

Well Name: MONGO 25 FED COM	Well Location: T24S / R29E / SEC 30 / LOT 02 / 32.1894291 / -104.0315087	County or Parish/State: EDDY / NM
Well Number: 703H	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMNM107373	Unit or CA Name:	Unit or CA Number:
US Well Number:	Operator: 3R OPERATING LLC	

Notice of Intent

Sundry ID: 2851042

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 05/06/2025	Time Sundry Submitted: 12:41
Date proposed operation will begin: 05/05/2025	

Procedure Description: SUNDRY TO REVISE: WELL NAME, SHL, BHL: CASING/DRILLING PLAN, ACREAGE DEDICATION, and POOL Well Name - Change well name from Mongo 25 Fed Com 703H (APD ID 10400102193) to Mongo 25 Fed Com 552H SHL Change: From 2305" FNL & 155" FWL to 2230' FNL & 160 FWL' BHL Change- From 2145" FNL & 330 FWL to 1670' FNL & 100 FWL Acreage Dedication Change: 160 acres dedicated - (details in C-102 attached) - NSP application pending with NMOCD Pool Change: From Purple Sage; Wolfcamp to Willow Lake; Bone Spring Intermediate/Production Casing changes (details in attached drilling plan) Intermediate/Production casing cement changes (details in attached drilling plan)

NOI Attachments

Procedure Description

APD_Change_Sundry_Packet_Mongo_25_Fed_Com_552H_20250623150208.pdf

Received by OCD: 6/26/2025 6:04:02 PM

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US Well Number:	Operator: 3R OPERATING LLC	

Conditions of Approval

Additional
Mongo_25_Fed_Com_552H_COA_SUNDRY_20250626154701.pdf

Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: AUSTIN TRAMELL	Signed on: JUN 23, 2025 03:02 PM
Name: 3R OPERATING LLC	
Title: Director Environmental and Regulatory	
Street Address: PO BOX 692229	
City: HOUSTON	State: TX
Phone: (832) 810-1037	
Email address: ATRAMELL@3ROPERATING.COM	

Field

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752342234	BLM POC Email Address: cwalls@blm.gov
Disposition: Approved	Disposition Date: 06/26/2025
Signature: Chris Walls	

Form 3160-5 (June 2019)	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT	FORM APPROVED OMB No. 1004-0137 Expires: October 31, 2021
SUNDRY NOTICES AND REPORTS ON WELLS <i>Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.</i>		5. Lease Serial No.
		6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2		7. If Unit of CA/Agreement, Name and/or No.
1. Type of Well ☐ Oil Well ☐ Gas Well ☐ Other		8. Well Name and No.
2. Name of Operator		9. API Well No.
3a. Address	3b. Phone No. (include area code)	10. Field and Pool or Exploratory Area
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)		11. Country or Parish, State

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA				
TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)		
	Title	
Signature	Date	

THE SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law 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, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. 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 the 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., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

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

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

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 Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Location of Well

0. SHL: LOT 02 / 2305 FNL / 155 FWL / TWSP: 24S / RANGE: 29E / SECTION: 30 / LAT: 32.1894291 / LONG: -104.0315087 (TVD: 0 feet, MD: 0 feet)

PPP: SENE / 2145 FNL / 330 FEL / TWSP: 24S / RANGE: 28E / SECTION: 25 / LAT: 32.1898725 / LONG: -104.0330821 (TVD: 9780 feet, MD: 10115 feet)

PPP: SWNE / 2145 FNL / 1379 FEL / TWSP: 24S / RANGE: 28E / SECTION: 25 / LAT: 32.1898857 / LONG: -104.0364721 (TVD: 9780 feet, MD: 11163 feet)

BHL: SWNW / 2145 FNL / 330 FWL / TWSP: 24S / RANGE: 28E / SECTION: 25 / LAT: 32.1899312 / LONG: -104.0483694 (TVD: 9780 feet, MD: 14844 feet)

CONFIDENTIAL

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: 3R OPERATING, LLC
WELL NAME & NO.: MONGO 25 FED COM #552H
LOCATION: 30 – 24S – 29E, LOT 2 (2230 FNL, 160 FWL)
COUNTY: Eddy County, New Mexico ▼

Previously known as MONGO 25 FED COM 703H. Changes approved through engineering via Sundry 2851042 on 06/26/2025. Any previous COAs not addressed within the updated COAs still apply.

COA

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

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H₂S) monitors shall be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 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.
2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing set at approximately **2,650 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 **14,474 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 2nd 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 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 doghouse 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 hard band 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.

YJ (06-26-2025)

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:	☐ Initial Submittal
			☒ Amended Report
		☐ As Drilled	

WELL LOCATION INFORMATION

API Number 30-015-56622	Pool Code 64450	Pool Name WILLOW LAKE; BONE SPRING
Property Code	Property Name MONGO 25 FED COM	Well Number 552H
OGRID No. 331569	Operator Name 3R OPERATING, LLC	Ground Level Elevation 2925.0
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL	Section 30	Township 24 S	Range 29 E	Lot 2	Ft. from N/S 2230 NORTH	Ft. from E/W 160 WEST	Latitude 32.1896351°N	Longitude 104.0314952°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 1670 NORTH	Ft. from E/W 100 WEST	Latitude 32.1912395°N	Longitude 104.0491089°W	County EDDY
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Dedicated Acres 160	Infill or Defining Well infill	Defining Well API 30-015-56624	Overlapping Spacing Unit (Y/N) Y	Consolidation Code C
Order Numbers. NSP pending with NMOCD			Well setbacks are under Common Ownership: ☒ Yes ☐ No	

Kick Off Point (KOP)

UL H	Section 25	Township 24 S	Range 28 E	Lot	Ft. from N/S 1670 NORTH	Ft. from E/W 50 EAST	Latitude 32.1911745°N	Longitude 104.0321942°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 1670 NORTH	Ft. from E/W 100 EAST	Latitude 32.1911751°N	Longitude 104.0323558°W	County EDDY
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Last Take Point (LTP)

UL E	Section 25	Township 24 S	Range 28 E	Lot	Ft. from N/S 1670 NORTH	Ft. from E/W 100 WEST	Latitude 32.1912395°N	Longitude 104.0491089°W	County EDDY
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Unitized Area or Area of Uniform Interest AUI	Spacing Unit Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation: N/A
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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.

Austin Tramell 05/05/2025

Signature

Date

Austin Tramell

Printed Name

atramell@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.



Signature and Seal of Professional Surveyor

FILIMON F. JARAMILLO

Certificate Number

PLS 12797

Date of Survey

MARCH 31, 2025

SURVEY NO. 10333A

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.

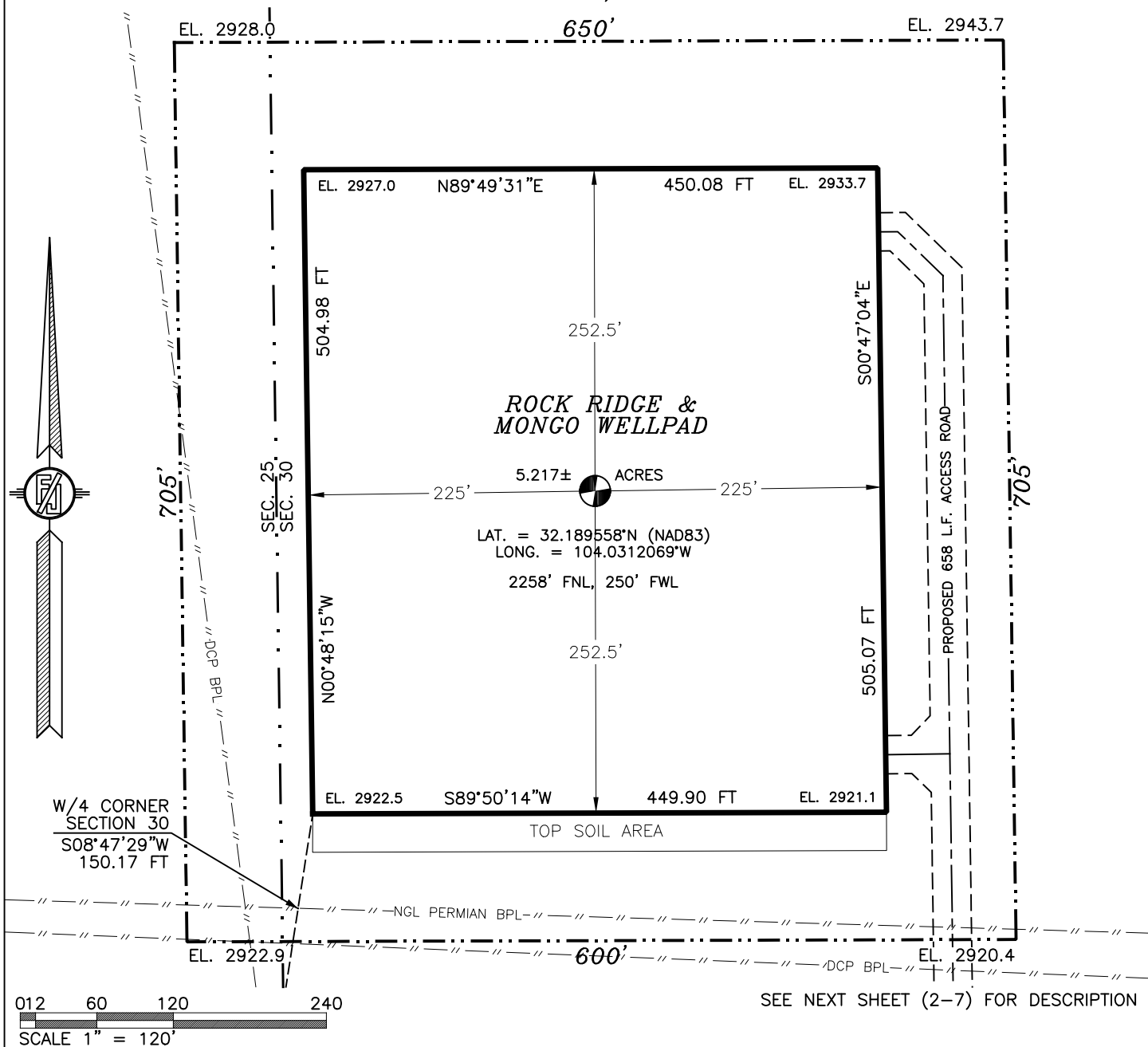
Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.

LEGEND

PPP2
1670' FNL, 1370' FEL
N.=433416.54
E.=633172.92
LAT.=32.1911911°N
LONG.=104.0364615°W



ROCK RIDGE & MONGO WELLPAD
3R OPERATING, LLC
IN THE SW/4 LOT 2 OF
SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MARCH 31, 2025

**GENERAL NOTES**

- 1.) THE INTENT OF THIS SURVEY IS TO ACQUIRE A BUSINESS LEASE FOR THE PURPOSE OF BUILDING A WELL PAD
- 2.) BASIS OF BEARING IS NEW MEXICO STATE PLANE EAST ZONE MODIFIED TO THE SURFACE (NAD83), COORDINATES ARE NAD 83, ELEVATIONS ARE NAVD 88

DRIVING DIRECTIONS: FROM THE INTERSECTION OF HIGHWAY 285 & CO. RD. 721 (PULLEY), GO EAST ON CO. RD. 721 APPROX. 1.17 MILES JUST PAST A CATTLE GUARD WHERE CO. RD. STARTS TO TURN NORTH, CONTINUE EAST AND IMMEDIATELY SOUTH ON A CALICHE ROAD, GO SOUTH AND EAST APPROX. 1 MILE TO A "Y" INTERSECTION, TAKE LEFT FORK AND CONTINUE EAST APPROX. 0.1 MILE TO A ROAD SURVEY ON LEFT (NORTH), FOLLOW ROAD SURVEY NORTH AND WEST APPROX. 266' TO THE SOUTHEAST PAD CORNER FOR THIS LOCATION.

SHEET: 1-7

MADRON SURVEYING, INC.

SURVEYOR CERTIFICATE

I, FILMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD,

NEW MEXICO, THIS 31ST DAY OF MARCH 2025

FILMON F. JARAMILLO, PLS 12797
 301 SOUTH CANAL
 (575) 234-3327
 CARLSBAD, NEW MEXICO

MADRON SURVEYING, INC.
 301 SOUTH CANAL
 CARLSBAD, NEW MEXICO 88220
 Phone (575) 234-3327

SURVEY NO. 10351A

CARLSBAD, NEW MEXICO

**ROCK RIDGE & MONGO WELLPAD
3R OPERATING, LLC
IN THE SW/4 LOT 2 OF
SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MARCH 31, 2025**

DESCRIPTION

A CERTAIN PIECE OR PARCEL OF LAND AND REAL ESTATE LYING IN BUREAU OF LAND MANAGEMENT LAND IN THE SW/4 LOT 2 OF SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

BEGINNING AT THE SOUTHWEST CORNER OF THE PARCEL, WHENCE THE WEST QUARTER CORNER OF SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M. BEARS S08°47'29"W, A DISTANCE OF 150.17 FEET;
THENCE N00°48'15"W A DISTANCE OF 504.98 FEET TO THE NORTHWEST CORNER OF THE PARCEL;
THENCE N89°49'31"E A DISTANCE OF 450.08 FEET TO TO THE NORTHEAST CORNER OF THE PARCEL;
THENCE S00°47'04"E A DISTANCE OF 505.07 FEET TO THE SOUTHEAST CORNER OF THE PARCEL,
THENCE S89°50'14"W A DISTANCE OF 449.90 FEET TO THE SOUTHWEST CORNER OF THE PARCEL, THE POINT OF BEGINNING;
CONTAINING 5.217 ACRES MORE OR LESS.

GENERAL NOTES

1.) THE INTENT OF THIS SURVEY IS TO ACQUIRE A BUSINESS LEASE FOR THE PURPOSE OF BUILDING A WELL PAD

2.) BASIS OF BEARING IS NEW MEXICO STATE PLANE EAST ZONE MODIFIED TO THE SURFACE (NAD83), COORDINATES ARE NAD 83, ELEVATIONS ARE NAVD 88

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 31ST DAY OF MARCH 2025

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3327

SURVEY NO. 10351A

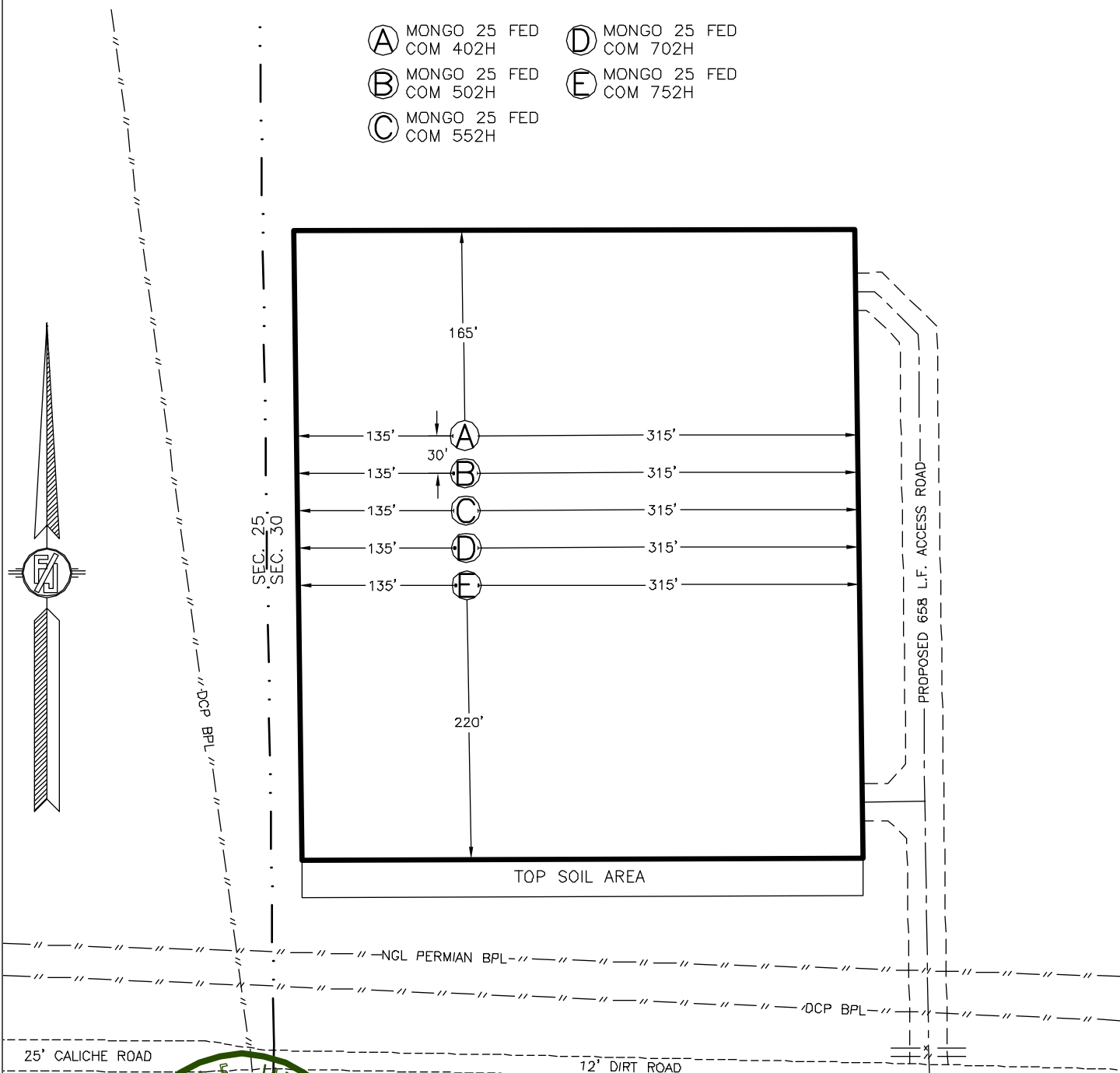
SHEET: 2-7

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

ROCK RIDGE & MONGO WELLPAD
3R OPERATING, LLC
IN THE SW/4 LOT 2 OF
SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MARCH 31, 2025

SITE MAP

- | | |
|----------------------------|----------------------------|
| Ⓐ MONGO 25 FED
COM 402H | Ⓓ MONGO 25 FED
COM 702H |
| Ⓑ MONGO 25 FED
COM 502H | Ⓔ MONGO 25 FED
COM 752H |
| Ⓒ MONGO 25 FED
COM 552H | |



I, FILIMON F. JARAMILLO, a NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR, CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

FILIMON F. JARAMILLO, REGISTERED PROFESSIONAL SURVEYOR

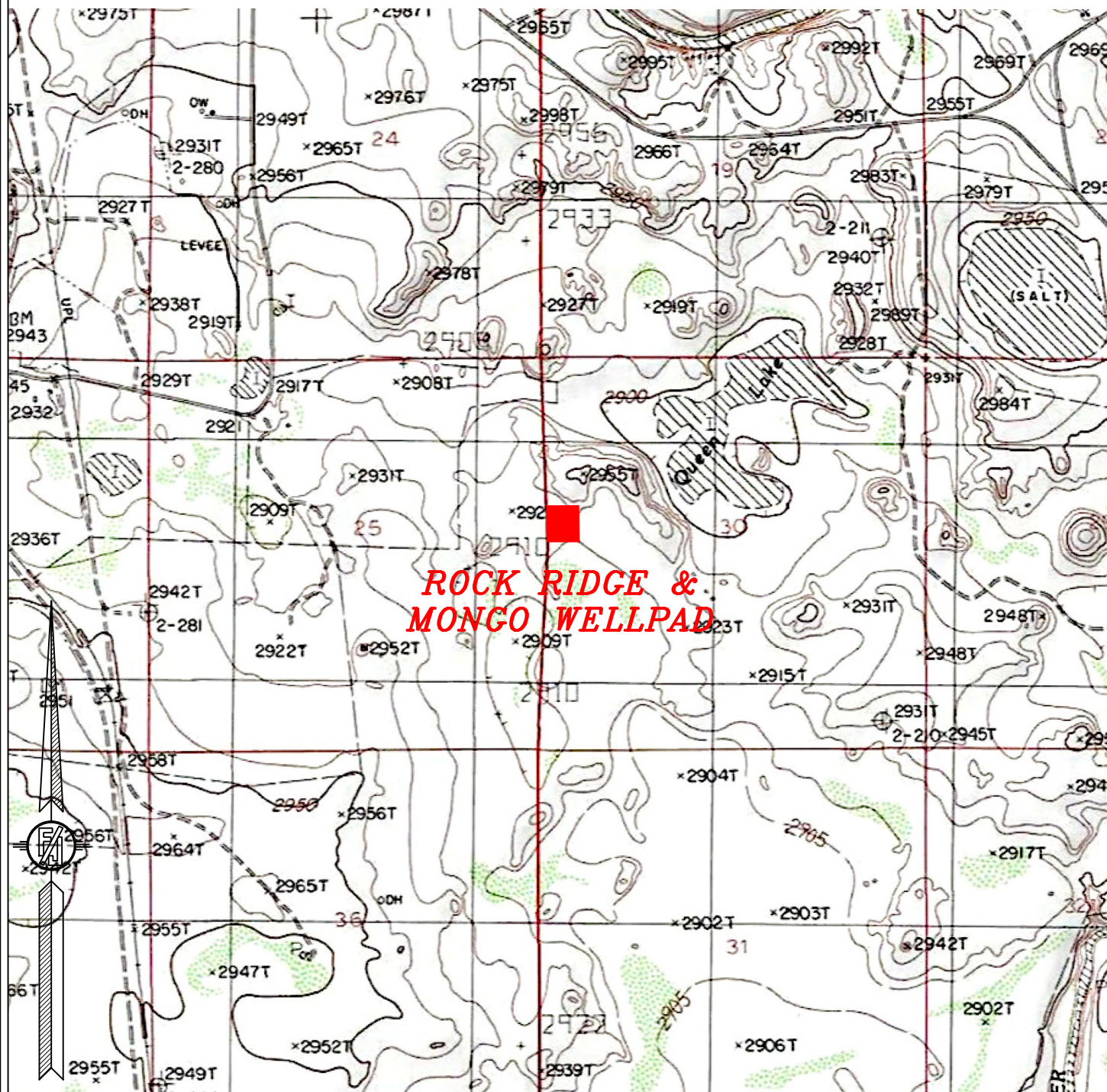
SHEET: 3

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3327 CARLSBAD, NEW MEXICO

SURVEY NO. 10351A

ROCK RIDGE & MONGO WELLPAD
 3R OPERATING, LLC
 IN THE SW/4 LOT 2 OF
 SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 MARCH 31, 2025

