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

5. Lease Serial No.: NMNM95630

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

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

8. Lease Name and Well No.: STEEPLECHASE FED COM 1H

2. Name of Operator: MR NM OPERATING LLC

9. API Well No.: 30-015-54972

3a. Address: 5950 BERKSHIRE LANE, SUITE 1000, DALLAS, TX 7522

3b. Phone No. *(include area code)*: (469) 906-2004

10. Field and Pool, or Exploratory: WC, CROW FLATS/ABO

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: SENE / 2633 FNL / 387 FEL / LAT 32.9233196 / LONG -104.1226308

At proposed prod. zone: NWSW / 2295 FSL / 100 FWL / LAT 32.9224852 / LONG -104.137976

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 13/T16S/R28E/NMP

14. Distance in miles and direction from nearest town or post office*: 11 miles

12. County or Parish: EDDY

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 387 feet

16. No of acres in lease:

17. Spacing Unit dedicated to this well: 160.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 30 feet

19. Proposed Depth: 6686 feet / 12300 feet

20. BLM/BIA Bond No. in file: FED: NMB002039

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3590 feet

22. Approximate date work will start*: 08/01/2024

23. Estimated duration: 60 days

## 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)* | Date |
|---|---|---|
| (Electronic Submission) | BRIAN WOOD / Ph: (469) 906-2004 | 07/21/2023 |

Title: Permitting Agent

| Approved by *(Signature)* | Name *(Printed/Typed)* | Date |
|---|---|---|
| (Electronic Submission) | CODY LAYTON / Ph: (575) 234-5959 | 03/22/2024 |

| Title | Office |
|---|---|
| Assistant Field Manager Lands & Minerals | Carlsbad Field 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.

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

**Approval Date: 03/22/2024**

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☐ **AMENDED REPORT**

# WELL LOCATION AND ACREAGE DEDICATION PLAT

| [1]API Number | [2]Pool Code | [3]Pool Name |
|---|---|---|
| 30-015-54972 | 97691 | WC, CROW FLATS; ABO |

| [4]Property Code | [5]Property Name | [6]Well Number |
|---|---|---|
| 335852 | STEEPLECHASE FED COM | 1H |

| [7]OGRID No. | [8]Operator Name | [9]Elevation |
|---|---|---|
| 7377 | MR NM OPERATING LLC. | 3590' |

## [10]Surface Location

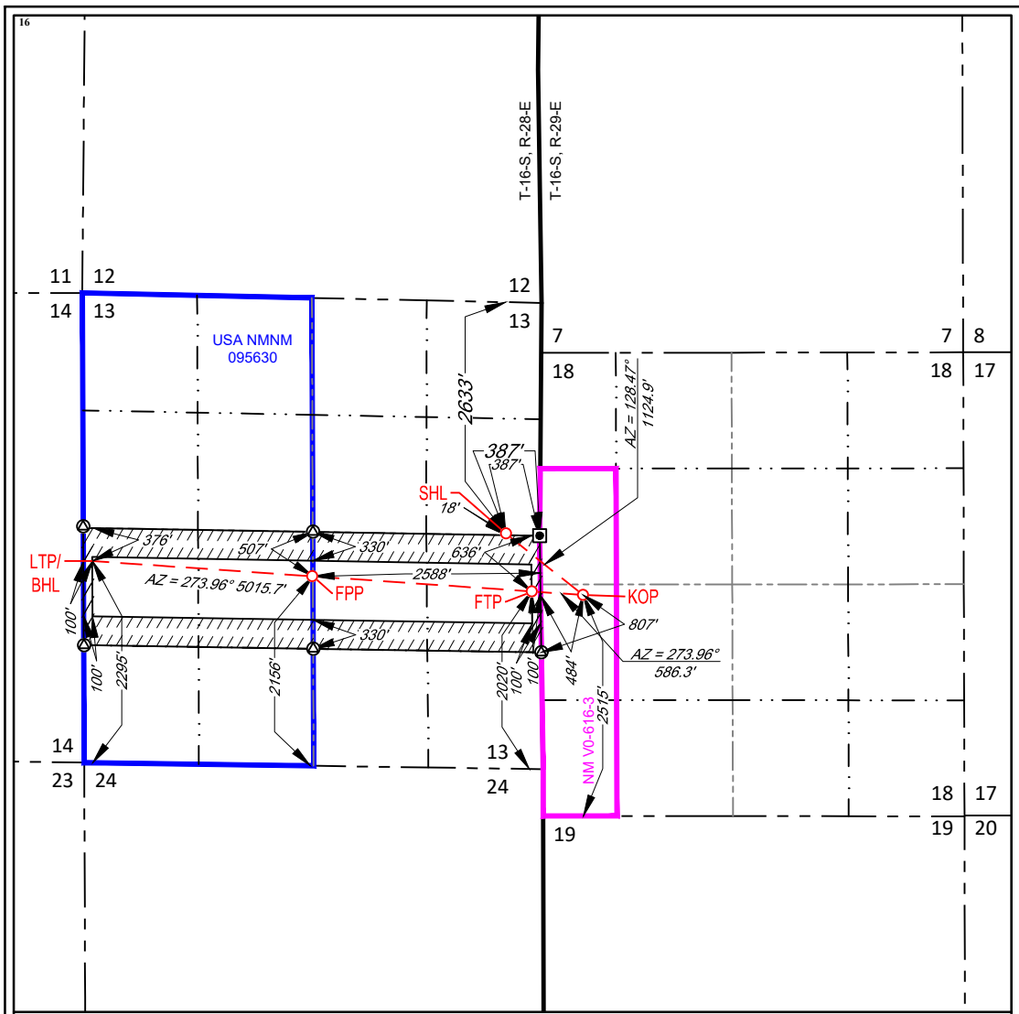
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| H | 13 | 16-S | 28-E | - | 2633' | NORTH | 387' | EAST | EDDY |

## [11]Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| L | 13 | 16-S | 28-E | - | 2295' | SOUTH | 100' | WEST | EDDY |

| [12]Dedicated Acres | [13]Joint or Infill | [14]Consolidation Code | [15]Order No. |
|---|---|---|---|
| 160 | | | |

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.




NEW MEXICO EAST
NAD 1983

## [17]OPERATOR CERTIFICATION

*I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.*

Cory Walk — 7-19-23
Signature — Date

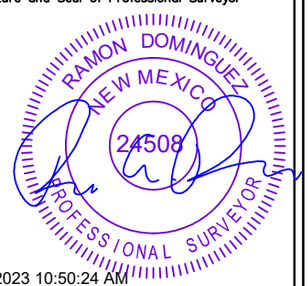
Cory Walk
Printed Name

cory@permitswest.com
E-mail Address

## [18]SURVEYOR CERTIFICATION

*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 to the best of my belief.*

03/31/2023
Date of Survey
Signature and Seal of Professional Surveyor




6/8/2023 10:50:24 AM
Certificate Number

| SURFACE LOCATION (SHL) | KICK OFF POINT (KOP) | FIRST TAKE POINT (FTP) |
|---|---|---|
| 2633' FNL - SEC. 13 | 2515' FSL - SEC. 18 | 2020' FSL - SEC. 13 |
| 387' FEL - SEC. 13 | 484' FWL - SEC. 18 | 100' FEL - SEC. 13 |
| X=605990 Y=699703 | X=606870 Y=699003 | X=606286 Y=699044 |
| LAT.: N 32.9233196 | LAT.: N 32.9213911 | LAT.: N 32.9215057 |
| LONG.: W 104.1226308 | LONG.: W 104.1197654 | LONG.: W 104.1216713 |

| FED PERF. POINT (FPP) | LAST TAKE POINT/BOTTOM HOLE LOCATION (LTP/BHL) |
|---|---|
| 2156' FSL - SEC. 13 | 2295' FSL - SEC. 13 |
| 2588' FEL - SEC. 13 | 100' FWL - SEC. 13 |
| X=603795 Y=699216 | X=601282 Y=699390 |
| LAT.: N 32.9219935 | LAT.: N 32.9224852 |
| LONG.: W 104.1297877 | LONG.: W 104.1379760 |

NEW MEXICO EAST
NAD 1927

| SURFACE LOCATION (SHL) | KICK OFF POINT (KOP) |
|---|---|
| X=564811 Y=699639 | X=565692 Y=698939 |
| LAT.: N 32.9232064 | LAT.: N 32.9212778 |
| LONG.: W 104.1221190 | LONG.: W 104.1192537 |

| FIRST TAKE POINT (FTP) | FED PERF. POINT (FPP) |
|---|---|
| X=565107 Y=698980 | X=562616 Y=699152 |
| LAT.: N 32.9213925 | LAT.: N 32.9218803 |
| LONG.: W 104.1211596 | LONG.: W 104.1292758 |

LAST TAKE POINT/BOTTOM HOLE LOCATION (LTP/BHL)
X=560103 Y=699327
LAT.: N 32.9223721
LONG.: W 104.1374639

a

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

# NATURAL GAS MANAGEMENT PLAN

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

## Section 1 – Plan Description

**Effective May 25, 2021**

**I. Operator:** MR NM OPERATING **OGRID:** 330506 **Date:** 8-1-22

**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 |
|---|---|---|---|---|---|---|
| Steeplechase Fed Com 1H | 30-015- | H-13-16S-28E | 2,633 FNL & 387 FEL | 400 | 500 | 900 |
| Steeplechase Fed Com 2H | 30-015- | H-13-16S-28E | 2,603 FNL & 387 FEL | 400 | 500 | 900 |

**IV. Central Delivery Point Name:** DCP Operating, LP in P-13-16S-28E [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 |
|---|---|---|---|---|---|---|
| Steeplechase Fed Com 1H | 30-015- | 8-15-25 | 9-1-25 | 9-15-25 | 10-15-25 | 11-15-25 |
| Steeplechase Fed Com 2H | 30-015- | 9-1-25 | 9-15-25 | 10-1-25 | 10-30-25 | 11-15-25 |

**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:  |
| Printed Name: Mary Grace Moran |
| Title: Manager |
| E-mail Address: mg@cypressnr.com |
| Date: 4/4/2024 |
| Phone: 469 344 2646 |

| **OIL CONSERVATION DIVISION**<br>**(Only applicable when submitted as a standalone form)** |
|---|
| Approved By: |
| Title: |
| Approval Date: |
| Conditions of Approval: |

MR NM Operating, LLC Natural Gas Management Plan

**VI. Separation Equipment**

Separation equipment will be built on the Picard 4H pad. The anticipated production rates from the Picard 4H will be accounted for during design/construction to ensure sufficient capacity exists at the surface to capture all produced fluids.

