddy

**Wells:**

- MONGO 25 FED COM 502H**
- MONGO 25 FED COM 503H**
- MONGO 25 FED COM 702H**
- MONGO 25 FED COM 703H**
- MONGO 25 FED COM 802H**

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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.

- ☐ **General Provisions**
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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 resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The 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 the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See information below discussing NAGPRA.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The 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 the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

#### **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)**

##### **Watershed:**

The entire well pad(s) 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 24 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 topsoil 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:**

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.

##### **Cave/Karst:**

##### **Construction Mitigation**

In order to mitigate the impacts from construction activities on cave and karst resources, the following Conditions of Approval will apply to this APD or project:

##### **General Construction:**

- No blasting
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction, and no additional construction shall occur until clearance has been issued by the Authorized Officer.
- All linear surface disturbance activities will avoid sinkholes and other karst features to lessen the possibility of encountering near surface voids during construction, minimize



changes to runoff, and prevent untimely leaks and spills from entering the karst drainage system.

- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

**Pad Construction:**

- The pad will be constructed and leveled by adding the necessary fill and caliche – no blasting.
- 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 (i.e. an 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.

**Road Construction:**

- Turnout ditches and drainage leadoffs will not be constructed in such a manner as to alter the natural flow of water into or out of cave or karst features.
- Special restoration stipulations or realignment may be required if subsurface features are discovered during construction.

**Drilling Mitigation**

Federal regulations and standard Conditions of Approval applied to all APDs require that adequate measures are taken to prevent contamination to the environment. Due to the extreme sensitivity of the cave and karst resources in this project area, the following additional Conditions of Approval will be added to this APD.

To prevent cave and karst resource contamination the following will be required:

- Closed loop system using steel tanks - all fluids and cuttings will be hauled off-site and disposed of properly at an authorized site
- Rotary drilling with fresh water where cave or karst features are expected to prevent contamination of freshwater aquifers.
- Directional drilling is only allowed at depths greater than 100 feet below the cave occurrence zone to prevent additional impacts resulting from directional drilling.
- Lost circulation zones will be logged and reported in the drilling report so BLM can assess the situation and work with the operator on corrective actions.
- Additional drilling, casing, and cementing procedures to protect cave zones and fresh water aquifers. See drilling COAs.

**Production Mitigation**

In order to mitigate the impacts from production activities and due to the nature of karst terrane, the following Conditions of Approval will apply to this APD:

- Tank battery locations and facilities will be bermed and lined with a 20 mil thick permanent liner that has 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.
- Development and implementation of a leak detection system to provide an early alert to operators when a leak has occurred.
- 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.

**Residual and Cumulative Mitigation**

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

**Plugging and Abandonment Mitigation**

Upon well abandonment in high 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.

**Range:****Cattleguards**

Where a permanent cattlegaurd 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 the private surface landowner or the grazing allotment holder prior to cutting any fence(s).

SEE FASTENING DETAIL

TOP VIEW

BRACE ANCHOR BLOCKS, APPROX. 18" X 18" X 18"  
END OF BRACE SHOULD BE CENTERED IN ANCHOR BLOCK.

TWISTED WIRE FENCE STAYS PLACED AT 16'-0" O.C.  
(CENTERED BETWEEN T-POSTS)

5/8" T-posts placed @ 16'± o.c. driven to a depth of 10'

WIRE SPACING DIAGRAM

ELEVATION VIEW

BASE FOR VERTICAL STEEL ANGLES SHALL CONSIST OF A CYLINDRICAL CONCRETE FOOTING (MIN. 36" DEEP AND 18" IN DIAMETER). STEEL ANGLE SHALL BE CENTERED IN DIAMETER AND APPROX. 7" ABOVE BOTTOM OF CYLINDER.

FASTENING DETAIL

NOTES:

1. PANELS TO BE LOCATED AS PER CONTRACT MAPS.
2. PANELS TO BE COMPOSED OF 2 CONCRETE ANCHOR BLOCKS OF 2'-10" X 2'-10" X 18" STEEL ANGLE.
3. ANGLE OF BRACE MEMBER MAY VARY WITH TOPOGRAPHY AND SITE CONDITIONS. CONTRACTOR SHALL NOT CUT OR MODIFY THE LENGTH OF THE ANGLE FROM BRACE OR UPRIGHT.
4. WIRE TO BE ATTACHED ACCORDING TO WIRE SPACING DIAGRAM.

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
PECOS DISTRICT OPERATIONS OFFICE  
ROSWELL, NM 88201

**STEEL END PANEL  
(4 STRAND BARBED WIRE FENCE)**

DESIGNED BY:	BLM
REVIEWED BY:	BLM
APPROVED BY:	BLM
DRAWN: DSW	SCALE: NTS
DATE:	SHEET 1 OF 1
DRAWING NUMBER:	323116-03

**VRM IV:**

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

Short-term mitigation measures include painting all above-ground structures that are not subject to safety requirements (including meter housing) Shale Green, which is a flat non-reflective paint color listed in the BLM Standard Environmental Color Chart (CC-001: June 2013). Long-term mitigation measures include the removal of wells and associated infrastructure following abandonment (end of cost-effective production). Previously impacted areas will be reclaimed by removing structures and caliche pads, returning disturbed areas to natural grade, and revegetating with an approved BLM seed mixture; thereby eliminating visual impacts.

**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**

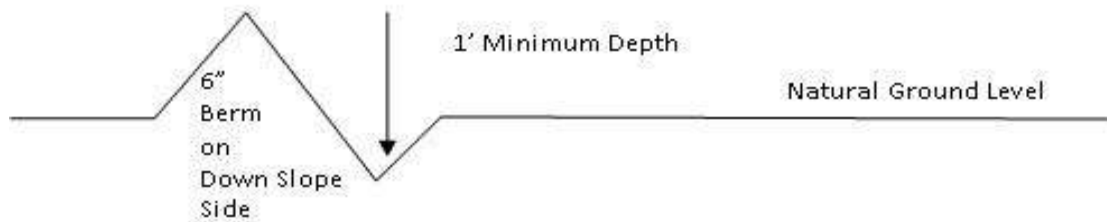
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

##### **Drainage**

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill out-sloping and in-sloping, 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:

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

### 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

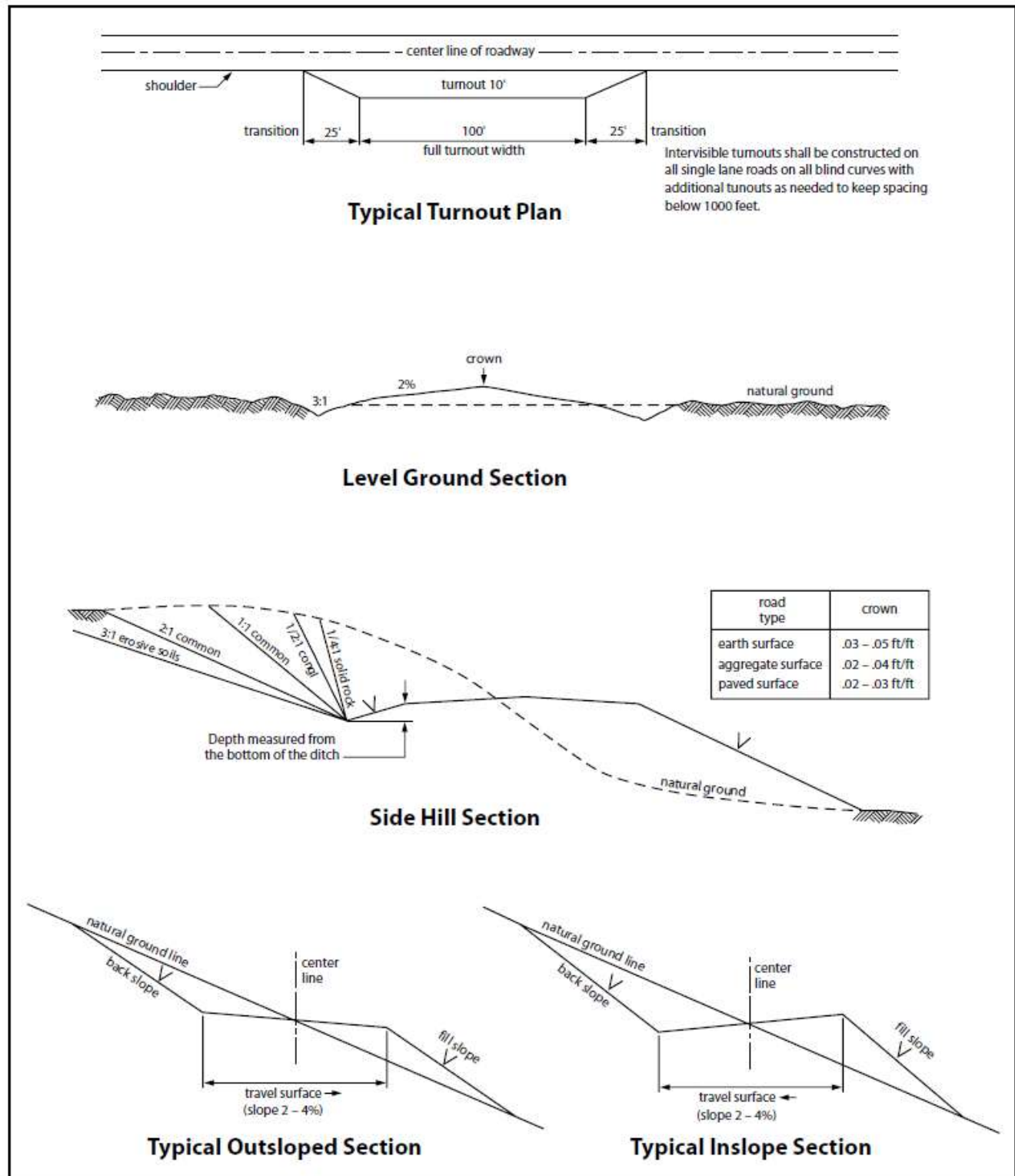


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.



## 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).



## 21. Special Stipulations:

**Wildlife-TX Hornshell:**

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.

**Karst:**

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- 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.
- Special restoration stipulations or realignment may be required at such intersections, if any.
- 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, siting 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.
- 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.

**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).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

**Seed Mixture 2, for Sandy Sites**

The 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 will 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 will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will 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:

**Species**

	<u>lb/acre</u>
Sand dropseed ( <i>Sporobolus cryptandrus</i> )	1.0
Sand love grass ( <i>Eragrostis trichodes</i> )	1.0
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

C-102  Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024	
		Submittal Type:	<input type="checkbox"/> Initial Submittal
			<input type="checkbox"/> Amended Report
		<input type="checkbox"/> As Drilled	

## WELL LOCATION INFORMATION

API Number <b>30-015-56623</b>	Pool Code 98220	Pool Name Purple Sage; Wolfcamp
Property Code <b>337293</b>	Property Name MONGO 25 FED COM	Well Number 702H
OGRID No. 331569	Operator Name 3R OPERATING, LLC	Ground Level Elevation 2925.3
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal

## Surface Location

UL	Section 30	Township 24 S	Range 29 E	Lot 2	Ft. from N/S 2245 NORTH	Ft. from E/W 155 WEST	Latitude 32.1895938°N	Longitude 104.0315109°W	County EDDY
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## Bottom Hole Location

UL E	Section 25	Township 24 S	Range 28 E	Lot	Ft. from N/S 1360 NORTH	Ft. from E/W 330 WEST	Latitude 32.1920887°N	Longitude 104.0483630°W	County EDDY
---------	---------------	------------------	---------------	-----	----------------------------	--------------------------	--------------------------	----------------------------	----------------

Dedicated Acres 320	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
Order Numbers.			Well setbacks are under Common Ownership: <input type="checkbox"/> Yes <input type="checkbox"/> No	

## Kick Off Point (KOP)

UL	Section 30	Township 24 S	Range 29 E	Lot 2	Ft. from N/S 2245 NORTH	Ft. from E/W 155 WEST	Latitude 32.1895938°N	Longitude 104.0315109°W	County EDDY
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## First Take Point (FTP)

UL H	Section 25	Township 24 S	Range 28 E	Lot	Ft. from N/S 1360 NORTH	Ft. from E/W 330 EAST	Latitude 32.1920300°N	Longitude 104.0331105°W	County EDDY
---------	---------------	------------------	---------------	-----	----------------------------	--------------------------	--------------------------	----------------------------	----------------

## Last Take Point (LTP)

UL E	Section 25	Township 24 S	Range 28 E	Lot	Ft. from N/S 1360 NORTH	Ft. from E/W 330 WEST	Latitude 32.1920887°N	Longitude 104.0483630°W	County EDDY
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Unitized Area or Area of Uniform Interest	Spacing Unit Type <input type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation:
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## OPERATOR CERTIFICATIONS

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, 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 a working interest run leased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order here to fore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

*Brad Grandstaff* 11/22/2024  
Signature Date

Brad Grandstaff


Printed Name

bgrandstaff@3ROperating.com

Email Address

## SURVEYOR CERTIFICATIONS

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.

*FILIMON F. JARAMILLO*  


Signature and Seal of Professional Surveyor  
FILIMON F. JARAMILLO

Certificate Number

PLS 12797

Date of Survey

NOVEMBER 22, 2024

SURVEY NO. 10331A

Note: 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.

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.