LOCATION VERIFICATION MAP



USGS QUAD MAP:
MALAGA

NOT TO SCALE

SHEET: 4-7

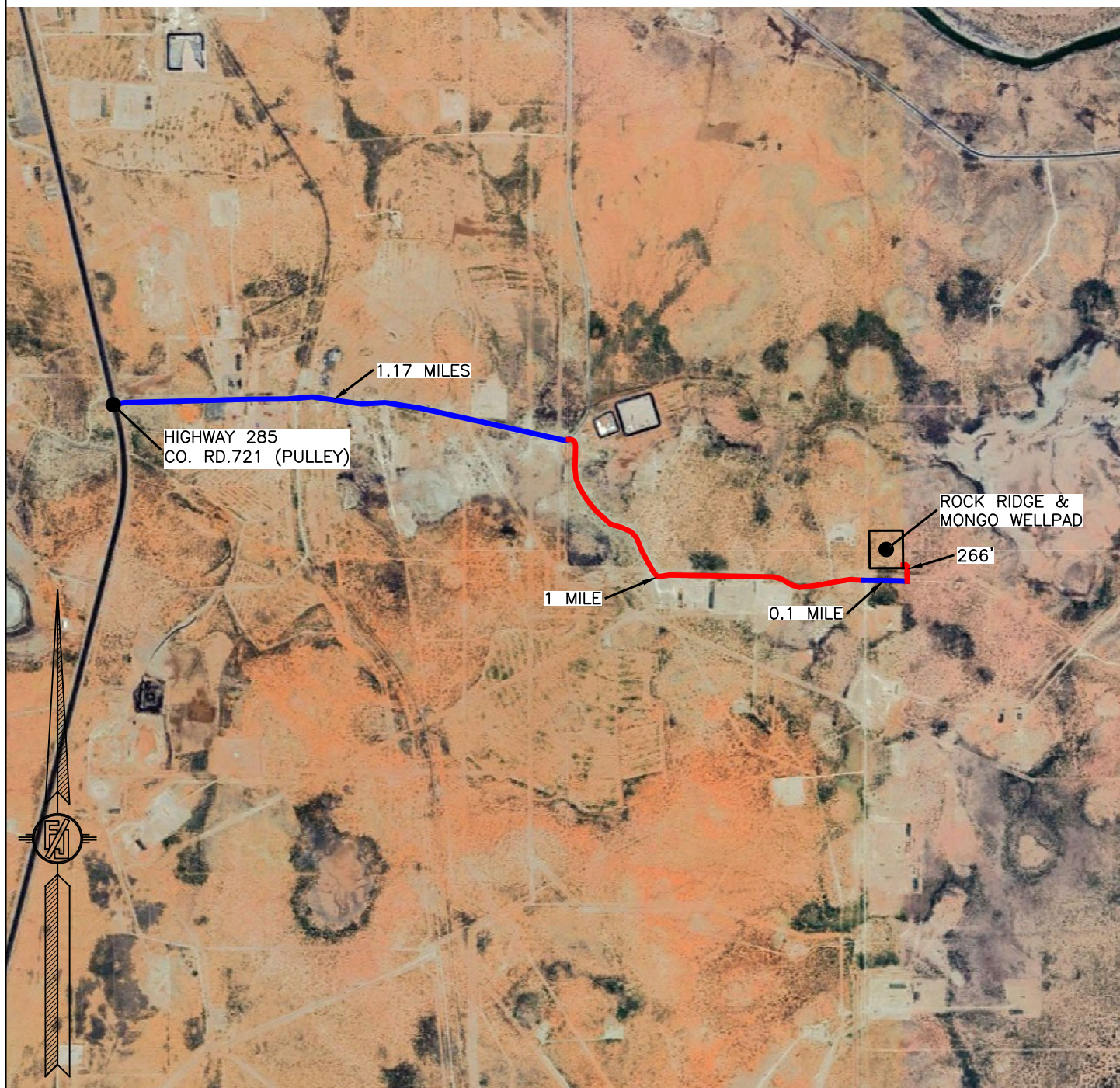
SURVEY NO. 10351A

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3327

CARLSBAD, NEW MEXICO

ROCK RIDGE & MONGO WELLPAD
3R OPERATING, LLC
 IN THE SW/4 LOT 2 OF
 SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 MARCH 31, 2025

AERIAL ACCESS ROUTE MAP



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH

DRIVING DIRECTIONS: FROM THE INTERSECTION OF HIGHWAY 285 & CO. RD. 721 (PULLEY), GO EAST ON CO. RD. 721 APPROX. 1.17 MILES JUST PAST A CATTLE GUARD WHERE CO. RD. STARTS TO TURN NORTH, CONTINUE EAST AND IMMEDIATELY SOUTH ON A CALICHE ROAD, GO SOUTH AND EAST APPROX. 1 MILE TO A "Y" INTERSECTION, TAKE LEFT FORK AND CONTINUE EAST APPROX. 0.1 MILE TO A ROAD SURVEY ON LEFT (NORTH), FOLLOW ROAD SURVEY NORTH AND WEST APPROX. 266' TO THE SOUTHEAST PAD CORNER FOR THIS LOCATION.

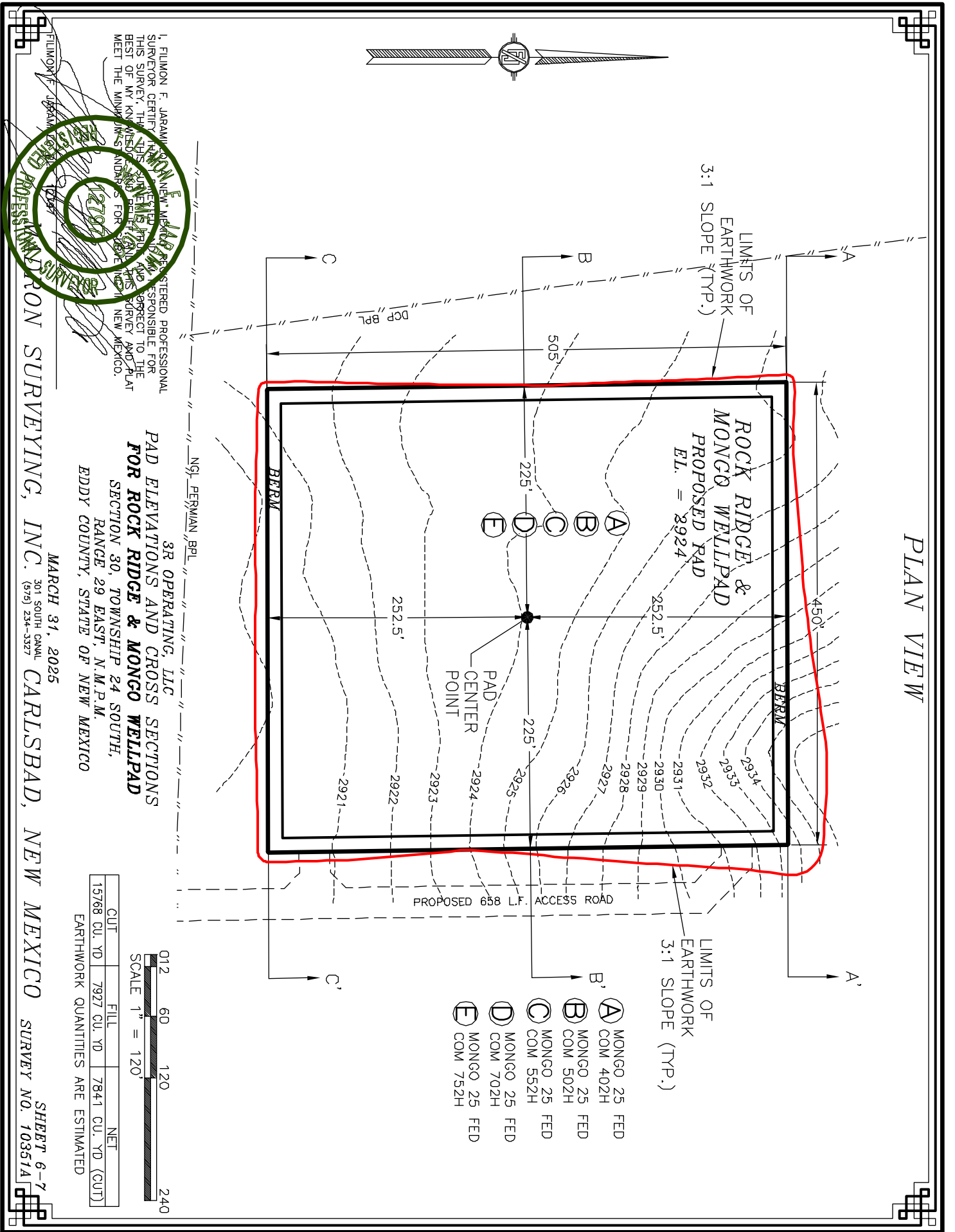
SHEET: 5-7

SURVEY NO. 10351A

MADRON SURVEYING, INC.

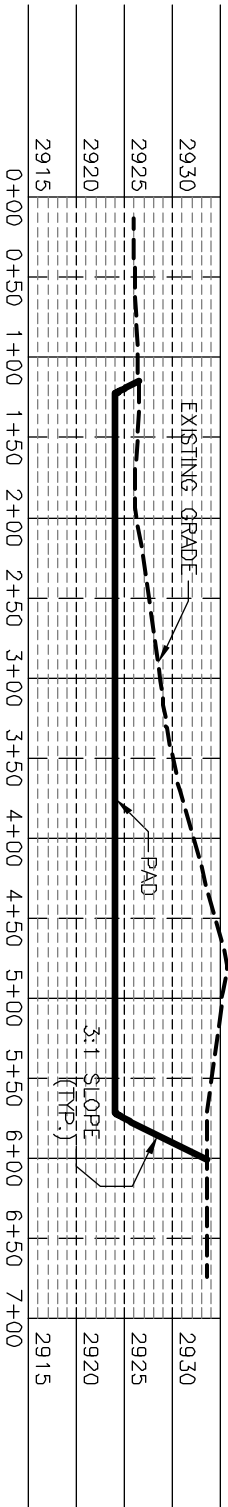
301 SOUTH CANAL
(575) 234-3327

CARLSBAD, NEW MEXICO

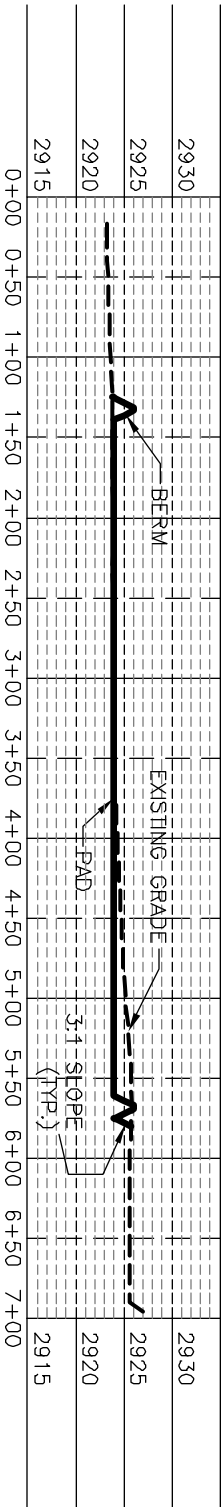


CROSS-SECTIONS

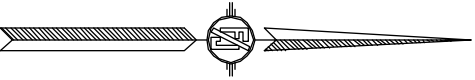
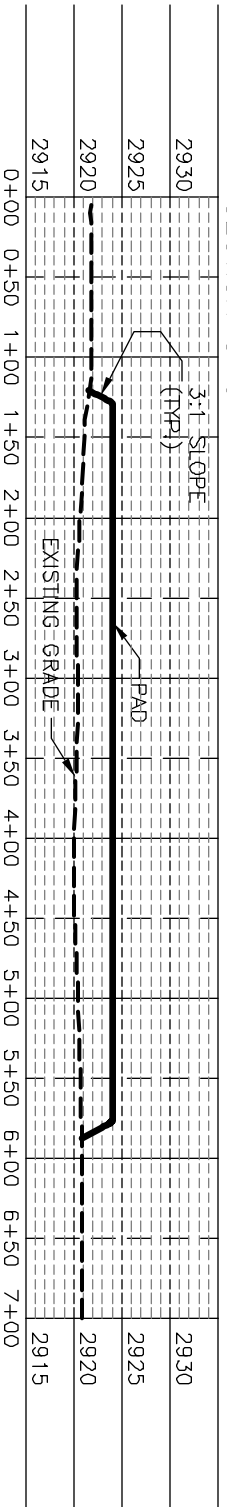
SECTION A-A'



SECTION B-B'

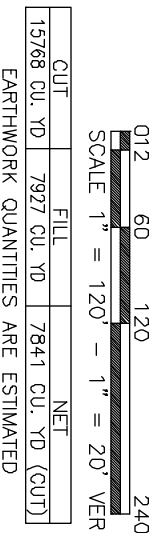


SECTION C-C'



I, FILMON F. JARAN, NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFICATE NO. 12297, AM RESPONSIBLE FOR THIS SURVEY, THAT THE SURVEY WAS MADE AND PLAT IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE BOARD OF LAND AND MINERAL SURVEYING AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

3R OPERATING, LLC
PAD ELEVATIONS AND CROSS SECTIONS
FOR ROCK RIDGE & MONGO WELLPAD
SECTION 30, TOWNSHIP 24 SOUTH,
RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

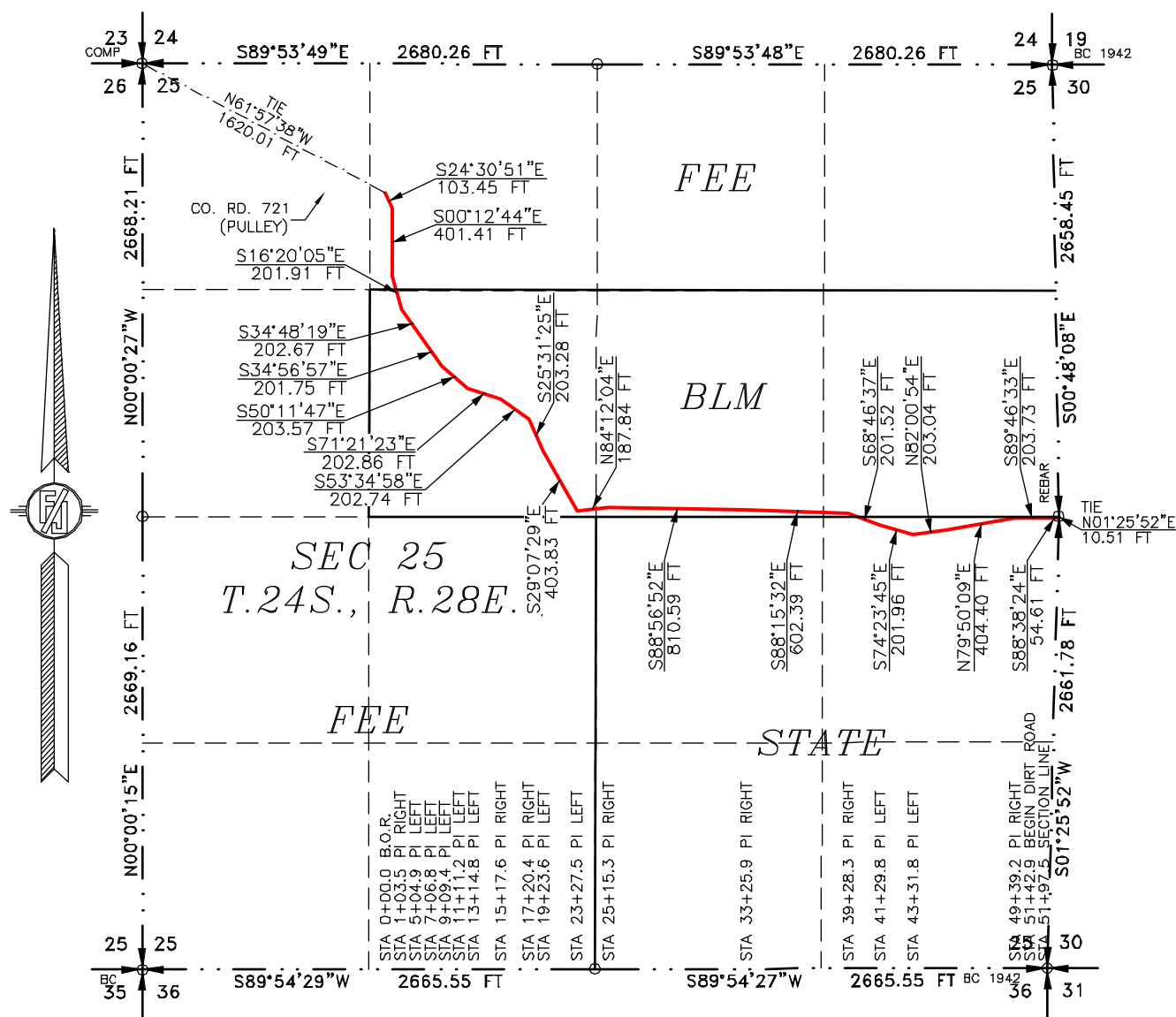


MARCH 31, 2025
301 SOUTH CANAL
(979) 234-3327

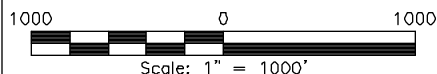
CARLSBAD, NEW MEXICO
SURVEY NO. 10351A

ACCESS ROAD FOR ROCK RIDGE & MONGO WELLPAD

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 25, TOWNSHIP 24 SOUTH, RANGE 28 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MARCH 31, 2025



SEE NEXT SHEET (2-4) FOR DESCRIPTION



1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP
EAST (NAD83) MODIFIED TO SURFACE
COORDINATES. NAD 83 (FEET) AND NAVD 88
(FEET) COORDINATE SYSTEMS USED IN THE
SURVEY.