**VII. Operational Practices**

MR NM Operating, LLC will take the following actions outlined below to comply with 19.15.27.8 NMAC

A. MR NM Operating, LLC plans to maximize recovery of natural gas and minimize waste thru venting/flaring

B. MR NM Operating, LLC plans to flare during drilling operations from a location exceeding 100' away from the SHL. The flare will be used to combust natural gas brought to the surface during normal drilling operations. Safety will remain priority #1, and MR NM Operating, LLC will account and report appropriately pertaining to any potential emergency.

C. MR NM Operating, LLC plans flare any natural gas brought to the surface during normal completions operations. During flowback, fluids will immediately flow thru a separator on location. Gas will not be flared/vented unless there's a safety concern with pressures at the surface. Gas is expected to meet pipeline standards; if not, MR NM Operating, LLC will flare for the allowed 60 days or less until the gas meets quality specifications. MR NM Operating, LLC plans to sample the produced gas at a reasonable frequency or upon request from regulatory bodies.

D. MR NM Operating, LLC does not plan to flare or vent natural gas except during the situations outlined in 19.15.27.8 D. (1-4).

E. MR NM Operating, LLC will comply with standards outlined in 19.15.27.8 E. (1-8). EOG Resources, Inc. will conduct AVO inspections as described in 19.15.27.8 E (5) (a) with frequencies specified in 19.15.27.8 E (5) (b) and (c). All emergencies will be resolved as quickly and safely as feasible to minimize waste.

F. The volume of natural gas that is vented or flared as the result of malfunction or emergency during drilling and completions operations will be estimated. The volume of natural gas that is vented, flared, or beneficially used during production operations, will be measured, or estimated. If metering is not practicable due to circumstances such as low flow rate or low pressure venting and flaring, EOG Resources, Inc. will estimate the volume of vented or flared natural gas. Measuring equipment will conform to industry standards and will not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

**VIII. Best Management Practices**

Pressure maintenance at surface is vital to maintain safe working conditions; venting will be utilized only to depressurize our surface equipment. When maintaining surface or downhole equipment associated with the current production, the well will be shut-in to eliminate venting. If maintenance work takes place on the gas gathering side, gas will route to the flare to eliminate venting.

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

# Drilling Plan Data Report
03/24/2024

**APD ID:** 10400093565
**Submission Date:** 07/21/2023
**Operator Name:** MR NM OPERATING LLC
**Well Name:** STEEPLECHASE FED COM
**Well Number:** 1H
**Well Type:** OIL WELL
**Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

## Section 1 - Geologic Formations

| Formation ID | Formation Name | Elevation | True Vertical | Measured Depth | Lithologies | Mineral Resources | Producing Formatio |
|---|---|---|---|---|---|---|---|
| 13132380 | QUATERNARY | 3590 | 0 | 0 | ALLUVIUM, ANHYDRITE | USEABLE WATER | N |
| 13132381 | YATES | 2984 | 606 | 606 | ANHYDRITE, DOLOMITE | NONE | N |
| 13132382 | SEVEN RIVERS | 2769 | 821 | 821 | ANHYDRITE, DOLOMITE | NONE | N |
| 13132383 | QUEEN | 2259 | 1331 | 1331 | SANDSTONE | NATURAL GAS, OIL | N |
| 13132384 | GRAYBURG | 1874 | 1716 | 1732 | ANHYDRITE, DOLOMITE, SANDSTONE, SHALE | NATURAL GAS, OIL | N |
| 13132385 | SAN ANDRES | 1506 | 2084 | 2112 | ANHYDRITE, DOLOMITE | NATURAL GAS, OIL | N |
| 13132386 | GLORIETA | 17 | 3573 | 3645 | DOLOMITE | NONE | N |
| 13132387 | YESO | -30 | 3620 | 3695 | DOLOMITE, SANDSTONE | NONE | N |
| 13132388 | TUBB | -1206 | 4796 | 4907 | DOLOMITE, SANDSTONE | NONE | N |
| 13132389 | DRINKARD | -1346 | 4936 | 5050 | DOLOMITE, SANDSTONE | NONE | N |
| 13132390 | ABO | -1979 | 5569 | 5700 | ANHYDRITE, DOLOMITE, SHALE | NATURAL GAS, OIL | Y |

## Section 2 - Blowout Prevention

**Pressure Rating (PSI):** 3M
**Rating Depth:** 10000

**Equipment:** A 3M (minimum) BOP system will be used. The minimum blowout prevention equipment (BOPE) shown in Exhibit #1 will consist of a 3,000-psi working pressure double ram BOP with blind ram and pipe ram inserts. A 3,000-psi annular preventer will be placed on top of the double ram BOP. Both units will be hydraulically operated. All BOPE will be tested in accordance with 43 CFR 3172.
**Requesting Variance?** YES

**Variance request:** MR NM requests a variance to use a flexible choke line from the BOP stack to the choke manifold. If flex hose is utilized the company man will have all proper certified paperwork for that hose available on location. A variance is requested for the option to batch drill the different hole sections in this well. If a BOPE seal is broken or the BOP moved a full BOPE test will be completed per 43 CFR 3172. Prior to

**Operator Name:** MR NM OPERATING LLC

**Well Name:** STEEPLECHASE FED COM **Well Number:** 1H

moving the rig off of a well, the wellhead will be secured.

**Testing Procedure:** Prior to drilling out of the surface casing, ram type BOPE and accessory equipment will be tested to 250/3,000 psig and the annular preventer to 250/1,500 psig. All installed casing strings will be tested to the greater of 1,500 psi or Casing string length (ft) x 0.22 psi/ft, but not to exceed 70% of casing burst pressure (minimum internal yield). BOPE function tests will be performed daily for pipe rams and when drill pipe is out of the hole for blind rams. Function tests will be noted in the daily drillers log.

**Choke Diagram Attachment:**

Choke_Diagram_3k_20230721100450.pdf

**BOP Diagram Attachment:**

BOP_3k_20230721100459.pdf

## Section 3 - Casing

| Casing ID | String Type | Hole Size | Csg Size | Condition | Standard | Tapered String | Top Set MD | Bottom Set MD | Top Set TVD | Bottom Set TVD | Top Set MSL | Bottom Set MSL | Calculated casing length MD | Grade | Weight | Joint Type | Collapse SF | Burst SF | Joint SF Type | Joint SF | Body SF Type | Body SF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SURFACE | 12.25 | 9.625 | NEW | API | N | 0 | 1250 | 0 | 1247 | 3590 | 2343 | 1250 | H-40 | 48 | ST&C | 1.125 | 1.25 | DRY | 1.6 | DRY | 1.6 |
| 2 | PRODUCTION | 8.75 | 5.5 | NEW | API | N | 0 | 12300 | 0 | 6686 | 3590 | -3096 | 12300 | L-80 | 17 | BUTT | 1.125 | 1.25 | DRY | 1.6 | DRY | 1.6 |

**Casing Attachments**

**Casing ID:** 1 **String** SURFACE

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Casing_Design_Assumptions_20230721100649.pdf

**Operator Name:** MR NM OPERATING LLC

**Well Name:** STEEPLECHASE FED COM **Well Number:** 1H

**Casing Attachments**

**Casing ID:** 2 **String** PRODUCTION

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Casing_Design_Assumptions_20230721100746.pdf

## Section 4 - Cement

| String Type | Lead/Tail | Stage Tool Depth | Top MD | Bottom MD | Quantity(sx) | Yield | Density | Cu Ft | Excess% | Cement type | Additives |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SURFACE | Lead | | 0 | 1000 | 271 | 2.31 | 12.5 | 626 | 100 | Class C | 5% Salt + 2% Extender |
| SURFACE | Tail | | 1000 | 1250 | 117 | 1.34 | 14.8 | 157 | 100 | Class C | 2% Calcium |
| PRODUCTION | Lead | | 0 | 6350 | 783 | 2.8 | 11.5 | 2193 | 35 | 50/50 Poz C | 10% Bentonite + 5% Salt + 0.3% Antisettling + 0.1% Retarder |
| PRODUCTION | Tail | | 6350 | 12300 | 1051 | 1.93 | 13.2 | 2029 | 35 | 25/75 Poz C | 10% Pumice + 5% Bentonite + 5% Salt + 0.4% Fluid Loss + 0.55% Antisettling + 0.15% Retarder |

**Operator Name:** MR NM OPERATING LLC

**Well Name:** STEEPLECHASE FED COM **Well Number:** 1H

## Section 5 - Circulating Medium

**Mud System Type:** Closed

**Will an air or gas system be Used?** NO

**Description of the equipment for the circulating system in accordance with Onshore Order #2:**

**Diagram of the equipment for the circulating system in accordance with Onshore Order #2:**

**Describe what will be on location to control well or mitigate other conditions:** Sufficient mud materials will be on location to maintain mud properties and meet minimum loss control and weight increase requirements.