MONGO 25 FED COM 702H  
EL. = 2925.3

LEGEND

--- SECTION LINE  
--- QUARTER LINE  
--- LEASE LINE  
--- WELL PATH

GEODETTIC COORDINATES

NAD 83 NMSP EAST  
SURFACE LOCATION  
2245' FNL, 155' FWL  
N.=432839.74  
E.=634706.02  
LAT.=32.1895938°N  
LONG.=104.0315109°W

LAST TAKE POINT  
1360' FNL, 330' FWL  
N.=433733.10  
E.=629490.38  
LAT.=32.1920887°N  
LONG.=104.0483630°W

PPP3  
1360' FNL, 1338' FWL  
N.=433731.29  
E.=630498.28  
LAT.=32.1920763°N  
LONG.=104.0451049°W

KICK OFF POINT  
2245' FNL, 155' FWL  
N.=432839.74  
E.=634706.02  
LAT.=32.1895938°N  
LONG.=104.0315109°W

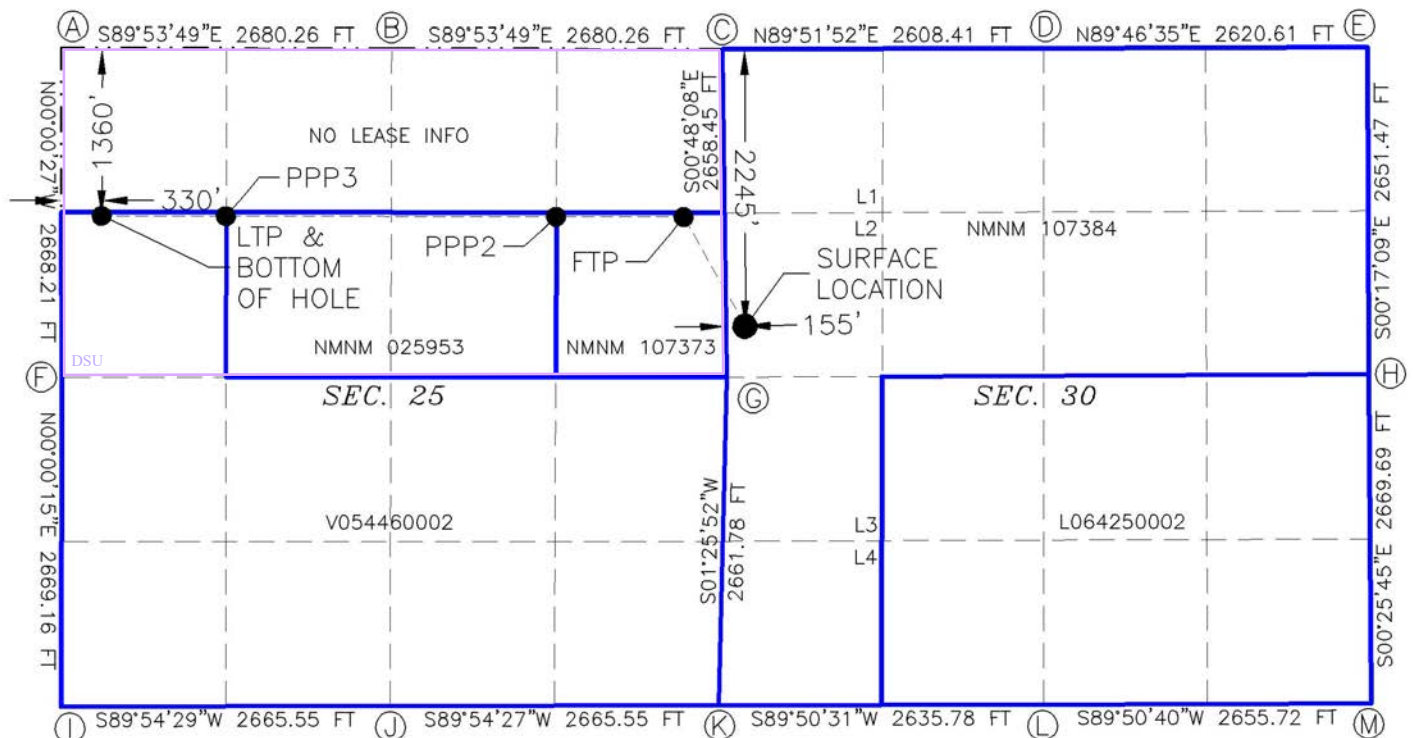
BOTTOM OF HOLE  
1360' FNL, 330' FWL  
N.=433733.10  
E.=629490.38  
LAT.=32.1920887°N  
LONG.=104.0483630°W

CORNER COORDINATES TABLE

NAD 83 NMSP EAST  
A - N.=435093.40 E.=629160.27  
B - N.=435088.58 E.=631839.95  
C - N.=435083.75 E.=634519.62  
D - N.=435091.27 E.=637126.06  
E - N.=435100.14 E.=639747.47  
F - N.=432425.77 E.=629160.62  
G - N.=432426.14 E.=634556.83  
H - N.=432449.28 E.=639760.68  
I - N.=429757.19 E.=629160.43  
J - N.=429761.47 E.=631825.40  
K - N.=429765.77 E.=634490.37  
L - N.=429773.04 E.=637125.56  
M - N.=429780.25 E.=639780.68

FIRST TAKE POINT  
1360' FNL, 330' FEL  
N.=433724.61  
E.=634208.69  
LAT.=32.1920300°N  
LONG.=104.0331105°W

PPP2  
1360' FNL, 1365' FEL  
N.=433726.47  
E.=633174.19  
LAT.=32.1920430°N  
LONG.=104.0364547°W



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

Submit Electronically  
Via E-permitting

## 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:** 3R Operating, LLC **OGRID:** 331569 **Date:** 1 / 22 / 25

**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
See attachment						

**IV. Central Delivery Point Name:** \_\_\_\_\_ [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
See attachment						

**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>Kalen Melton</i>
Printed Name:	Kalen Melton
Title:	Permitting Agent
E-mail Address:	kmelton@reagansmith.com
Date:	1/22/25
Phone:	405-286-9326
<b>OIL CONSERVATION DIVISION</b> <b>(Only applicable when submitted as a standalone form)</b>	
Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	



## **Drilling Plan**

### **Operator**

3R Operating, LLC

### **Project Name**

**MONGO 25 FED COM 702H**

SHL: 2245' FNL & 155' FWL of Section 30-24S-29E, Eddy County, NM

BHL: 1360' FNL & 330' FWL of Section 25-24S-28E, Eddy County, NM

### **Prepared By**

Reagan Smith, Inc.

### **Submitted To**

Bureau of Land Management - Carlsbad Field Office

Please address any questions, inquiries, or deficiency statements to  
Scott St. John and Monica Smith Griffin at the address below:

Reagan Smith  
3909 N. Classen Blvd.  
Oklahoma City, OK 73118  
(405) 286-9326

**1.0 Estimated Formation Tops**

Formation	Depth	Primary Lithology	Primary Mineral Resources
Rustler	Surface	Anhydrite	Usable Water
Salado	610	Salt	None
Castille	1,175	Limestone	None
Lamar	2,695	Limestone	None
Delaware	2,720	Sandstone	None
Bone Spring	6,425	Limestone	Oil & Gas
1st Bone Spring	7,380	Sandstone	Oil & Gas
2nd Bone Spring	8,185	Sandstone	Oil & Gas
3rd Bone Spring	9,270	Sandstone	Oil & Gas
Wolfcamp	9,655	Other: X/Y Carbonate	Oil & Gas

**Total Depth and Target Formation**

**Total Vertical Depth (ft):** 9,780

**Total Measured Depth (ft):** 14,889

**Target Formation:** Wolfcamp

**2.0 Estimated Depths of Oil & Gas**

Substance	Depth (ft)
Top of Hydrocarbons	6,425
Bottom of Hydrocarbons	TD

**3.0 Pressure Control Equipment**

Ten thousand (10M) psi working pressure Blind Rams & Pipe Rams and a five thousand (5M) psi Annular Preventer will be installed on all casing. Two (2) chokes, with at least one (1) being a remotely controlled hydraulic choke, will be used. If a full 10M system is required by the BLM, three (3) chokes will be used.

A variance to the requirement of a rigid steel line connecting the BOP to the choke manifold is requested. Specifications for the flex hose are provided with the BOP schematic in the exhibit section.

Operator testing procedures will meet minimum standards for well control equipment testing per CFR § 3172.6(b)(9). Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or to 70 percent of internal yield pressure of casing if BOP stack is not isolated from casing. Annular type preventers shall be tested to 50 percent of rated working pressure. Pressure shall be maintained at least 10 minutes or until provisions of test are met, whichever is longer.

In addition, the BOP equipment will be tested after any repairs to the equipment and prior to drilling out below any casing string. Pipe rams, blind rams, and annular preventer will be activated on each trip and weekly BOP drills will be held with each crew.

Floor safety valves that are fully open and sized to fit drill pipe and collars will be available on the rig floor in the

open position when the Kelly is not in use.

#### **4.0 Proposed Casing and Design Analysis**

##### **4.1 Proposed Casing Program**

Interval	Length (ft)	Size (in)	Weight/ft (lbs)	Grade	Thread	Condition	Hole size (in)
Surface	350	13.375	48	H-40	STC	NEW	17.5
Inter.	9,000	9.625	40	P-110	BTC	NEW	12.25
Prod.	14,889	5.5	20	P110	BTC	NEW	8.75

##### **4.2 Casing Specifications**

Interval	Total Vertical Depth (TVD)	Total Measured Depth (MD)	Weight/ft (lbs)	Grade	Collapse (psi)	Internal Yld (psi)	Body Yld Strength (psi)	Joint Strength (psi)
Surface	350	350	48	H-40	770	1,730	541,000	322,000
Inter.	9,000	9,000	40	P-110	3,470	7,910	1,260,000	1,266,000
Prod.	9,780	14,889	20	P110	11,080	12,640	641,000	667,000

#### **5.0 Proposed Cement Program**

##### **Surface Casing Cement**

Lead/Tail	TOC (MD)	Bottom of Cmt (MD)	Density (lbs/gal)	Yield (ft <sup>3</sup> /sk)	Excess (%)	Volume (ft <sup>3</sup> )	# of Sks Cmt
Sur. Lead	0	50	13.50	1.79	100	70	39
Sur. Tail	50	350	14.80	1.33	100	418	314

**Lead Cmt Type:** Class C

**Lead Additives:** 4% Gel + 5% Salt + 0.2% SA-1 + 0.25pps Pol-E Flake + 0.005gps NOFoam V1A

**Tail Cmt Type:** Class C

**Tail Additives:** 1% calcium chloride + 0.005gps NoFoam V1A

##### **Intermediate Casing Cement**

Lead/Tail	TOC (MD)	Bottom of Cmt (MD)	Density (lbs/gal)	Yield (ft <sup>3</sup> /sk)	Excess (%)	Volume (ft <sup>3</sup> )	# of Sks Cmt
Int. Lead	0	8,500	12.70	1.53	50	3,993	2,610
Int. Tail	8,500	9,000	14.80	1.33	50	235	177

**Lead Cmt Type:** 40% Class C + 60% POZ

**Lead Additives:** 5% Salt + 1% SMS + 2% CS-9 + 0.1% R-1300 + 0.25pps Pol-E Flake + 0.005gps NoFoam V1A

**Tail Cmt Type:** Class C

**Tail Additives:** 1% calcium chloride + 0.005gps NoFoam V1A

**Production Casing Cement**

Lead/Tail	TOC (MD)	Bottom of Cmt (MD)	Density (lbs/gal)	Yield (ft <sup>3</sup> /sk)	Excess (%)	Volume (ft <sup>3</sup> )	# of Sks Cmt
<i>Prod. Tail</i>	8,500	14,889	13.50	1.54	15	1,857	1,206

**Tail Cmt Type:** 50% Class H + 50% B POZ

**Tail Additives:** 6% Gell + 5% Slat + .2% SMS + .55% FR-5 + .4% FL-24 + 0.005gps NoFoam V1A

**\* Operator reserves the right to change cement designs as hole conditions may warrant**

**6.0 Proposed Mud Program**

Interval	Top (MD)	Bottom (MD)	Type	Max Mud Weight Pressure Control Design	Max Mud Weight Hole Control Design	Viscosity (cP)	Formation Fracture Gradient	Fluid Loss
<i>Surface</i>	0	350	FW	9.2	8.4	32-36	0.75	NC
<i>Inter.</i>	350	9,000	FW	10.3	10	28-30	0.75	NC
<i>Prod.</i>	9,000	14,889	OBM	12.5	12	50-70	0.75	8-10 cc

Mud weight increases at shoe depths are for pressure control. Mud weight increases in the curve and lateral section of the hole are for hole stability, not pressure control. Mud weight assumptions for casing load designs exceed anticipated maximum mud weight for balanced drilling in all hole sections. Expected mud weights in producing formation will be 0.5 to 1.0 lbs/gal greater than formation pressure (i.e. overbalanced drilling).

The mud system will run as a closed loop system with PVT monitoring. All drill cuttings and liquid mud will be hauled to an approved site for disposal or soil farmed upon receiving appropriate approval.

An industry accepted medium will be stored on location in the event that there is a loss of circulation in the well bore.

**7.0 Drilling Design Analysis****7.1 Casing Safety Factors**

*\*See separate SF attachment*

Interval	Burst Safety Factor	Collapse Safety Factor	Pipe Body Tensile Safety Factor	Joint Tension Safety Factor
<i>Surface</i>	11.05	4.92	32.20	19.17
<i>Inter.</i>	1.64	1.44	3.50	3.52
<i>Prod.</i>	1.99	1.74	3.28	3.41

## 7.2 Casing Design Assumptions

### 7.2.1 Surface Casing Design Assumptions

#### **Burst Design Assumptions:**

Calculations assume complete evacuation behind pipe.

#### **Collapse Design Assumptions:**

Calculations assume complete evacuation behind pipe.

#### **Tension Design Assumptions:**

Calculations assume string held in suspension to TVD.

### 7.2.2 Intermediate Casing Design Assumptions

#### **Burst Design Assumptions:**

Calculations assume complete evacuation behind pipe.

#### **Collapse Design Assumptions:**

Calculations assume complete evacuation behind pipe.

#### **Tension Design Assumptions:**

Calculations assume string held in suspension to TVD.

### 7.2.3 Production Casing Design Assumptions

#### **Burst Design Assumptions:**

Calculations assume complete evacuation behind pipe. Safety factor calculated using offset pressure gradient variance factor of a maximum of 0.22psi/ft.

#### **Collapse Design Assumptions:**

Calculations assume complete evacuation behind pipe. Safety factor calculated using offset pressure gradient variance factor of a maximum of 0.22psi/ft.

**Tension Design Assumptions:**

Calculations assume string held in suspension to TVD.

**8.0 Completion Program and Casing Design**

Hydraulic fracturing will occur through the production casing. The burst design calculation assumes TOC at 8500 ft., therefore, the backside of the production casing is not evacuated. The maximum pumping pressure is 9500 psi with a maximum proppant fluid weight of 9.5 lbs/gal.

Upon request, operator will provide proof of cement bonding by bond log. Operator is responsible for log interpretation and certification prior to frac treatment.

Upon request, operator will provide estimated fracture lengths, flowback storage, volumes of fluids and amount of sand to be used, and number of stages of frac procedure. Furthermore, a report of the annulus pressures before and after each stage of treatment may be requested by the BLM. The report may include chemical additives (other than proprietary), dissolved solids in frac fluid, and depth of perforations.

**9.0 Drilling Evaluation Program****Required Testing, Logging, and Coring procedures noted below:**

- \* Mud Logging/Gamma Ray/MWD – (MWD on horizontal wells only).
- \* Open hole logs (GR/SP/DIL/LDT/CNL/ML) from TD (horizontal well - vertical portion of hole) to the top of the uppermost potential hydrocarbon intervals
- \* Open hole logs (GR/SP/DIL) from the top of the uppermost hydrocarbon interval to the base of the surface casing and (GR) log from base of surface casing to surface.
- \* Cased hole CBL on production casing.

**Note: The above referenced logging requirements are mandatory unless:**

- 1) The well is located off unit, or
- 2) The operator can provide the BLM adequate geologic information in which they based the location and drilling of the well, or
- 3) The operator can provide the BLM logging data from a well that is within a 1-mile radius from the proposed surface hole location. The logging data can be no more than 30 years old and must be at least to TD of the proposed well.