SHEET: 1-4

MADRON SURVEYING, INC. 301 SOUTH CUMAL, ALBUQUERQUE, NEW MEXICO
(505) 231-1527

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD,
NEW MEXICO, THIS 15th DAY OF MARCH 2025

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3327

SURVEY NO. 10351A

ACCESS ROAD PLAT

ACCESS ROAD FOR ROCK RIDGE & MONGO WELLPAD

3R OPERATING, LLC

**CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 25, TOWNSHIP 24 SOUTH, RANGE 28 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MARCH 31, 2025**

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING FEE, STATE OF NEW MEXICO AND BUREAU OF LAND MANAGEMENT LAND IN SECTION 25, TOWNSHIP 24 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE NE/4 NW/4 OF SAID SECTION 25, TOWNSHIP 24 SOUTH, RANGE 28 EAST, N.M.P.M., WHENCE THE NORTHWEST CORNER OF SAID SECTION 25, TOWNSHIP 24 SOUTH, RANGE 28 EAST, N.M.P.M. BEARS N61°57'38"W, A DISTANCE OF 1620.01 FEET;
 THENCE S24°30'51"E A DISTANCE OF 103.45 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
 THENCE S00°12'44"E A DISTANCE OF 401.41 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
 THENCE S16°20'05"E A DISTANCE OF 201.91 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
 THENCE S34°48'19"E A DISTANCE OF 202.67 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
 THENCE S34°56'57"E A DISTANCE OF 201.75 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
 THENCE S50°11'47"E A DISTANCE OF 203.57 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
 THENCE S71°21'23"E A DISTANCE OF 202.86 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
 THENCE S53°34'58"E A DISTANCE OF 202.74 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
 THENCE S25°31'25"E A DISTANCE OF 203.28 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
 THENCE S29°07'29"E A DISTANCE OF 403.83 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
 THENCE N84°12'04"E A DISTANCE OF 187.84 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
 THENCE S88°56'52"E A DISTANCE OF 810.59 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
 THENCE S88°15'32"E A DISTANCE OF 602.39 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
 THENCE S68°46'37"E A DISTANCE OF 201.52 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
 THENCE S74°23'45"E A DISTANCE OF 201.96 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
 THENCE N82°00'54"E A DISTANCE OF 203.04 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
 THENCE N79°50'09"E A DISTANCE OF 404.40 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
 THENCE S89°46'33"E A DISTANCE OF 203.73 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
 THENCE S88°38'24"E A DISTANCE OF 54.61 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE EAST QUARTER CORNER OF SAID SECTION 25, TOWNSHIP 24 SOUTH, RANGE 28 EAST, N.M.P.M. BEARS N01°25'52"E, A DISTANCE OF 10.51 FEET;

SAID STRIP OF LAND BEING 5197.55 FEET OR 315.00 RODS IN LENGTH, CONTAINING 3.580 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NE/4 NW/4	586.49 L.F.	35.54 RODS	0.404 ACRES	FEE
SE/4 NW/4	1856.47 L.F.	112.51 RODS	1.279 ACRES	BLM
NW/4 NE/4	1337.15 L.F.	81.04 RODS	0.921 ACRES	BLM
SE/4 NE/4	201.71 L.F.	12.23 RODS	0.139 ACRES	BLM
NE/4 SE/4	1215.73 L.F.	73.68 RODS	0.837 ACRES	STATE

SURVEYOR CERTIFICATE

I, FILMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 31 DAY OF MARCH 2025

FILMON F. JARAMILLO
12797
NEW MEXICO PROFESSIONAL SURVEYOR
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
(575) 234-3327

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3327

SURVEY NO. 10351A

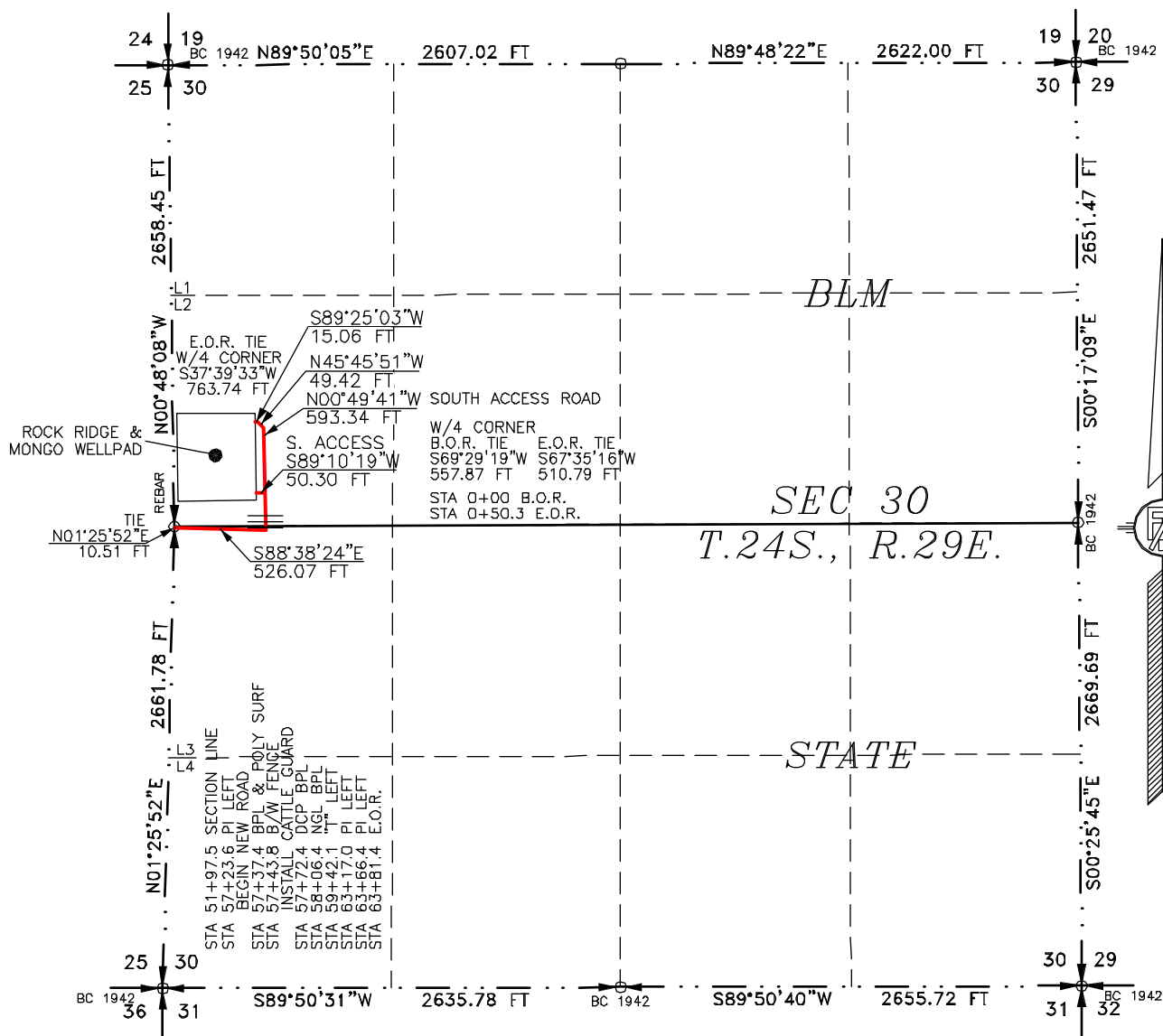
GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 2-4

MADRON SURVEYING, INC.

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MARCH 31, 2025



1000 0 1000

Scale: 1" = 1000'

SHEET: 3-4

MADRON SURVEYING, INC. 301 SOUTH CUMAL, ALBUQUERQUE, NEW MEXICO
(575) 234-1527

SURVEY NO. 10351A

301 SOUTH CANAL
(575) 234-1527
ALBUQUERQUE, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD FOR ROCK RIDGE & MONGO WELLPAD

3R OPERATING, LLC

**CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MARCH 31, 2025**

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING STATE OF NEW MEXICO AND BUREAU OF LAND MANAGEMENT LAND IN SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

MAIN ROAD

BEGINNING AT A POINT WITHIN LOT 3 OF SAID SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M., WHENCE THE WEST QUARTER CORNER OF SAID SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M. BEARS N01°25'52"E, A DISTANCE OF 10.51 FEET;
THENCE S88°38'24"E A DISTANCE OF 526.07 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N00°49'41"W A DISTANCE OF 593.34 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N45°45'51"W A DISTANCE OF 49.42 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S89°25'03"W A DISTANCE OF 15.06 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE EAST QUARTER CORNER OF SAID SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M. BEARS S37°39'33"W, A DISTANCE OF 763.74 FEET;

SAID STRIP OF LAND BEING 1183.89 FEET OR 71.75 RODS IN LENGTH, CONTAINING 0.815 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

LOT 3	551.40 L.F.	33.42 RODS	0.380 ACRES	STATE
LOT 2	632.49 L.F.	38.33 RODS	0.436 ACRES	BLM

SOUTH ACCESS

BEGINNING AT A POINT WITHIN LOT 2 OF SAID SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M., WHENCE THE WEST QUARTER CORNER OF SAID SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M. BEARS S69°29'19"W, A DISTANCE OF 557.87 FEET;
THENCE S89°10'19"W A DISTANCE OF 50.30 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE WEST QUARTER CORNER OF SAID SECTION 30, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M. BEARS S67°35'16"W, A DISTANCE OF 510.79 FEET;

SAID STRIP OF LAND BEING 50.30 FEET OR 3.05 RODS IN LENGTH, CONTAINING 0.035 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

LOT 2	50.30 L.F.	3.05 RODS	0.035 ACRES	BLM
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SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 31 DAY OF MARCH 2025

FILIMON F. JARAMILLO
12797
MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3327

GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 4-4

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO

SURVEY NO. 10351A

Drilling Plan

Operator

3R Operating, LLC

Project Name

MONGO 25 FED COM 552H

SHL: 2230 FNL & 160' FWL of Section 30-24S-29E, Eddy County, NM
BHL: 1670' FNL & 100' FWL of Section 25-24S-28E, Eddy County, NM

Prepared By

Austin Tramell

Submitted To

Bureau of Land Management - Carlsbad Field Office

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

Total Depth and Target Formation**Total Vertical Depth (ft):** 8,740**Total Measured Depth (ft):** 14,474**Target Formation:** Bone Spring (2nd)**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.	2,650	9.625	36	J-55	BTC	NEW	12.25
Prod.	14,474	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.	2,650	2,650	36	J-55	2,020	3,520	564,000	639,000
Prod.	8,740	14,474	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 ³ /sk)	Excess (%)	Volume (ft ³)	# of Sks Cmt
Sur. Lead	0	50	13.50	1.79	100	70	39
Sur. Tail	50	350	14.80	1.33	100	417	313

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 ³ /sk)	Excess (%)	Volume (ft ³)	# of Sks Cmt
Int. Lead	0	2,150	12.70	1.53	50	978	639
Int. Tail	2,150	2,650	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 ³ /sk)	Excess (%)	Volume (ft ³)	# of Sks Cmt
<i>Prod. Lead</i>	0	7,784	10.70	3.34	15	2,203	660
<i>Prod. Tail</i>	7,784	14,474	13.50	1.54	15	1,942	1,261

Lead Cmt Type: 100% ProLite

Lead Additives: 5pps Plexcrete STE + 2% SMS + 0.1% RCKCAS-100 + .85% R-1300 + 0.2% FL-24 + .25pps Pol-E Flake + 0.005gps NoFoam V1A

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	2,650	FW	8.60	8.4	28-30	0.75	NC
<i>Prod.</i>	2,650	13,594	OBM	9.6	9.2	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	19.17	32.2
<i>Inter.</i>	2.97	3.41	5.91	13.21
<i>Prod.</i>	2.9	2.54	3.82	3.67

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 9400 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

Zones of Possible Lost Circulation:	N/A	
Zones of Possible Abnormal Pressure:	N/A	
Maximum Bottom Hole Temperature:	180	degrees F
Maximum Bottom Hole Pressure:	4,280	psi
Maximum Anticipated Surface Pressure:	2,354	psi

Casing Program: RRR-Mongo 25 Fed Com 552H (fka 703H) - 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)
Surface																		
17.5"	0'	350'	350'	13 3/8"	48.0	H-40	STC	New	8.6	1730	11.05	770	4.92	322,000	16,800	19.17	541,000	16,800
Intermediate																		
12.25"	0'	2,650'	2,650'	9 5/8"	36	J-55	BTC	New	8.6	3520	2.97	2020	3.41	564,000	95,400	5.91	1,260,000	95,400
Production																		
8.75"	0'	14,474'	8,740'	5 1/2"	20	P-110	BTC	New	9.6	12640	2.90	11080	2.54	667,000	174,800	3.82	641,000	174,800

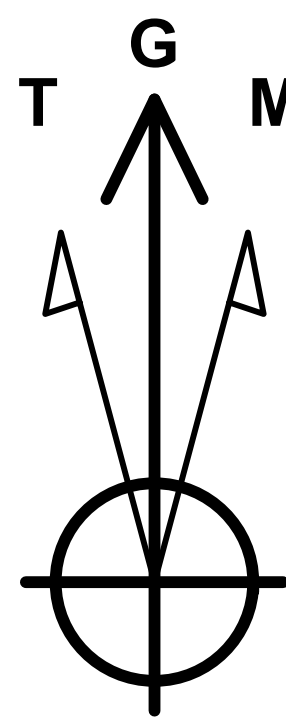
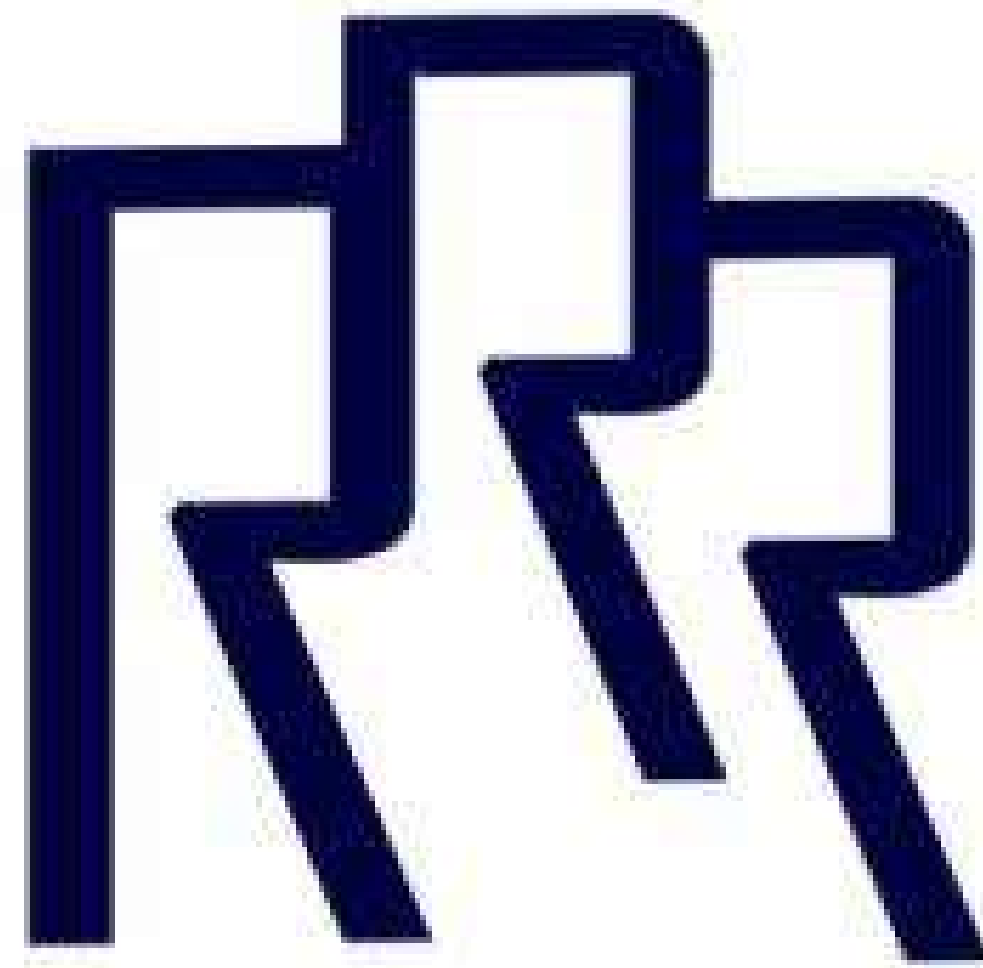
<u>Casing Design Criteria and Casing Loading Assumptions:</u>	
<u>Surface</u>	
Tension A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	8.6 ppg
Collapse A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	8.6 ppg
Burst 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:	8.6 ppg
Collapse A 1.125 design factor with 1/2 TVD 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>Production</u>	
Tension A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	9.6 ppg
Collapse A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	9.6 ppg
Burst A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	9.6 ppg

Tension Body SF (1.8)
32.20
13.21
3.67

3R Operating, LLC

Company: 3R Operating, LLC
Field: Eddy County, NM (NAD83)
Location: Mongo 25 Fed Com
Well: Mongo 25 Fed Com 552H
OH
Plan: Plan 1
GL 2925 + 25' KB @ 2950.00usft

RIG: TBD



Azimuths to Grid North
True North: -0.16°
Magnetic North: 6.14°

Magnetic Field
Strength: 47033.3nT
Dip Angle: 59.68°
Date: 4/11/2025
Model: IGRF2020



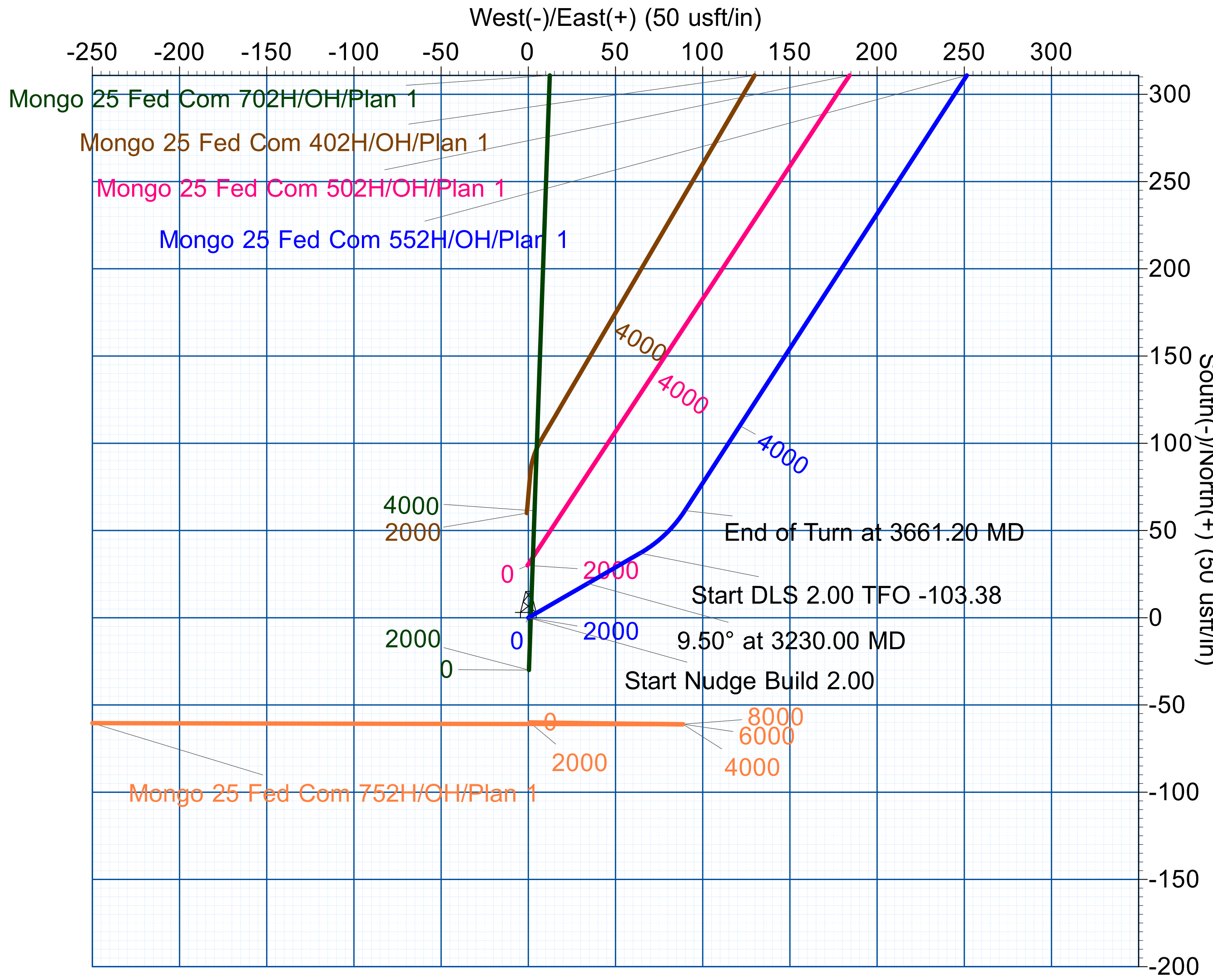
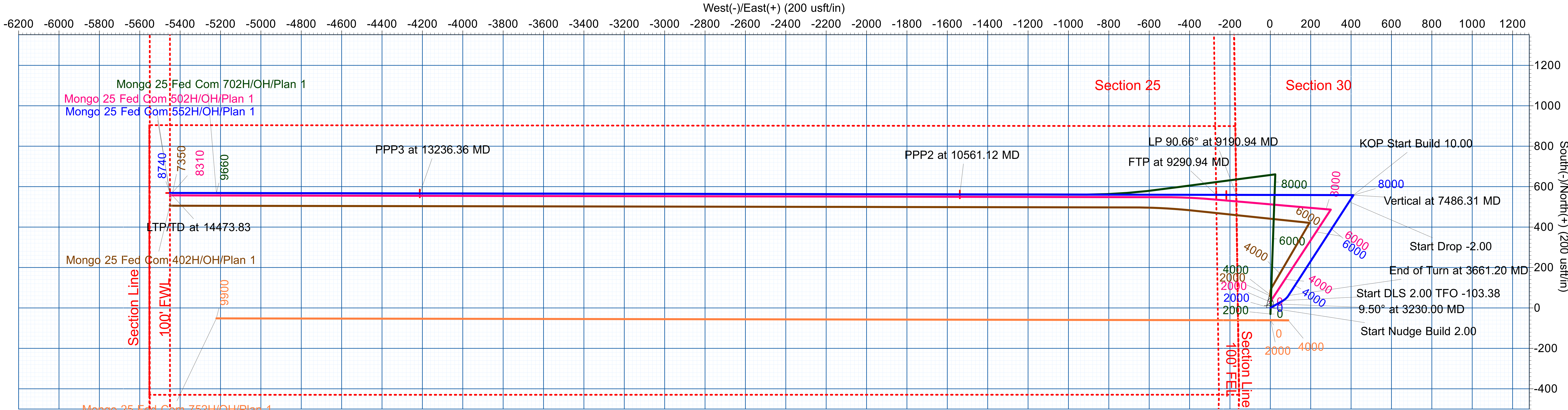
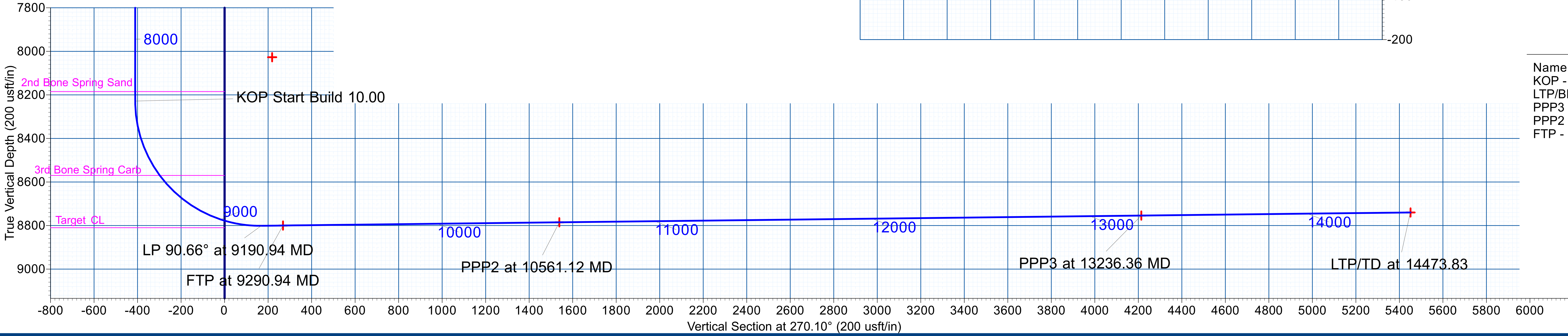
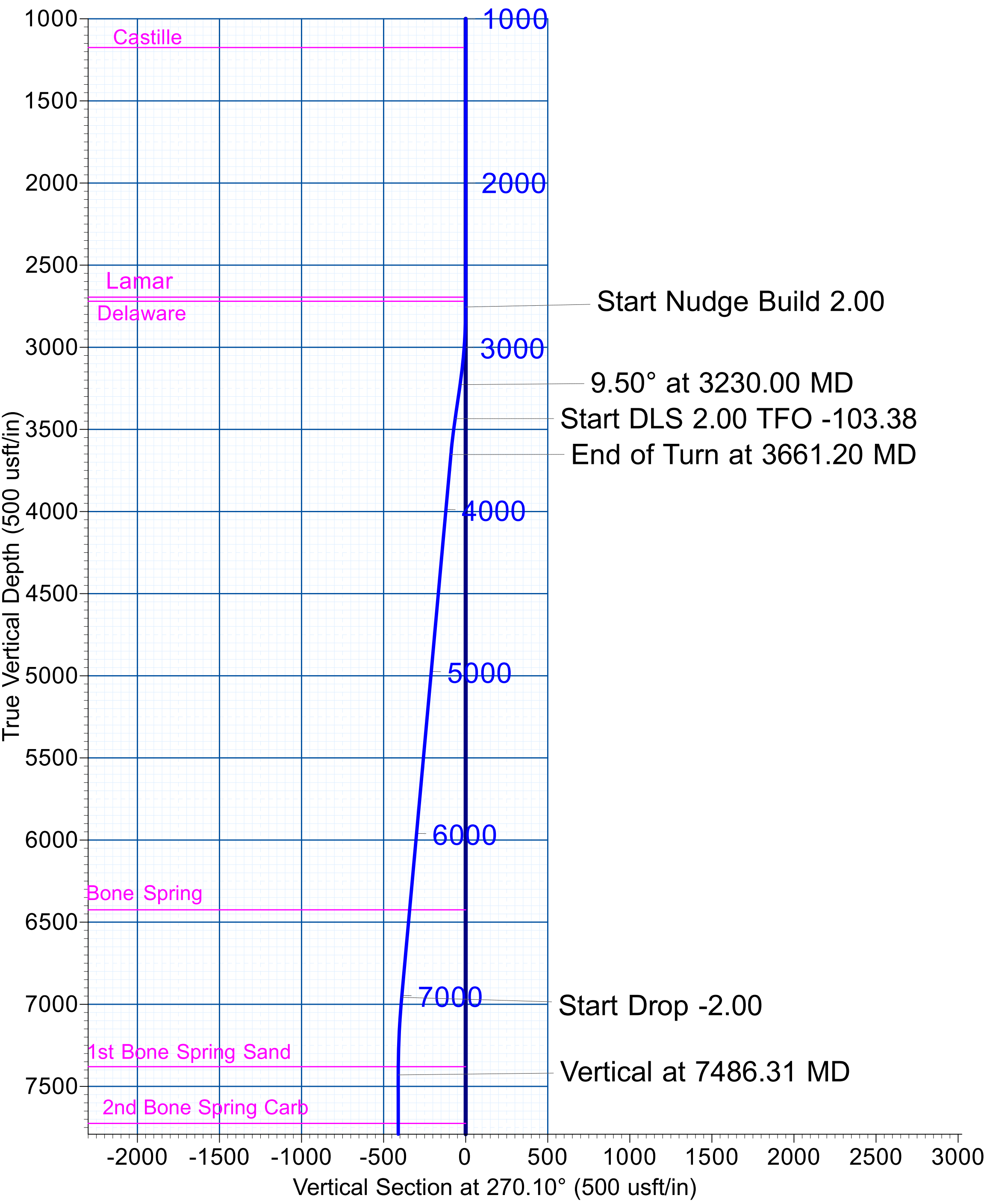
PROJECT DETAILS: Eddy County, NM (NAD83)