**Describe the mud monitoring system utilized:** An electronic pit volume totalizer (PVT) will be utilized on the rig pits to monitor pit volumes, flow rates, pump pressures, and stroke rates.

## Circulating Medium Table

| Top Depth | Bottom Depth | Mud Type | Min Weight (lbs/gal) | Max Weight (lbs/gal) | Density (lbs/cu ft) | Gel Strength (lbs/100 sqft) | PH | Viscosity (CP) | Salinity (ppm) | Filtration (cc) | Additional Characteristics |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1250 | OTHER : Fresh Water | 8.6 | 8.8 | | | | | | | |
| 1250 | 12300 | OTHER : Cut Brine | 8.8 | 9.4 | | | | | | | |

## Section 6 - Test, Logging, Coring

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

Directional surveys will be run with GR from below surface casing.

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

GAMMA RAY LOG,

**Coring operation description for the well:**

No cores, DSTs, or mud logs are planned at this time.

**Operator Name:** MR NM OPERATING LLC

**Well Name:** STEEPLECHASE FED COM **Well Number:** 1H

## Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 2900 **Anticipated Surface Pressure:** 1401

**Anticipated Bottom Hole Temperature(F):** 140

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

**Describe:**

**Contingency Plans geoharzards description:**

**Contingency Plans geohazards**

**Hydrogen Sulfide drilling operations plan required?** YES

**Hydrogen sulfide drilling operations**

Steeplechase_H2S_Contingency_Plan_20230721102034.pdf

## Section 8 - Other Information

**Proposed horizontal/directional/multi-lateral plan submission:**

Steeplechase_1H_Directional_Plan_20230721101118.pdf

**Other proposed operations facets description:**

All of the casing strings below the conductor will be pressure tested to the greater of 1,500 psi or Casing string length (ft) x 0.22 psi/ft, but not to exceed 70% of casing burst pressure (minimum internal yield). If a pressure drop of more than 10% is seen in 30 minutes corrective action will be taken.

MR NM Operating requests the approval of a contingency hole size and casing string if the risk for losses in the upper (above 400') zones is deemed high. If the risk is deemed to be low, MR NM will drill the well as described in the primary hole design described below. However, if the risk is deemed high then the contingency plan will be drilled from spud. If complete losses are encountered near surface (shallower than 400' MD) while drilling the primary hole design, and returns are unable to be regained, the surface hole will be reamed out to a larger diameter and casing and cement designs would be modified as shown in the contingency tables below. Also, should a contingency string be needed, the wellhead would be changed from a conventional two-string design to a multi-bowl design.

**Other proposed operations facets attachment:**

Steeplechase_1H_Drill_Plan_20230721101127.pdf

CoFlex_Certs_3k_20230721101141.pdf

Steeplechase_1H_Anticollision_Report_20230721101151.pdf

Wellhead_Diagram_ContingencyDesign_20230721101202.pdf

Wellhead_Diagram_PrimaryDesign_20230721101202.pdf

**Other Variance attachment:**

Casing_Cementing_Variance_20230721100825.pdf

ALTITUDE ENERGY PARTNERS

Project: Eddy County, NM (NAD 83)
Site: SEC 2, T-17-S, R-27-E
Well: Steeplechase 1H
Wellbore: OH
Plan #1

WELL DETAILS: Steeplechase 1H

16' KB @ 3606.00usft
Ground Level: 3590.00

| +N/-S | +E/-W | Northing | Easting | Latittude | Longitude |
|---|---|---|---|---|---|
| 0.00 | 0.00 | 699639.23 | 564810.86 | 32.923299 | -104.256833 |

US State Plane 1983
New Mexico Eastern Zone

T G M

Total Azimuth to Grid North
True North: -0.04°
Magnetic North: 6.80°

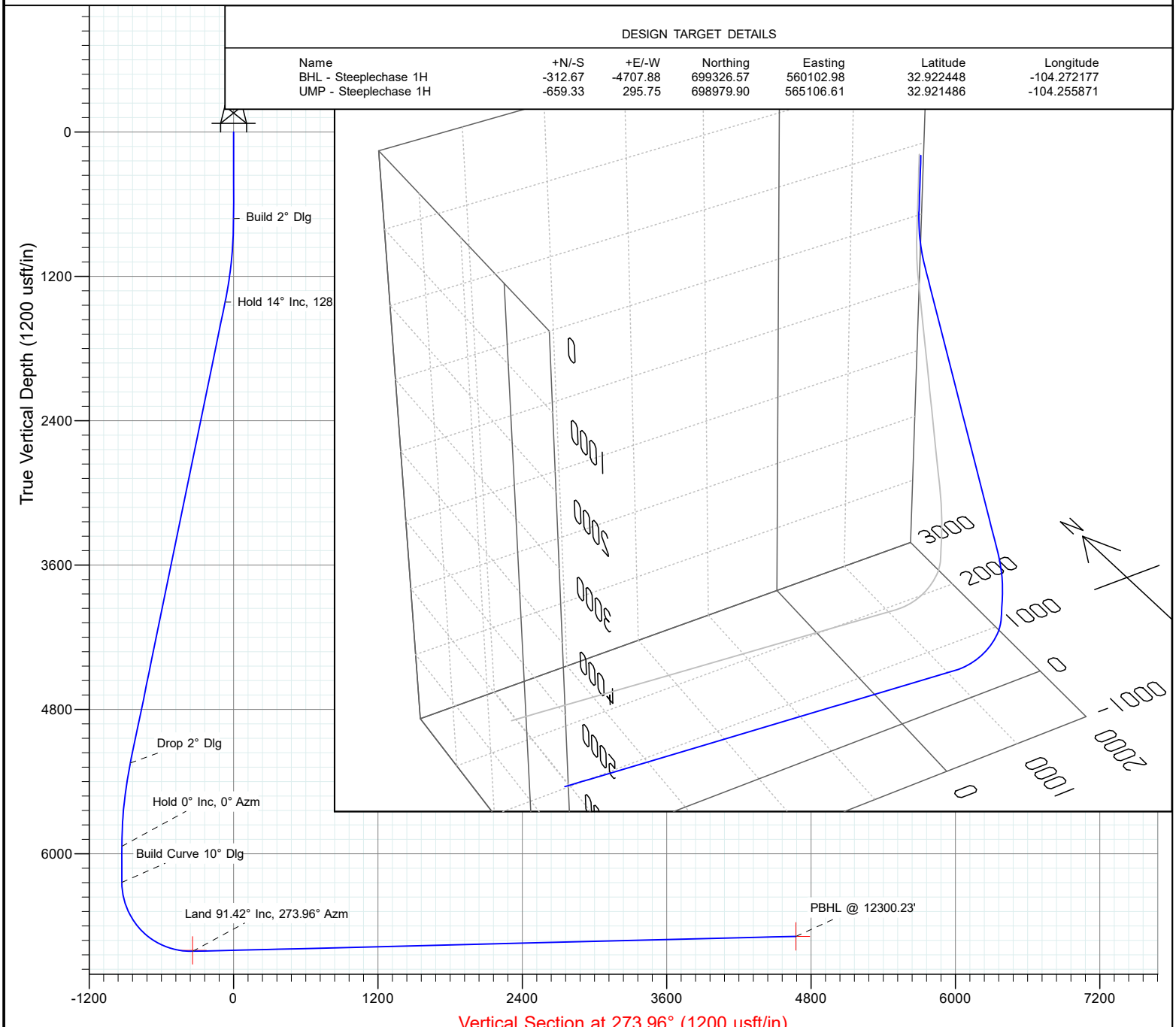
Magnetic Field
Strength: 47607.7nT
Dip Angle: 60.42°
Date: 5/9/2023
Model: HRGM

SECTION DETAILS

| MD | Inc | Azi | TVD | +N/-S | +E/-W | DIeg | TFace | VSect | Annotation |
|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 720.00 | 0.00 | 0.00 | 720.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Build 2° Dlg |
| 1420.05 | 14.00 | 128.45 | 1413.10 | -52.92 | 66.65 | 2.00 | 128.45 | -70.15 | Hold 14° Inc, 128.45° Azm |
| 5368.82 | 14.00 | 128.45 | 5244.56 | -646.99 | 814.85 | 0.00 | 0.00 | -857.58 | Drop 2° Dlg |
| 6068.86 | 0.00 | 0.00 | 5937.66 | -699.91 | 881.50 | 2.00 | 180.00 | -927.73 | Hold 0° Inc, 0° Azm |
| 6368.86 | 0.00 | 0.00 | 6237.66 | -699.91 | 881.50 | 0.00 | 0.00 | -927.73 | Build Curve 10° Dlg |
| 7283.06 | 91.42 | 273.96 | 6810.44 | -659.33 | 295.75 | 10.00 | 273.96 | -340.57 | Land 91.42° Inc, 273.96° Azm |
| 12300.23 | 91.42 | 273.96 | 6686.11 | -312.66 | -4707.88 | 0.00 | 0.00 | 4675.05 | PBHL @ 12300.23' |