**10.0 Downhole Conditions**

<b>Zones of Possible Lost Circulation:</b>	N/A	
<b>Zones of Possible Abnormal Pressure:</b>	N/A	
<b>Maximum Bottom Hole Temperature:</b>	180	degrees F
<b>Maximum Bottom Hole Pressure:</b>	6,357	psi
<b>Maximum Anticipated Surface Pressure:</b>	4,205	psi

Casing Program: **RRR-Mongo 25 Fed Com 702H - 13/8" x 9 5/8" x 5 1/2"**

Open Hole Size (Inches)	Casing Depth; From (ft)	Casing Setting Depth (ft) MD	Casing Setting Depth (ft) TVD	Casing Size (inches)	Casing Weight (lb/ft)	Casing Grade	Thread	Condition	Anticipated Mud Weight (ppg)	Burst (psi)	Burst SF (1.125)	Collapse (psi)	Collapse SF (1.125)	Tension Joint (klbs)	Air Weight (lbs)	Tension Joint SF (1.8)	Tension Body (klbs)	Air Weight (lbs)	Tension Body SF (1.8)
Surface																			
17.5"	0'	350'	350'	13 3/8"	48.0	H-40	BTC	New	8.6	1730	11.05	770	4.92	322,000	16,800	19.17	541,000	16,800	32.20
Intermediate																			
12.25"	0'	9,000'	9,000'	9 5/8"	40	P-110	BTC	New	10.3	7910	1.64	3470	1.44	1,266,000	360,000	3.52	1,260,000	360,000	3.50
Production																			
8.75"	0'	14,889'	9,780'	5 1/2"	20	P-110	BTC	New	12.5	12640	1.99	11080	1.74	667,000	195,600	3.41	641,000	195,600	3.28

<b>Casing Design Criteria and Casing Loading Assumptions:</b>	
<u>Surface</u>	
Tension A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	8.6 ppg
Collapse A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	8.6 ppg
Burst A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	8.6 ppg
<u>Intermediate</u>	
Tension A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	10.3 ppg
Collapse A 1.125 design factor with 1/2 TVD internal evacuation and collapse force equal to a mud gradient of:	10.3 ppg
Burst A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	10.3 ppg
<u>Production</u>	
Tension A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	12.5 ppg
Collapse A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	12.5 ppg
Burst A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	12.5 ppg



Casing Program: RRR-Mongo 25 Fed Com 702H - 13/8" x 9 5/8" x 5 1/2"

Open Hole Size (Inches)	Casing Depth; From (ft)	Casing Setting Depth (ft) MD	Casing Setting Depth (ft) TVD	Casing Size (inches)	Casing Weight (lb/ft)	Casing Grade	Thread	Condition	Anticipated Mud Weight (ppg)	Burst (psi)	Burst SF (1.125)	Collapse (psi)	Collapse SF (1.125)	Tension Joint (klbs)	Air Weight (lbs)	Tension Joint SF (1.8)	Tension Body (klbs)	Air Weight (lbs)	Tension Body SF (1.8)
Surface																			
17.5"	0'	350'	350'	13 3/8"	48.0	H-40	BTC	New	8.6	1730	11.05	770	4.92	322,000	16,800	19.17	541,000	16,800	32.20
Intermediate																			
12.25"	0'	9,000'	9,000'	9 5/8"	40	P-110	BTC	New	10.3	7910	1.64	3470	1.44	1,266,000	360,000	3.52	1,260,000	360,000	3.50
Production																			
8.75"	0'	14,889'	9,780'	5 1/2"	20	P-110	BTC	New	12.5	12640	1.99	11080	1.74	667,000	195,600	3.41	641,000	195,600	3.28

<b>Casing Design Criteria and Casing Loading Assumptions:</b>	
<u>Surface</u>	
Tension A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	8.6 ppg
Collapse A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	8.6 ppg
Burst A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	8.6 ppg
<u>Intermediate</u>	
Tension A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	10.3 ppg
Collapse A 1.125 design factor with 1/2 TVD internal evacuation and collapse force equal to a mud gradient of:	10.3 ppg
Burst A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	10.3 ppg
<u>Production</u>	
Tension A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	12.5 ppg
Collapse A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	12.5 ppg
Burst A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	12.5 ppg

Casing Program: **RRR-Mongo 25 Fed Com 702H - 13/8" x 9 5/8" x 5 1/2"**

Open Hole Size (Inches)	Casing Depth; From (ft)	Casing Setting Depth (ft) MD	Casing Setting Depth (ft) TVD	Casing Size (inches)	Casing Weight (lb/ft)	Casing Grade	Thread	Condition	Anticipated Mud Weight (ppg)	Burst (psi)	Burst SF (1.125)	Collapse (psi)	Collapse SF (1.125)	Tension Joint (klbs)	Air Weight (lbs)	Tension Joint SF (1.8)	Tension Body (klbs)	Air Weight (lbs)	Tension Body SF (1.8)
Surface																			
17.5"	0'	350'	350'	13 3/8"	48.0	H-40	BTC	New	8.6	1730	11.05	770	4.92	322,000	16,800	19.17	541,000	16,800	32.20
Intermediate																			
12.25"	0'	9,000'	9,000'	9 5/8"	40	P-110	BTC	New	10.3	7910	1.64	3470	1.44	1,266,000	360,000	3.52	1,260,000	360,000	3.50
Production																			
8.75"	0'	14,889'	9,780'	5 1/2"	20	P-110	BTC	New	12.5	12640	1.99	11080	1.74	667,000	195,600	3.41	641,000	195,600	3.28

<b>Casing Design Criteria and Casing Loading Assumptions:</b>	
<u>Surface</u>	
Tension A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	8.6 ppg
Collapse A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	8.6 ppg
Burst A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	8.6 ppg
<u>Intermediate</u>	
Tension A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	10.3 ppg
Collapse A 1.125 design factor with 1/2 TVD internal evacuation and collapse force equal to a mud gradient of:	10.3 ppg
Burst A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	10.3 ppg
<u>Production</u>	
Tension A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	12.5 ppg
Collapse A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	12.5 ppg
Burst A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	12.5 ppg



**3R Operating, LLC**

## **3R Operating LLC**

**Eddy County\_NM (N83-NME)**

**Mongo 25**

**02\_Mongo 25 Fed Com 702H - Slot (02) Mongo 25 Fed Com  
702H**

**702H**

**Plan: APD-Rev01**

## **Standard Planning Report**

**24 November, 2024**



3R Operating, LLC

Planning Report

Database:	TZ USA 17.2	Local Co-ordinate Reference:	Well 02_Mongo 25 Fed Com 702H - Slot (02)
Company:	3R Operating LLC	TVD Reference:	Mongo 25 Fed Com 702H
Project:	Eddy County_NM (N83-NME)	MD Reference:	2925+25 @ 2950.00usft
Site:	Mongo 25	North Reference:	2925+25 @ 2950.00usft
Well:	02_Mongo 25 Fed Com 702H	Survey Calculation Method:	Grid
Wellbore:	702H		Minimum Curvature
Design:	APD-Rev01		

Project	Eddy County_NM (N83-NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Mongo 25		
Site Position:		Northing:	432,869.77 usft
From:	Map	Easting:	634,705.58 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.18967634
		Longitude:	-104.03151200

Well	02_Mongo 25 Fed Com 702H - Slot (02) Mongo 25 Fed Com 702H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
Grid Convergence:	0.16 °		
		Latitude:	32.18959378
		Longitude:	-104.03151085
		Ground Level:	2,925.00 usft

Wellbore	702H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	11/21/2024	6.35	59.69	47,073.27369049

Design	APD-Rev01			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	270.10

Plan Survey Tool Program	Date	11/24/2024		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	14,889.26 APD-Rev01 (702H)	OWSG MWD Rev 5	
			OWSG MWD - Standard	



Planning Report

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Company:	3R Operating LLC	TVD Reference:	Mongo 25 Fed Com 702H
Project:	Eddy County_NM (N83-NME)	MD Reference:	2925+25 @ 2950.00usft
Site:	Mongo 25	North Reference:	2925+25 @ 2950.00usft
Well:	02_Mongo 25 Fed Com 702H	Survey Calculation Method:	Grid
Wellbore:	702H		Minimum Curvature
Design:	APD-Rev01		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,567.00	8.51	4.89	2,564.92	41.85	3.58	1.50	1.50	0.00	4.89	
7,996.87	8.51	4.89	7,935.08	841.99	72.07	0.00	0.00	0.00	0.00	
8,563.87	0.00	0.00	8,500.00	883.84	75.65	1.50	-1.50	0.00	180.00	
9,270.92	0.00	0.00	9,207.04	883.84	75.65	0.00	0.00	0.00	0.00	
10,170.92	90.00	270.10	9,780.00	884.87	-497.31	10.00	10.00	-9.99	270.10	
11,205.44	90.00	270.10	9,780.00	886.73	-1,531.83	0.00	0.00	0.00	0.00	02-PP2(MGFC-702H)
13,881.35	90.00	270.10	9,780.00	891.55	-4,207.74	0.00	0.00	0.00	0.00	03-PP3(MGFC-702H)
14,889.26	90.00	270.10	9,780.00	893.36	-5,215.64	0.00	0.00	0.00	0.00	04-PBHL-LTP(MGFC-



3R Operating, LLC

## Planning Report

<b>Database:</b>	TZ USA 17.2	<b>Local Co-ordinate Reference:</b>	Well 02_Mongo 25 Fed Com 702H - Slot (02)
<b>Company:</b>	3R Operating LLC	<b>TVD Reference:</b>	Mongo 25 Fed Com 702H
<b>Project:</b>	Eddy County_NM (N83-NME)	<b>MD Reference:</b>	2925+25 @ 2950.00usft
<b>Site:</b>	Mongo 25	<b>North Reference:</b>	Grid
<b>Well:</b>	02_Mongo 25 Fed Com 702H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	702H		
<b>Design:</b>	APD-Rev01		

## Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Rustler</b>									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,175.00	0.00	0.00	1,175.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Castille</b>									
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	1.50	4.89	2,099.99	1.30	0.11	-0.11	1.50	1.50	0.00
2,200.00	3.00	4.89	2,199.91	5.22	0.45	-0.44	1.50	1.50	0.00
2,300.00	4.50	4.89	2,299.69	11.73	1.00	-0.98	1.50	1.50	0.00
2,400.00	6.00	4.89	2,399.27	20.85	1.78	-1.75	1.50	1.50	0.00
2,500.00	7.50	4.89	2,498.57	32.56	2.79	-2.73	1.50	1.50	0.00
2,567.00	8.51	4.89	2,564.92	41.85	3.58	-3.51	1.50	1.50	0.00
2,600.00	8.51	4.89	2,597.56	46.72	4.00	-3.92	0.00	0.00	0.00
2,698.53	8.51	4.89	2,695.00	61.23	5.24	-5.13	0.00	0.00	0.00
<b>Lamar</b>									
2,700.00	8.51	4.89	2,696.46	61.45	5.26	-5.15	0.00	0.00	0.00
2,723.80	8.51	4.89	2,720.00	64.96	5.56	-5.45	0.00	0.00	0.00
<b>Delaware</b>									
2,800.00	8.51	4.89	2,795.36	76.19	6.52	-6.39	0.00	0.00	0.00
2,900.00	8.51	4.89	2,894.26	90.92	7.78	-7.62	0.00	0.00	0.00
3,000.00	8.51	4.89	2,993.16	105.66	9.04	-8.86	0.00	0.00	0.00
3,100.00	8.51	4.89	3,092.06	120.39	10.30	-10.09	0.00	0.00	0.00
3,200.00	8.51	4.89	3,190.96	135.13	11.57	-11.33	0.00	0.00	0.00
3,300.00	8.51	4.89	3,289.86	149.87	12.83	-12.57	0.00	0.00	0.00
3,400.00	8.51	4.89	3,388.76	164.60	14.09	-13.80	0.00	0.00	0.00
3,500.00	8.51	4.89	3,487.66	179.34	15.35	-15.04	0.00	0.00	0.00
3,600.00	8.51	4.89	3,586.56	194.07	16.61	-16.27	0.00	0.00	0.00
3,700.00	8.51	4.89	3,685.46	208.81	17.87	-17.51	0.00	0.00	0.00
3,800.00	8.51	4.89	3,784.36	223.54	19.13	-18.74	0.00	0.00	0.00
3,900.00	8.51	4.89	3,883.26	238.28	20.40	-19.98	0.00	0.00	0.00
4,000.00	8.51	4.89	3,982.16	253.02	21.66	-21.21	0.00	0.00	0.00
4,100.00	8.51	4.89	4,081.06	267.75	22.92	-22.45	0.00	0.00	0.00
4,200.00	8.51	4.89	4,179.96	282.49	24.18	-23.69	0.00	0.00	0.00
4,300.00	8.51	4.89	4,278.86	297.22	25.44	-24.92	0.00	0.00	0.00
4,400.00	8.51	4.89	4,377.76	311.96	26.70	-26.16	0.00	0.00	0.00



3R Operating, LLC

## Planning Report

<b>Database:</b>	TZ USA 17.2	<b>Local Co-ordinate Reference:</b>	Well 02_Mongo 25 Fed Com 702H - Slot (02)
<b>Company:</b>	3R Operating LLC	<b>TVD Reference:</b>	Mongo 25 Fed Com 702H
<b>Project:</b>	Eddy County_NM (N83-NME)	<b>MD Reference:</b>	2925+25 @ 2950.00usft
<b>Site:</b>	Mongo 25	<b>North Reference:</b>	Grid
<b>Well:</b>	02_Mongo 25 Fed Com 702H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	702H		
<b>Design:</b>	APD-Rev01		

## Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,500.00	8.51	4.89	4,476.66	326.70	27.96	-27.39	0.00	0.00	0.00
4,600.00	8.51	4.89	4,575.56	341.43	29.22	-28.63	0.00	0.00	0.00
4,700.00	8.51	4.89	4,674.46	356.17	30.49	-29.86	0.00	0.00	0.00
4,800.00	8.51	4.89	4,773.36	370.90	31.75	-31.10	0.00	0.00	0.00
4,900.00	8.51	4.89	4,872.26	385.64	33.01	-32.33	0.00	0.00	0.00
5,000.00	8.51	4.89	4,971.16	400.37	34.27	-33.57	0.00	0.00	0.00
5,100.00	8.51	4.89	5,070.06	415.11	35.53	-34.81	0.00	0.00	0.00
5,200.00	8.51	4.89	5,168.96	429.85	36.79	-36.04	0.00	0.00	0.00
5,300.00	8.51	4.89	5,267.86	444.58	38.05	-37.28	0.00	0.00	0.00
5,400.00	8.51	4.89	5,366.77	459.32	39.31	-38.51	0.00	0.00	0.00
5,500.00	8.51	4.89	5,465.67	474.05	40.58	-39.75	0.00	0.00	0.00
5,600.00	8.51	4.89	5,564.57	488.79	41.84	-40.98	0.00	0.00	0.00
5,700.00	8.51	4.89	5,663.47	503.52	43.10	-42.22	0.00	0.00	0.00
5,800.00	8.51	4.89	5,762.37	518.26	44.36	-43.45	0.00	0.00	0.00
5,900.00	8.51	4.89	5,861.27	533.00	45.62	-44.69	0.00	0.00	0.00
6,000.00	8.51	4.89	5,960.17	547.73	46.88	-45.93	0.00	0.00	0.00
6,100.00	8.51	4.89	6,059.07	562.47	48.14	-47.16	0.00	0.00	0.00
6,200.00	8.51	4.89	6,157.97	577.20	49.40	-48.40	0.00	0.00	0.00
6,300.00	8.51	4.89	6,256.87	591.94	50.67	-49.63	0.00	0.00	0.00
6,400.00	8.51	4.89	6,355.77	606.68	51.93	-50.87	0.00	0.00	0.00
6,470.00	8.51	4.89	6,425.00	616.99	52.81	-51.73	0.00	0.00	0.00
<b>Bone Spring</b>									
6,500.00	8.51	4.89	6,454.67	621.41	53.19	-52.10	0.00	0.00	0.00
6,600.00	8.51	4.89	6,553.57	636.15	54.45	-53.34	0.00	0.00	0.00
6,700.00	8.51	4.89	6,652.47	650.88	55.71	-54.57	0.00	0.00	0.00
6,800.00	8.51	4.89	6,751.37	665.62	56.97	-55.81	0.00	0.00	0.00
6,900.00	8.51	4.89	6,850.27	680.35	58.23	-57.05	0.00	0.00	0.00
7,000.00	8.51	4.89	6,949.17	695.09	59.49	-58.28	0.00	0.00	0.00
7,100.00	8.51	4.89	7,048.07	709.83	60.76	-59.52	0.00	0.00	0.00
7,200.00	8.51	4.89	7,146.97	724.56	62.02	-60.75	0.00	0.00	0.00
7,300.00	8.51	4.89	7,245.87	739.30	63.28	-61.99	0.00	0.00	0.00
7,400.00	8.51	4.89	7,344.77	754.03	64.54	-63.22	0.00	0.00	0.00
7,435.62	8.51	4.89	7,380.00	759.28	64.99	-63.66	0.00	0.00	0.00
<b>1st Bone Spring Sand</b>									
7,500.00	8.51	4.89	7,443.67	768.77	65.80	-64.46	0.00	0.00	0.00
7,600.00	8.51	4.89	7,542.57	783.51	67.06	-65.69	0.00	0.00	0.00
7,700.00	8.51	4.89	7,641.47	798.24	68.32	-66.93	0.00	0.00	0.00
7,784.46	8.51	4.89	7,725.00	810.69	69.39	-67.97	0.00	0.00	0.00
<b>2nd Bone Spring Carb</b>									
7,800.00	8.51	4.89	7,740.37	812.98	69.58	-68.17	0.00	0.00	0.00
7,900.00	8.51	4.89	7,839.27	827.71	70.85	-69.40	0.00	0.00	0.00
7,996.87	8.51	4.89	7,935.08	841.99	72.07	-70.60	0.00	0.00	0.00
8,000.00	8.46	4.89	7,938.17	842.45	72.11	-70.64	1.50	-1.50	0.00
8,100.00	6.96	4.89	8,037.27	855.81	73.25	-71.76	1.50	-1.50	0.00
8,200.00	5.46	4.89	8,136.68	866.58	74.17	-72.66	1.50	-1.50	0.00
8,248.52	4.73	4.89	8,185.00	870.88	74.54	-73.02	1.50	-1.50	0.00
<b>2nd Bone Spring Sand</b>									
8,300.00	3.96	4.89	8,236.34	874.76	74.87	-73.35	1.50	-1.50	0.00
8,400.00	2.46	4.89	8,336.18	880.34	75.35	-73.81	1.50	-1.50	0.00
8,500.00	0.96	4.89	8,436.13	883.31	75.60	-74.06	1.50	-1.50	0.00
8,563.87	0.00	0.00	8,500.00	883.84	75.65	-74.11	1.50	-1.50	0.00
8,600.00	0.00	0.00	8,536.13	883.84	75.65	-74.11	0.00	0.00	0.00



3R Operating, LLC

## Planning Report

<b>Database:</b>	TZ USA 17.2	<b>Local Co-ordinate Reference:</b>	Well 02_Mongo 25 Fed Com 702H - Slot (02)
<b>Company:</b>	3R Operating LLC	<b>TVD Reference:</b>	Mongo 25 Fed Com 702H
<b>Project:</b>	Eddy County_NM (N83-NME)	<b>MD Reference:</b>	2925+25 @ 2950.00usft
<b>Site:</b>	Mongo 25	<b>North Reference:</b>	Grid
<b>Well:</b>	02_Mongo 25 Fed Com 702H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	702H		
<b>Design:</b>	APD-Rev01		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
8,633.87	0.00	0.00	8,570.00	883.84	75.65	-74.11	0.00	0.00	0.00	
<b>3rd Bone Spring Carb</b>										
8,700.00	0.00	0.00	8,636.13	883.84	75.65	-74.11	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,736.13	883.84	75.65	-74.11	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,836.13	883.84	75.65	-74.11	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,936.13	883.84	75.65	-74.11	0.00	0.00	0.00	
9,100.00	0.00	0.00	9,036.13	883.84	75.65	-74.11	0.00	0.00	0.00	
9,200.00	0.00	0.00	9,136.13	883.84	75.65	-74.11	0.00	0.00	0.00	
9,270.92	0.00	0.00	9,207.05	883.84	75.65	-74.11	0.00	0.00	0.00	
<b>KOP: 9270.92' MD/-74.11' VS/9207.05' TVD</b>										
9,300.00	2.91	270.10	9,236.11	883.84	74.91	-73.37	10.00	10.00	0.00	
9,334.00	6.31	270.10	9,270.00	883.85	72.18	-70.64	10.00	10.00	0.00	
<b>3rd Bone Spring Sand</b>										
9,350.00	7.91	270.10	9,285.88	883.85	70.20	-68.66	10.00	10.00	0.00	
9,400.00	12.91	270.10	9,335.04	883.87	61.17	-59.63	10.00	10.00	0.00	
9,450.00	17.91	270.10	9,383.23	883.89	47.89	-46.35	10.00	10.00	0.00	
9,500.00	22.91	270.10	9,430.07	883.92	30.46	-28.92	10.00	10.00	0.00	
9,550.00	27.91	270.10	9,475.22	883.96	9.01	-7.47	10.00	10.00	0.00	
9,600.00	32.91	270.10	9,518.33	884.01	-16.29	17.83	10.00	10.00	0.00	
9,650.00	37.91	270.10	9,559.07	884.06	-45.25	46.79	10.00	10.00	0.00	
9,700.00	42.91	270.10	9,597.13	884.12	-77.65	79.19	10.00	10.00	0.00	
9,750.00	47.91	270.10	9,632.22	884.18	-113.24	114.79	10.00	10.00	0.00	
9,785.20	51.43	270.10	9,655.00	884.23	-140.08	141.62	10.00	10.00	0.00	
<b>Wolfcamp XY*</b>										
9,800.00	52.91	270.10	9,664.08	884.25	-151.76	153.31	10.00	10.00	0.00	
9,819.31	54.84	270.10	9,675.46	884.28	-167.36	168.90	10.00	10.00	0.00	
<b>Sec25Entry(NM107373): 9819.31' MD</b>										
9,850.00	57.91	270.10	9,692.45	884.32	-192.91	194.45	10.00	10.00	0.00	
9,900.00	62.91	270.10	9,717.14	884.40	-236.37	237.92	10.00	10.00	0.00	
9,950.00	67.91	270.10	9,737.94	884.48	-281.82	283.37	10.00	10.00	0.00	
10,000.00	72.91	270.10	9,754.70	884.57	-328.92	330.46	10.00	10.00	0.00	
10,050.00	77.91	270.10	9,767.29	884.65	-377.29	378.83	10.00	10.00	0.00	
10,100.00	82.91	270.10	9,775.62	884.74	-426.57	428.12	10.00	10.00	0.00	
10,150.00	87.91	270.10	9,779.62	884.83	-476.40	477.94	10.00	10.00	0.00	
10,170.86	89.99	270.10	9,780.00	884.87	-497.25	498.80	10.00	10.00	0.00	
<b>330FLL: 10170.86' MD/ 498.79' VS/9780.00' TVD</b>										
10,170.92	90.00	270.10	9,780.00	884.87	-497.31	498.85	10.00	10.00	0.00	
<b>EOC: 10170.92' MD/498.85' VS/9780.00' TVD - Target CL</b>										
10,170.94	90.00	270.10	9,780.00	884.87	-497.33	498.87	0.00	0.00	0.00	
<b>01-FTP(MGFC-702H)</b>										
10,200.00	90.00	270.10	9,780.00	884.92	-526.39	527.94	0.00	0.00	0.00	
10,300.00	90.00	270.10	9,780.00	885.10	-626.39	627.94	0.00	0.00	0.00	
10,400.00	90.00	270.10	9,780.00	885.28	-726.39	727.94	0.00	0.00	0.00	
10,500.00	90.00	270.10	9,780.00	885.46	-826.39	827.94	0.00	0.00	0.00	
10,600.00	90.00	270.10	9,780.00	885.64	-926.39	927.94	0.00	0.00	0.00	
10,700.00	90.00	270.10	9,780.00	885.82	-1,026.39	1,027.94	0.00	0.00	0.00	
10,800.00	90.00	270.10	9,780.00	886.00	-1,126.39	1,127.94	0.00	0.00	0.00	
10,900.00	90.00	270.10	9,780.00	886.18	-1,226.39	1,227.94	0.00	0.00	0.00	
11,000.00	90.00	270.10	9,780.00	886.36	-1,326.39	1,327.94	0.00	0.00	0.00	
11,100.00	90.00	270.10	9,780.00	886.54	-1,426.39	1,427.94	0.00	0.00	0.00	
11,205.40	90.00	270.10	9,780.00	886.73	-1,531.79	1,533.34	0.00	0.00	0.00	
<b>Entry(NM025953): 11205.40' MD - Exit(NM107373): 11205.40' MD</b>										





3R Operating, LLC

## Planning Report

<b>Database:</b>	TZ USA 17.2	<b>Local Co-ordinate Reference:</b>	Well 02_Mongo 25 Fed Com 702H - Slot (02)
<b>Company:</b>	3R Operating LLC	<b>TVD Reference:</b>	Mongo 25 Fed Com 702H
<b>Project:</b>	Eddy County_NM (N83-NME)	<b>MD Reference:</b>	2925+25 @ 2950.00usft
<b>Site:</b>	Mongo 25	<b>North Reference:</b>	Grid
<b>Well:</b>	02_Mongo 25 Fed Com 702H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	702H		
<b>Design:</b>	APD-Rev01		

## Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,205.44	90.00	270.10	9,780.00	886.73	-1,531.83	1,533.38	0.00	0.00	0.00
<b>02-PP2(MGFC-702H)</b>									
11,300.00	90.00	270.10	9,780.00	886.90	-1,626.39	1,627.94	0.00	0.00	0.00
11,400.00	90.00	270.10	9,780.00	887.08	-1,726.39	1,727.94	0.00	0.00	0.00
11,500.00	90.00	270.10	9,780.00	887.26	-1,826.39	1,827.94	0.00	0.00	0.00
11,600.00	90.00	270.10	9,780.00	887.44	-1,926.39	1,927.94	0.00	0.00	0.00
11,700.00	90.00	270.10	9,780.00	887.62	-2,026.39	2,027.94	0.00	0.00	0.00
11,800.00	90.00	270.10	9,780.00	887.80	-2,126.39	2,127.94	0.00	0.00	0.00
11,900.00	90.00	270.10	9,780.00	887.98	-2,226.39	2,227.94	0.00	0.00	0.00
12,000.00	90.00	270.10	9,780.00	888.16	-2,326.39	2,327.94	0.00	0.00	0.00
12,100.00	90.00	270.10	9,780.00	888.34	-2,426.39	2,427.94	0.00	0.00	0.00
12,200.00	90.00	270.10	9,780.00	888.52	-2,526.39	2,527.94	0.00	0.00	0.00
12,300.00	90.00	270.10	9,780.00	888.70	-2,626.39	2,627.94	0.00	0.00	0.00
12,400.00	90.00	270.10	9,780.00	888.88	-2,726.39	2,727.94	0.00	0.00	0.00
12,500.00	90.00	270.10	9,780.00	889.06	-2,826.39	2,827.94	0.00	0.00	0.00
12,600.00	90.00	270.10	9,780.00	889.24	-2,926.39	2,927.94	0.00	0.00	0.00
12,700.00	90.00	270.10	9,780.00	889.42	-3,026.39	3,027.94	0.00	0.00	0.00
12,800.00	90.00	270.10	9,780.00	889.60	-3,126.39	3,127.94	0.00	0.00	0.00
12,900.00	90.00	270.10	9,780.00	889.78	-3,226.39	3,227.94	0.00	0.00	0.00
13,000.00	90.00	270.10	9,780.00	889.96	-3,326.39	3,327.94	0.00	0.00	0.00
13,100.00	90.00	270.10	9,780.00	890.14	-3,426.39	3,427.94	0.00	0.00	0.00
13,200.00	90.00	270.10	9,780.00	890.32	-3,526.39	3,527.94	0.00	0.00	0.00
13,300.00	90.00	270.10	9,780.00	890.50	-3,626.39	3,627.94	0.00	0.00	0.00
13,400.00	90.00	270.10	9,780.00	890.68	-3,726.39	3,727.94	0.00	0.00	0.00
13,500.00	90.00	270.10	9,780.00	890.86	-3,826.39	3,827.94	0.00	0.00	0.00
13,600.00	90.00	270.10	9,780.00	891.04	-3,926.39	3,927.94	0.00	0.00	0.00
13,700.00	90.00	270.10	9,780.00	891.21	-4,026.39	4,027.94	0.00	0.00	0.00
13,800.00	90.00	270.10	9,780.00	891.39	-4,126.39	4,127.94	0.00	0.00	0.00
13,881.17	90.00	270.10	9,780.00	891.54	-4,207.56	4,209.11	0.00	0.00	0.00
<b>Exit(NM025953): 13881.17' MD</b>									
13,881.35	90.00	270.10	9,780.00	891.55	-4,207.74	4,209.29	0.00	0.00	0.00
<b>03-PP3(MGFC-702H)</b>									
13,900.00	90.00	270.10	9,780.00	891.58	-4,226.39	4,227.94	0.00	0.00	0.00
14,000.00	90.00	270.10	9,780.00	891.76	-4,326.39	4,327.94	0.00	0.00	0.00
14,100.00	90.00	270.10	9,780.00	891.94	-4,426.39	4,427.94	0.00	0.00	0.00
14,200.00	90.00	270.10	9,780.00	892.12	-4,526.38	4,527.94	0.00	0.00	0.00
14,300.00	90.00	270.10	9,780.00	892.30	-4,626.38	4,627.94	0.00	0.00	0.00
14,400.00	90.00	270.10	9,780.00	892.48	-4,726.38	4,727.94	0.00	0.00	0.00
14,500.00	90.00	270.10	9,780.00	892.66	-4,826.38	4,827.94	0.00	0.00	0.00
14,600.00	90.00	270.10	9,780.00	892.84	-4,926.38	4,927.94	0.00	0.00	0.00
14,700.00	90.00	270.10	9,780.00	893.02	-5,026.38	5,027.94	0.00	0.00	0.00
14,800.00	90.00	270.10	9,780.00	893.20	-5,126.38	5,127.94	0.00	0.00	0.00
14,889.26	90.00	270.10	9,780.00	893.36	-5,215.64	5,217.19	0.00	0.00	0.00
<b>TD: 14889.26' MD/5217.19' VS/9780.00' TVD - 04-PBHL-LTP(MGFC-702H)</b>									