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

To convert a Magnetic Direction to a Grid Direction, Add 6.14°

FORMATION TOP DETAILS

TVDPATH	MDPATH	FORMATION
15.00	15.00	Rustler
610.00	610.00	Salado
1175.00	1175.00	Castille
2695.00	2695.00	Lamar
2720.00	2720.00	Delaware
6425.00	6471.50	Bone Spring
7380.00	7436.07	1st Bone Spring Sand
7725.00	7781.07	2nd Bone Spring Carb
8185.00	8241.07	2nd Bone Spring Sand
8570.00	8650.49	3rd Bone Spring Carb



WELL DETAILS: Mongo 25 Fed Com 552H

+N/-S	+E/-W	GL 2925 + 25' KB @ 2950.00usft	2925.00
0.00	0.00	Northings	Eastings
0.00	0.00	432854.78	634710.81
		Latitude	Longitude
		32.189635	-104.031495
		Slot	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2755.00	0.00	0.00	2755.00	0.00	0.00	0.00	0.00	0.00	
3	3230.00	9.50	60.00	3227.83	19.64	34.03	2.00	60.00	-33.99	
4	3440.00	9.50	60.00	3434.95	36.97	64.04	0.00	0.00	-63.98	
5	3661.20	9.50	32.95	3653.23	61.43	89.79	2.00	-103.38	-89.68	
6	7011.45	9.50	32.95	6957.55	525.31	390.43	0.00	0.00	-389.51	
7	7486.31	0.00	270.10	7430.24	558.26	411.78	2.00	180.00	-410.81	
8	8284.31	0.00	270.10	8228.24	558.26	411.78	0.00	0.00	-410.81	
9	9190.94	90.66	270.10	8801.16	559.30	-167.81	10.00	0.00	168.78	
10	9290.94	90.66	270.10	8800.00	559.48	-267.80	0.00	0.00	268.78	FTP - Mongo 25 Fed Com 552H
11	10561.12	90.66	270.10	8785.30	561.76	-1537.89	0.00	0.00	1538.87	PPP2 - Mongo 25 Fed Com 552H
12	13236.36	90.66	270.10	8754.33	566.57	-4212.95	0.00	0.00	4213.93	PPP3 - Mongo 25 Fed Com 552H
13	14473.83	90.66	270.10	8740.00	568.80	-5450.34	0.00	0.00	5451.32	LTP/BHL - Mongo 25 Fed Com 552H

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northings	Eastings	Latitude	Longitude
KOP - Mongo 25 Fed Com 552H	8027.08	559.39	-217.81	433414.17	634493.00	32.191174	-104.032194
LTP/BHL - Mongo 25 Fed Com 552H	8740.00	568.80	-5450.34	433423.58	629260.47	32.191239	-104.049109
PPP3 - Mongo 25 Fed Com 552H	8754.33	566.57	-4212.95	433421.35	630497.86	32.191224	-104.045109
PPP2 - Mongo 25 Fed Com 552H	8785.30	561.76	-1537.89	433416.54	633172.92	32.191191	-104.036462
FTP - Mongo 25 Fed Com 552H	8800.00	559.48	-267.80	433414.26	634443.01	32.191175	-104.032356

3R Operating, LLC

Eddy County, NM (NAD83)

Mongo 25 Fed Com

Mongo 25 Fed Com 552H

OH

Plan: Plan 1

Standard Planning Report

14 April, 2025

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	Local Co-ordinate Reference:	Well Mongo 25 Fed Com 552H
Company:	3R Operating, LLC	TVD Reference:	GL 2925 + 25' KB @ 2950.00usft
Project:	Eddy County, NM (NAD83)	MD Reference:	GL 2925 + 25' KB @ 2950.00usft
Site:	Mongo 25 Fed Com	North Reference:	Grid
Well:	Mongo 25 Fed Com 552H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Project	Eddy County, NM (NAD83)		
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 Fed Com			
Site Position:		Northing:	432,914.76 usft	Latitude:	32.189800
From:	Map	Easting:	634,709.97 usft	Longitude:	-104.031498
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "		

Well	Mongo 25 Fed Com 552H					
Well Position	+N/-S	0.00 usft	Northing:	432,854.78 usft	Latitude:	32.189635
	+E/-W	0.00 usft	Easting:	634,710.81 usft	Longitude:	-104.031495
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	2,925.00 usft
Grid Convergence:		0.16 °				

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	4/11/2025	6.30	59.68	47,033.28493076

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	270.10	

Plan Survey Tool Program	Date	4/14/2025			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	14,473.03 Plan 1 (OH)	MWD+IFR1+MS		
			OWSG MWD + IFR1 + Multi-St		

Planning Report

Database:	EDM_WA	Local Co-ordinate Reference:	Well Mongo 25 Fed Com 552H
Company:	3R Operating, LLC	TVD Reference:	GL 2925 + 25' KB @ 2950.00usft
Project:	Eddy County, NM (NAD83)	MD Reference:	GL 2925 + 25' KB @ 2950.00usft
Site:	Mongo 25 Fed Com	North Reference:	Grid
Well:	Mongo 25 Fed Com 552H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

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	
2,755.00	0.00	0.00	2,755.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,230.00	9.50	60.00	3,227.83	19.64	34.03	2.00	2.00	0.00	60.00	
3,440.00	9.50	60.00	3,434.95	36.97	64.04	0.00	0.00	0.00	0.00	
3,661.20	9.50	32.95	3,653.23	61.43	89.79	2.00	0.00	-12.23	-103.38	
7,011.45	9.50	32.95	6,957.56	525.31	390.43	0.00	0.00	0.00	0.00	
7,486.31	0.00	270.10	7,430.24	558.26	411.78	2.00	-2.00	0.00	180.00	
8,284.31	0.00	270.10	8,228.24	558.26	411.78	0.00	0.00	0.00	0.00	
9,190.94	90.66	270.10	8,801.16	559.30	-167.81	10.00	10.00	0.00	0.00	
9,290.94	90.66	270.10	8,800.00	559.48	-267.80	0.00	0.00	0.00	0.00	FTP - Mongo 25 Fed Com
10,561.12	90.66	270.10	8,785.30	561.76	-1,537.89	0.00	0.00	0.00	0.00	PPP2 - Mongo 25 Fed Com
13,236.36	90.66	270.10	8,754.33	566.57	-4,212.95	0.00	0.00	0.00	0.00	PPP3 - Mongo 25 Fed Com
14,473.84	90.66	270.10	8,740.00	568.80	-5,450.34	0.00	0.00	0.00	0.00	LTP/BHL - Mongo 25 Fed Com

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	Local Co-ordinate Reference:	Well Mongo 25 Fed Com 552H
Company:	3R Operating, LLC	TVD Reference:	GL 2925 + 25' KB @ 2950.00usft
Project:	Eddy County, NM (NAD83)	MD Reference:	GL 2925 + 25' KB @ 2950.00usft
Site:	Mongo 25 Fed Com	North Reference:	Grid
Well:	Mongo 25 Fed Com 552H	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
15.00	0.00	0.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
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
610.00	0.00	0.00	610.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado									
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
Castille									
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	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,695.00	0.00	0.00	2,695.00	0.00	0.00	0.00	0.00	0.00	0.00
Lamar									
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,720.00	0.00	0.00	2,720.00	0.00	0.00	0.00	0.00	0.00	0.00
Delaware									
2,755.00	0.00	0.00	2,755.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Nudge Build 2.00									
2,800.00	0.90	60.00	2,800.00	0.18	0.31	-0.31	2.00	2.00	0.00
2,900.00	2.90	60.00	2,899.94	1.83	3.18	-3.17	2.00	2.00	0.00
3,000.00	4.90	60.00	2,999.70	5.23	9.07	-9.06	2.00	2.00	0.00
3,100.00	6.90	60.00	3,099.17	10.37	17.97	-17.95	2.00	2.00	0.00
3,200.00	8.90	60.00	3,198.21	17.25	29.87	-29.84	2.00	2.00	0.00
3,230.00	9.50	60.00	3,227.83	19.64	34.03	-33.99	2.00	2.00	0.00
9.50° at 3230.00 MD									
3,300.00	9.50	60.00	3,296.87	25.42	44.03	-43.99	0.00	0.00	0.00
3,400.00	9.50	60.00	3,395.50	33.67	58.32	-58.27	0.00	0.00	0.00
3,440.00	9.50	60.00	3,434.95	36.97	64.04	-63.98	0.00	0.00	0.00
Start DLS 2.00 TFO -103.38									
3,500.00	9.30	52.75	3,494.14	42.38	72.19	-72.11	2.00	-0.34	-12.08
3,600.00	9.29	40.35	3,592.84	53.42	83.84	-83.75	2.00	0.00	-12.41

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	Local Co-ordinate Reference:	Well Mongo 25 Fed Com 552H
Company:	3R Operating, LLC	TVD Reference:	GL 2925 + 25' KB @ 2950.00usft
Project:	Eddy County, NM (NAD83)	MD Reference:	GL 2925 + 25' KB @ 2950.00usft
Site:	Mongo 25 Fed Com	North Reference:	Grid
Well:	Mongo 25 Fed Com 552H	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)
3,661.20	9.50	32.95	3,653.23	61.43	89.79	-89.68	2.00	0.34	-12.09
End of Turn at 3661.20 MD									
3,700.00	9.50	32.95	3,691.49	66.80	93.27	-93.15	0.00	0.00	0.00
3,800.00	9.50	32.95	3,790.12	80.65	102.24	-102.10	0.00	0.00	0.00
3,900.00	9.50	32.95	3,888.75	94.49	111.22	-111.05	0.00	0.00	0.00
4,000.00	9.50	32.95	3,987.38	108.34	120.19	-120.00	0.00	0.00	0.00
4,100.00	9.50	32.95	4,086.01	122.18	129.16	-128.95	0.00	0.00	0.00
4,200.00	9.50	32.95	4,184.64	136.03	138.14	-137.90	0.00	0.00	0.00
4,300.00	9.50	32.95	4,283.27	149.88	147.11	-146.85	0.00	0.00	0.00
4,400.00	9.50	32.95	4,381.90	163.72	156.09	-155.80	0.00	0.00	0.00
4,500.00	9.50	32.95	4,480.53	177.57	165.06	-164.75	0.00	0.00	0.00
4,600.00	9.50	32.95	4,579.16	191.41	174.03	-173.70	0.00	0.00	0.00
4,700.00	9.50	32.95	4,677.78	205.26	183.01	-182.65	0.00	0.00	0.00
4,800.00	9.50	32.95	4,776.41	219.11	191.98	-191.60	0.00	0.00	0.00
4,900.00	9.50	32.95	4,875.04	232.95	200.95	-200.55	0.00	0.00	0.00
5,000.00	9.50	32.95	4,973.67	246.80	209.93	-209.50	0.00	0.00	0.00
5,100.00	9.50	32.95	5,072.30	260.65	218.90	-218.45	0.00	0.00	0.00
5,200.00	9.50	32.95	5,170.93	274.49	227.87	-227.40	0.00	0.00	0.00
5,300.00	9.50	32.95	5,269.56	288.34	236.85	-236.34	0.00	0.00	0.00
5,400.00	9.50	32.95	5,368.19	302.18	245.82	-245.29	0.00	0.00	0.00
5,500.00	9.50	32.95	5,466.82	316.03	254.80	-254.24	0.00	0.00	0.00
5,600.00	9.50	32.95	5,565.45	329.88	263.77	-263.19	0.00	0.00	0.00
5,700.00	9.50	32.95	5,664.08	343.72	272.74	-272.14	0.00	0.00	0.00
5,800.00	9.50	32.95	5,762.71	357.57	281.72	-281.09	0.00	0.00	0.00
5,900.00	9.50	32.95	5,861.34	371.41	290.69	-290.04	0.00	0.00	0.00
6,000.00	9.50	32.95	5,959.97	385.26	299.66	-298.99	0.00	0.00	0.00
6,100.00	9.50	32.95	6,058.60	399.11	308.64	-307.94	0.00	0.00	0.00
6,200.00	9.50	32.95	6,157.23	412.95	317.61	-316.89	0.00	0.00	0.00
6,300.00	9.50	32.95	6,255.85	426.80	326.58	-325.84	0.00	0.00	0.00
6,400.00	9.50	32.95	6,354.48	440.65	335.56	-334.79	0.00	0.00	0.00
6,471.50	9.50	32.95	6,425.00	450.54	341.97	-341.19	0.00	0.00	0.00
Bone Spring									
6,500.00	9.50	32.95	6,453.11	454.49	344.53	-343.74	0.00	0.00	0.00
6,600.00	9.50	32.95	6,551.74	468.34	353.51	-352.69	0.00	0.00	0.00
6,700.00	9.50	32.95	6,650.37	482.18	362.48	-361.64	0.00	0.00	0.00
6,800.00	9.50	32.95	6,749.00	496.03	371.45	-370.59	0.00	0.00	0.00
6,900.00	9.50	32.95	6,847.63	509.88	380.43	-379.54	0.00	0.00	0.00
7,000.00	9.50	32.95	6,946.26	523.72	389.40	-388.49	0.00	0.00	0.00
7,011.45	9.50	32.95	6,957.56	525.31	390.43	-389.51	0.00	0.00	0.00
Start Drop -2.00									
7,100.00	7.73	32.95	7,045.10	536.43	397.64	-396.70	2.00	-2.00	0.00
7,200.00	5.73	32.95	7,144.41	546.26	404.01	-403.05	2.00	-2.00	0.00
7,300.00	3.73	32.95	7,244.06	553.18	408.49	-407.52	2.00	-2.00	0.00
7,400.00	1.73	32.95	7,343.95	557.17	411.08	-410.10	2.00	-2.00	0.00
7,436.07	1.00	32.95	7,380.00	557.89	411.54	-410.57	2.00	-2.00	0.00
1st Bone Spring Sand									
7,486.31	0.00	270.10	7,430.24	558.26	411.78	-410.81	2.00	-2.00	0.00
Vertical at 7486.31 MD									
7,500.00	0.00	0.00	7,443.93	558.26	411.78	-410.81	0.00	0.00	0.00
7,600.00	0.00	0.00	7,543.93	558.26	411.78	-410.81	0.00	0.00	0.00
7,700.00	0.00	0.00	7,643.93	558.26	411.78	-410.81	0.00	0.00	0.00
7,781.07	0.00	0.00	7,725.00	558.26	411.78	-410.81	0.00	0.00	0.00
2nd Bone Spring Carb									

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	Local Co-ordinate Reference:	Well Mongo 25 Fed Com 552H
Company:	3R Operating, LLC	TVD Reference:	GL 2925 + 25' KB @ 2950.00usft
Project:	Eddy County, NM (NAD83)	MD Reference:	GL 2925 + 25' KB @ 2950.00usft
Site:	Mongo 25 Fed Com	North Reference:	Grid
Well:	Mongo 25 Fed Com 552H	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)
7,800.00	0.00	0.00	7,743.93	558.26	411.78	-410.81	0.00	0.00	0.00
7,900.00	0.00	0.00	7,843.93	558.26	411.78	-410.81	0.00	0.00	0.00
8,000.00	0.00	0.00	7,943.93	558.26	411.78	-410.81	0.00	0.00	0.00
8,100.00	0.00	0.00	8,043.93	558.26	411.78	-410.81	0.00	0.00	0.00
8,200.00	0.00	0.00	8,143.93	558.26	411.78	-410.81	0.00	0.00	0.00
8,241.07	0.00	0.00	8,185.00	558.26	411.78	-410.81	0.00	0.00	0.00
2nd Bone Spring Sand									
8,284.31	0.00	0.00	8,228.24	558.26	411.78	-410.81	0.00	0.00	0.00
KOP Start Build 10.00									
8,300.00	1.57	270.10	8,243.93	558.26	411.57	-410.59	10.00	10.00	0.00
8,350.00	6.57	270.10	8,293.79	558.26	408.02	-407.05	10.00	10.00	0.00
8,400.00	11.57	270.10	8,343.15	558.28	400.14	-399.17	10.00	10.00	0.00
8,450.00	16.57	270.10	8,391.63	558.30	387.99	-387.02	10.00	10.00	0.00
8,500.00	21.57	270.10	8,438.87	558.33	371.66	-370.69	10.00	10.00	0.00
8,550.00	26.57	270.10	8,484.51	558.37	351.27	-350.30	10.00	10.00	0.00
8,600.00	31.57	270.10	8,528.20	558.41	326.99	-326.01	10.00	10.00	0.00
8,650.00	36.57	270.10	8,569.60	558.46	298.99	-298.01	10.00	10.00	0.00
8,650.49	36.62	270.10	8,570.00	558.46	298.69	-297.72	10.00	10.00	0.00
3rd Bone Spring Carb									
8,700.00	41.57	270.10	8,608.41	558.52	267.49	-266.51	10.00	10.00	0.00
8,750.00	46.57	270.10	8,644.32	558.58	232.72	-231.74	10.00	10.00	0.00
8,800.00	51.57	270.10	8,677.07	558.65	194.96	-193.98	10.00	10.00	0.00
8,850.00	56.57	270.10	8,706.40	558.72	154.48	-153.51	10.00	10.00	0.00
8,900.00	61.57	270.10	8,732.09	558.80	111.61	-110.63	10.00	10.00	0.00
8,950.00	66.57	270.10	8,753.95	558.88	66.66	-65.68	10.00	10.00	0.00
9,000.00	71.57	270.10	8,771.81	558.96	19.97	-18.99	10.00	10.00	0.00
9,050.00	76.57	270.10	8,785.53	559.05	-28.09	29.07	10.00	10.00	0.00
9,100.00	81.57	270.10	8,795.00	559.14	-77.17	78.15	10.00	10.00	0.00
9,150.00	86.57	270.10	8,800.17	559.23	-126.89	127.86	10.00	10.00	0.00
9,190.94	90.66	270.10	8,801.16	559.30	-167.81	168.78	10.00	10.00	0.00
LP 90.66° at 9190.94 MD									
9,200.00	90.66	270.10	8,801.05	559.32	-176.87	177.84	0.00	0.00	0.00
9,290.94	90.66	270.10	8,800.00	559.48	-267.80	268.78	0.00	0.00	0.00
FTP at 9290.94 MD									
9,300.00	90.66	270.10	8,799.90	559.50	-276.86	277.84	0.00	0.00	0.00
9,400.00	90.66	270.10	8,798.74	559.68	-376.85	377.83	0.00	0.00	0.00
9,500.00	90.66	270.10	8,797.58	559.86	-476.85	477.82	0.00	0.00	0.00
9,600.00	90.66	270.10	8,796.42	560.04	-576.84	577.82	0.00	0.00	0.00
9,700.00	90.66	270.10	8,795.26	560.22	-676.83	677.81	0.00	0.00	0.00
9,800.00	90.66	270.10	8,794.11	560.40	-776.83	777.80	0.00	0.00	0.00
9,900.00	90.66	270.10	8,792.95	560.58	-876.82	877.80	0.00	0.00	0.00
10,000.00	90.66	270.10	8,791.79	560.76	-976.81	977.79	0.00	0.00	0.00
10,100.00	90.66	270.10	8,790.63	560.93	-1,076.81	1,077.78	0.00	0.00	0.00
10,200.00	90.66	270.10	8,789.48	561.11	-1,176.80	1,177.78	0.00	0.00	0.00
10,300.00	90.66	270.10	8,788.32	561.29	-1,276.79	1,277.77	0.00	0.00	0.00
10,400.00	90.66	270.10	8,787.16	561.47	-1,376.78	1,377.76	0.00	0.00	0.00
10,500.00	90.66	270.10	8,786.00	561.65	-1,476.78	1,477.76	0.00	0.00	0.00
10,561.12	90.66	270.10	8,785.30	561.76	-1,537.89	1,538.87	0.00	0.00	0.00
PPP2 at 10561.12 MD									
10,600.00	90.66	270.10	8,784.85	561.83	-1,576.77	1,577.75	0.00	0.00	0.00
10,700.00	90.66	270.10	8,783.69	562.01	-1,676.76	1,677.74	0.00	0.00	0.00
10,800.00	90.66	270.10	8,782.53	562.19	-1,776.76	1,777.74	0.00	0.00	0.00
10,900.00	90.66	270.10	8,781.37	562.37	-1,876.75	1,877.73	0.00	0.00	0.00