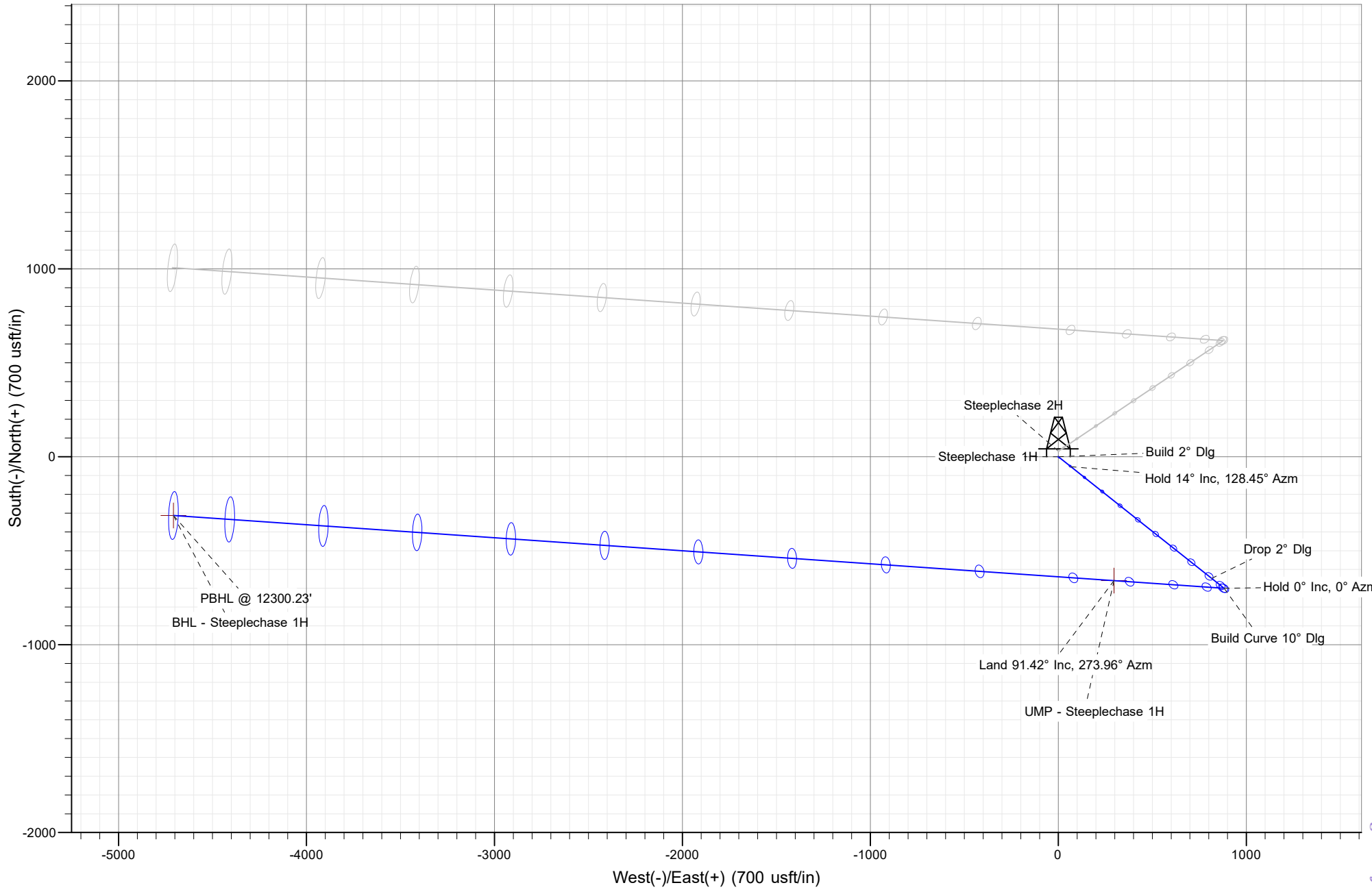
DESIGN TARGET DETAILS

| Name | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
|---|---|---|---|---|---|---|
| BHL - Steeplechase 1H | -312.67 | -4707.88 | 699326.57 | 560102.98 | 32.922448 | -104.272177 |
| UMP - Steeplechase 1H | -659.33 | 295.75 | 698979.90 | 565106.61 | 32.921486 | -104.255871 |



US State Plane 1983
New Mexico Eastern Zone
Project: Eddy County, NM (NAD 83)
Site: SEC 2, T-17-S, R-27-E
Well: Steeplechase 1H
OH
16' KB @ 3606.00usft
Ground Elevation: 3590.00
Plan #1

ALTITUDE ENERGY PARTNERS



# MR NM Operating, LLC.

**Eddy County, NM (NAD 83)**
**SEC 2, T-17-S, R-27-E**
**Steeplechase 1H**

**OH**

**Plan #1**

# Standard Planning Report

**11 May, 2023**

# Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.17 Single User Db | **Local Co-ordinate Reference:** | Well Steeplechase 1H |
| **Company:** | MR NM Operating, LLC. | **TVD Reference:** | 16' KB @ 3606.00usft |
| **Project:** | Eddy County, NM (NAD 83) | **MD Reference:** | 16' KB @ 3606.00usft |
| **Site:** | SEC 2, T-17-S, R-27-E | **North Reference:** | Grid |
| **Well:** | Steeplechase 1H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #1 | | |

**Project** Eddy County, NM (NAD 83)

| | | | |
|---|---|---|---|
| **Map System:** | US State Plane 1983 | **System Datum:** | Mean Sea Level |
| **Geo Datum:** | North American Datum 1983 | | |
| **Map Zone:** | New Mexico Eastern Zone | | |

**Site** SEC 2, T-17-S, R-27-E

| | | | | | |
|---|---|---|---|---|---|
| **Site Position:** | | **Northing:** | 678,447.00 usft | **Latitude:** | 32.865049 |
| **From:** | Map | **Easting:** | 565,343.00 usft | **Longitude:** | -104.255151 |
| **Position Uncertainty:** | 0.00 usft | **Slot Radius:** | 13-3/16 " | | |

**Well** Steeplechase 1H

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Well Position** | **+N/-S** | 0.00 usft | **Northing:** | 699,639.23 usft | **Latitude:** | 32.923299 |
| | **+E/-W** | 0.00 usft | **Easting:** | 564,810.87 usft | **Longitude:** | -104.256834 |
| **Position Uncertainty** | | 0.00 usft | **Wellhead Elevation:** | usft | **Ground Level:** | 3,590.00 usft |
| **Grid Convergence:** | | 0.04 ° | | | | |

**Wellbore** OH

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|---|---|---|---|---|---|
| | HRGM | 5/9/2023 | 6.84 | 60.42 | 47,607.68821285 |

**Design** Plan #1

**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 | 273.96 |

**Plan Survey Tool Program** **Date** 5/11/2023

| | Depth From (usft) | Depth To (usft) | Survey (Wellbore) | Tool Name | Remarks |
|---|---|---|---|---|---|
| 1 | 0.00 | 12,299.51 | Plan #1 (OH) | MWD+HRGM | |
| | | | | OWSG MWD + HRGM | |

**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 | |
| 720.00 | 0.00 | 0.00 | 720.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,420.05 | 14.00 | 128.45 | 1,413.10 | -52.92 | 66.65 | 2.00 | 2.00 | 0.00 | 128.45 | |
| 5,368.82 | 14.00 | 128.45 | 5,244.56 | -646.99 | 814.85 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 6,068.86 | 0.00 | 0.00 | 5,937.66 | -699.91 | 881.50 | 2.00 | -2.00 | 0.00 | 180.00 | |
| 6,368.86 | 0.00 | 0.00 | 6,237.66 | -699.91 | 881.50 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,283.06 | 91.42 | 273.96 | 6,810.44 | -659.33 | 295.75 | 10.00 | 10.00 | 0.00 | 273.96 | |
| 12,300.23 | 91.42 | 273.96 | 6,686.11 | -312.67 | -4,707.88 | 0.00 | 0.00 | 0.00 | 0.00 | |

# Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.17 Single User Db | **Local Co-ordinate Reference:** | Well Steeplechase 1H |
| **Company:** | MR NM Operating, LLC. | **TVD Reference:** | 16' KB @ 3606.00usft |
| **Project:** | Eddy County, NM (NAD 83) | **MD Reference:** | 16' KB @ 3606.00usft |
| **Site:** | SEC 2, T-17-S, R-27-E | **North Reference:** | Grid |
| **Well:** | Steeplechase 1H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #1 | | |