3R Operating, LLC

## Planning Report

<b>Database:</b>	TZ USA 17.2	<b>Local Co-ordinate Reference:</b>	Well 02_Mongo 25 Fed Com 702H - Slot (02) Mongo 25 Fed Com 702H
<b>Company:</b>	3R Operating LLC	<b>TVD Reference:</b>	2925+25 @ 2950.00usft
<b>Project:</b>	Eddy County_NM (N83-NME)	<b>MD Reference:</b>	2925+25 @ 2950.00usft
<b>Site:</b>	Mongo 25	<b>North Reference:</b>	Grid
<b>Well:</b>	02_Mongo 25 Fed Com 702H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	702H		
<b>Design:</b>	APD-Rev01		

## Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
04-PBHL-LTP(MGFC-70) - plan hits target center - Point	0.00	0.01	9,780.00	893.36	-5,215.64	433,733.10	629,490.38	32.19208864	-104.04836306
03-PP3(MGFC-702H) - plan hits target center - Point	0.00	0.00	9,780.00	891.55	-4,207.74	433,731.29	630,498.28	32.19207628	-104.04510489
01-FTP(MGFC-702H) - plan hits target center - Point	0.00	0.00	9,780.00	884.87	-497.33	433,724.61	634,208.69	32.19203001	-104.03311051
02-PP2(MGFC-702H) - plan hits target center - Point	0.00	0.00	9,780.00	886.73	-1,531.83	433,726.47	633,174.19	32.19204302	-104.03645466

## Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
0.00	0.00	Rustler		0.00	
1,175.00	1,175.00	Castille			
2,698.53	2,695.00	Lamar			
2,723.80	2,720.00	Delaware			
6,470.00	6,425.00	Bone Spring			
7,435.62	7,380.00	1st Bone Spring Sand			
7,784.46	7,725.00	2nd Bone Spring Carb			
8,248.52	8,185.00	2nd Bone Spring Sand			
8,633.87	8,570.00	3rd Bone Spring Carb			
9,334.00	9,270.00	3rd Bone Spring Sand			
9,785.20	9,655.00	Wolfcamp XY*			
10,170.92	9,780.00	Target CL			

## Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,270.92	9,207.05	883.84	75.65	KOP: 9270.92' MD/-74.11' VS/9207.05' TVD
9,819.31	9,675.46	884.28	-167.36	Sec25Entry(NM107373): 9819.31' MD
10,170.86	9,780.00	884.87	-497.25	330FLL: 10170.86' MD/ 498.79' VS/9780.00' TVD
10,170.92	9,780.00	884.87	-497.31	EOC: 10170.92' MD/498.85' VS/9780.00' TVD
11,205.40	9,780.00	886.73	-1,531.79	Entry(NM025953): 11205.40' MD
11,205.40	9,780.00	886.73	-1,531.79	Exit(NM107373): 11205.40' MD
13,881.17	9,780.00	891.54	-4,207.56	Exit(NM025953): 13881.17' MD
14,889.26	9,780.00	893.36	-5,215.64	TD: 14889.26' MD/5217.19' VS/9780.00' TVD

Released to Imaging: 5/20/2025 3:07:28 PM

Received by OCD: 4/10/2025 3:16:01 PM

Project: Eddy County\_NM (N83-NME)  
Site: Mongo 25  
Well: 02\_Mongo 25 Fed Com 702H  
Wellbore: 702H  
Plan: APD-Rev01

WELL DETAILS: 02\_Mongo 25 Fed Com 702H

PROJECT DETAILS: Eddy County\_NM (N83-NME)

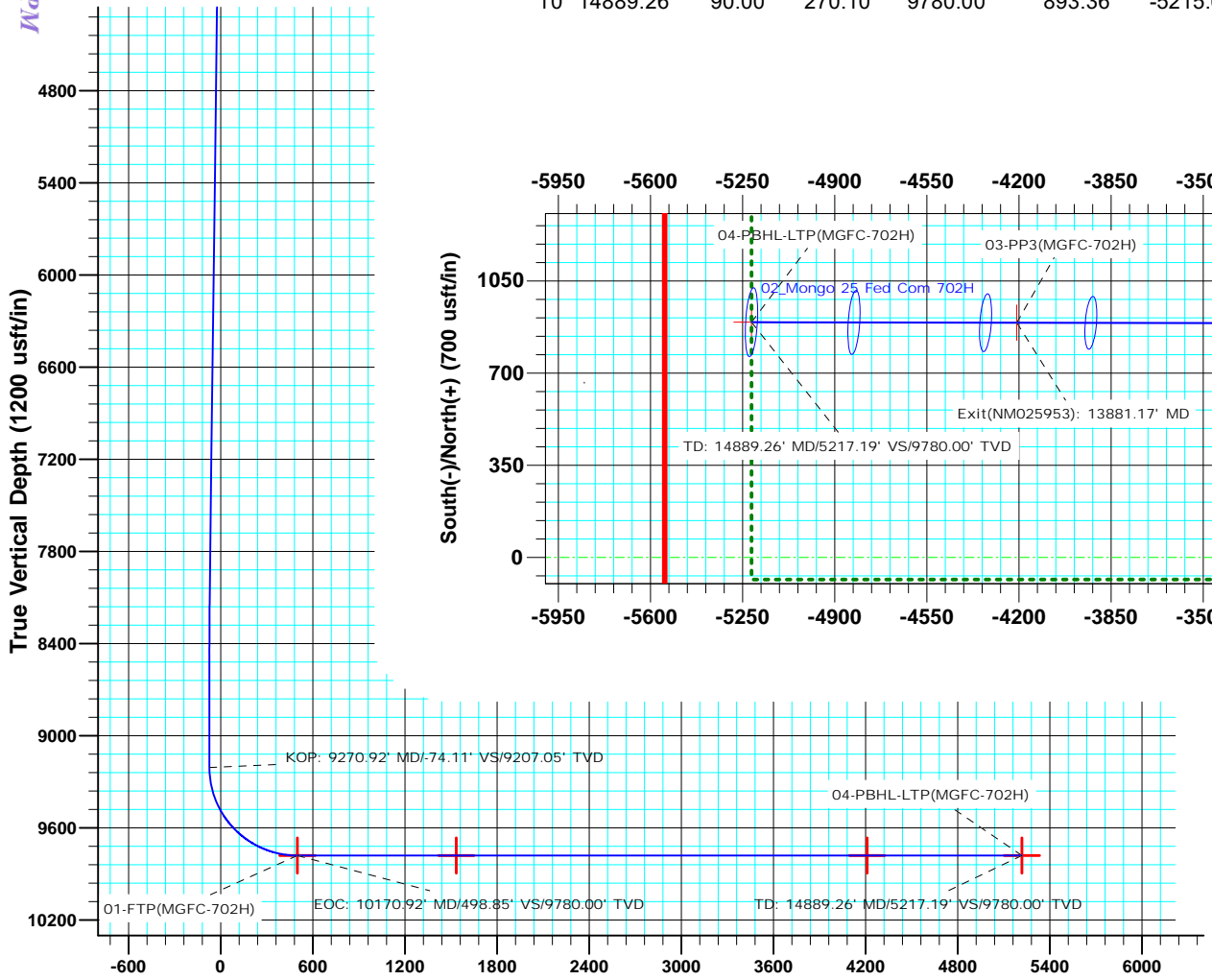
	Ground Elevation:		2925.00			
	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
	0.00	0.00	432839.74	634706.02	32.18959379	-104.03151085

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Eastern Zone  
System Datum: Mean Sea Level

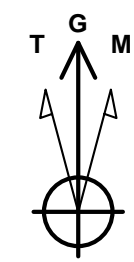


SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00
3	2567.00	8.51	4.89	2564.92	41.85	3.58	1.50	4.89	-3.51
4	7996.87	8.51	4.89	7935.08	841.99	72.07	0.00	0.00	-70.60
5	8563.87	0.00	0.00	8500.00	883.84	75.65	1.50	180.00	-74.11
6	9270.92	0.00	0.00	9207.04	883.84	75.65	0.00	0.00	-74.11
7	10170.92	90.00	270.10	9780.00	884.87	-497.31	10.00	270.10	498.85
8	11205.44	90.00	270.10	9780.00	886.73	-1531.83	0.00	0.00	1533.38
9	13881.35	90.00	270.10	9780.00	891.55	-4207.74	0.00	0.00	4209.29
10	14889.26	90.00	270.10	9780.00	893.36	-5215.64	0.00	0.00	5217.19

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
0.00	0.00	Rustler
1175.00	1175.00	Castille
2695.00	2698.53	Lamar
2720.00	2723.80	Delaware
6425.00	6470.00	Bone Spring
7380.00	7435.62	1st Bone Spring Sand
7725.00	7784.46	2nd Bone Spring Carb
8185.00	8248.52	2nd Bone Spring Sand
8570.00	8633.87	3rd Bone Spring Carb
9270.00	9334.00	3rd Bone Spring Sand
9655.00	9785.20	Wolfcamp XY*
9780.00	10170.92	Target CL



Vertical Section at 270.10° (1200 usft/in)



Azimuths to Grid North  
True North: -0.16°  
Magnetic North: 6.19°  
  
Magnetic Field  
Strength: 47073.3nT  
Dip Angle: 59.69°  
Date: 11/21/2024  
Model: IGRF2020



## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	3R OPERATING LLC
<b>WELL NAME &amp; NO.:</b>	MONGO 25 FED COM 702H
<b>LOCATION:</b>	30 – 24S – 29E, LOT 2 (2245 FNL, 155 FWL)
<b>COUNTY:</b>	<div style="border: 1px solid black; display: inline-block; padding: 2px 5px;">Eddy County, New Mexico</div>

COA

H <sub>2</sub> S	<input checked="" type="radio"/> No	<input type="radio"/> Yes
<b>Potash / WIPP</b>	<input checked="" type="radio"/> None <input type="radio"/> Secretary <input type="radio"/> R-111-Q <input type="checkbox"/> Open Annulus <span style="color: red;">Choose an option (including blank option.)</span>	<input type="checkbox"/> WIPP
<b>Cave / Karst</b>	<input type="radio"/> Low <input type="radio"/> Medium <input checked="" type="radio"/> High	<input type="radio"/> Critical
<b>Wellhead</b>	<input type="radio"/> Conventional <input checked="" type="radio"/> Multibowl <input type="radio"/> Both	<input type="radio"/> Diverter
<b>Cementing</b>	<input type="checkbox"/> Primary Squeeze <input type="checkbox"/> Cont. Squeeze <input type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
<b>Special Req</b>	<input type="checkbox"/> Capitan Reef <input type="checkbox"/> Water Disposal <input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit
<b>Waste Prev.</b>	<input type="radio"/> Self-Certification <input checked="" type="radio"/> Waste Min. Plan <input type="radio"/> APD Submitted prior to 06/10/2024	
<b>Additional Language</b>	<input checked="" type="checkbox"/> Flex Hose <input type="checkbox"/> Casing Clearance <input type="checkbox"/> Pilot Hole <input type="checkbox"/> Four-String <input type="checkbox"/> Offline Cementing <input checked="" type="checkbox"/> Fluid-Filled	<input type="checkbox"/> Break Testing

### A. HYDROGEN SULFIDE

Hydrogen Sulfide (H<sub>2</sub>S) monitors shall be installed prior to drilling out the surface shoe. If H<sub>2</sub>S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 43 CFR 3176 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

### B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **350 feet** (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or **500 pounds compressive strength**, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after

- bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

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

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing set at approximately **9,000 feet** is:
  - 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, Capitan Reef, or potash.**
- ❖ **In High 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 **5-1/2** inch production casing set at approximately **14,889 feet** is:
  - Cement should tie-back at least **200 feet** into previous casing string. 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. Operator has proposed a multi-bowl wellhead assembly. 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 43 CFR 3172 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.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3171 and 3172.
- 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.

## 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)

### Contact Eddy County Petroleum Engineering Inspection Staff:

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220;  
[BLM\\_NM\\_CFO\\_DrillingNotifications@BLM.GOV](mailto:BLM_NM_CFO_DrillingNotifications@BLM.GOV); (575) 361-2822.

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
    - i. Notify the BLM when moving in and removing the Spudder Rig.
    - ii. 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.
    - iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2<sup>nd</sup> 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. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

### 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 of both lead and tail cement, 2) until cement has been in place at least 8 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-Q 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 **43 CFR 3172**.
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:
  - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - ii. 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.
  - iii. Manufacturer representative shall install the test plug for the initial BOP test.
  - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
  - v. 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.
  - i. 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 cement), 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).
  - ii. 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 cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

- iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** 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 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- iv. 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.
- v. The results of the test shall be reported to the appropriate BLM office.
- vi. 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.
- vii. 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.
- viii. 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 **43 CFR 3172**.

### **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.

**YLJ (3/3/2025)**

MONGO 25 FED COM 702H

13 3/8	surface csg in a	17 1/2	inch hole.	Design Factors					Surface		
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	48.00	H 40	STC	19.17	4.6	0.36	350	11	0.61	8.53	16,800
"B"			STC				0				0
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,058							Totals:	350			16,800
Comparison of Proposed to Minimum Required Cement Volumes											
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd			Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE			Hole-Cplg
17 1/2	0.6946	353	487	243	100	9.20	2836	3M			1.56
Burst Frac Gradient(s) for Segment(s) A, B = , b All > 0.70, OK. Site plat (pipe racks S or E) as per O O 1 DED 4.1, not found.											