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	Local Co-ordinate Reference:	Well Mongo 25 Fed Com 552H
Company:	3R Operating, LLC	TVD Reference:	GL 2925 + 25' KB @ 2950.00usft
Project:	Eddy County, NM (NAD83)	MD Reference:	GL 2925 + 25' KB @ 2950.00usft
Site:	Mongo 25 Fed Com	North Reference:	Grid
Well:	Mongo 25 Fed Com 552H	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)	
11,000.00	90.66	270.10	8,780.22	562.55	-1,976.74	1,977.72	0.00	0.00	0.00	
11,100.00	90.66	270.10	8,779.06	562.73	-2,076.74	2,077.72	0.00	0.00	0.00	
11,200.00	90.66	270.10	8,777.90	562.91	-2,176.73	2,177.71	0.00	0.00	0.00	
11,300.00	90.66	270.10	8,776.74	563.09	-2,276.72	2,277.70	0.00	0.00	0.00	
11,400.00	90.66	270.10	8,775.58	563.27	-2,376.72	2,377.70	0.00	0.00	0.00	
11,500.00	90.66	270.10	8,774.43	563.45	-2,476.71	2,477.69	0.00	0.00	0.00	
11,600.00	90.66	270.10	8,773.27	563.63	-2,576.70	2,577.68	0.00	0.00	0.00	
11,700.00	90.66	270.10	8,772.11	563.81	-2,676.70	2,677.68	0.00	0.00	0.00	
11,800.00	90.66	270.10	8,770.95	563.99	-2,776.69	2,777.67	0.00	0.00	0.00	
11,900.00	90.66	270.10	8,769.80	564.17	-2,876.68	2,877.66	0.00	0.00	0.00	
12,000.00	90.66	270.10	8,768.64	564.35	-2,976.68	2,977.66	0.00	0.00	0.00	
12,100.00	90.66	270.10	8,767.48	564.53	-3,076.67	3,077.65	0.00	0.00	0.00	
12,200.00	90.66	270.10	8,766.32	564.71	-3,176.66	3,177.64	0.00	0.00	0.00	
12,300.00	90.66	270.10	8,765.17	564.89	-3,276.65	3,277.64	0.00	0.00	0.00	
12,400.00	90.66	270.10	8,764.01	565.07	-3,376.65	3,377.63	0.00	0.00	0.00	
12,500.00	90.66	270.10	8,762.85	565.25	-3,476.64	3,477.62	0.00	0.00	0.00	
12,600.00	90.66	270.10	8,761.69	565.43	-3,576.63	3,577.62	0.00	0.00	0.00	
12,700.00	90.66	270.10	8,760.54	565.61	-3,676.63	3,677.61	0.00	0.00	0.00	
12,800.00	90.66	270.10	8,759.38	565.79	-3,776.62	3,777.60	0.00	0.00	0.00	
12,900.00	90.66	270.10	8,758.22	565.97	-3,876.61	3,877.60	0.00	0.00	0.00	
13,000.00	90.66	270.10	8,757.06	566.15	-3,976.61	3,977.59	0.00	0.00	0.00	
13,100.00	90.66	270.10	8,755.90	566.33	-4,076.60	4,077.58	0.00	0.00	0.00	
13,200.00	90.66	270.10	8,754.75	566.51	-4,176.59	4,177.58	0.00	0.00	0.00	
13,236.36	90.66	270.10	8,754.33	566.57	-4,212.95	4,213.93	0.00	0.00	0.00	
PPP3 at 13236.36 MD										
13,300.00	90.66	270.10	8,753.59	566.69	-4,276.59	4,277.57	0.00	0.00	0.00	
13,400.00	90.66	270.10	8,752.43	566.87	-4,376.58	4,377.56	0.00	0.00	0.00	
13,500.00	90.66	270.10	8,751.27	567.05	-4,476.57	4,477.56	0.00	0.00	0.00	
13,600.00	90.66	270.10	8,750.12	567.23	-4,576.57	4,577.55	0.00	0.00	0.00	
13,700.00	90.66	270.10	8,748.96	567.41	-4,676.56	4,677.54	0.00	0.00	0.00	
13,800.00	90.66	270.10	8,747.80	567.59	-4,776.55	4,777.53	0.00	0.00	0.00	
13,900.00	90.66	270.10	8,746.64	567.77	-4,876.54	4,877.53	0.00	0.00	0.00	
14,000.00	90.66	270.10	8,745.49	567.95	-4,976.54	4,977.52	0.00	0.00	0.00	
14,100.00	90.66	270.10	8,744.33	568.13	-5,076.53	5,077.51	0.00	0.00	0.00	
14,200.00	90.66	270.10	8,743.17	568.31	-5,176.52	5,177.51	0.00	0.00	0.00	
14,300.00	90.66	270.10	8,742.01	568.49	-5,276.52	5,277.50	0.00	0.00	0.00	
14,400.00	90.66	270.10	8,740.85	568.67	-5,376.51	5,377.49	0.00	0.00	0.00	
14,473.84	90.66	270.10	8,740.00	568.80	-5,450.34	5,451.32	0.00	0.00	0.00	
LTP/TD at 14473.83										

Legacy Directional Drilling

Planning Report

Database:	EDM_WA	Local Co-ordinate Reference:	Well Mongo 25 Fed Com 552H
Company:	3R Operating, LLC	TVD Reference:	GL 2925 + 25' KB @ 2950.00usft
Project:	Eddy County, NM (NAD83)	MD Reference:	GL 2925 + 25' KB @ 2950.00usft
Site:	Mongo 25 Fed Com	North Reference:	Grid
Well:	Mongo 25 Fed Com 552H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
KOP - Mongo 25 Fed Cc - plan misses target center by 629.59usft at 8083.15usft MD (8027.08 TVD, 558.26 N, 411.78 E) - Point	0.00	0.00	8,027.08	559.39	-217.81	433,414.17	634,493.00	32.191175	-104.032195
LTP/BHL - Mongo 25 Fe - plan hits target center - Point	0.00	0.00	8,740.00	568.80	-5,450.34	433,423.58	629,260.47	32.191240	-104.049109
PPP3 - Mongo 25 Fed C - plan misses target center by 0.01usft at 13236.36usft MD (8754.33 TVD, 566.57 N, -4212.95 E) - Point	0.00	0.00	8,754.33	566.57	-4,212.95	433,421.35	630,497.86	32.191224	-104.045109
PPP2 - Mongo 25 Fed C - plan misses target center by 0.01usft at 10561.12usft MD (8785.30 TVD, 561.76 N, -1537.89 E) - Point	0.00	0.00	8,785.30	561.76	-1,537.89	433,416.54	633,172.92	32.191191	-104.036462
FTP - Mongo 25 Fed Co - plan hits target center - Point	0.00	0.00	8,800.00	559.48	-267.80	433,414.26	634,443.01	32.191175	-104.032356

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
15.00	15.00	Rustler			
610.00	610.00	Salado			
1,175.00	1,175.00	Castille			
2,695.00	2,695.00	Lamar			
2,720.00	2,720.00	Delaware			
6,471.50	6,425.00	Bone Spring			
7,436.07	7,380.00	1st Bone Spring Sand			
7,781.07	7,725.00	2nd Bone Spring Carb			
8,241.07	8,185.00	2nd Bone Spring Sand			
8,650.49	8,570.00	3rd Bone Spring Carb			

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,755.00	2,755.00	0.00	0.00	Start Nudge Build 2.00
3,230.00	3,227.83	19.64	34.03	9.50° at 3230.00 MD
3,440.00	3,434.95	36.97	64.04	Start DLS 2.00 TFO -103.38
3,661.20	3,653.23	61.43	89.79	End of Turn at 3661.20 MD
7,011.45	6,957.56	525.31	390.43	Start Drop -2.00
7,486.31	7,430.24	558.26	411.78	Vertical at 7486.31 MD
8,284.31	8,228.24	558.26	411.78	KOP Start Build 10.00
9,190.94	8,801.16	559.30	-167.81	LP 90.66° at 9190.94 MD
9,290.94	8,800.00	559.48	-267.80	FTP at 9290.94 MD
10,561.12	8,785.30	561.76	-1,537.89	PPP2 at 10561.12 MD
13,236.36	8,754.33	566.57	-4,212.95	PPP3 at 13236.36 MD
14,473.84	8,740.00	568.80	-5,450.34	LTP/TD at 14473.83

3R Operating, LLC

Eddy County, NM (NAD83)

Mongo 25 Fed Com

Mongo 25 Fed Com 552H

OH

Plan 1

Anticollision Report

14 April, 2025

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	Local Co-ordinate Reference:	Well Mongo 25 Fed Com 552H
Project:	Eddy County, NM (NAD83)	TVD Reference:	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	MD Reference:	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Mongo 25 Fed Com 552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Reference	Plan 1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 1,681.18usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date 4/14/2025	
From (usft)	To (usft)	Survey (Wellbore)
0.00	14,473.03	Plan 1 (OH)
		Tool Name
		MWD+IFR1+MS
		Description
		OWSG MWD + IFR1 + Multi-Station Correction

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Mongo 25 Fed Com						
Mongo 25 Fed Com 402H - OH - Plan 1	2,925.78	2,923.21	58.61	37.84	2.822	CC, ES
Mongo 25 Fed Com 402H - OH - Plan 1	3,000.00	2,995.84	59.30	38.02	2.787	SF
Mongo 25 Fed Com 502H - OH - Plan 1	2,938.03	2,937.28	28.58	7.72	1.370	Collision Risk Procedures R
Mongo 25 Fed Com 502H - OH - Plan 1	3,000.00	2,998.76	28.95	7.66	1.360	Collision Risk Procedures R
Mongo 25 Fed Com 702H - OH - Plan 1	2,700.00	2,700.00	29.99	10.81	1.564	Collision Risk Procedures R
Mongo 25 Fed Com 702H - OH - Plan 1	2,800.00	2,800.00	30.17	10.27	1.516	Collision Risk Procedures R
Mongo 25 Fed Com 752H - OH - Plan 1	2,700.00	2,700.00	59.99	40.81	3.128	CC
Mongo 25 Fed Com 752H - OH - Plan 1	2,800.00	2,799.97	60.17	40.28	3.025	ES
Mongo 25 Fed Com 752H - OH - Plan 1	2,900.00	2,899.88	61.88	41.30	3.007	SF

Offset Design:	Mongo 25 Fed Com - Mongo 25 Fed Com 402H - OH - Plan 1										Offset Site Error:	0.00 usft
Survey Program:	0-MWD+IFR1+MS										Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Rule Assigned:						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor
0.00	0.00	0.00	1.00	0.00	0.00	-0.80	59.98	-0.84	59.99			
100.00	100.00	99.00	100.00	0.27	0.27	-0.80	59.98	-0.84	59.99	59.45	0.54	112.119
200.00	200.00	199.00	200.00	0.63	0.62	-0.80	59.98	-0.84	59.99	58.73	1.25	47.948
300.00	300.00	299.00	300.00	0.99	0.98	-0.80	59.98	-0.84	59.99	58.02	1.97	30.480
400.00	400.00	399.00	400.00	1.34	1.34	-0.80	59.98	-0.84	59.99	57.30	2.68	22.342
500.00	500.00	499.00	500.00	1.70	1.70	-0.80	59.98	-0.84	59.99	56.58	3.40	17.633
600.00	600.00	599.00	600.00	2.06	2.06	-0.80	59.98	-0.84	59.99	55.87	4.12	14.564
700.00	700.00	699.00	700.00	2.42	2.42	-0.80	59.98	-0.84	59.99	55.15	4.84	12.405
800.00	800.00	799.00	800.00	2.78	2.77	-0.80	59.98	-0.84	59.99	54.43	5.55	10.803
900.00	900.00	899.00	900.00	3.14	3.13	-0.80	59.98	-0.84	59.99	53.72	6.27	9.568
1,000.00	1,000.00	999.00	1,000.00	3.50	3.49	-0.80	59.98	-0.84	59.99	53.00	6.99	8.586
1,100.00	1,100.00	1,099.00	1,100.00	3.85	3.85	-0.80	59.98	-0.84	59.99	52.28	7.70	7.787
1,200.00	1,200.00	1,199.00	1,200.00	4.21	4.21	-0.80	59.98	-0.84	59.99	51.57	8.42	7.124
1,300.00	1,300.00	1,299.00	1,300.00	4.57	4.57	-0.80	59.98	-0.84	59.99	50.85	9.14	6.565
1,400.00	1,400.00	1,399.00	1,400.00	4.93	4.93	-0.80	59.98	-0.84	59.99	50.13	9.85	6.087
1,500.00	1,500.00	1,499.00	1,500.00	5.29	5.28	-0.80	59.98	-0.84	59.99	49.41	10.57	5.674
1,600.00	1,600.00	1,599.00	1,600.00	5.65	5.64	-0.80	59.98	-0.84	59.99	48.70	11.29	5.314
1,700.00	1,700.00	1,699.00	1,700.00	6.00	6.00	-0.80	59.98	-0.84	59.99	47.98	12.01	4.997