**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 |
| 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 |
| 720.00 | 0.00 | 0.00 | 720.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 800.00 | 1.60 | 128.45 | 799.99 | -0.69 | 0.87 | -0.92 | 2.00 | 2.00 | 0.00 |
| 900.00 | 3.60 | 128.45 | 899.88 | -3.52 | 4.43 | -4.66 | 2.00 | 2.00 | 0.00 |
| 1,000.00 | 5.60 | 128.45 | 999.55 | -8.50 | 10.71 | -11.27 | 2.00 | 2.00 | 0.00 |
| 1,100.00 | 7.60 | 128.45 | 1,098.89 | -15.65 | 19.71 | -20.74 | 2.00 | 2.00 | 0.00 |
| 1,200.00 | 9.60 | 128.45 | 1,197.76 | -24.95 | 31.42 | -33.07 | 2.00 | 2.00 | 0.00 |
| 1,300.00 | 11.60 | 128.45 | 1,296.05 | -36.38 | 45.82 | -48.23 | 2.00 | 2.00 | 0.00 |
| 1,400.00 | 13.60 | 128.45 | 1,393.63 | -49.95 | 62.91 | -66.21 | 2.00 | 2.00 | 0.00 |
| 1,420.05 | 14.00 | 128.45 | 1,413.10 | -52.92 | 66.65 | -70.15 | 2.00 | 2.00 | 0.00 |
| 1,500.00 | 14.00 | 128.45 | 1,490.68 | -64.95 | 81.80 | -86.09 | 0.00 | 0.00 | 0.00 |
| 1,600.00 | 14.00 | 128.45 | 1,587.71 | -79.99 | 100.75 | -106.03 | 0.00 | 0.00 | 0.00 |
| 1,700.00 | 14.00 | 128.45 | 1,684.74 | -95.04 | 119.70 | -125.97 | 0.00 | 0.00 | 0.00 |
| 1,800.00 | 14.00 | 128.45 | 1,781.77 | -110.08 | 138.64 | -145.92 | 0.00 | 0.00 | 0.00 |
| 1,900.00 | 14.00 | 128.45 | 1,878.80 | -125.13 | 157.59 | -165.86 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 14.00 | 128.45 | 1,975.82 | -140.17 | 176.54 | -185.80 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 14.00 | 128.45 | 2,072.85 | -155.22 | 195.49 | -205.74 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 14.00 | 128.45 | 2,169.88 | -170.26 | 214.43 | -225.68 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 14.00 | 128.45 | 2,266.91 | -185.31 | 233.38 | -245.62 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 14.00 | 128.45 | 2,363.94 | -200.35 | 252.33 | -265.56 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 14.00 | 128.45 | 2,460.97 | -215.39 | 271.28 | -285.50 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 14.00 | 128.45 | 2,558.00 | -230.44 | 290.22 | -305.45 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 14.00 | 128.45 | 2,655.03 | -245.48 | 309.17 | -325.39 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 14.00 | 128.45 | 2,752.06 | -260.53 | 328.12 | -345.33 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 14.00 | 128.45 | 2,849.09 | -275.57 | 347.07 | -365.27 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 14.00 | 128.45 | 2,946.12 | -290.62 | 366.01 | -385.21 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 14.00 | 128.45 | 3,043.15 | -305.66 | 384.96 | -405.15 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 14.00 | 128.45 | 3,140.17 | -320.70 | 403.91 | -425.09 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 14.00 | 128.45 | 3,237.20 | -335.75 | 422.86 | -445.03 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 14.00 | 128.45 | 3,334.23 | -350.79 | 441.81 | -464.98 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 14.00 | 128.45 | 3,431.26 | -365.84 | 460.75 | -484.92 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 14.00 | 128.45 | 3,528.29 | -380.88 | 479.70 | -504.86 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 14.00 | 128.45 | 3,625.32 | -395.93 | 498.65 | -524.80 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 14.00 | 128.45 | 3,722.35 | -410.97 | 517.60 | -544.74 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 14.00 | 128.45 | 3,819.38 | -426.01 | 536.54 | -564.68 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 14.00 | 128.45 | 3,916.41 | -441.06 | 555.49 | -584.62 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 14.00 | 128.45 | 4,013.44 | -456.10 | 574.44 | -604.56 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 14.00 | 128.45 | 4,110.47 | -471.15 | 593.39 | -624.51 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 14.00 | 128.45 | 4,207.50 | -486.19 | 612.33 | -644.45 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 14.00 | 128.45 | 4,304.52 | -501.24 | 631.28 | -664.39 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 14.00 | 128.45 | 4,401.55 | -516.28 | 650.23 | -684.33 | 0.00 | 0.00 | 0.00 |
| 4,600.00 | 14.00 | 128.45 | 4,498.58 | -531.32 | 669.18 | -704.27 | 0.00 | 0.00 | 0.00 |
| 4,700.00 | 14.00 | 128.45 | 4,595.61 | -546.37 | 688.12 | -724.21 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 14.00 | 128.45 | 4,692.64 | -561.41 | 707.07 | -744.15 | 0.00 | 0.00 | 0.00 |
| 4,900.00 | 14.00 | 128.45 | 4,789.67 | -576.46 | 726.02 | -764.09 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 14.00 | 128.45 | 4,886.70 | -591.50 | 744.97 | -784.04 | 0.00 | 0.00 | 0.00 |
| 5,100.00 | 14.00 | 128.45 | 4,983.73 | -606.55 | 763.91 | -803.98 | 0.00 | 0.00 | 0.00 |

# Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.17 Single User Db | **Local Co-ordinate Reference:** | Well Steeplechase 1H |
| **Company:** | MR NM Operating, LLC. | **TVD Reference:** | 16' KB @ 3606.00usft |
| **Project:** | Eddy County, NM (NAD 83) | **MD Reference:** | 16' KB @ 3606.00usft |
| **Site:** | SEC 2, T-17-S, R-27-E | **North Reference:** | Grid |
| **Well:** | Steeplechase 1H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #1 | | |

**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) |
|---|---|---|---|---|---|---|---|---|---|
| 5,200.00 | 14.00 | 128.45 | 5,080.76 | -621.59 | 782.86 | -823.92 | 0.00 | 0.00 | 0.00 |
| 5,300.00 | 14.00 | 128.45 | 5,177.79 | -636.63 | 801.81 | -843.86 | 0.00 | 0.00 | 0.00 |
| 5,368.82 | 14.00 | 128.45 | 5,244.56 | -646.99 | 814.85 | -857.58 | 0.00 | 0.00 | 0.00 |
| 5,400.00 | 13.38 | 128.45 | 5,274.86 | -651.58 | 820.63 | -863.67 | 2.00 | -2.00 | 0.00 |
| 5,500.00 | 11.38 | 128.45 | 5,372.53 | -664.90 | 837.41 | -881.33 | 2.00 | -2.00 | 0.00 |
| 5,600.00 | 9.38 | 128.45 | 5,470.89 | -676.10 | 851.52 | -896.18 | 2.00 | -2.00 | 0.00 |
| 5,700.00 | 7.38 | 128.45 | 5,569.81 | -685.16 | 862.93 | -908.19 | 2.00 | -2.00 | 0.00 |
| 5,800.00 | 5.38 | 128.45 | 5,669.19 | -692.07 | 871.63 | -917.34 | 2.00 | -2.00 | 0.00 |
| 5,900.00 | 3.38 | 128.45 | 5,768.89 | -696.82 | 877.60 | -923.63 | 2.00 | -2.00 | 0.00 |
| 6,000.00 | 1.38 | 128.45 | 5,868.80 | -699.40 | 880.85 | -927.05 | 2.00 | -2.00 | 0.00 |
| 6,068.86 | 0.00 | 0.00 | 5,937.66 | -699.91 | 881.50 | -927.73 | 2.00 | -2.00 | 0.00 |
| 6,100.00 | 0.00 | 0.00 | 5,968.80 | -699.91 | 881.50 | -927.73 | 0.00 | 0.00 | 0.00 |
| 6,200.00 | 0.00 | 0.00 | 6,068.80 | -699.91 | 881.50 | -927.73 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 0.00 | 0.00 | 6,168.80 | -699.91 | 881.50 | -927.73 | 0.00 | 0.00 | 0.00 |
| 6,368.86 | 0.00 | 0.00 | 6,237.66 | -699.91 | 881.50 | -927.73 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 3.11 | 273.96 | 6,268.78 | -699.85 | 880.66 | -926.89 | 10.00 | 10.00 | 0.00 |
| 6,500.00 | 13.11 | 273.96 | 6,367.65 | -698.88 | 866.59 | -912.79 | 10.00 | 10.00 | 0.00 |
| 6,600.00 | 23.11 | 273.96 | 6,462.58 | -696.73 | 835.62 | -881.74 | 10.00 | 10.00 | 0.00 |
| 6,700.00 | 33.11 | 273.96 | 6,550.67 | -693.48 | 788.67 | -834.68 | 10.00 | 10.00 | 0.00 |
| 6,800.00 | 43.11 | 273.96 | 6,629.25 | -689.22 | 727.17 | -773.03 | 10.00 | 10.00 | 0.00 |
| 6,900.00 | 53.11 | 273.96 | 6,695.93 | -684.08 | 653.00 | -698.68 | 10.00 | 10.00 | 0.00 |
| 7,000.00 | 63.11 | 273.96 | 6,748.68 | -678.22 | 568.40 | -613.88 | 10.00 | 10.00 | 0.00 |
| 7,100.00 | 73.11 | 273.96 | 6,785.91 | -671.81 | 475.94 | -521.20 | 10.00 | 10.00 | 0.00 |
| 7,200.00 | 83.11 | 273.96 | 6,806.48 | -665.06 | 378.45 | -423.47 | 10.00 | 10.00 | 0.00 |
| 7,283.06 | 91.42 | 273.96 | 6,810.44 | -659.33 | 295.75 | -340.57 | 10.00 | 10.00 | 0.00 |
| 7,300.00 | 91.42 | 273.96 | 6,810.02 | -658.16 | 278.86 | -323.64 | 0.00 | 0.00 | 0.00 |
| 7,400.00 | 91.42 | 273.96 | 6,807.54 | -651.25 | 179.13 | -223.67 | 0.00 | 0.00 | 0.00 |
| 7,500.00 | 91.42 | 273.96 | 6,805.07 | -644.34 | 79.40 | -123.70 | 0.00 | 0.00 | 0.00 |
| 7,600.00 | 91.42 | 273.96 | 6,802.59 | -637.43 | -20.33 | -23.74 | 0.00 | 0.00 | 0.00 |
| 7,700.00 | 91.42 | 273.96 | 6,800.11 | -630.52 | -120.06 | 76.23 | 0.00 | 0.00 | 0.00 |
| 7,800.00 | 91.42 | 273.96 | 6,797.63 | -623.61 | -219.79 | 176.20 | 0.00 | 0.00 | 0.00 |
| 7,900.00 | 91.42 | 273.96 | 6,795.15 | -616.70 | -319.52 | 276.17 | 0.00 | 0.00 | 0.00 |
| 8,000.00 | 91.42 | 273.96 | 6,792.67 | -609.79 | -419.26 | 376.14 | 0.00 | 0.00 | 0.00 |
| 8,100.00 | 91.42 | 273.96 | 6,790.20 | -602.88 | -518.99 | 476.11 | 0.00 | 0.00 | 0.00 |
| 8,200.00 | 91.42 | 273.96 | 6,787.72 | -595.97 | -618.72 | 576.08 | 0.00 | 0.00 | 0.00 |
| 8,300.00 | 91.42 | 273.96 | 6,785.24 | -589.06 | -718.45 | 676.05 | 0.00 | 0.00 | 0.00 |
| 8,400.00 | 91.42 | 273.96 | 6,782.76 | -582.15 | -818.18 | 776.02 | 0.00 | 0.00 | 0.00 |
| 8,500.00 | 91.42 | 273.96 | 6,780.28 | -575.24 | -917.91 | 875.99 | 0.00 | 0.00 | 0.00 |
| 8,600.00 | 91.42 | 273.96 | 6,777.81 | -568.33 | -1,017.64 | 975.96 | 0.00 | 0.00 | 0.00 |
| 8,700.00 | 91.42 | 273.96 | 6,775.33 | -561.42 | -1,117.37 | 1,075.93 | 0.00 | 0.00 | 0.00 |
| 8,800.00 | 91.42 | 273.96 | 6,772.85 | -554.51 | -1,217.10 | 1,175.90 | 0.00 | 0.00 | 0.00 |
| 8,900.00 | 91.42 | 273.96 | 6,770.37 | -547.60 | -1,316.83 | 1,275.87 | 0.00 | 0.00 | 0.00 |
| 9,000.00 | 91.42 | 273.96 | 6,767.89 | -540.70 | -1,416.56 | 1,375.83 | 0.00 | 0.00 | 0.00 |
| 9,100.00 | 91.42 | 273.96 | 6,765.42 | -533.79 | -1,516.29 | 1,475.80 | 0.00 | 0.00 | 0.00 |
| 9,200.00 | 91.42 | 273.96 | 6,762.94 | -526.88 | -1,616.02 | 1,575.77 | 0.00 | 0.00 | 0.00 |
| 9,300.00 | 91.42 | 273.96 | 6,760.46 | -519.97 | -1,715.75 | 1,675.74 | 0.00 | 0.00 | 0.00 |
| 9,400.00 | 91.42 | 273.96 | 6,757.98 | -513.06 | -1,815.48 | 1,775.71 | 0.00 | 0.00 | 0.00 |
| 9,500.00 | 91.42 | 273.96 | 6,755.50 | -506.15 | -1,915.21 | 1,875.68 | 0.00 | 0.00 | 0.00 |
| 9,600.00 | 91.42 | 273.96 | 6,753.02 | -499.24 | -2,014.94 | 1,975.65 | 0.00 | 0.00 | 0.00 |
| 9,700.00 | 91.42 | 273.96 | 6,750.55 | -492.33 | -2,114.67 | 2,075.62 | 0.00 | 0.00 | 0.00 |
| 9,800.00 | 91.42 | 273.96 | 6,748.07 | -485.42 | -2,214.40 | 2,175.59 | 0.00 | 0.00 | 0.00 |
| 9,900.00 | 91.42 | 273.96 | 6,745.59 | -478.51 | -2,314.13 | 2,275.56 | 0.00 | 0.00 | 0.00 |
| 10,000.00 | 91.42 | 273.96 | 6,743.11 | -471.60 | -2,413.86 | 2,375.53 | 0.00 | 0.00 | 0.00 |
| 10,100.00 | 91.42 | 273.96 | 6,740.63 | -464.69 | -2,513.59 | 2,475.50 | 0.00 | 0.00 | 0.00 |

# Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.17 Single User Db | **Local Co-ordinate Reference:** | Well Steeplechase 1H |
| **Company:** | MR NM Operating, LLC. | **TVD Reference:** | 16' KB @ 3606.00usft |
| **Project:** | Eddy County, NM (NAD 83) | **MD Reference:** | 16' KB @ 3606.00usft |
| **Site:** | SEC 2, T-17-S, R-27-E | **North Reference:** | Grid |
| **Well:** | Steeplechase 1H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #1 | | |

**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) |
|---|---|---|---|---|---|---|---|---|---|
| 10,200.00 | 91.42 | 273.96 | 6,738.16 | -457.78 | -2,613.32 | 2,575.47 | 0.00 | 0.00 | 0.00 |
| 10,300.00 | 91.42 | 273.96 | 6,735.68 | -450.87 | -2,713.05 | 2,675.44 | 0.00 | 0.00 | 0.00 |
| 10,400.00 | 91.42 | 273.96 | 6,733.20 | -443.96 | -2,812.78 | 2,775.40 | 0.00 | 0.00 | 0.00 |
| 10,500.00 | 91.42 | 273.96 | 6,730.72 | -437.05 | -2,912.51 | 2,875.37 | 0.00 | 0.00 | 0.00 |
| 10,600.00 | 91.42 | 273.96 | 6,728.24 | -430.14 | -3,012.24 | 2,975.34 | 0.00 | 0.00 | 0.00 |
| 10,700.00 | 91.42 | 273.96 | 6,725.77 | -423.23 | -3,111.97 | 3,075.31 | 0.00 | 0.00 | 0.00 |
| 10,800.00 | 91.42 | 273.96 | 6,723.29 | -416.32 | -3,211.70 | 3,175.28 | 0.00 | 0.00 | 0.00 |
| 10,900.00 | 91.42 | 273.96 | 6,720.81 | -409.41 | -3,311.43 | 3,275.25 | 0.00 | 0.00 | 0.00 |
| 11,000.00 | 91.42 | 273.96 | 6,718.33 | -402.50 | -3,411.16 | 3,375.22 | 0.00 | 0.00 | 0.00 |
| 11,100.00 | 91.42 | 273.96 | 6,715.85 | -395.60 | -3,510.89 | 3,475.19 | 0.00 | 0.00 | 0.00 |
| 11,200.00 | 91.42 | 273.96 | 6,713.38 | -388.69 | -3,610.62 | 3,575.16 | 0.00 | 0.00 | 0.00 |
| 11,300.00 | 91.42 | 273.96 | 6,710.90 | -381.78 | -3,710.35 | 3,675.13 | 0.00 | 0.00 | 0.00 |
| 11,400.00 | 91.42 | 273.96 | 6,708.42 | -374.87 | -3,810.08 | 3,775.10 | 0.00 | 0.00 | 0.00 |
| 11,500.00 | 91.42 | 273.96 | 6,705.94 | -367.96 | -3,909.81 | 3,875.07 | 0.00 | 0.00 | 0.00 |
| 11,600.00 | 91.42 | 273.96 | 6,703.46 | -361.05 | -4,009.54 | 3,975.04 | 0.00 | 0.00 | 0.00 |
| 11,700.00 | 91.42 | 273.96 | 6,700.98 | -354.14 | -4,109.27 | 4,075.01 | 0.00 | 0.00 | 0.00 |
| 11,800.00 | 91.42 | 273.96 | 6,698.51 | -347.23 | -4,209.00 | 4,174.98 | 0.00 | 0.00 | 0.00 |
| 11,900.00 | 91.42 | 273.96 | 6,696.03 | -340.32 | -4,308.73 | 4,274.94 | 0.00 | 0.00 | 0.00 |
| 12,000.00 | 91.42 | 273.96 | 6,693.55 | -333.41 | -4,408.46 | 4,374.91 | 0.00 | 0.00 | 0.00 |
| 12,100.00 | 91.42 | 273.96 | 6,691.07 | -326.50 | -4,508.19 | 4,474.88 | 0.00 | 0.00 | 0.00 |
| 12,200.00 | 91.42 | 273.96 | 6,688.59 | -319.59 | -4,607.92 | 4,574.85 | 0.00 | 0.00 | 0.00 |
| 12,300.00 | 91.42 | 273.96 | 6,686.12 | -312.68 | -4,707.65 | 4,674.82 | 0.00 | 0.00 | 0.00 |
| 12,300.23 | 91.42 | 273.96 | 6,686.11 | -312.67 | -4,707.88 | 4,675.05 | 0.00 | 0.00 | 0.00 |

**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 |
|---|---|---|---|---|---|---|---|---|---|
| BHL - Steeplechase 1H | 0.00 | 0.00 | 6,686.20 | -312.67 | -4,707.88 | 699,326.57 | 560,102.99 | 32.922448 | -104.272177 |
| - plan misses target center by 0.09usft at 12300.22usft MD (6686.11 TVD, -312.67 N, -4707.88 E) | | | | | | | | | |
| - Point | | | | | | | | | |
| UMP - Steeplechase 1H | 0.00 | 0.00 | 6,802.00 | -659.33 | 295.75 | 698,979.90 | 565,106.61 | 32.921486 | -104.255871 |
| - plan misses target center by 8.46usft at 7282.66usft MD (6810.45 TVD, -659.36 N, 296.15 E) | | | | | | | | | |
| - Point | | | | | | | | | |