9 5/8	casing inside the	13 3/8	Design Factors					Int 1			
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	40.00	P 110	BTC	3.52	0.88	1.41	9,000	2	2.14	1.49	360,000
"B"							0				0
w/8.4#/g mud, 30min Sfc Csg Test psig:							Totals:	9,000			360,000
The cement volume(s) are intended to achieve a top of					0	ft from surface or a		350			overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd			Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE			Hole-Cplg
12 1/4	0.3132	2787	4229	2841	49	10.30	4199	5M			1.31
Class 'H' tail cmt yld > 1.20											

5 1/2	casing inside the	9 5/8	Design Factors					Prod 1			
Segment	#/ft	Grade	Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	20.00	P 110	BTC	3.28	1.74	1.99	14,889	2	3.01	2.64	297,780
"B"							0				0
w/8.4#/g mud, 30min Sfc Csg Test psig: 2,152							Totals:	14,889			297,780
The cement volume(s) are intended to achieve a top of				8800	ft from surface or a			200			overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd			Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE			Hole-Cplg
8 3/4	0.2526	2787	4229	1540	175	12.50					1.35
Class 'C' tail cmt yld > 1.35											

#N/A											
0	5 1/2			Design Factors					<Choose Casing>		
Segment	#/ft	Grade	Coupling	#N/A	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"			0.00				0				0
"B"			0.00				0				0
w/8.4#/g mud, 30min Sfc Csg Test psig:							Totals:	0			0
Cmt vol calc below includes this csg, TOC intended				#N/A	ft from surface or a			#N/A			overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd			Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE			Hole-Cplg
0		#N/A	#N/A	0	#N/A						
#N/A Capitan Reef est top XXXX.											

#N/A	0	In tandem @	0	Design Factors					<Choose Casing>		
Segment	#/ft	Grade	Coupling	#N/A	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"			0.00				0				0
"B"			0.00				0				0
w/8.4#/g mud, 30min Sfc Csg Test psig:							Totals:	0			0
Cmt vol calc includes previous csg (tandem conn) TOC #N/A ft from surface or a #N/A overlap.											
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling					Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt					Hole-Cplg
0		#N/A	#N/A		#N/A						
#N/A											

**3R Operating, LLC**  
**Ridge Runner Resources, LLC**  
1004 N . Big Spring St., Suite 325  
  
Midland, TX 79701

**H2S Contingency Plan**  
**Eddy County, NM**

**Escape**

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated from the location entrance road. Crew should then block entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. There are NO homes or buildings in or near the ROE.

Assumed 100 ppm ROE = 3000'  
100 ppm H2S concentration shall trigger activation of this plan

**Emergency Procedures**

In the event of a release of gas containing H2S, the first responder(s) must:

- « Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- « Evacuate any public places encompassed by the 100 ppm ROE.
- « Be equipped with H2S monitors and air packs in order to control the release.
- « Use the "buddy system" to ensure no injuries occur during the response.
- « Take precautions to avoid personal injury during this operation.
- « Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- « Have received training
  - in the: Detection of
  - H2S, and
  - Measures for protection against the gas,
  - Equipment used for protection and emergency response.

**Ignition of Gas Source**

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas.

**Characteristics of H2S and SO**

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H2S	1.189 Air=1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO2	2.21 Air=1	2 ppm	N/A	1000 ppm

## Contacting Authorities

3 Bear Field Services personnel must liaise with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. 3 Bear Field Services, LLC response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMERP).

## Hydrogen Sulfide Drilling Operations Plan

1. All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:
  - A. Characteristics of H2S
  - B. Physical effects and hazards
  - C. Principal and operation of H2S detectors, warning system and briefing areas.
  - D. Evacuation procedure, routes and first aid.
  - E. Proper use of safety equipment & life support systems
  - F. Essential personnel meeting Medical Evaluation criteria will receive additional training on the proper use of 30-minute pressure demand air packs.
2. H2S Detection and Alarm Systems:
  - a. H2S sensors/detectors to be located on the drilling rig floor, in the base of the sub structure/cellar area, on the mud pits in the shale shaker area. Additional H2S detectors may be placed as deemed necessary.
  - b. An audio alarm system will be installed on the derrick floor and in the top doghouse.
3. Windsock and/or wind streamers:
  - a. Windsock at mudpit area should be high enough to be visible.
  - b. Windsock on the rig floor and/ or top doghouse should be high enough to be visible.
4. Condition Flags and Signs
  - a. Warning sign on access road to location.
  - b. Flags to be displayed on sign at entrance to location. Green flag indicates normal safe condition. Yellow flag indicates potential pressure and danger. Red flag indicates danger (H2S present in dangerous concentration). Only H2S trained and certified personnel

admitted to location.

5. Well control equipment:

- a. See exhibit BOP and Choke Diagrams

6. Communication:

- a. While working under masks chalkboards will be used for communication.
- b. Hand signals will be used where chalk board is inappropriate.
- c. Two-way radio will be used to communicate off location in case of emergency help is required. In most cases, cellular telephones will be available at most drilling foreman's trailer or living quarters.

7. Drill stem Testing:

No DSTs are planned at this time.

- 8. Drilling contractor supervisor will be required to be familiar with the effects H<sub>2</sub>S has on tubular goods and other mechanical equipment.
- 9. If H<sub>2</sub>S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H<sub>2</sub>S scavengers if necessary.

**Emergency Assistance Telephone List**

**Ridge Runner Resources, LLC**

Ridge Runner Resources, LLC  
CEO-Brian Cassens

Office: (432)686-2973  
Office: (817)953-0480

Drilling Superintendent-Russell Simons  
Production Superintendent-Paul Martinez

Cell: (830)285-7501  
Cell: (325)206-1722



**Public Safety Numbers**

Eddy County Sheriff's Department	Number:	575-887-7551
Eddy County Fire & Rescue	Number:	575-628-5450
Carlsbad Police Department	Number:	575-885-2111
Carlsbad Fire Department	Number:	575-885-3125
Hospital – Carlsbad Medical Center	Number:	575-887-4100
Trans Aero Medevac	Number:	844-435-4911
NMDOT District 2 – Roswell	Number:	575-840-3035
NM OCD Dist. 2 – Artesia	Number:	575-626-0830
BLM Pecos District Office – Roswell	Number:	575-627-0272
BLM Carlsbad Field Office	Number:	575-234-5972
BLM Hobbs Field Station	Number:	575-393-3612
BLM CFO/Eddy Co. PET On-Call	Number:	575-361-2822



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

# SUPO Data Report

03/28/2025

APD ID: 10400102192

Submission Date: 11/26/2024

Operator Name: 3R OPERATING LLC

Well Name: MONGO 25 FED COM

Well Number: 702H

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Highlighted data  
reflects the most  
recent changes

[Show Final Text](#)

## Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

ROCK\_RIDGE\_MONGO\_ACCESS\_AERIAL\_20241126113608.pdf

ROCK\_RIDGE\_MONGO\_ACCESS\_ROUTE\_\_1\_\_20241126113612.pdf

ROCK\_RIDGE\_MONGO\_ACCESS\_ROUTE\_\_2\_\_20241126113616.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? NO

### ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

## Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

PROPOSED\_ROUTE\_FOOTAGE\_20241126113642.pdf

ROCK\_RIDGE\_MONGO\_LAYOUT\_20241126113647.pdf

ROCK\_RIDGE\_MONGO\_ACCESS\_ROUTE\_\_2\_\_20241126113651.pdf

New road type: COLLECTOR

Length: 708

Feet

Width (ft.): 30

Max slope (%): 3

Max grade (%): 3

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 25

**New road access erosion control:** To accommodate the natural drainage of the landscape, culverts or water diversions will be installed as necessary to allow proper drainage of the landscape and mitigate

**Operator Name:** 3R OPERATING LLC**Well Name:** MONGO 25 FED COM**Well Number:** 702H

erosion. The access road and associated drainage structures will be constructed and maintained in accordance with BLM guidelines.

**New road access plan or profile prepared?** N**New road access plan****Access road engineering design?** N**Access road engineering design****Turnout?** N**Access surfacing type:** OTHER**Access topsoil source:** ONSITE**Access surfacing type description:** Caliche**Access onsite topsoil source depth:** 6**Offsite topsoil source description:****Onsite topsoil removal process:** Bulldozer/Road Grader

**Access other construction information:** The proposed lease road traverses gently sloping terrain. The largest grade along the lease road may be approximately 3%. Existing bar ditches or any man-made ditch is not considered in determining max slope of preconstruction contours. Fencing, gates, and/or cattle guards may be installed as necessary per agreement with landowner or surface managing agency.

**Access miscellaneous information:****Number of access turnouts:****Access turnout map:**

### Drainage Control

**New road drainage crossing:** CULVERT

**Drainage Control comments:** The lease road will be new construction and will provide all-weather access to this property. The lease road will be maintained with a motor grader in a prudent manner as an all-weather road. Maintenance activity shall include, but not be limited to, resurfacing, reshaping, compacting, and crowning said road as necessary. Any ruts, rills, and eroded areas will be filled/repared as necessary. Crown/ditch will be surfaced with caliche.

**Road Drainage Control Structures (DCS) description:** To accommodate the natural drainage of the landscape, culverts or water diversions will be installed as necessary to allow proper drainage of the landscape and mitigate erosion. The access road and associated drainage structures will be constructed and maintained in accordance with BLM guidelines.

**Road Drainage Control Structures (DCS) attachment:**

### Access Additional Attachments

### Section 3 - Location of Existing Wells

**Existing Wells Map?** YES**Attach Well map:**

OMRP\_\_\_\_Rock\_Ridge\_Mongo\_REV\_20241126113954.pdf

Operator Name: 3R OPERATING LLC

Well Name: MONGO 25 FED COM

Well Number: 702H

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

**Production Facilities description:** Proposed production facilities are located in the NW corner of the well pad. The exact layout and dimensions may change due to ongoing development plans. A site facility diagram will be submitted to the BLM upon the well being placed into production.

**Production Facilities map:**

ROCK\_RIDGE\_MONGO\_WELL\_FACILITIES\_20241126114033.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: GW WELL

Water source use type:

DUST CONTROL

SURFACE CASING

INTERMEDIATE/PRODUCTION CASING

STIMULATION

Source latitude: 32.190599

Source longitude: -104.058023

Source datum: NAD83

Water source permit type:

WATER WELL

Water source transport method:

TRUCKING

PIPELINE

Source land ownership: COMMERCIAL

Source transportation land ownership: COMMERCIAL

Water source volume (barrels): 2994729.826409

Source volume (acre-feet): 386

Source volume (gal): 125778652.7092

Water source and transportation

Water\_Caliche\_Mongo\_Pad\_20241126114123.pdf

**Water source comments:** Water transported via temporary aboveground water line. Trucking may be used if necessary. The frac pond is located in NE/4-NW/4 of Sec. 25-24S-28E.

**New water well?** N

New Water Well Info

**Operator Name:** 3R OPERATING LLC**Well Name:** MONGO 25 FED COM**Well Number:** 702H**Well latitude:****Well Longitude:****Well datum:****Well target aquifer:****Est. depth to top of aquifer(ft):****Est thickness of aquifer:****Aquifer comments:****Aquifer documentation:****Well depth (ft):****Well casing type:****Well casing outside diameter (in.):****Well casing inside diameter (in.):****New water well casing?****Used casing source:****Drilling method:****Drill material:****Grout material:****Grout depth:****Casing length (ft.):****Casing top depth (ft.):****Well Production type:****Completion Method:****Water well additional information:****State appropriation permit:****Additional information attachment:**

## Section 6 - Construction Materials

**Using any construction materials:** YES

**Construction Materials description:** Location will be graded and leveled with existing soil and available material deposits at proposed site. Construction material, particularly caliche, will be obtained via private contract for the construction of the well pad and lease road. Source of caliche is existing approved pit located in the NE/4-NW/4 of Sec. 26-24S-28E.

**Construction Materials source location**

## Section 7 - Methods for Handling

**Waste type:** DRILLING**Waste content description:** Drilling mud and cuttings**Amount of waste:** 3800 barrels**Waste disposal frequency :** One Time Only

**Safe containment description:** Drilling mud and cuttings will be contained in a closed system. During drilling activities trenches will surround all pumps, motors, and rig such that runoff will be directed to a sump area on the well site and pumped into a haul off tank.

**Safe containmant attachment:**

**Waste disposal type:** HAUL TO COMMERCIAL FACILITY      **Disposal location ownership:** COMMERCIAL

**Disposal type description:**

**Disposal location description:** Third party vendor will be charged with disposal of waste (R360 Environmental Solutions). Waste will be hauled to an approved commercial disposal facility.

**Operator Name:** 3R OPERATING LLC**Well Name:** MONGO 25 FED COM**Well Number:** 702H**Waste type:** COMPLETIONS/STIMULATION**Waste content description:** Water associated with completion of the well.**Amount of waste:** 1000 barrels**Waste disposal frequency :** Weekly**Safe containment description:** Completion water will be held in permanent above ground storage tanks on the well pad. The tank(s) will be contained by appropriate secondary containment.**Safe containmant attachment:****Waste disposal type:** HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL**Disposal type description:****Disposal location description:** Third party vendor will be charged with disposal of waste (R360 Environmental Solutions). Waste will be hauled to an approved commercial disposal facility.**Waste type:** SEWAGE**Waste content description:** Sewage associated with active drilling and completions operations.**Amount of waste:** 1000 gallons**Waste disposal frequency :** Weekly**Safe containment description:** All sewage will be held in onsite portable restrooms.**Safe containmant attachment:****Waste disposal type:** HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL**Disposal type description:****Disposal location description:** Third party vendor will be charged with disposal of waste (R360 Environmental Solutions). Waste will be hauled to an approved commercial disposal facility.**Waste type:** GARBAGE**Waste content description:** Garbage produced during drilling and completions.**Amount of waste:** 1000 pounds**Waste disposal frequency :** Weekly**Safe containment description:** All garbage will be contained either in trash cans or dumpsters onsite.**Safe containmant attachment:****Waste disposal type:** HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL**Disposal type description:****Disposal location description:** Third party vendor will be charged with disposal of waste (R360 Environmental Solutions). Waste will be hauled to an approved commercial disposal facility.**Waste type:** PRODUCED WATER**Waste content description:** Water produced from the target formation.**Amount of waste:** 1000 barrels**Waste disposal frequency :** Daily

**Operator Name:** 3R OPERATING LLC**Well Name:** MONGO 25 FED COM**Well Number:** 702H

**Safe containment description:** Water produced from target formation will be held in permanent above ground storage tanks on the well pad. The tank(s) will be contained by appropriate secondary containment.

**Safe containmant attachment:**

**Waste disposal type:** HAUL TO COMMERCIAL FACILITY      **Disposal location ownership:** COMMERCIAL

**Disposal type description:**

**Disposal location description:** TBD - Disposal will occur at a regional wastewater disposal facility designed and approved to dispose of oilfield wastewater.