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	Local Co-ordinate Reference:	Well Mongo 25 Fed Com 552H
Project:	Eddy County, NM (NAD83)	TVD Reference:	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	MD Reference:	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Mongo 25 Fed Com 552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 402H - OH - Plan 1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+IFR1+MS													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
1,800.00	1,800.00	1,799.00	1,800.00	6.36	6.36	-0.80	59.98	-0.84	59.99	47.26	12.72	4.715	
1,900.00	1,900.00	1,899.00	1,900.00	6.72	6.72	-0.80	59.98	-0.84	59.99	46.55	13.44	4.464	
2,000.00	2,000.00	1,999.00	2,000.00	7.08	7.08	-0.80	59.98	-0.84	59.99	45.83	14.16	4.237	
2,100.00	2,100.00	2,099.00	2,100.00	7.44	7.43	-0.80	59.98	-0.84	59.99	45.11	14.87	4.033	
2,200.00	2,200.00	2,199.00	2,200.00	7.80	7.79	-0.80	59.98	-0.84	59.99	44.40	15.59	3.848	
2,300.00	2,300.00	2,299.00	2,300.00	8.16	8.15	-0.80	59.98	-0.84	59.99	43.68	16.31	3.679	
2,400.00	2,400.00	2,399.00	2,400.00	8.51	8.51	-0.80	59.98	-0.84	59.99	42.96	17.02	3.524	
2,500.00	2,500.00	2,499.00	2,500.00	8.87	8.87	-0.80	59.98	-0.84	59.99	42.25	17.74	3.381	
2,600.00	2,600.00	2,599.00	2,600.00	9.23	9.23	-0.80	59.98	-0.84	59.99	41.53	18.46	3.250	
2,700.00	2,700.00	2,699.00	2,700.00	9.59	9.59	-0.80	59.98	-0.84	59.99	40.81	19.17	3.128	
2,800.00	2,800.00	2,799.00	2,800.00	9.95	9.94	-61.10	59.98	-0.84	59.81	39.92	19.89	3.007	
2,900.00	2,899.94	2,897.97	2,898.97	10.30	10.30	-63.88	60.38	-0.80	58.69	38.10	20.59	2.850	
2,925.78	2,925.68	2,923.21	2,924.20	10.39	10.39	-65.02	60.91	-0.76	58.61	37.84	20.77	2.822 CC, ES	
3,000.00	2,999.70	2,995.84	2,996.78	10.65	10.65	-69.16	63.68	-0.52	59.30	38.02	21.27	2.787 SF	
3,100.00	3,099.17	3,093.51	3,094.21	11.00	11.00	-76.21	70.28	0.06	62.72	40.78	21.94	2.859	
3,200.00	3,198.21	3,190.83	3,191.02	11.35	11.35	-83.86	80.15	0.92	69.62	47.03	22.59	3.081	
3,300.00	3,296.87	3,291.08	3,290.50	11.70	11.70	-90.69	92.33	3.06	78.72	55.38	23.34	3.373	
3,400.00	3,395.50	3,392.38	3,391.02	12.06	12.06	-94.89	103.69	8.46	86.07	61.99	24.08	3.574	
3,500.00	3,494.14	3,492.07	3,489.91	12.41	12.42	-90.81	114.53	14.81	92.28	67.49	24.79	3.722	
3,600.00	3,592.84	3,591.92	3,588.97	12.77	12.77	-81.14	125.39	21.17	95.51	70.01	25.50	3.745	
3,700.00	3,691.49	3,691.84	3,688.09	13.13	13.13	-76.23	136.26	27.53	95.70	69.48	26.22	3.650	
3,800.00	3,790.12	3,791.76	3,787.22	13.48	13.48	-78.61	147.13	33.89	95.40	68.47	26.93	3.542	
3,900.00	3,888.75	3,891.68	3,886.34	13.84	13.84	-81.01	158.00	40.25	95.26	67.62	27.64	3.446	
3,930.40	3,918.73	3,922.06	3,916.47	13.95	13.95	-81.74	161.30	42.18	95.26	67.40	27.86	3.419	
4,000.00	3,987.38	3,991.60	3,985.46	14.20	14.20	-83.40	168.87	46.61	95.30	66.94	28.36	3.361	
4,100.00	4,086.01	4,091.52	4,084.59	14.56	14.56	-85.80	179.74	52.97	95.50	66.43	29.07	3.285	
4,200.00	4,184.64	4,191.44	4,183.71	14.92	14.91	-88.18	190.61	59.33	95.86	66.08	29.78	3.219	
4,300.00	4,283.27	4,291.36	4,282.83	15.28	15.27	-90.53	201.47	65.69	96.39	65.89	30.50	3.161	
4,400.00	4,381.90	4,391.28	4,381.96	15.64	15.63	-92.86	212.34	72.05	97.08	65.87	31.21	3.111	
4,500.00	4,480.53	4,491.20	4,481.08	16.00	15.99	-95.15	223.21	78.42	97.93	66.01	31.93	3.068	
4,600.00	4,579.16	4,591.12	4,580.20	16.37	16.35	-97.40	234.08	84.78	98.94	66.30	32.64	3.031	
4,700.00	4,677.78	4,691.04	4,679.33	16.73	16.71	-99.60	244.95	91.14	100.09	66.73	33.36	3.001	
4,800.00	4,776.41	4,790.97	4,778.45	17.09	17.07	-101.74	255.82	97.50	101.38	67.31	34.07	2.976	
4,900.00	4,875.04	4,890.89	4,877.58	17.46	17.43	-103.83	266.69	103.86	102.82	68.03	34.79	2.956	
5,000.00	4,973.67	4,990.81	4,976.70	17.82	17.79	-105.86	277.55	110.22	104.39	68.88	35.50	2.940	
5,100.00	5,072.30	5,090.73	5,075.82	18.19	18.15	-107.83	288.42	116.58	106.08	69.86	36.22	2.929	
5,200.00	5,170.93	5,190.65	5,174.95	18.55	18.52	-109.73	299.29	122.94	107.90	70.96	36.94	2.921	
5,300.00	5,269.56	5,290.57	5,274.07	18.92	18.88	-111.57	310.16	129.30	109.83	72.17	37.66	2.916	
5,400.00	5,368.19	5,390.49	5,373.19	19.28	19.24	-113.34	321.03	135.66	111.87	73.49	38.38	2.915	
5,500.00	5,466.82	5,490.41	5,472.32	19.65	19.60	-115.05	331.90	142.02	114.01	74.91	39.10	2.916	
5,600.00	5,565.45	5,590.33	5,571.44	20.01	19.96	-116.69	342.77	148.39	116.26	76.43	39.82	2.919	
5,700.00	5,664.08	5,690.25	5,670.56	20.38	20.33	-118.27	353.64	154.75	118.59	78.04	40.55	2.925	
5,800.00	5,762.71	5,790.17	5,769.69	20.75	20.69	-119.79	364.50	161.11	121.01	79.74	41.27	2.932	
5,900.00	5,861.34	5,890.09	5,868.81	21.11	21.05	-121.25	375.37	167.47	123.51	81.52	42.00	2.941	
6,000.00	5,959.97	5,990.01	5,967.93	21.48	21.41	-122.65	386.24	173.83	126.09	83.37	42.72	2.951	
6,100.00	6,058.60	6,089.93	6,067.06	21.85	21.78	-123.99	397.11	180.19	128.74	85.29	43.45	2.963	
6,200.00	6,157.23	6,188.35	6,164.77	22.22	22.14	-125.49	407.27	186.14	131.81	87.63	44.18	2.984	
6,300.00	6,255.85	6,285.49	6,261.52	22.58	22.49	-127.97	414.67	190.47	136.77	91.87	44.90	3.046	
6,400.00	6,354.48	6,382.01	6,357.90	22.95	22.83	-131.28	419.22	193.13	144.07	98.46	45.61	3.159	
6,500.00	6,453.11	6,477.71	6,453.57	23.32	23.17	-135.14	420.96	194.15	154.08	107.78	46.30	3.328	
6,600.00	6,551.74	6,575.88	6,551.74	23.69	23.52	-139.11	420.98	194.16	166.23	119.22	47.01	3.536	
6,700.00	6,650.37	6,674.51	6,650.37	24.06	23.87	-142.55	420.98	194.16	179.10	131.37	47.73	3.752	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	Local Co-ordinate Reference:	Well Mongo 25 Fed Com 552H
Project:	Eddy County, NM (NAD83)	TVD Reference:	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	MD Reference:	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Mongo 25 Fed Com 552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 402H - OH - Plan 1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+IFR1+MS													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
6,800.00	6,749.00	6,773.14	6,749.00	24.43	24.22	-145.52	420.98	194.16	192.52	144.07	48.46	3.973	
6,900.00	6,847.63	6,868.97	6,844.83	24.80	24.56	-148.03	420.99	194.09	206.47	157.34	49.13	4.202	
7,000.00	6,946.26	6,943.00	6,918.57	25.16	24.81	-148.90	421.61	188.17	227.35	178.18	49.17	4.624	
7,100.00	7,045.10	7,013.26	6,987.29	25.53	25.04	-148.65	423.11	173.85	257.42	208.66	48.76	5.280	
7,200.00	7,144.41	7,078.68	7,049.26	25.90	25.26	-147.51	425.30	153.10	294.35	246.43	47.92	6.143	
7,300.00	7,244.06	7,138.52	7,103.52	26.26	25.44	-146.01	427.93	128.07	337.74	291.03	46.72	7.229	
7,400.00	7,343.95	7,200.00	7,156.23	26.62	25.63	-144.20	431.23	96.65	387.25	341.56	45.69	8.476	
7,500.00	7,443.93	7,250.00	7,196.40	26.96	25.78	-109.77	434.34	67.07	442.10	397.95	44.15	10.013	
7,600.00	7,543.93	7,284.05	7,222.20	27.31	25.87	-108.34	436.66	44.99	502.83	460.78	42.05	11.957	
7,700.00	7,643.93	7,321.85	7,249.25	27.66	25.98	-106.82	439.42	18.73	569.55	529.00	40.55	14.046	
7,800.00	7,743.93	7,350.00	7,268.22	28.01	26.06	-105.75	441.59	-1.95	641.16	602.21	38.95	16.461	
7,900.00	7,843.93	7,384.34	7,289.95	28.36	26.15	-104.51	444.37	-28.38	716.66	678.69	37.97	18.872	
8,000.00	7,943.93	7,400.00	7,299.33	28.71	26.19	-103.97	445.68	-40.86	795.66	759.13	36.53	21.780	
8,100.00	8,043.93	7,433.05	7,317.97	29.06	26.27	-102.88	448.53	-68.00	877.07	841.05	36.02	24.349	
8,200.00	8,143.93	7,450.00	7,326.90	29.41	26.32	-102.35	450.04	-82.32	960.93	925.78	35.15	27.341	
8,300.00	8,243.93	7,471.64	7,337.69	29.90	26.37	-11.29	452.00	-100.97	1,046.55	1,011.93	34.61	30.235	
8,400.00	8,343.15	7,500.00	7,350.74	30.22	26.44	-8.33	454.63	-126.01	1,128.03	1,093.89	34.14	33.039	
8,500.00	8,438.87	7,500.00	7,350.74	30.53	26.44	-6.91	454.63	-126.01	1,201.02	1,168.25	32.78	36.643	
8,600.00	8,528.20	7,550.00	7,370.66	30.82	26.57	-5.54	459.42	-171.60	1,264.24	1,231.72	32.52	38.880	
8,700.00	8,608.41	7,550.00	7,370.66	31.09	26.57	-4.97	459.42	-171.60	1,317.06	1,285.97	31.09	42.367	
8,800.00	8,677.07	7,600.00	7,386.51	31.34	26.68	-4.29	464.38	-218.75	1,358.53	1,327.85	30.67	44.288	
8,900.00	8,732.09	7,618.81	7,391.39	31.56	26.73	-3.96	466.28	-236.81	1,388.33	1,358.60	29.73	46.698	
9,000.00	8,771.81	7,650.00	7,398.16	31.76	26.80	-3.70	469.46	-267.09	1,406.17	1,377.05	29.13	48.280	
9,100.00	8,795.00	7,676.03	7,402.54	31.95	26.86	-3.55	472.14	-292.60	1,411.72	1,383.09	28.63	49.313	
9,200.00	8,801.05	7,700.00	7,405.54	32.11	26.91	-3.49	474.63	-316.26	1,405.02	1,376.66	28.35	49.555	
9,300.00	8,799.90	7,750.00	7,408.57	32.29	27.02	-3.29	479.84	-365.88	1,396.44	1,367.95	28.49	49.023	
9,400.00	8,798.74	7,766.46	7,408.62	32.52	27.05	-3.22	481.56	-382.24	1,392.32	1,363.61	28.71	48.494	
9,500.00	8,797.58	7,850.64	7,407.65	32.77	27.25	-2.91	489.13	-466.08	1,391.77	1,362.50	29.27	47.546	
9,600.00	8,796.42	7,948.21	7,406.52	33.07	27.52	-2.69	494.81	-563.47	1,391.50	1,361.58	29.91	46.519	
9,700.00	8,795.26	8,046.05	7,405.39	33.39	27.81	-2.60	497.18	-661.26	1,391.39	1,360.78	30.61	45.454	
9,800.00	8,794.11	8,145.72	7,404.24	33.75	28.16	-2.59	497.40	-760.93	1,391.38	1,360.01	31.38	44.346	
9,900.00	8,792.95	8,245.72	7,403.09	34.15	28.54	-2.59	497.58	-860.92	1,391.38	1,359.18	32.20	43.215	
10,000.00	8,791.79	8,345.72	7,401.94	34.57	28.96	-2.59	497.75	-960.91	1,391.37	1,358.30	33.07	42.070	
10,100.00	8,790.63	8,445.72	7,400.79	35.03	29.42	-2.59	497.93	-1,060.91	1,391.36	1,357.36	34.00	40.923	
10,200.00	8,789.48	8,545.72	7,399.64	35.51	29.91	-2.59	498.11	-1,160.90	1,391.36	1,356.39	34.97	39.784	
10,300.00	8,788.32	8,645.72	7,398.48	36.03	30.43	-2.59	498.29	-1,260.89	1,391.35	1,355.36	35.99	38.660	
10,400.00	8,787.16	8,745.72	7,397.33	36.57	30.98	-2.59	498.47	-1,360.89	1,391.35	1,354.30	37.04	37.559	
10,500.00	8,786.00	8,845.72	7,396.18	37.13	31.55	-2.59	498.64	-1,460.88	1,391.34	1,353.21	38.13	36.485	
10,600.00	8,784.85	8,945.71	7,395.03	37.72	32.16	-2.59	498.82	-1,560.87	1,391.34	1,352.08	39.26	35.441	
10,700.00	8,783.69	9,045.71	7,393.88	38.33	32.79	-2.59	499.00	-1,660.86	1,391.33	1,350.92	40.41	34.429	
10,800.00	8,782.53	9,145.70	7,392.72	38.97	33.45	-2.59	499.18	-1,760.85	1,391.33	1,349.73	41.59	33.452	
10,900.00	8,781.37	9,245.70	7,391.57	39.63	34.12	-2.59	499.35	-1,860.83	1,391.32	1,348.52	42.80	32.509	
11,000.00	8,780.22	9,345.69	7,390.42	40.30	34.82	-2.59	499.53	-1,960.82	1,391.32	1,347.29	44.03	31.602	
11,100.00	8,779.06	9,445.68	7,389.26	41.00	35.54	-2.60	499.71	-2,060.81	1,391.31	1,346.04	45.28	30.729	
11,200.00	8,777.90	9,545.68	7,388.11	41.72	36.28	-2.60	499.89	-2,160.79	1,391.31	1,344.76	46.55	29.891	
11,300.00	8,776.74	9,645.67	7,386.95	42.45	37.04	-2.60	500.07	-2,260.78	1,391.31	1,343.47	47.83	29.087	
11,400.00	8,775.58	9,745.67	7,385.80	43.20	37.82	-2.60	500.25	-2,360.77	1,391.31	1,342.17	49.14	28.315	
11,500.00	8,774.43	9,845.66	7,384.64	43.96	38.61	-2.60	500.43	-2,460.76	1,391.30	1,340.85	50.45	27.575	
11,600.00	8,773.27	9,945.66	7,383.49	44.75	39.41	-2.60	500.61	-2,560.74	1,391.30	1,339.51	51.79	26.866	
11,700.00	8,772.11	10,045.65	7,382.33	45.54	40.23	-2.60	500.78	-2,660.73	1,391.30	1,338.17	53.13	26.186	
11,800.00	8,770.95	10,145.64	7,381.17	46.35	41.06	-2.60	500.96	-2,760.72	1,391.30	1,336.81	54.49	25.533	
11,854.50	8,770.32	10,200.14	7,380.54	46.79	41.52	-2.60	501.06	-2,815.21	1,391.30	1,336.07	55.23	25.189	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	Local Co-ordinate Reference:	Well Mongo 25 Fed Com 552H
Project:	Eddy County, NM (NAD83)	TVD Reference:	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	MD Reference:	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Mongo 25 Fed Com 552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 402H - OH - Plan 1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,900.00	8,769.80	10,245.64	7,380.02	47.17	41.91	-2.60	501.14	-2,860.70	1,391.30	1,335.44	55.86	24.908	
12,000.00	8,768.64	10,345.63	7,378.86	48.00	42.77	-2.60	501.32	-2,960.69	1,391.30	1,334.06	57.24	24.308	
12,100.00	8,767.48	10,445.63	7,377.70	48.84	43.63	-2.60	501.50	-3,060.68	1,391.30	1,332.68	58.62	23.732	
12,200.00	8,766.32	10,545.62	7,376.54	49.70	44.51	-2.60	501.68	-3,160.67	1,391.30	1,331.28	60.02	23.180	
12,300.00	8,765.17	10,645.61	7,375.38	50.56	45.40	-2.60	501.86	-3,260.65	1,391.30	1,329.88	61.43	22.650	
12,400.00	8,764.01	10,745.61	7,374.22	51.44	46.30	-2.60	502.04	-3,360.64	1,391.31	1,328.46	62.84	22.140	
12,500.00	8,762.85	10,845.60	7,373.06	52.32	47.20	-2.60	502.23	-3,460.63	1,391.31	1,327.05	64.26	21.651	
12,600.00	8,761.69	10,945.60	7,371.90	53.22	48.12	-2.60	502.41	-3,560.62	1,391.31	1,325.62	65.69	21.181	
12,700.00	8,760.54	11,045.59	7,370.74	54.12	49.04	-2.60	502.59	-3,660.60	1,391.31	1,324.19	67.12	20.728	
12,800.00	8,759.38	11,145.58	7,369.58	55.03	49.97	-2.59	502.77	-3,760.59	1,391.32	1,322.76	68.56	20.293	
12,900.00	8,758.22	11,245.58	7,368.42	55.94	50.90	-2.59	502.95	-3,860.58	1,391.32	1,321.32	70.01	19.874	
13,000.00	8,757.06	11,345.57	7,367.26	56.87	51.84	-2.59	503.13	-3,960.56	1,391.33	1,319.87	71.46	19.471	
13,100.00	8,755.90	11,445.57	7,366.09	57.80	52.79	-2.59	503.31	-4,060.55	1,391.33	1,318.42	72.91	19.083	
13,200.00	8,754.75	11,545.56	7,364.93	58.74	53.75	-2.59	503.49	-4,160.54	1,391.34	1,316.97	74.37	18.708	
13,300.00	8,753.59	11,645.56	7,363.77	59.68	54.71	-2.59	503.68	-4,260.54	1,391.34	1,315.51	75.83	18.347	
13,400.00	8,752.43	11,745.58	7,362.60	60.63	55.67	-2.59	503.86	-4,360.54	1,391.35	1,314.04	77.30	17.999	
13,500.00	8,751.27	11,845.59	7,361.44	61.59	56.64	-2.59	504.04	-4,460.55	1,391.35	1,312.58	78.78	17.662	
13,600.00	8,750.12	11,945.61	7,360.28	62.55	57.62	-2.59	504.22	-4,560.56	1,391.35	1,311.10	80.25	17.338	
13,700.00	8,748.96	12,045.62	7,359.12	63.51	58.60	-2.59	504.40	-4,660.56	1,391.36	1,309.62	81.73	17.024	
13,800.00	8,747.80	12,145.63	7,357.96	64.48	59.58	-2.59	504.58	-4,760.57	1,391.36	1,308.14	83.21	16.720	
13,900.00	8,746.64	12,245.65	7,356.81	65.46	60.57	-2.59	504.76	-4,860.58	1,391.36	1,306.66	84.70	16.427	
14,000.00	8,745.49	12,345.66	7,355.65	66.44	61.56	-2.59	504.94	-4,960.58	1,391.35	1,305.17	86.19	16.143	
14,100.00	8,744.33	12,445.68	7,354.49	67.43	62.56	-2.59	505.12	-5,060.59	1,391.35	1,303.67	87.68	15.869	
14,200.00	8,743.17	12,545.69	7,353.34	68.42	63.55	-2.59	505.30	-5,160.60	1,391.35	1,302.18	89.17	15.603	
14,300.00	8,742.01	12,645.70	7,352.19	69.41	64.56	-2.59	505.48	-5,260.61	1,391.35	1,300.68	90.67	15.345	
14,400.00	8,740.85	12,745.72	7,351.03	70.41	65.56	-2.59	505.66	-5,360.61	1,391.34	1,299.17	92.17	15.096	
14,473.84	8,740.00	12,819.56	7,350.18	71.02	66.31	-2.59	505.79	-5,434.45	1,391.34	1,298.33	93.00	14.960	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	Local Co-ordinate Reference:	Well Mongo 25 Fed Com 552H
Project:	Eddy County, NM (NAD83)	TVD Reference:	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	MD Reference:	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Mongo 25 Fed Com 552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 502H - OH - Plan 1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-0.80	29.99	-0.42	29.99				
100.00	100.00	100.00	100.00	0.27	0.27	-0.80	29.99	-0.42	29.99	29.46	0.54	55.779	
200.00	200.00	200.00	200.00	0.63	0.63	-0.80	29.99	-0.42	29.99	28.74	1.25	23.905	
300.00	300.00	300.00	300.00	0.99	0.99	-0.80	29.99	-0.42	29.99	28.02	1.97	15.213	
400.00	400.00	400.00	400.00	1.34	1.34	-0.80	29.99	-0.42	29.99	27.30	2.69	11.156	
500.00	500.00	500.00	500.00	1.70	1.70	-0.80	29.99	-0.42	29.99	26.59	3.41	8.807	
600.00	600.00	600.00	600.00	2.06	2.06	-0.80	29.99	-0.42	29.99	25.87	4.12	7.276	
700.00	700.00	700.00	700.00	2.42	2.42	-0.80	29.99	-0.42	29.99	25.15	4.84	6.198	
800.00	800.00	800.00	800.00	2.78	2.78	-0.80	29.99	-0.42	29.99	24.44	5.56	5.398	
900.00	900.00	900.00	900.00	3.14	3.14	-0.80	29.99	-0.42	29.99	23.72	6.27	4.781	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	-0.80	29.99	-0.42	29.99	23.00	6.99	4.291	
1,100.00	1,100.00	1,100.00	1,100.00	3.85	3.85	-0.80	29.99	-0.42	29.99	22.29	7.71	3.892	
1,200.00	1,200.00	1,200.00	1,200.00	4.21	4.21	-0.80	29.99	-0.42	29.99	21.57	8.42	3.560	
1,300.00	1,300.00	1,300.00	1,300.00	4.57	4.57	-0.80	29.99	-0.42	29.99	20.85	9.14	3.281	
1,400.00	1,400.00	1,400.00	1,400.00	4.93	4.93	-0.80	29.99	-0.42	29.99	20.13	9.86	3.043	
1,500.00	1,500.00	1,500.00	1,500.00	5.29	5.29	-0.80	29.99	-0.42	29.99	19.42	10.57	2.836	
1,600.00	1,600.00	1,600.00	1,600.00	5.65	5.65	-0.80	29.99	-0.42	29.99	18.70	11.29	2.656	
1,700.00	1,700.00	1,700.00	1,700.00	6.00	6.00	-0.80	29.99	-0.42	29.99	17.98	12.01	2.498	
1,800.00	1,800.00	1,800.00	1,800.00	6.36	6.36	-0.80	29.99	-0.42	29.99	17.27	12.73	2.357	
1,900.00	1,900.00	1,900.00	1,900.00	6.72	6.72	-0.80	29.99	-0.42	29.99	16.55	13.44	2.231	
2,000.00	2,000.00	2,000.00	2,000.00	7.08	7.08	-0.80	29.99	-0.42	29.99	15.83	14.16	2.118	
2,100.00	2,100.00	2,100.00	2,100.00	7.44	7.44	-0.80	29.99	-0.42	29.99	15.12	14.88	2.016	
2,200.00	2,200.00	2,200.00	2,200.00	7.80	7.80	-0.80	29.99	-0.42	29.99	14.40	15.59	1.923 Collision Risk Procedures Req.	
2,300.00	2,300.00	2,300.00	2,300.00	8.16	8.16	-0.80	29.99	-0.42	29.99	13.68	16.31	1.839 Collision Risk Procedures Req.	
2,400.00	2,400.00	2,400.00	2,400.00	8.51	8.51	-0.80	29.99	-0.42	29.99	12.97	17.03	1.761 Collision Risk Procedures Req.	
2,500.00	2,500.00	2,500.00	2,500.00	8.87	8.87	-0.80	29.99	-0.42	29.99	12.25	17.74	1.690 Collision Risk Procedures Req.	
2,600.00	2,600.00	2,600.00	2,600.00	9.23	9.23	-0.80	29.99	-0.42	29.99	11.53	18.46	1.625 Collision Risk Procedures Req.	
2,700.00	2,700.00	2,700.00	2,700.00	9.59	9.59	-0.80	29.99	-0.42	29.99	10.81	19.18	1.564 Collision Risk Procedures Req.	
2,800.00	2,800.00	2,800.00	2,800.00	9.95	9.95	-61.40	29.99	-0.42	29.82	9.93	19.89	1.499 Collision Risk Procedures Req.	
2,900.00	2,899.94	2,899.56	2,899.56	10.30	10.30	-66.72	30.35	-0.18	28.71	8.12	20.60	1.394 Collision Risk Procedures Req.	
2,938.03	2,937.91	2,937.28	2,937.27	10.43	10.44	-69.53	31.10	0.31	28.58	7.72	20.86	1.370 Collision Risk Procedures Req., CC	
3,000.00	2,999.70	2,998.76	2,998.70	10.65	10.66	-74.64	33.22	1.70	28.95	7.66	21.29	1.360 Collision Risk Procedures Req., ES, SF	
3,100.00	3,099.17	3,098.00	3,097.69	11.00	11.01	-83.34	38.95	5.47	31.23	9.24	21.99	1.420 Collision Risk Procedures Req.	
3,200.00	3,198.21	3,197.23	3,196.38	11.35	11.36	-91.26	47.55	11.12	35.68	13.00	22.68	1.573 Collision Risk Procedures Req.	
3,300.00	3,296.87	3,296.68	3,294.93	11.70	11.72	-96.99	58.72	18.46	42.03	18.64	23.39	1.797 Collision Risk Procedures Req.	
3,400.00	3,395.50	3,396.40	3,393.68	12.06	12.07	-100.85	70.31	26.08	48.84	24.74	24.10	2.027	
3,500.00	3,494.14	3,496.16	3,492.47	12.41	12.42	-96.62	81.91	33.71	55.19	30.39	24.81	2.225	
3,600.00	3,592.84	3,596.08	3,591.41	12.77	12.78	-86.82	93.53	41.34	58.45	32.94	25.52	2.291	
3,700.00	3,691.49	3,696.04	3,690.41	13.13	13.13	-81.99	105.15	48.98	58.60	32.37	26.23	2.234	
3,800.00	3,790.12	3,796.01	3,789.40	13.48	13.49	-84.53	116.77	56.62	58.20	31.26	26.94	2.160	
3,900.00	3,888.75	3,895.97	3,888.39	13.84	13.85	-87.10	128.40	64.26	57.92	30.27	27.65	2.095	
4,000.00	3,987.38	3,995.94	3,987.39	14.20	14.21	-89.69	140.02	71.90	57.76	29.40	28.36	2.036	
4,087.43	4,073.61	4,083.34	4,073.94	14.52	14.52	-91.96	150.18	78.58	57.71	28.73	28.98	1.991 Collision Risk Procedures Req.	
4,100.00	4,086.01	4,095.91	4,086.38	14.56	14.57	-92.28	151.64	79.54	57.71	28.64	29.07	1.985 Collision Risk Procedures Req.	
4,200.00	4,184.64	4,195.87	4,185.37	14.92	14.93	-94.88	163.27	87.18	57.79	28.00	29.79	1.940 Collision Risk Procedures Req.	
4,300.00	4,283.27	4,295.84	4,284.37	15.28	15.28	-97.46	174.89	94.82	57.98	27.48	30.50	1.901 Collision Risk Procedures Req.	
4,400.00	4,381.90	4,395.80	4,383.36	15.64	15.64	-100.02	186.51	102.46	58.29	27.08	31.21	1.868 Collision Risk Procedures Req.	
4,500.00	4,480.53	4,495.77	4,482.35	16.00	16.01	-102.55	198.14	110.10	58.71	26.79	31.92	1.839 Collision Risk Procedures Req.	
4,600.00	4,579.16	4,595.73	4,581.35	16.37	16.37	-105.04	209.76	117.73	59.25	26.61	32.64	1.815 Collision Risk Procedures Req.	
4,700.00	4,677.78	4,695.70	4,680.34	16.73	16.73	-107.48	221.38	125.37	59.90	26.55	33.35	1.796 Collision Risk Procedures Req.	
4,800.00	4,776.41	4,795.67	4,779.33	17.09	17.09	-109.86	233.01	133.01	60.65	26.58	34.07	1.780 Collision Risk Procedures Req.	
4,900.00	4,875.04	4,895.63	4,878.33	17.46	17.45	-112.19	244.63	140.65	61.51	26.72	34.78	1.768 Collision Risk Procedures Req.	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	Local Co-ordinate Reference:	Well Mongo 25 Fed Com 552H
Project:	Eddy County, NM (NAD83)	TVD Reference:	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	MD Reference:	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Mongo 25 Fed Com 552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 502H - OH - Plan 1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+IFR1+MS													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.00	4,973.67	4,995.60	4,977.32	17.82	17.81	-114.44	256.25	148.29	62.46	26.96	35.50	1.759	Collision Risk Procedures Req.
5,100.00	5,072.30	5,095.56	5,076.31	18.19	18.18	-116.62	267.87	155.93	63.51	27.29	36.22	1.753	Collision Risk Procedures Req.
5,200.00	5,170.93	5,195.53	5,175.31	18.55	18.54	-118.73	279.50	163.57	64.65	27.70	36.94	1.750	Collision Risk Procedures Req.
5,300.00	5,269.56	5,295.49	5,274.30	18.92	18.90	-120.76	291.12	171.21	65.87	28.20	37.66	1.749	Collision Risk Procedures Req.