**Plan Annotations**

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates +N/-S (usft) | Local Coordinates +E/-W (usft) | Comment |
|---|---|---|---|---|
| 720.00 | 720.00 | 0.00 | 0.00 | Build 2° Dlg |
| 1,420.05 | 1,413.10 | -52.92 | 66.65 | Hold 14° Inc, 128.45° Azm |
| 5,368.82 | 5,244.56 | -646.99 | 814.85 | Drop 2° Dlg |
| 6,068.86 | 5,937.66 | -699.91 | 881.50 | Hold 0° Inc, 0° Azm |
| 6,368.86 | 6,237.66 | -699.91 | 881.50 | Build Curve 10° Dlg |
| 7,283.06 | 6,810.44 | -659.33 | 295.75 | Land 91.42° Inc, 273.96° Azm |
| 12,300.23 | 6,686.11 | -312.67 | -4,707.88 | PBHL @ 12300.23' |

# PECOS DISTRICT
# DRILLING CONDITIONS OF APPROVAL

| | |
|---|---|
| OPERATOR'S NAME: | MR NM OPERATING LLC |
| WELL NAME & NO.: | STEEPLECHASE FED COM 1H |
| SURFACE HOLE FOOTAGE: | 2633'/N & 387'/E |
| BOTTOM HOLE FOOTAGE | 2295'/S & 100'/W |
| LOCATION: | Section 13, T.16 S., R.28 E., NMP |
| COUNTY: | Eddy County, New Mexico |

COA

| | | | |
|---|---|---|---|
| H2S | (•) Yes | ( ) No | |
| Potash | (•) None | ( ) Secretary | ( ) R-111-P |
| Cave/Karst Potential | ( ) Low | ( ) Medium | (•) High |
| Cave/Karst Potential | ( ) Critical | | |
| Variance | ( ) None | (•) Flex Hose | ( ) Other |
| Wellhead | ( ) Conventional | ( ) Multibowl | (•) Both |
| Wellhead Variance | ( ) Diverter | | |
| Other | [ ] 4 String | [ ] Capitan Reef | [ ] WIPP |
| Other | [ ] Fluid Filled | [ ] Pilot Hole | [ ] Open Annulus |
| Cementing | [ ] Contingency Cement Squeeze | [ ] EchoMeter | [ ] Primary Cement Squeeze |
| Special Requirements | [ ] Water Disposal | [x] COM | [ ] Unit |
| Special Requirements | [ ] Batch Sundry | | |
| Special Requirements Variance | [ ] Break Testing | [ ] Offline Cementing | [x] Casing Clearance |

## A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated AT SPUD. As a result, the Hydrogen Sulfide area must meet 43 CFR part 3170 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

## B. CASING

**Primary Casing Design:**

1. The **9-5/8** inch surface casing shall be set at approximately **1250 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. The surface hole shall be **12-1/4** inch in diameter.





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a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **5-1/2** inch production casing is:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.
  **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

❖ In High Cave/Karst Areas if cement does not circulate to surface on the first casing string, the cement on the 2nd casing string must come to surface.

**Alternate Casing Design:**

1. The **13-3/8** inch surface casing shall be set at approximately **400 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. The surface hole shall be **17-1/2** inch in diameter.

e. 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.
f. 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)
g. 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.




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h. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing 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 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 is:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

## C. PRESSURE CONTROL

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

2.

**Option 1:**

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi. **Annular which shall be tested to 3000 (3M) psi.**

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch surface casing shoe shall be **3000 (3M)** psi.

**Option 2:**

Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **13-3/8** inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.

a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.

b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
c. Manufacturer representative shall install the test plug for the initial BOP test.
d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

**D. SPECIAL REQUIREMENT (S)**

**Communitization Agreement**

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in Onshore Order 1 and 2.
- 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.

**Casing Clearance:**

Operator casing variance is approved for the utilization of 9-5/8 inch surface casing in a 12-1/4 inch surface hole.

Operator shall clean up cycles until wellbore is clear of cuttings and any large debris, ensure cutting sizes are adequate "coffee ground or less" before cementing.

# GENERAL REQUIREMENTS

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

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ Eddy County
**EMAIL** or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
**BLM_NM_CFO_DrillingNotifications@BLM.GOV**
(575) 361-2822

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a

digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity 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 intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

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

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after

installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead 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).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the 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.)

c. 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 part 3170 Subpart 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 water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR**

**part 3170 Subpart 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.

JS 3/13/2024





**Approval Date: 03/22/2024**

MR NM Operating, LLC

Hydrogen Sulfide Plan Summary

A. All personnel shall receive proper H2S training an accordance with Onshore Order III.C.3.a

B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible by location personnel.

C. Required Emergency Equipment:

- Well Control Equipment
  - Flare line 150' from wellhead to be ignited by flare gun or remote igniter
  - Choke manifold with a remotely operated choke
  - Mud/Gas Separator
- Protective Equipment for Essential Personnel
  - Breathing Apparatus:
    - Rescue Packs (SCBA) – 1 unit shall be placed at each breathing area, 2 shall be stored in a safety trailer.
    - Work/Escape Packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity
    - Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation
  - Auxiliary Rescue Equipment
    - Stretcher
    - Two OSHA full body harnesses
    - 100' of 5/8" OSHA approved rope
    - 1 – 20# Class ABC fire extinguisher
- H2S Detection and Monitoring Equipment
  - The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell Nipple / End of flowline or where wellbore fluid is being discharged
- Visual Warning Systems

- One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site
- A colored condition flag will be on display, reflecting the current condition at the site at the time
- Two wind socks will be placed in strategic locations, visible from all angles

- Mud Program
  - The mud program will be designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones
- Metallurgy
  - All drill strings, casings, tubing, wellhead, blowout preventer, drilling spools, kill lines, choke manifolds, and valves shall be suitable for H2S service
- Communication
  - Communication will be via cell phones and land lines where available

# EXHIBIT 2B



## MR NM OPERATING LLC.

SECTION 13 TOWNSHIP 16-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'

LEGEND

- EXISTING ROAD
- SECTION LINE
- RANGE LINE
- PROPOSED ROAD

highest ground to northwest

flare line (straight) & flare >150' from well head

windsocks on rig floor & at mud tanks

warning signs & windsock

PRIMARY safety briefing area >150' from well head & egress (exit) route

prevailing winds blow from south

SECTION LINE

3602.5'

3580.9'

339'

175'

STEEPLECHASE FED COM 2H

150'

250'

3589.5'

30'

150'

200'

250'

200'

337'

STEEPLECHASE FED COM 1H

CENTER OF PAD
X=606040
Y=699695
LAT.: N 32.9232987
LONG.: W 104.1224679

220'

212'

℄ PROPOSED ROAD - 230'

PROPOSED WELL PAD

3591.8'

3575.7'

PROPOSED FACILITY PAD

75'

3591.6'

3575.7'

400'

LINE

TURKEY TRACK ROAD

LEASE NAME & WELL NO.: STEEPLECHASE FED COM 1H

1H LATITUDE N 32.9233196 1H LONGITUDE W 104.1226308

CENTER OF PAD IS 2639' FNL & 337' FEL

SCALE: 1" = 100'

0' 50' 100'

RAMON DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

6/8/2023 10:50:27 AM

RAMON A DOMINGUEZ, PS No 24508

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

THIS PROPOSED PAD SITE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY MR NM OPERATING LLC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM

ORIGINAL DOCUMENT SIZE: 8.5" X 11"