### Reserve Pit

**Reserve Pit being used?** NO

**Temporary disposal of produced water into reserve pit?** NO

**Reserve pit length (ft.)**

**Reserve pit width (ft.)**

**Reserve pit depth (ft.)**

**Reserve pit volume (cu. yd.)**

**Is at least 50% of the reserve pit in cut?**

**Reserve pit liner**

**Reserve pit liner specifications and installation description**

### Cuttings Area

**Cuttings Area being used?** NO

**Are you storing cuttings on location?** N

**Description of cuttings location**

**Cuttings area length (ft.)**

**Cuttings area width (ft.)**

**Cuttings area depth (ft.)**

**Cuttings area volume (cu. yd.)**

**Is at least 50% of the cuttings area in cut?**

**WCuttings area liner**

**Cuttings area liner specifications and installation description**

### Section 8 - Ancillary

**Are you requesting any Ancillary Facilities?:** N

**Ancillary Facilities**

**Comments:**

Operator Name: 3R OPERATING LLC

Well Name: MONGO 25 FED COM

Well Number: 702H

Section 9 - Well Site

Well Site Layout Diagram:

Rig\_Layout\_20241119153251.pdf  
ROCK\_RIDGE\_MONGO\_WELL\_PAD\_20241126114231.pdf  
ROCK\_RIDGE\_MONGO\_PAD\_DESIGN\_20241126114236.pdf  
ROCK\_RIDGE\_MONGO\_LAYOUT\_20241126114241.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: Rock Ridge-Mongo

Multiple Well Pad Number: 1

Recontouring

ROCK\_RIDGE\_MONGO\_PAD\_DESIGN\_20241126114250.pdf

**Drainage/Erosion control construction:** To mitigate erosion and protect the natural drainage areas, erosion control methods (e.g. cut and fill ratios of 3:1) will be implemented during the construction and production phases of this project. The slopes of the well pad may be reseeded or replanted per agreement with the landowner or surface managing agency. Erosion mitigation such as berms, silt fences, and hay bales will be located as necessary around the well pad.

**Drainage/Erosion control reclamation:** To mitigate erosion and protect the natural drainage areas, erosion control methods (e.g. cut and fill ratios of 3:1) will be implemented during the construction and production phases of this project. The slopes of the well pad may be reseeded or replanted per agreement with the landowner or surface managing agency. Erosion mitigation such as berms, silt fences, and hay bales will be located as necessary around the well pad.

Well pad proposed disturbance (acres): 5.22	Well pad interim reclamation (acres): 0	Well pad long term disturbance (acres): 5.22
Road proposed disturbance (acres): 0.49	Road interim reclamation (acres): 0	Road long term disturbance (acres): 0.49
Powerline proposed disturbance (acres): 0	Powerline interim reclamation (acres): 0	Powerline long term disturbance (acres): 0
Pipeline proposed disturbance (acres): 0	Pipeline interim reclamation (acres): 0	Pipeline long term disturbance (acres): 0
Other proposed disturbance (acres): 0.3	Other interim reclamation (acres): 0	Other long term disturbance (acres): 0.3
Total proposed disturbance: 6.01	Total interim reclamation: 0	Total long term disturbance: 6.01

Disturbance Comments:

**Reconstruction method:** The operator does not intend to downsize this well location at this time due to plans of future oil and gas development (Additional development currently in planning stages; potential future wellheads proposed to be co-located on well pad). In the event that it later becomes necessary to downsize or reclaim the well pad, the following methods will be implemented. The operator will restore topsoil to its original condition. The operator will backfill, level, and restore site to original contours with segregation of spoiled materials as needed. The operator will rehabilitate all disturbed areas. All areas of reclamation will be rehabilitated as per agreement with private surface owner or surface managing agency. Upon abandonment of the well, all waste will be hauled away and disposed of in an approved manner. All equipment and salvageable material will be removed from the drill site. All debris generated from the drilling and operating of the well, which is unsuited for burial at an approved landfill, will be disposed of according to applicable



**Operator Name:** 3R OPERATING LLC**Well Name:** MONGO 25 FED COM**Well Number:** 702H

regulations. Cleaning operations will commence with completion of drilling activity and should be completed in approximately 10 days. The drill site will be restored as near as practicable to its reconstruction condition and topography. All surface drainage patterns, which may be affected by the proposed action, will be shaped and restored to preconstruction conditions. The soil will be graded and tilled to prepare its surface for seedbed in accordance with the applicable regulatory and conservation agencies. Erosion control techniques will be implemented when necessary. If applicable, construction of all pipelines will be in accordance with standard pipeline industry practices to assure prudent and safe operations and use of the land and in accordance with the conditions and stipulations of the BLM. The right-of-ways will be graded as necessary to provide a suitable work surface.

**Topsoil redistribution:** The operator does not intend to downsize this well location at this time due to plans of future oil and gas development (Additional development currently in planning stages; potential future wellheads proposed to be co-located on well pad). In the event that it later becomes necessary to downsize or reclaim the well pad, topsoil will be redistributed after the well pad has been returned to original contours, or as close as practical.

**Soil treatment:** No soil treatment will be needed.

**Existing Vegetation at the well pad:** The project area is located within the Chihuahuan Basins & Playas Level IV Ecoregion and situated in arid rangeland consisting of scrubland and sparse desert grassland communities. Topography is gently sloping. Land use within and surrounding the project area is primarily limited to oil & gas development. Dominant species are creosote bush (*Larrea tridentata*) and honey mesquite (*Neltuma glandulosa*).

**Existing Vegetation at the well pad**

**Existing Vegetation Community at the road:** The project area is located within the Chihuahuan Basins & Playas Level IV Ecoregion and situated in arid rangeland consisting of scrubland and sparse desert grassland communities. Topography is gently sloping. Land use within and surrounding the project area is primarily limited to oil & gas development. Dominant species are creosote bush (*Larrea tridentata*) and honey mesquite (*Neltuma glandulosa*).

**Existing Vegetation Community at the road**

**Existing Vegetation Community at the pipeline:** N/A

**Existing Vegetation Community at the pipeline**

**Existing Vegetation Community at other disturbances:** OTHER: TOPSOIL STOCKPILE SOUTH END OF WELL PAD (Approx. 450' x 30'). The project area is located within the Chihuahuan Basins & Playas Level IV Ecoregion and situated in arid rangeland consisting mostly of scrub communities. Topography is gently sloping. Land use within and surrounding the project area is primarily limited to oil & gas development. Dominant species are creosote bush (*Larrea tridentata*) and honey mesquite (*Neltuma glandulosa*).

**Existing Vegetation Community at other disturbances**

**Non native seed used?**

**Non native seed description:**

**Seedling transplant description:**

**Will seedlings be transplanted for this project?**

**Seedling transplant description**

**Will seed be harvested for use in site reclamation?**

**Seed harvest description:**

**Operator Name:** 3R OPERATING LLC**Well Name:** MONGO 25 FED COM**Well Number:** 702H**Seed harvest description attachment:****Seed****Seed Table****Seed Summary****Total pounds/Acre:****Seed Type****Pounds/Acre****Seed reclamation****Operator Contact/Responsible Official****First Name:****Last Name:****Phone:****Email:****Seedbed prep:****Seed BMP:****Seed method:****Existing invasive species?** N**Existing invasive species treatment description:****Existing invasive species treatment****Weed treatment plan description:** Weeds will be mowed regularly to prevent them from becoming the dominant species within the project area.**Weed treatment plan****Monitoring plan description:** The project location will be periodically monitored by the operator's staff that are responsible for infrastructure maintenance.**Monitoring plan****Success standards:** Develop sufficient plant and root coverage to minimize erosion and maximize sediment control. Comply with surface managing agency directives.**Pit closure description:** N/A**Pit closure attachment:****Section 11 - Surface Ownership**

**Operator Name:** 3R OPERATING LLC**Well Name:** MONGO 25 FED COM**Well Number:** 702H**Disturbance type:** WELL PAD**Describe:****Surface Owner:** BUREAU OF LAND MANAGEMENT**Other surface owner description:****BIA Local Office:****BOR Local Office:****COE Local Office:****DOD Local Office:****NPS Local Office:****State Local Office:****Military Local Office:****USFWS Local Office:****Other Local Office:****USFS Region:****USFS Forest/Grassland:****USFS Ranger District:****Disturbance type:** NEW ACCESS ROAD**Describe:****Surface Owner:** BUREAU OF LAND MANAGEMENT, STATE GOVERNMENT**Other surface owner description:****BIA Local Office:****BOR Local Office:****COE Local Office:****DOD Local Office:****NPS Local Office:****State Local Office:** BLM; NM SLO**Military Local Office:****USFWS Local Office:****Other Local Office:****USFS Region:****USFS Forest/Grassland:****USFS Ranger District:**

**Operator Name:** 3R OPERATING LLC**Well Name:** MONGO 25 FED COM**Well Number:** 702H**Section 12 - Other****Right of Way needed?** N**Use APD as ROW?****ROW Type(s):****ROW****SUPO Additional Information:** PAY.GOV RECEIPT ATTACHED**Use a previously conducted onsite?** Y

**Previous Onsite information:** The well pad and access road layout were previously permitted for multiple APDs, including the ROCK RIDGE FED COM BSS 13H (APD ID: 10400073277) and 14H (APD ID: 10400073296). Said AAPDs are still valid. The addition of the currently proposed APD is intended to utilize the same project surface analysis previously completed. Because site-specific NEPA analysis has already been completed, the addition of this APD should qualify for expedited surface review via CX. Per previous permits, onsite review completed by BLM on 1-5-21.

**Other SUPO**

Pay.gov\_702H\_11.22.24\_20241126114850.pdf



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

# Drilling Plan Data Report

03/28/2025

**APD ID:** 10400102192

**Submission Date:** 11/26/2024

Highlighted data  
reflects the most  
recent changes

**Operator Name:** 3R OPERATING LLC

**Well Name:** MONGO 25 FED COM

**Well Number:** 702H

**Well Type:** CONVENTIONAL GAS WELL

**Well Work Type:** Drill

[Show Final Text](#)

## Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
15278607	RUSTLER	2925	0	0	ANHYDRITE	USEABLE WATER	N
15278598	SALADO	2315	610	610	SALT	NONE	N
15278599	CASTILE	1750	1175	1175	LIMESTONE	NONE	N
15278600	LAMAR	230	2695	2699	LIMESTONE	NONE	N
15278601	DELAWARE	205	2720	2724	SANDSTONE	NONE	N
15278602	BONE SPRING	-3500	6425	6470	LIMESTONE	NATURAL GAS, OIL	N
15278603	BONE SPRING 1ST	-4455	7380	7436	SANDSTONE	NATURAL GAS, OIL	N
15278604	BONE SPRING 2ND	-5260	8185	8249	SANDSTONE	NATURAL GAS, OIL	N
15278605	BONE SPRING 3RD	-6345	9270	9334	SANDSTONE	NATURAL GAS, OIL	N
15278606	WOLFCAMP	-6730	9655	9785	OTHER : X/Y Carbonate	NATURAL GAS, OIL	Y

## Section 2 - Blowout Prevention

**Pressure Rating (PSI):** 5M

**Rating Depth:** 12000

**Equipment:** Ten thousand (10M) psi Blind Rams and Pipe Rams and a five thousand (5M) psi Annular Preventer will be installed on all casing. Per 5M system requirements, two (2) chokes will be used with at least one choke being remotely controlled from the rig floor.

**Requesting Variance?** YES

**Variance request:** (1) Variance requested to use a flex hose in place of a rigid line connection from BOP to choke manifold. Please see attachment for typical flex hose. (2) Variance requested to use multibowl wellhead. Please see attachment for typical multibowl wellhead.

**Testing Procedure:** A third party testing company will conduct pressure tests and record prior to drilling out below casing shoes. Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or to 70 percent of internal yield pressure of casing if BOP stack is not isolated from casing. Pressure shall be maintained for at least 10 minutes or until requirements of test are met, whichever is longer. The Annular Preventer will be tested to 50 percent of rated working pressure.



**GATES ENGINEERING & SERVICES NORTH AMERICA**  
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**Houston, TX. 77086**

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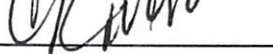
**EMAIL: gesna.quality@gates.com**

**WEB: gates.com/oilandgas**

## CERTIFICATE OF CONFORMANCE

This is to verify that all Parts and/or Materials included in this shipment have been manufactured and/or processed in Conformance with applicable drawings and specifications, and that Records of Required Tests are on file and subject to examination. The following items were assembled at **Gates Engineering & Services North America** facilities in Houston, TX, USA. This hose assembly was designed and manufactured to meet requirements of API Spec 16C, 3<sup>rd</sup> Edition.

**CUSTOMER:** A-7 AUSTIN INC DBA AUSTIN HOSE  
**CUSTOMER P.O.#:** 00620920 (MENA REF# 01LB10050, 01-012870, HOSE BATCH NO. 120463-07/20)  
**CUSTOMER P/N:** 16C3.035.0CK4116FX-FLTSC/S  
**PART DESCRIPTION:** 3" X 35' GATES API 16C FSL3 TEMP B CHOKE & KILL HOSE ASSEMBLY C/W 4 1/16" 10K FIXED X SWIVEL H2S SUITED FLANGE ENDS WITH BX 155 RING GROOVE SUPPLIED WITH SAFETY CLAMPS & SLINGS ATTACHED  
**SALES ORDER #:** 522832  
**QUANTITY:** 1  
**SERIAL #:** F-041522-1

**SIGNATURE:**   
**TITLE:** QUALITY ASSURANCE  
**DATE:** 8/15/2022





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جيتس للهندسة و الخدمات ش م ح  
 المقر الرئيسي للشرق الأوسط و شمال أفريقيا  
 جبل علي المنطقة الحرة، ص. ب. ٦١.٤٦  
 دبي، الامارات العربية المتحدة  
 هاتف: +٩٧١ ٤ ٨٨٦ ١٤١٤  
 فاكس: +٩٧١ ٤ ٨٨٦ ١٤١٣  
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## PRESSURE TEST CERTIFICATE

<b>Certificate #</b>	<b>01-012870</b>	<b>Test Date</b>	15-Apr-2022
<b>Customer Name</b>	GATES E & S NORTH AMERICA INC		
<b>Customer Ref. #</b>	1786392/ 2	<b>Gates Ref. #</b>	01CCLBSOA-10007
<b>Gates Job #</b>	01LB10050		
<b>Product Description</b>	3" X 35' GATES API 16C FSL3 TEMP B CHOKE & KILL HOSE ASSEMBLY C/W 4 1/16" 10K FIXED X SWIVEL H2S SUITED FLANGE ENDS WITH BX 155 RING GROOVE		
<b>Part #</b>	RAB000884-23	<b>Quantity</b>	1
<b>Assembly Code / Serial No.</b>	F-041522-1	<b>Hose Batch No.</b>	120463-07/20
<b>Working Pressure</b>	10000 PSI	<b>Test Pressure</b>	15000.0 PSI
<b>Medium</b>	Water	<b>Duration</b>	1 HOUR
<b>Ref. Specifications</b>			
<b>Observation</b>	No Leakage or Pressure Drop observed under testing condition.		