5,400.00	5,368.19	5,395.46	5,373.29	19.28	19.26	-122.72	302.74	178.85	67.17	28.78	38.39	1.750	Collision Risk Procedures Req.
5,500.00	5,466.82	5,495.43	5,472.29	19.65	19.63	-124.60	314.37	186.49	68.54	29.43	39.11	1.753	Collision Risk Procedures Req.
5,600.00	5,565.45	5,595.39	5,571.28	20.01	19.99	-126.40	325.99	194.13	69.99	30.16	39.84	1.757	Collision Risk Procedures Req.
5,700.00	5,664.08	5,695.36	5,670.27	20.38	20.35	-128.13	337.61	201.77	71.51	30.94	40.56	1.763	Collision Risk Procedures Req.
5,800.00	5,762.71	5,795.32	5,769.27	20.75	20.72	-129.79	349.24	209.41	73.08	31.79	41.29	1.770	Collision Risk Procedures Req.
5,900.00	5,861.34	5,895.29	5,868.26	21.11	21.08	-131.38	360.86	217.05	74.72	32.70	42.02	1.778	Collision Risk Procedures Req.
6,000.00	5,959.97	5,995.25	5,967.25	21.48	21.45	-132.89	372.48	224.69	76.41	33.66	42.75	1.787	Collision Risk Procedures Req.
6,100.00	6,058.60	6,095.22	6,066.25	21.85	21.81	-134.34	384.11	232.33	78.15	34.66	43.48	1.797	Collision Risk Procedures Req.
6,200.00	6,157.23	6,195.19	6,165.24	22.22	22.18	-135.73	395.73	239.97	79.94	35.72	44.21	1.808	Collision Risk Procedures Req.
6,300.00	6,255.85	6,295.15	6,264.23	22.58	22.54	-137.05	407.35	247.61	81.77	36.82	44.95	1.819	Collision Risk Procedures Req.
6,400.00	6,354.48	6,395.12	6,363.23	22.95	22.91	-138.32	418.98	255.25	83.64	37.96	45.68	1.831	Collision Risk Procedures Req.
6,500.00	6,453.11	6,495.08	6,462.22	23.32	23.27	-139.53	430.60	262.88	85.56	39.14	46.42	1.843	Collision Risk Procedures Req.
6,600.00	6,551.74	6,595.05	6,561.21	23.69	23.64	-140.69	442.22	270.52	87.51	40.36	47.15	1.856	Collision Risk Procedures Req.
6,700.00	6,650.37	6,695.01	6,660.21	24.06	24.00	-141.79	453.85	278.16	89.49	41.60	47.89	1.869	Collision Risk Procedures Req.
6,800.00	6,749.00	6,794.48	6,758.71	24.43	24.37	-142.87	465.36	285.73	91.56	42.93	48.63	1.883	Collision Risk Procedures Req.
6,900.00	6,847.63	6,891.78	6,855.36	24.80	24.72	-144.66	474.75	291.90	95.55	46.16	49.39	1.935	Collision Risk Procedures Req.
7,000.00	6,946.26	6,988.65	6,951.90	25.16	25.07	-147.32	481.37	296.26	102.47	52.35	50.12	2.044	
7,100.00	7,045.10	7,085.02	7,048.15	25.53	25.42	-150.21	485.25	298.81	111.34	60.53	50.81	2.191	
7,200.00	7,144.41	7,181.29	7,144.41	25.90	25.76	-152.64	486.43	299.58	120.35	68.90	51.46	2.339	
7,300.00	7,244.06	7,280.95	7,244.06	26.26	26.11	-154.40	486.43	299.58	127.74	75.56	52.18	2.448	
7,400.00	7,343.95	7,380.83	7,343.95	26.62	26.46	-155.33	486.43	299.58	132.04	79.15	52.89	2.497	
7,500.00	7,443.93	7,480.82	7,443.93	26.96	26.81	-122.63	486.43	299.58	133.22	79.64	53.58	2.486	
7,600.00	7,543.93	7,580.82	7,543.93	27.31	27.17	-122.63	486.43	299.58	133.22	78.94	54.28	2.454	
7,700.00	7,643.93	7,680.82	7,643.93	27.66	27.52	-122.63	486.43	299.58	133.22	78.24	54.99	2.423	
7,800.00	7,743.93	7,780.82	7,743.93	28.01	27.87	-122.63	486.43	299.58	133.22	77.53	55.69	2.392	
7,814.22	7,758.15	7,795.04	7,758.15	28.06	27.92	-122.63	486.43	299.58	133.22	77.43	55.79	2.388	
7,900.00	7,843.93	7,879.75	7,842.87	28.36	28.22	-122.62	486.43	299.55	133.25	76.89	56.36	2.364	
8,000.00	7,943.93	7,963.46	7,926.22	28.71	28.50	-120.87	487.04	292.63	139.94	83.69	56.25	2.488	
8,100.00	8,043.93	8,043.51	8,004.17	29.06	28.76	-116.95	488.59	274.78	158.76	103.35	55.41	2.865	
8,200.00	8,143.93	8,117.32	8,073.19	29.41	29.00	-112.48	490.85	248.87	189.97	136.10	53.87	3.526	
8,300.00	8,243.93	8,183.53	8,131.81	29.90	29.20	-18.36	493.51	218.28	232.64	180.74	51.91	4.482	
8,400.00	8,343.15	8,250.00	8,186.70	30.22	29.39	-14.13	496.76	181.01	276.19	226.23	49.96	5.528	
8,500.00	8,438.87	8,300.00	8,224.93	30.53	29.53	-11.70	499.56	148.93	314.37	268.09	46.28	6.793	
8,600.00	8,528.20	8,367.19	8,271.61	30.82	29.70	-9.56	503.75	100.85	346.36	302.24	44.13	7.849	
8,700.00	8,608.41	8,426.66	8,307.97	31.09	29.85	-8.10	507.83	53.99	372.04	330.83	41.21	9.028	
8,800.00	8,677.07	8,485.63	8,339.01	31.34	29.99	-6.96	512.18	4.08	390.99	352.67	38.32	10.203	
8,900.00	8,732.09	8,550.00	8,368.83	31.56	30.14	-5.98	517.22	-53.72	403.09	367.07	36.02	11.191	
9,000.00	8,771.81	8,600.00	8,383.84	31.76	30.24	-5.33	521.30	-100.54	407.99	374.83	33.16	12.303	
9,100.00	8,795.00	8,661.04	8,398.96	31.95	30.37	-4.65	526.43	-159.42	405.81	374.20	31.61	12.838	
9,200.00	8,801.05	8,719.48	8,407.47	32.11	30.48	-4.07	531.44	-216.99	396.61	365.86	30.75	12.897	
9,300.00	8,799.90	8,785.08	8,409.95	32.29	30.60	-3.28	537.13	-282.27	390.62	359.74	30.88	12.648	
9,309.89	8,799.78	8,785.08	8,409.95	32.32	30.60	-3.28	537.13	-282.27	390.50	359.53	30.97	12.608	
9,400.00	8,798.74	8,873.22	8,408.24	32.52	30.79	-2.38	543.43	-370.17	390.89	359.40	31.50	12.411	
9,500.00	8,797.58	8,972.65	8,406.31	32.77	31.03	-1.84	547.28	-469.50	391.54	359.43	32.11	12.192	
9,600.00	8,796.42	9,072.40	8,404.36	33.07	31.30	-1.75	548.01	-569.22	392.32	359.56	32.76	11.977	
9,700.00	8,795.26	9,172.40	8,402.42	33.39	31.62	-1.75	548.20	-669.20	393.11	359.65	33.45	11.751	
9,800.00	8,794.11	9,272.40	8,400.47	33.75	31.97	-1.75	548.38	-769.18	393.90	359.69	34.21	11.515	
9,900.00	8,792.95	9,372.39	8,398.52	34.15	32.35	-1.74	548.56	-869.16	394.69	359.67	35.01	11.273	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	Local Co-ordinate Reference:	Well Mongo 25 Fed Com 552H
Project:	Eddy County, NM (NAD83)	TVD Reference:	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	MD Reference:	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Mongo 25 Fed Com 552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 502H - OH - Plan 1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+IFR1+MS													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
10,000.00	8,791.79	9,472.39	8,396.57	34.57	32.77	-1.74	548.74	-969.13	395.48	359.61	35.87	11.025	
10,100.00	8,790.63	9,572.39	8,394.62	35.03	33.22	-1.74	548.92	-1,069.11	396.27	359.49	36.78	10.775	
10,200.00	8,789.48	9,672.38	8,392.68	35.51	33.70	-1.73	549.10	-1,169.09	397.06	359.33	37.73	10.525	
10,300.00	8,788.32	9,772.38	8,390.73	36.03	34.20	-1.73	549.28	-1,269.07	397.85	359.13	38.71	10.276	
10,400.00	8,787.16	9,872.38	8,388.78	36.57	34.74	-1.73	549.46	-1,369.04	398.64	358.90	39.74	10.031	
10,500.00	8,786.00	9,972.37	8,386.83	37.13	35.31	-1.72	549.64	-1,469.02	399.43	358.62	40.80	9.789	
10,600.00	8,784.85	10,072.37	8,384.89	37.72	35.90	-1.72	549.82	-1,569.00	400.22	358.32	41.90	9.553	
10,700.00	8,783.69	10,172.37	8,382.94	38.33	36.51	-1.72	550.00	-1,668.98	401.01	357.99	43.02	9.322	
10,800.00	8,782.53	10,272.38	8,380.99	38.97	37.15	-1.71	550.18	-1,768.97	401.79	357.62	44.17	9.097	
10,900.00	8,781.37	10,372.38	8,379.05	39.63	37.81	-1.71	550.36	-1,868.95	402.58	357.23	45.35	8.878	
11,000.00	8,780.22	10,472.38	8,377.11	40.30	38.49	-1.71	550.54	-1,968.93	403.36	356.82	46.54	8.666	
11,100.00	8,779.06	10,572.38	8,375.17	41.00	39.20	-1.70	550.72	-2,068.92	404.15	356.38	47.76	8.461	
11,200.00	8,777.90	10,672.39	8,373.23	41.72	39.92	-1.70	550.90	-2,168.90	404.93	355.92	49.00	8.263	
11,300.00	8,776.74	10,772.39	8,371.29	42.45	40.66	-1.70	551.08	-2,268.89	405.71	355.45	50.26	8.072	
11,400.00	8,775.58	10,872.39	8,369.35	43.20	41.41	-1.69	551.26	-2,368.87	406.49	354.95	51.54	7.887	
11,500.00	8,774.43	10,972.39	8,367.41	43.96	42.19	-1.69	551.44	-2,468.85	407.27	354.44	52.83	7.709	
11,600.00	8,773.27	11,072.40	8,365.48	44.75	42.97	-1.69	551.62	-2,568.84	408.04	353.91	54.14	7.537	
11,700.00	8,772.11	11,172.40	8,363.55	45.54	43.78	-1.68	551.80	-2,668.82	408.82	353.36	55.46	7.372	
11,800.00	8,770.95	11,272.40	8,361.62	46.35	44.59	-1.68	551.98	-2,768.81	409.59	352.80	56.79	7.212	
11,900.00	8,769.80	11,372.41	8,359.69	47.17	45.42	-1.68	552.16	-2,868.79	410.36	352.23	58.13	7.059	
12,000.00	8,768.64	11,472.41	8,357.76	48.00	46.26	-1.67	552.34	-2,968.77	411.13	351.64	59.49	6.911	
12,100.00	8,767.48	11,572.41	8,355.83	48.84	47.11	-1.67	552.52	-3,068.76	411.90	351.05	60.85	6.769	
12,200.00	8,766.32	11,672.41	8,353.91	49.70	47.98	-1.67	552.70	-3,168.74	412.67	350.44	62.23	6.631	
12,300.00	8,765.17	11,772.42	8,351.98	50.56	48.85	-1.66	552.88	-3,268.73	413.43	349.82	63.61	6.499	
12,400.00	8,764.01	11,872.42	8,350.06	51.44	49.74	-1.66	553.06	-3,368.71	414.20	349.19	65.01	6.372	
12,500.00	8,762.85	11,972.42	8,348.14	52.32	50.63	-1.66	553.24	-3,468.69	414.96	348.55	66.41	6.249	
12,600.00	8,761.69	12,072.43	8,346.22	53.22	51.53	-1.65	553.42	-3,568.68	415.72	347.91	67.82	6.130	
12,700.00	8,760.54	12,172.43	8,344.30	54.12	52.44	-1.65	553.60	-3,668.66	416.49	347.25	69.23	6.016	
12,800.00	8,759.38	12,272.43	8,342.38	55.03	53.36	-1.65	553.78	-3,768.65	417.24	346.59	70.65	5.906	
12,900.00	8,758.22	12,372.44	8,340.47	55.94	54.28	-1.64	553.96	-3,868.63	418.00	345.92	72.08	5.799	
13,000.00	8,757.06	12,472.44	8,338.55	56.87	55.22	-1.64	554.14	-3,968.62	418.76	345.24	73.51	5.696	
13,100.00	8,755.90	12,572.44	8,336.64	57.80	56.16	-1.64	554.32	-4,068.60	419.51	344.56	74.95	5.597	
13,200.00	8,754.75	12,672.44	8,334.73	58.74	57.10	-1.64	554.50	-4,168.59	420.27	343.87	76.40	5.501	
13,300.00	8,753.59	12,772.45	8,332.82	59.68	58.05	-1.63	554.68	-4,268.57	421.02	343.17	77.85	5.408	
13,400.00	8,752.43	12,872.44	8,330.91	60.63	59.01	-1.63	554.86	-4,368.55	421.77	342.47	79.30	5.319	
13,500.00	8,751.27	12,972.44	8,329.00	61.59	59.98	-1.63	555.04	-4,468.53	422.52	341.77	80.76	5.232	
13,600.00	8,750.12	13,072.44	8,327.09	62.55	60.94	-1.62	555.22	-4,568.51	423.28	341.06	82.22	5.148	
13,700.00	8,748.96	13,172.43	8,325.18	63.51	61.92	-1.62	555.40	-4,668.48	424.03	340.34	83.69	5.067	
13,800.00	8,747.80	13,272.43	8,323.27	64.48	62.90	-1.62	555.58	-4,768.46	424.78	339.62	85.16	4.988	
13,900.00	8,746.64	13,372.43	8,321.36	65.46	63.88	-1.61	555.76	-4,868.44	425.53	338.90	86.63	4.912	
14,000.00	8,745.49	13,472.43	8,319.45	66.44	64.87	-1.61	555.94	-4,968.42	426.28	338.18	88.10	4.838	
14,100.00	8,744.33	13,572.42	8,317.54	67.43	65.86	-1.61	556.12	-5,068.40	427.04	337.45	89.58	4.767	
14,200.00	8,743.17	13,672.42	8,315.63	68.42	66.86	-1.61	556.30	-5,168.38	427.79	336.72	91.07	4.698	
14,300.00	8,742.01	13,772.42	8,313.72	69.41	67.86	-1.60	556.48	-5,268.36	428.54	335.99	92.55	4.630	
14,400.00	8,740.85	13,872.41	8,311.81	70.41	68.86	-1.60	556.66	-5,368.34	429.29	335.25	94.04	4.565	
14,473.84	8,740.00	13,946.25	8,310.40	71.02	69.60	-1.60	556.80	-5,442.15	429.85	335.00	94.84	4.532	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	Local Co-ordinate Reference:	Well Mongo 25 Fed Com 552H
Project:	Eddy County, NM (NAD83)	TVD Reference:	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	MD Reference:	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Mongo 25 Fed Com 552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 702H - OH - Plan 1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+MS												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	179.20	-29.99	0.42	29.99				
100.00	100.00	100.00	100.00	0.27	0.27	179.20	-29.99	0.42	29.99	29.46	0.54	55.779	
200.00	200.00	200.00	200.00	0.63	0.63	179.20	-29.99	0.42	29.99	28.74	1.25	23.905	
300.00	300.00	300.00	300.00	0.99	0.99	179.20	-29.99	0.42	29.99	28.02	1.97	15.213	
400.00	400.00	400.00	400.00	1.34	1.34	179.20	-29.99	0.42	29.99	27.30	2.69	11.156	
500.00	500.00	500.00	500.00	1.70	1.70	179.20	-29.99	0.42	29.99	26.59	3.41	8.807	
600.00	600.00	600.00	600.00	2.06	2.06	179.20	-29.99	0.42	29.99	25.87	4.12	7.276	
700.00	700.00	700.00	700.00	2.42	2.42	179.20	-29.99	0.42	29.99	25.15	4.84	6.198	
800.00	800.00	800.00	800.00	2.78	2.78	179.20	-29.99	0.42	29.99	24.44	5.56	5.398	
900.00	900.00	900.00	900.00	3.14	3.14	179.20	-29.99	0.42	29.99	23.72	6.27	4.781	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	179.20	-29.99	0.42	29.99	23.00	6.99	4.291	
1,100.00	1,100.00	1,100.00	1,100.00	3.85	3.85	179.20	-29.99	0.42	29.99	22.29	7.71	3.892	
1,200.00	1,200.00	1,200.00	1,200.00	4.21	4.21	179.20	-29.99	0.42	29.99	21.57	8.42	3.560	
1,300.00	1,300.00	1,300.00	1,300.00	4.57	4.57	179.20	-29.99	0.42	29.99	20.85	9.14	3.281	
1,400.00	1,400.00	1,400.00	1,400.00	4.93	4.93	179.20	-29.99	0.42	29.99	20.13	9.86	3.043	
1,500.00	1,500.00	1,500.00	1,500.00	5.29	5.29	179.20	-29.99	0.42	29.99	19.42	10.57	2.836	
1,600.00	1,600.00	1,600.00	1,600.00	5.65	5.65	179.20	-29.99	0.42	29.99	18.70	11.29	2.656	
1,700.00	1,700.00	1,700.00	1,700.00	6.00	6.00	179.20	-29.99	0.42	29.99	17.98	12.01	2.498	
1,800.00	1,800.00	1,800.00	1,800.00	6.36	6.36	179.20	-29.99	0.42	29.99	17.27	12.73	2.357	
1,900.00	1,900.00	1,900.00	1,900.00	6.72	6.72	179.20	-29.99	0.42	29.99	16.55	13.44	2.231	
2,000.00	2,000.00	2,000.00	2,000.00	7.08	7.08	179.20	-29.99	0.42	29.99	15.83	14.16	2.118	
2,100.00	2,100.00	2,100.00	2,100.00	7.44	7.44	179.20	-29.99	0.42	29.99	15.12	14.88	2.016	
2,200.00	2,200.00	2,200.00	2,200.00	7.80	7.80	179.20	-29.99	0.42	29.99	14.40	15.59	1.923 Collision Risk Procedures Req.	
2,300.00	2,300.00	2,300.00	2,300.00	8.16	8.16	179.20	-29.99	0.42	29.99	13.68	16.31	1.839 Collision Risk Procedures Req.	
2,400.00	2,400.00	2,400.00	2,400.00	8.51	8.51	179.20	-29.99	0.42	29.99	12.97	17.03	1.761 Collision Risk Procedures Req.	
2,500.00	2,500.00	2,500.00	2,500.00	8.87	8.87	179.20	-29.99	0.42	29.99	12.25	17.74	1.690 Collision Risk Procedures Req.	
2,600.00	2,600.00	2,600.00	2,600.00	9.23	9.23	179.20	-29.99	0.42	29.99	11.53	18.46	1.625 Collision Risk Procedures Req.	
2,700.00	2,700.00	2,700.00	2,700.00	9.59	9.59	179.20	-29.99	0.42	29.99	10.81	19.18	1.564 Collision Risk Procedures Req., CC	
2,704.45	2,704.45	2,704.45	2,704.45	9.60	9.61	119.20	-29.99	0.42	29.99	10.78	19.21	1.561 Collision Risk Procedures Req.	
2,800.00	2,800.00	2,800.00	2,800.00	9.95	9.95	119.78	-29.99	0.42	30.17	10.27	19.89	1.516 Collision Risk Procedures Req., ES, Sf	
2,900.00	2,899.94	2,899.94	2,899.94	10.30	10.31	124.92	-29.99	0.42	31.94	11.34	20.60	1.551 Collision Risk Procedures Req.	
3,000.00	2,999.70	2,999.70	2,999.70	10.65	10.66	133.69	-29.99	0.42	36.27	14.96	21.31	1.702 Collision Risk Procedures Req.	
3,100.00	3,099.17	3,099.17	3,099.17	11.00	11.02	143.30	-29.99	0.42	44.01	22.00	22.02	1.999 Collision Risk Procedures Req.	
3,200.00	3,198.21	3,199.03	3,199.03	11.35	11.38	151.93	-29.57	0.43	55.31	32.58	22.72	2.434	
3,300.00	3,296.87	3,299.71	3,299.64	11.70	11.74	160.05	-26.08	0.56	67.46	44.03	23.42	2.880	
3,400.00	3,395.50	3,400.61	3,400.29	12.06	12.10	167.46	-19.04	0.80	78.17	54.06	24.11	3.242	
3,500.00	3,494.14	3,501.60	3,500.72	12.41	12.46	-178.35	-8.45	1.17	87.58	62.78	24.80	3.531	
3,600.00	3,592.84	3,601.84	3,600.03	12.77	12.82	-160.80	5.08	1.64	95.63	70.12	25.51	3.749	
3,700.00	3,691.49	3,701.43	3,698.66	13.13	13.17	-150.64	18.94	2.13	103.19	76.97	26.22	3.935	
3,800.00	3,790.12	3,801.07	3,797.33	13.48	13.52	-148.57	32.79	2.61	110.76	83.83	26.94	4.112	
3,900.00	3,888.75	3,900.71	3,896.00	13.84	13.88	-146.77	46.65	3.10	118.45	90.80	27.65	4.284	
4,000.00	3,987.38	4,000.35	3,994.67	14.20	14.23	-145.19	60.51	3.58	126.25	97.88	28.36	4.451	
4,100.00	4,086.01	4,099.99	4,093.34	14.56	14.59	-143.80	74.37	4.06	134.13	105.05	29.08	4.612	
4,200.00	4,184.64	4,199.63	4,192.01	14.92	14.94	-142.55	88.23	4.55	142.08	112.28	29.80	4.768	
4,300.00	4,283.27	4,299.27	4,290.68	15.28	15.30	-141.45	102.09	5.03	150.08	119.57	30.51	4.919	
4,400.00	4,381.90	4,398.91	4,389.35	15.64	15.66	-140.45	115.95	5.52	158.14	126.91	31.23	5.064	
4,500.00	4,480.53	4,498.54	4,488.01	16.00	16.02	-139.55	129.80	6.00	166.24	134.30	31.95	5.204	
4,600.00	4,579.16	4,598.18	4,586.68	16.37	16.37	-138.73	143.66	6.48	174.38	141.72	32.66	5.339	
4,700.00	4,677.78	4,697.82	4,685.35	16.73	16.73	-137.99	157.52	6.97	182.55	149.17	33.38	5.469	
4,800.00	4,776.41	4,797.46	4,784.02	17.09	17.09	-137.31	171.38	7.45	190.75	156.65	34.10	5.594	
4,900.00	4,875.04	4,897.10	4,882.69	17.46	17.45	-136.69	185.24	7.94	198.97	164.15	34.82	5.714	
5,000.00	4,973.67	4,996.74	4,981.36	17.82	17.81	-136.12	199.10	8.42	207.22	171.68	35.54	5.830	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	Local Co-ordinate Reference:	Well Mongo 25 Fed Com 552H
Project:	Eddy County, NM (NAD83)	TVD Reference:	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	MD Reference:	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Mongo 25 Fed Com 552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 702H - OH - Plan 1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+IFR1+MS													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.00	5,072.30	5,096.38	5,080.03	18.19	18.17	-135.59	212.96	8.90	215.48	179.22	36.26	5.942	
5,200.00	5,170.93	5,196.02	5,178.70	18.55	18.53	-135.10	226.81	9.39	223.76	186.78	36.98	6.050	
5,300.00	5,269.56	5,295.66	5,277.37	18.92	18.89	-134.64	240.67	9.87	232.06	194.35	37.71	6.155	
5,400.00	5,368.19	5,395.30	5,376.04	19.28	19.25	-134.22	254.53	10.36	240.37	201.94	38.43	6.255	
5,500.00	5,466.82	5,494.93	5,474.71	19.65	19.62	-133.82	268.39	10.84	248.69	209.54	39.15	6.352	
5,600.00	5,565.45	5,594.57	5,573.38	20.01	19.98	-133.45	282.25	11.32	257.02	217.15	39.87	6.446	
5,700.00	5,664.08	5,694.21	5,672.05	20.38	20.34	-133.10	296.11	11.81	265.36	224.77	40.60	6.537	
5,800.00	5,762.71	5,793.85	5,770.72	20.75	20.70	-132.78	309.97	12.29	273.72	232.40	41.32	6.624	
5,900.00	5,861.34	5,893.49	5,869.38	21.11	21.06	-132.47	323.82	12.78	282.07	240.03	42.04	6.709	
6,000.00	5,959.97	5,993.13	5,968.05	21.48	21.43	-132.18	337.68	13.26	290.44	247.67	42.77	6.791	
6,100.00	6,058.60	6,092.77	6,066.72	21.85	21.79	-131.91	351.54	13.74	298.82	255.32	43.49	6.870	
6,200.00	6,157.23	6,192.41	6,165.39	22.22	22.15	-131.65	365.40	14.23	307.20	262.98	44.22	6.947	
6,300.00	6,255.85	6,292.05	6,264.06	22.58	22.51	-131.41	379.26	14.71	315.58	270.64	44.94	7.022	
6,400.00	6,354.48	6,391.68	6,362.73	22.95	22.88	-131.18	393.12	15.20	323.97	278.31	45.67	7.094	
6,500.00	6,453.11	6,491.32	6,461.40	23.32	23.24	-130.96	406.98	15.68	332.37	285.98	46.39	7.164	
6,600.00	6,551.74	6,590.96	6,560.07	23.69	23.60	-130.75	420.84	16.16	340.77	293.65	47.12	7.232	
6,700.00	6,650.37	6,690.60	6,658.74	24.06	23.97	-130.55	434.69	16.65	349.18	301.33	47.85	7.298	
6,800.00	6,749.00	6,790.24	6,757.41	24.43	24.33	-130.36	448.55	17.13	357.59	309.01	48.57	7.362	
6,900.00	6,847.63	6,889.88	6,856.08	24.80	24.70	-130.18	462.41	17.62	366.00	316.70	49.30	7.424	
7,000.00	6,946.26	6,989.52	6,954.75	25.16	25.06	-130.01	476.27	18.10	374.42	324.39	50.03	7.484	
7,100.00	7,045.10	7,089.21	7,053.46	25.53	25.42	-129.78	490.14	18.58	381.96	331.21	50.75	7.526	
7,200.00	7,144.41	7,188.94	7,152.23	25.90	25.79	-129.16	504.01	19.07	387.33	335.86	51.48	7.525	
7,300.00	7,244.06	7,288.61	7,250.93	26.26	26.15	-128.13	517.87	19.55	390.60	338.40	52.19	7.484	
7,400.00	7,343.95	7,388.09	7,349.44	26.62	26.52	-126.68	531.71	20.03	391.91	339.00	52.90	7.408	
7,500.00	7,443.93	7,487.26	7,447.64	26.96	26.88	-91.87	545.50	20.52	391.49	337.89	53.60	7.304	
7,600.00	7,543.93	7,586.29	7,545.71	27.31	27.24	-89.85	559.27	21.00	390.79	336.49	54.30	7.197	
7,691.60	7,635.53	7,676.99	7,635.53	27.63	27.58	-88.00	571.89	21.44	390.58	335.64	54.95	7.108	
7,700.00	7,643.93	7,685.31	7,643.77	27.66	27.61	-87.83	573.05	21.48	390.58	335.58	55.01	7.101	
7,800.00	7,743.93	7,784.34	7,741.83	28.01	27.97	-85.81	586.82	21.96	390.87	335.16	55.71	7.016	
7,900.00	7,843.93	7,883.37	7,839.90	28.36	28.33	-83.79	600.59	22.44	391.66	335.24	56.42	6.942	
8,000.00	7,943.93	7,982.39	7,937.96	28.71	28.69	-81.79	614.37	22.92	392.93	335.81	57.13	6.878	
8,100.00	8,043.93	8,081.89	8,036.51	29.06	29.06	-79.81	628.07	23.40	394.68	336.84	57.84	6.824	
8,200.00	8,143.93	8,182.86	8,136.76	29.41	29.43	-78.11	639.96	23.82	396.54	337.98	58.56	6.771	
8,300.00	8,243.93	8,284.38	8,237.86	29.90	29.80	13.11	649.24	24.14	398.01	338.77	59.24	6.718	
8,400.00	8,343.15	8,385.51	8,338.78	30.22	30.16	14.70	655.80	24.37	388.25	328.31	59.94	6.478	
8,500.00	8,438.87	8,483.35	8,436.54	30.53	30.51	17.27	659.61	24.50	361.64	301.05	60.59	5.969	
8,600.00	8,528.20	8,574.82	8,527.99	30.82	30.83	21.57	660.91	24.55	319.34	258.16	61.18	5.220	
8,700.00	8,608.41	8,655.23	8,608.41	31.09	31.12	29.27	660.92	24.55	263.64	201.94	61.70	4.273	
8,800.00	8,677.07	8,723.89	8,677.07	31.34	31.36	43.88	660.92	24.55	198.74	136.57	62.17	3.197	
8,900.00	8,732.09	8,778.92	8,732.09	31.56	31.55	67.84	660.92	24.55	134.20	71.46	62.74	2.139	
8,995.36	8,770.32	8,817.15	8,770.32	31.76	31.69	90.00	660.92	24.55	101.97	38.52	63.44	1.607 Collision Risk Procedures Req.	
9,000.00	8,771.81	8,818.63	8,771.81	31.76	31.69	90.78	660.92	24.55	102.06	38.60	63.46	1.608 Collision Risk Procedures Req.	
9,100.00	8,795.00	8,841.83	8,795.00	31.95	31.78	98.31	660.92	24.55	143.90	80.65	63.25	2.275	
9,200.00	8,801.05	8,847.88	8,801.05	32.11	31.80	88.69	660.92	24.55	225.59	162.60	62.99	3.581	
9,300.00	8,799.90	8,846.72	8,799.90	32.29	31.79	88.04	660.92	24.55	318.01	255.13	62.88	5.057	
9,400.00	8,798.74	8,845.56	8,798.74	32.52	31.79	87.39	660.92	24.55	413.97	351.14	62.83	6.588	
9,500.00	8,797.58	8,844.40	8,797.58	32.77	31.79	86.74	660.92	24.55	511.48	448.67	62.81	8.143	
9,600.00	8,796.42	8,843.25	8,796.42	33.07	31.78	86.10	660.92	24.55	609.79	546.99	62.80	9.711	
9,700.00	8,795.26	8,842.09	8,795.26	33.39	31.78	85.45	660.92	24.55	708.57	645.78	62.79	11.285	
9,800.00	8,794.11	8,840.93	8,794.11	33.75	31.77	84.80	660.92	24.55	807.65	744.87	62.79	12.863	
9,900.00	8,792.95	8,839.77	8,792.95	34.15	31.77	84.16	660.92	24.55	906.93	844.15	62.79	14.445	
10,000.00	8,791.79	10,587.58	9,749.43	34.57	36.70	180.00	560.83	-997.08	957.85	919.17	38.68	24.763	