# MR NM Operating, LLC

**Steeplechase Pad**
**H2S Contingency Plan:**
**Radius Map**

Section 13, Township 16S, Range 28E
Eddy County, New Mexico

Pad Center

1:27,000

0 0.25 0.5 1

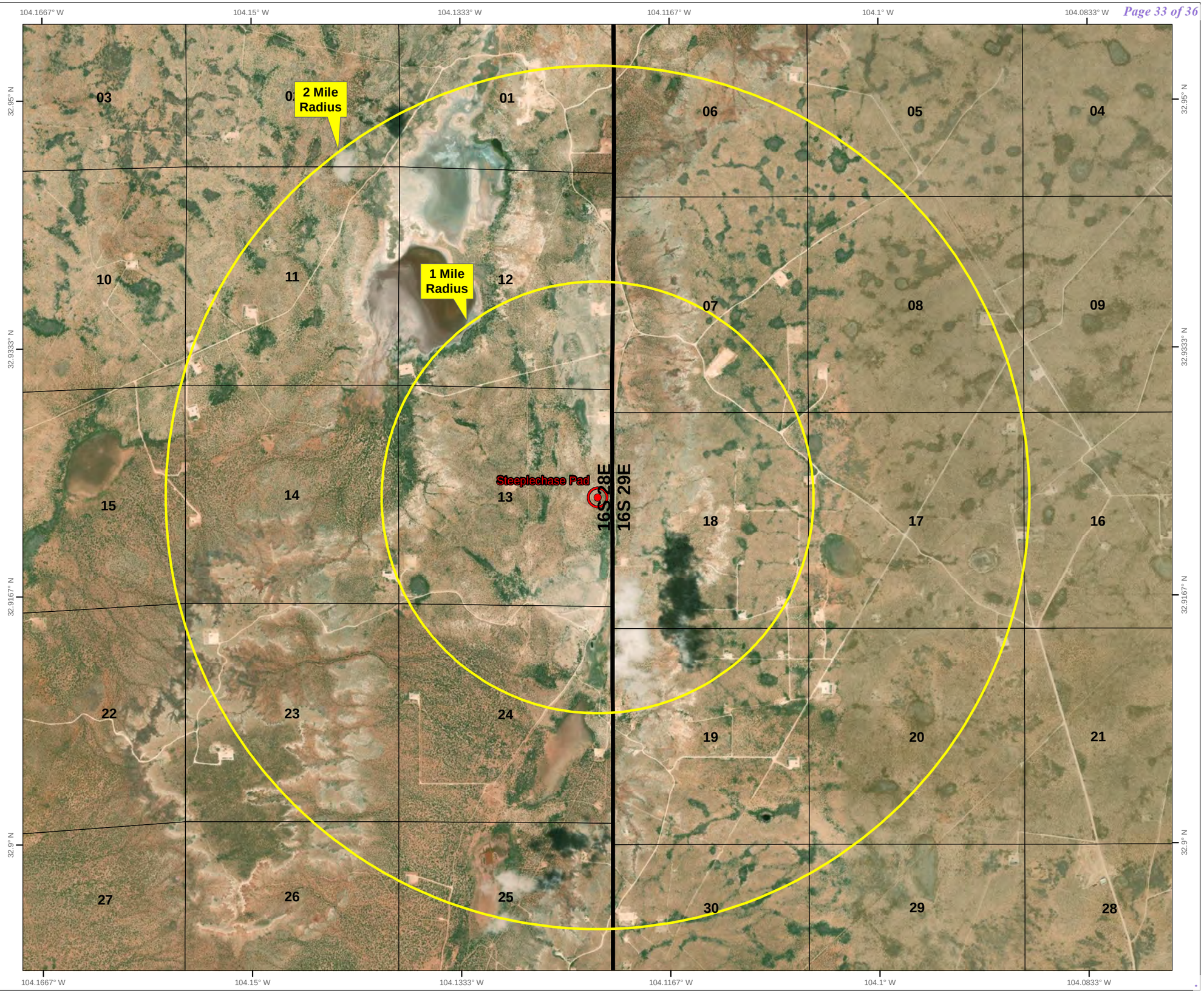
Miles

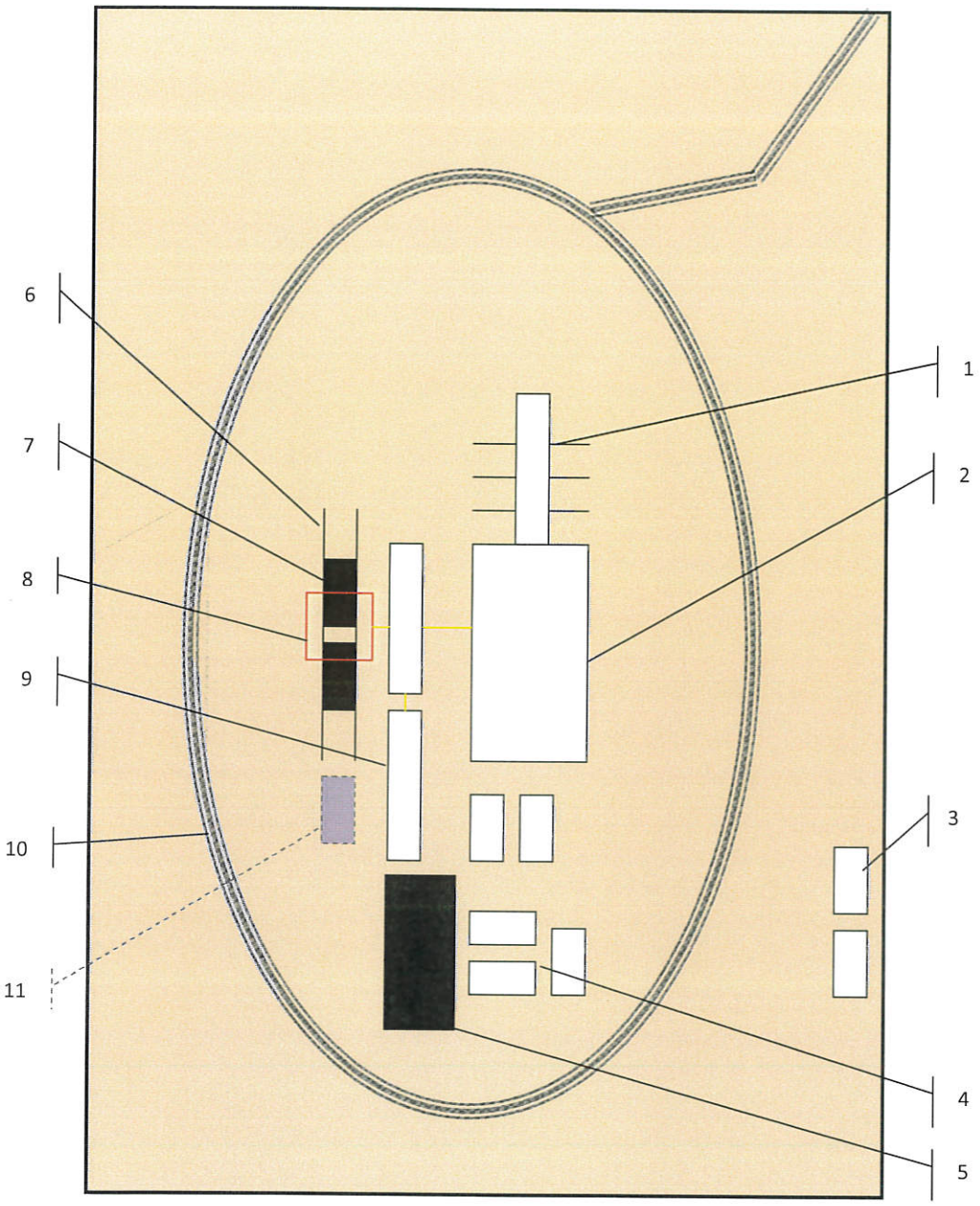
N

NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST

Prepared by Permits West, Inc., July 19, 2023
for MR NM Operating, LLC




**Schematic Closed Loop Drilling Rig***

1. Pipe Rack
2. Drill Rig
3. House Trailers/ Offices
4. Generator/Fuel/Storage
5. Overflow-Frac Tank
6. Skids
7. Roll Offs
8. Hopper or Centrifuge
9. Mud Tanks
10. Loop Drive
11. Generator (only for use with centrifuge)

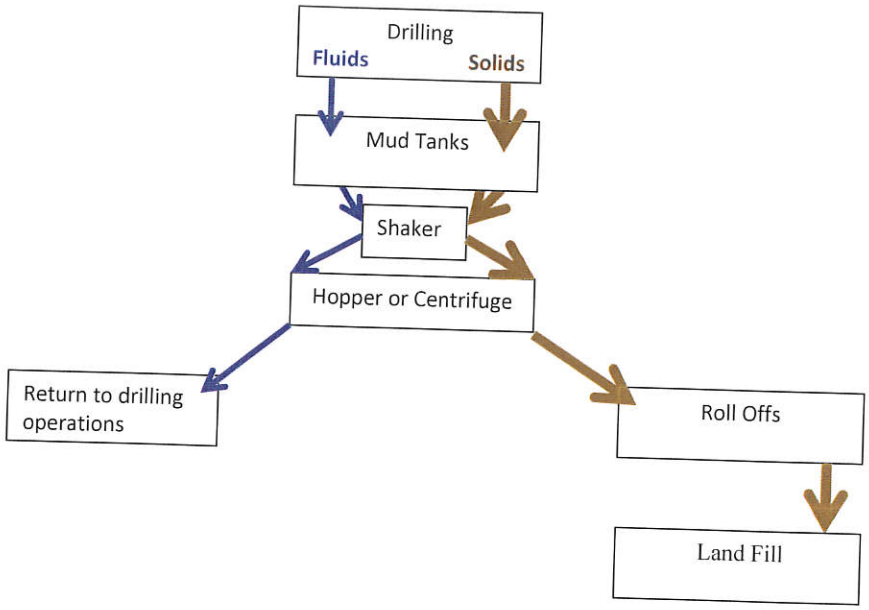
*Not drawn to scale: Closed loop system requires at least 30 feet beyond mud tanks. Ideally 60 feet would be available

Above: Centrifugal Closed Loop System

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120


Closed Loop Drilling System: Mud tanks to right (1)
Hopper in air to settle out solids (2)
Water return pipe (3)
Shaker between hopper and mud tanks (4)
Roll offs on skids (5)

## Flow Chart for Drilling Fluids and Solids




Photos Courtesy of Gandy Corporation Oil Field Service

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

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

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

CONDITIONS

Action 330531

## CONDITIONS

| | |
|---|---|
| Operator:<br>MR NM Operating LLC<br>5950 Berkshire Lane<br>Dallas, TX 75225 | OGRID:<br>330506 |
| | Action Number:<br>330531 |
| | Action Type:<br>[C-101] BLM - Federal/Indian Land Lease (Form 3160-3) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| ward.rikala | Notify OCD 24 hours prior to casing & cement | 4/29/2024 |
| ward.rikala | Will require a File As Drilled C-102 and a Directional Survey with the C-104 | 4/29/2024 |
| 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 | 4/29/2024 |
| ward.rikala | Cement is required to circulate on both surface and intermediate1 strings of casing | 4/29/2024 |
| ward.rikala | If cement does not circulate on any string, a CBL is required for that string of casing | 4/29/2024 |
| 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 | 4/29/2024 |