Gates Engineering & Services certifies that the hose has been assembled, inspected and tested as per Gates Technical Specification. The hose assembly has successfully passed the 60 minutes hydrostatic test as per as per API Spec 16C standard, 3rd edition, March 2021.

<b>Pr. Gauge Sr.#</b>	288223022	<b>Calibrn. Exp.Date</b>	13-Jul-2022
<b>Chart Recorder Sr.#</b>	11.02117.1-01	<b>Calibrn. Exp.Date</b>	13-Jul-2022
<b>Reviewed By</b>	<b>Witnessed By</b>		
			
<b>Clifford G</b>	<b>Siva Mahalingam</b>		
<b>Supervisor / 15-Apr-2022</b>	<b>Operations / Quality Lead / 15-Apr-2022</b>		





DRIVEN BY POSSIBILITY™

**GATES ENGINEERING & SERVICES FZCO**  
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جيتس للهندسة و الخدمات ش م ح  
 المقر الرئيسي للشرق الأوسط و شمال أفريقيا  
 جبل علي المنطقة الحرة، ص. ب. ٦١.٤٦  
 دبي، الامارات العربية المتحدة  
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 فاكس: +٩٧١ ٤ ٨٨٦ ١٤١٣  
 GATES.COM

## CERTIFICATE OF CONFORMANCE

<b>Certificate #</b>	<b>01-012870</b>	<b>Date</b>	15-Apr-2022
<b>Customer Name</b>	GATES E & S NORTH AMERICA INC		
<b>Customer Ref. #</b>	1786392/ 2	<b>Gates Ref. #</b>	01CCLBSOA-10007

Gates Engineering & Services certifies that the hose has been assembled, inspected and tested as per Gates Technical Specification. The hose assembly has successfully passed the 60 minutes hydrostatic test as per as per API Spec 16C standard, 3rd edition, March 2021.

Item Code	Product Description	Quantity
RNB-30E-16C-4F3T2-FG	3" X 35' GATES API 16C FSL3 TEMP B CHOKE & KILL HOSE ASSEMBLY C/W 4 1/16" 10K FIXED X SWIVEL H2S SUITED FLANGE ENDS WITH BX 155 RING GROOVE  <b>Hose Batch No.</b> 120463-07/20 <b>Assembly Code / Serial No.</b> F-041522-1 <b>Gates Job #</b> 01LB10050	1



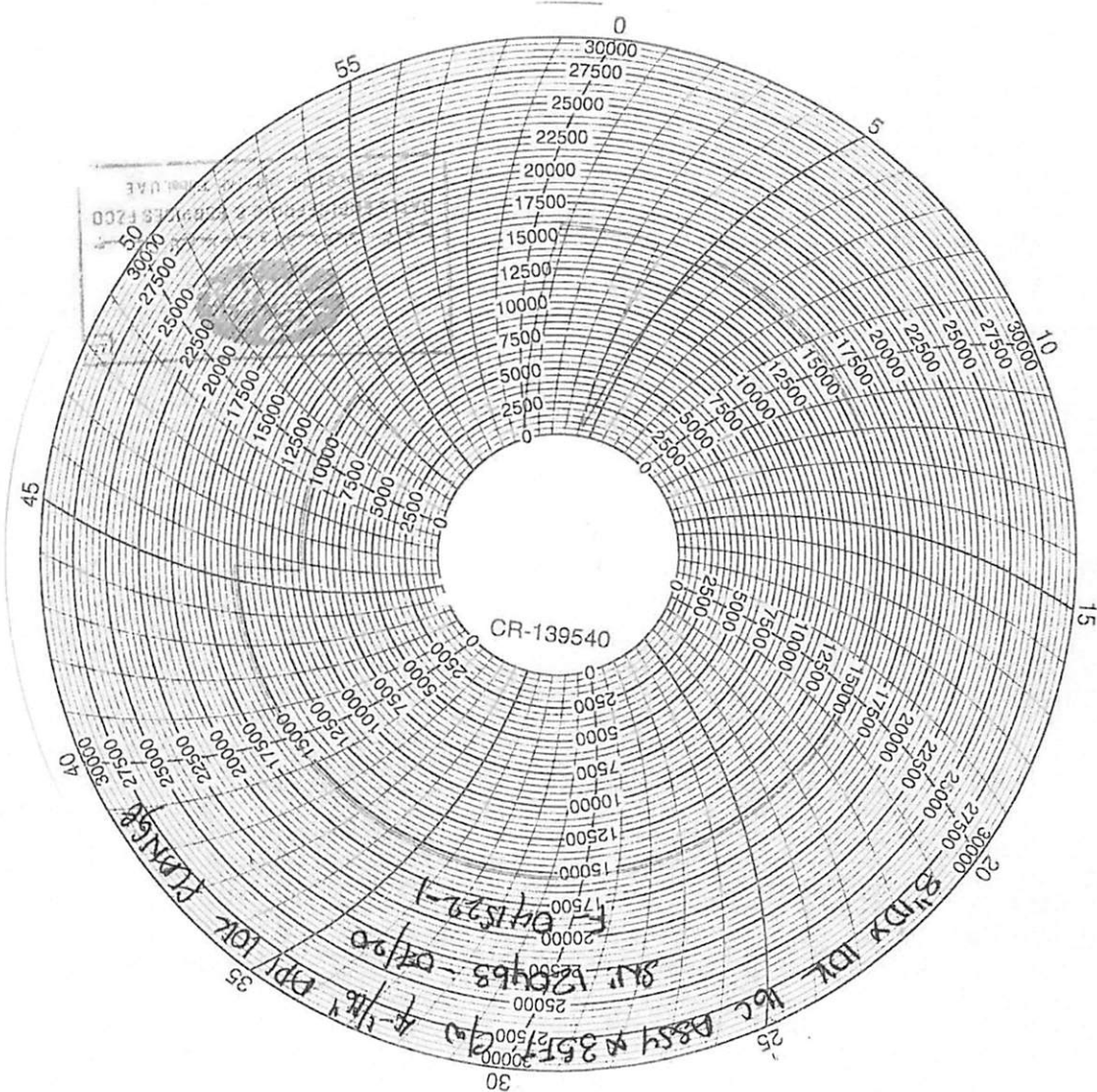
15-Apr-2022

Date

Sajid Rasheed

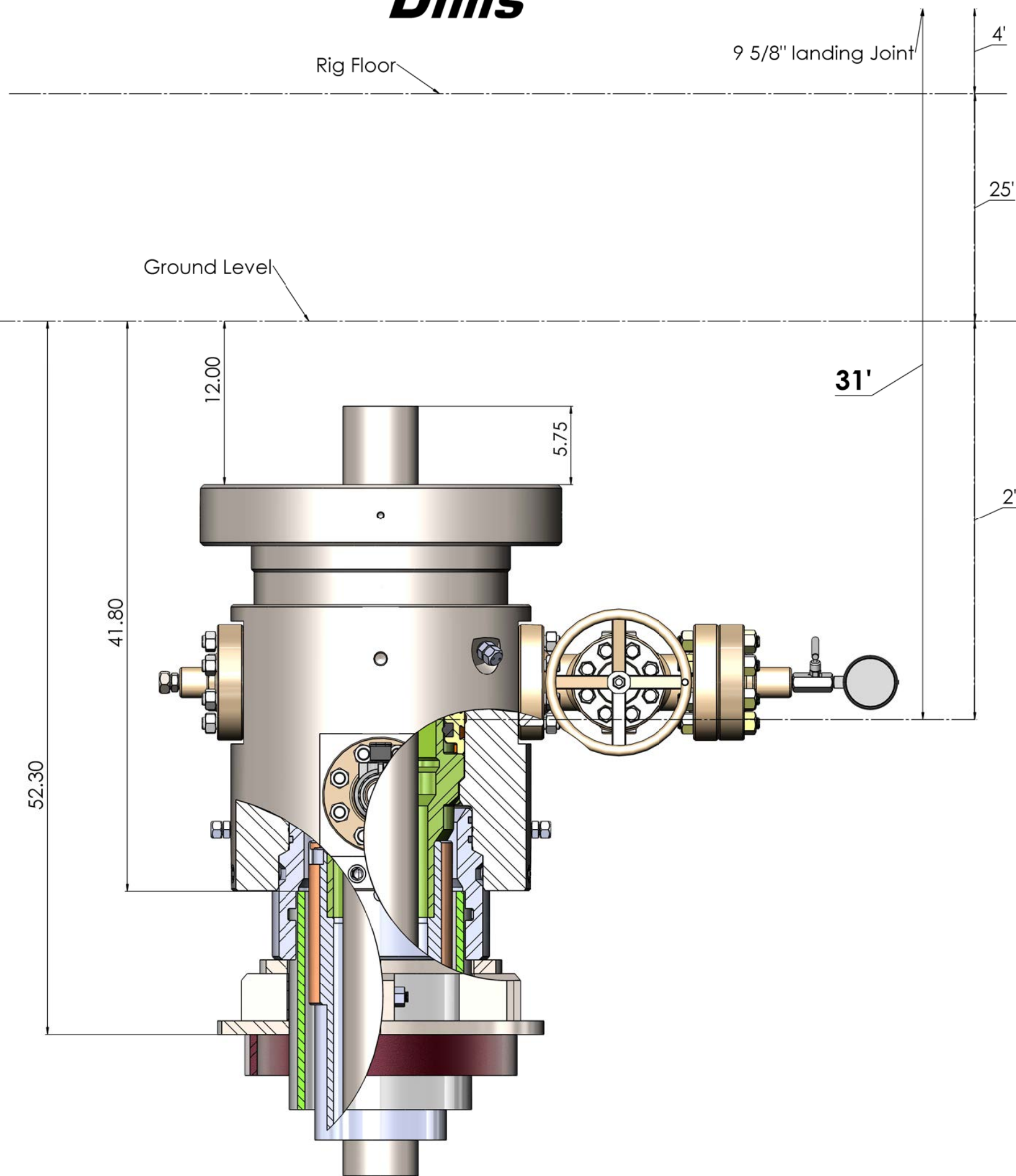
QHSE Manager





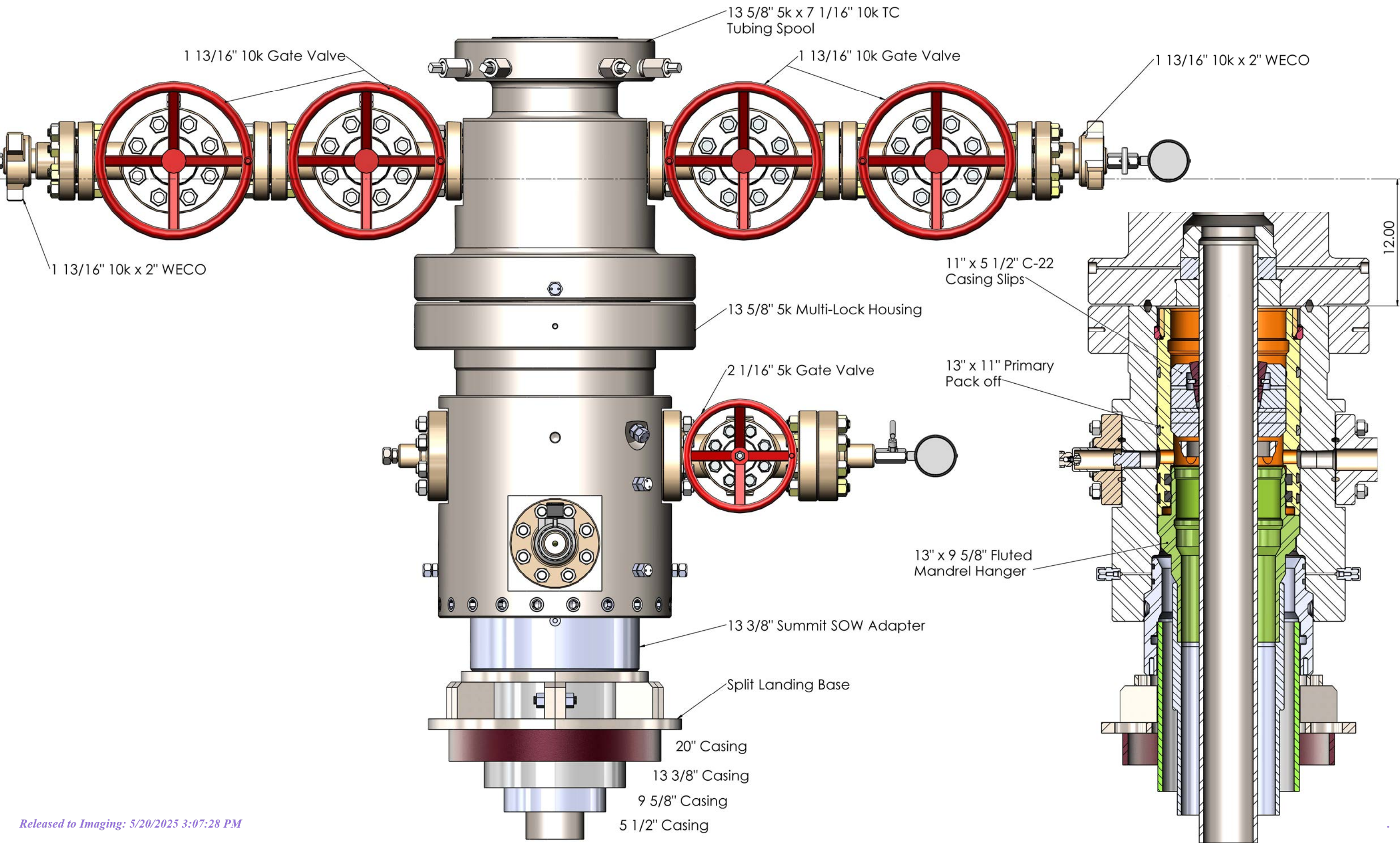


# ***13 5/8" 5k Multi-Lock Dims***





# 13 5/8" 5k Multi-Lock



Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/oed/contact-us>

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

CONDITIONS

Action 450966

**CONDITIONS**

Operator: 3R Operating, LLC 20405 State Highway 249 Houston, TX 77070	OGRID: 331569
	Action Number: 450966
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

**CONDITIONS**

Created By	Condition	Condition Date
atramell01	Cement is required to circulate on both surface and intermediate1 strings of casing.	4/10/2025
atramell01	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	4/10/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	5/20/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	5/20/2025
ward.rikala	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.	5/20/2025
ward.rikala	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.	5/20/2025