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Legacy Directional Drilling

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Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 702H - OH - Plan 1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+IFR1+MS													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
10,100.00	8,790.63	10,687.58	9,747.31	35.03	37.05	180.00	561.01	-1,097.06	956.89	917.43	39.46	24.247	
10,200.00	8,789.48	10,787.57	9,745.20	35.51	37.42	180.00	561.18	-1,197.03	955.93	915.64	40.29	23.725	
10,300.00	8,788.32	10,887.57	9,743.08	36.03	37.83	180.00	561.35	-1,297.00	954.97	913.81	41.16	23.199	
10,400.00	8,787.16	10,987.56	9,740.96	36.57	38.26	180.00	561.52	-1,396.98	954.02	911.94	42.08	22.674	
10,500.00	8,786.00	11,087.56	9,738.85	37.13	38.72	-180.00	561.69	-1,496.95	953.06	910.03	43.02	22.152	
10,600.00	8,784.85	11,187.56	9,736.73	37.72	39.21	-180.00	561.86	-1,596.92	952.10	908.09	44.01	21.635	
10,700.00	8,783.69	11,287.55	9,734.61	38.33	39.72	-180.00	562.03	-1,696.90	951.14	906.11	45.03	21.125	
10,800.00	8,782.53	11,387.55	9,732.50	38.97	40.26	-180.00	562.21	-1,796.87	950.18	904.11	46.07	20.623	
10,900.00	8,781.37	11,487.54	9,730.38	39.63	40.82	-180.00	562.38	-1,896.84	949.22	902.07	47.15	20.132	
11,000.00	8,780.22	11,587.54	9,728.26	40.30	41.40	-180.00	562.55	-1,996.82	948.26	900.01	48.25	19.652	
11,100.00	8,779.06	11,687.54	9,726.15	41.00	42.01	-180.00	562.73	-2,096.79	947.30	897.92	49.38	19.183	
11,200.00	8,777.90	11,787.53	9,724.03	41.72	42.63	-180.00	562.90	-2,196.76	946.34	895.81	50.53	18.727	
11,300.00	8,776.74	11,887.53	9,721.91	42.45	43.28	-180.00	563.08	-2,296.74	945.38	893.68	51.71	18.284	
11,400.00	8,775.58	11,987.52	9,719.80	43.20	43.94	-180.00	563.25	-2,396.71	944.42	891.52	52.90	17.853	
11,500.00	8,774.43	12,087.52	9,717.68	43.96	44.63	-180.00	563.43	-2,496.68	943.47	889.35	54.11	17.435	
11,600.00	8,773.27	12,187.51	9,715.56	44.75	45.33	-180.00	563.61	-2,596.66	942.51	887.16	55.35	17.030	
11,700.00	8,772.11	12,287.51	9,713.45	45.54	46.04	-180.00	563.79	-2,696.63	941.55	884.95	56.59	16.637	
11,800.00	8,770.95	12,387.51	9,711.33	46.35	46.78	-180.00	563.97	-2,796.60	940.59	882.73	57.86	16.257	
11,900.00	8,769.80	12,487.50	9,709.21	47.17	47.52	-180.00	564.15	-2,896.58	939.63	880.49	59.13	15.890	
12,000.00	8,768.64	12,587.50	9,707.10	48.00	48.28	-180.00	564.33	-2,996.55	938.67	878.24	60.43	15.534	
12,100.00	8,767.48	12,687.49	9,704.98	48.84	49.06	-180.00	564.51	-3,096.52	937.71	875.98	61.73	15.190	
12,200.00	8,766.32	12,787.49	9,702.86	49.70	49.85	-180.00	564.69	-3,196.50	936.75	873.70	63.05	14.858	
12,300.00	8,765.17	12,887.49	9,700.74	50.56	50.65	-180.00	564.87	-3,296.47	935.79	871.41	64.37	14.537	
12,400.00	8,764.01	12,987.48	9,698.63	51.44	51.46	-180.00	565.05	-3,396.44	934.83	869.11	65.71	14.226	
12,500.00	8,762.85	13,087.48	9,696.51	52.32	52.29	-180.00	565.24	-3,496.42	933.87	866.81	67.06	13.925	
12,600.00	8,761.69	13,187.47	9,694.39	53.22	53.12	-180.00	565.42	-3,596.39	932.91	864.49	68.42	13.635	
12,700.00	8,760.54	13,287.47	9,692.27	54.12	53.97	-180.00	565.61	-3,696.36	931.95	862.16	69.79	13.354	
12,800.00	8,759.38	13,387.47	9,690.16	55.03	54.82	-180.00	565.79	-3,796.34	930.99	859.83	71.16	13.083	
12,900.00	8,758.22	13,487.46	9,688.04	55.94	55.69	-180.00	565.98	-3,896.31	930.03	857.48	72.54	12.820	
13,000.00	8,757.06	13,587.46	9,685.92	56.87	56.56	-180.00	566.16	-3,996.28	929.07	855.13	73.94	12.566	
13,100.00	8,755.90	13,687.45	9,683.80	57.80	57.44	-180.00	566.35	-4,096.26	928.11	852.77	75.33	12.320	
13,200.00	8,754.75	13,787.45	9,681.68	58.74	58.33	-180.00	566.54	-4,196.23	927.15	850.41	76.74	12.082	
13,300.00	8,753.59	13,887.44	9,679.57	59.68	59.23	180.00	566.73	-4,296.20	926.19	848.04	78.15	11.852	
13,400.00	8,752.43	13,987.44	9,677.45	60.63	60.13	180.00	566.91	-4,396.17	925.23	845.66	79.56	11.629	
13,500.00	8,751.27	14,087.43	9,675.33	61.59	61.05	180.00	567.10	-4,496.14	924.27	843.28	80.99	11.413	
13,600.00	8,750.12	14,187.42	9,673.21	62.55	61.96	180.00	567.28	-4,596.11	923.31	840.89	82.41	11.203	
13,700.00	8,748.96	14,287.42	9,671.10	63.51	62.89	180.00	567.46	-4,696.08	922.35	838.50	83.85	11.000	
13,800.00	8,747.80	14,387.41	9,668.98	64.48	63.82	180.00	567.64	-4,796.05	921.39	836.10	85.28	10.804	
13,900.00	8,746.64	14,487.40	9,666.87	65.46	64.76	180.00	567.82	-4,896.02	920.43	833.70	86.73	10.613	
14,000.00	8,745.49	14,587.40	9,664.75	66.44	65.70	180.00	568.00	-4,996.00	919.47	831.30	88.17	10.428	
14,100.00	8,744.33	14,687.39	9,662.63	67.43	66.65	180.00	568.17	-5,095.97	918.51	828.89	89.62	10.249	
14,200.00	8,743.17	14,787.38	9,660.52	68.42	67.61	180.00	568.35	-5,195.94	917.55	826.48	91.08	10.074	
14,233.20	8,742.79	14,811.84	9,660.00	68.75	67.84	180.00	568.39	-5,220.39	917.28	825.83	91.44	10.031	
14,300.00	8,742.01	14,811.84	9,660.00	69.41	67.84	180.00	568.39	-5,220.39	919.70	828.29	91.41	10.061	
14,400.00	8,740.85	14,811.84	9,660.00	70.41	67.84	180.00	568.39	-5,220.39	932.31	841.34	90.97	10.248	
14,473.84	8,740.00	14,811.84	9,660.00	71.02	67.84	180.00	568.39	-5,220.39	948.30	857.12	91.18	10.400	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	Local Co-ordinate Reference:	Well Mongo 25 Fed Com 552H
Project:	Eddy County, NM (NAD83)	TVD Reference:	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	MD Reference:	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Mongo 25 Fed Com 552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 752H - OH - Plan 1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+IFR1+MS													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	0.00	0.00	0.00	0.00	179.20	-59.98	0.84	59.99				
100.00	100.00	100.00	100.00	0.27	0.27	179.20	-59.98	0.84	59.99	59.45	0.54	111.558	
200.00	200.00	200.00	200.00	0.63	0.63	179.20	-59.98	0.84	59.99	58.73	1.25	47.811	
300.00	300.00	300.00	300.00	0.99	0.99	179.20	-59.98	0.84	59.99	58.01	1.97	30.425	
400.00	400.00	400.00	400.00	1.34	1.34	179.20	-59.98	0.84	59.99	57.30	2.69	22.312	
500.00	500.00	500.00	500.00	1.70	1.70	179.20	-59.98	0.84	59.99	56.58	3.41	17.615	
600.00	600.00	600.00	600.00	2.06	2.06	179.20	-59.98	0.84	59.99	55.86	4.12	14.551	
700.00	700.00	700.00	700.00	2.42	2.42	179.20	-59.98	0.84	59.99	55.15	4.84	12.395	
800.00	800.00	800.00	800.00	2.78	2.78	179.20	-59.98	0.84	59.99	54.43	5.56	10.796	
900.00	900.00	900.00	900.00	3.14	3.14	179.20	-59.98	0.84	59.99	53.71	6.27	9.562	
1,000.00	1,000.00	1,000.00	1,000.00	3.50	3.50	179.20	-59.98	0.84	59.99	53.00	6.99	8.581	
1,100.00	1,100.00	1,100.00	1,100.00	3.85	3.85	179.20	-59.98	0.84	59.99	52.28	7.71	7.783	
1,200.00	1,200.00	1,200.00	1,200.00	4.21	4.21	179.20	-59.98	0.84	59.99	51.56	8.42	7.121	
1,300.00	1,300.00	1,300.00	1,300.00	4.57	4.57	179.20	-59.98	0.84	59.99	50.84	9.14	6.562	
1,400.00	1,400.00	1,400.00	1,400.00	4.93	4.93	179.20	-59.98	0.84	59.99	50.13	9.86	6.085	
1,500.00	1,500.00	1,500.00	1,500.00	5.29	5.29	179.20	-59.98	0.84	59.99	49.41	10.57	5.672	
1,600.00	1,600.00	1,600.00	1,600.00	5.65	5.65	179.20	-59.98	0.84	59.99	48.69	11.29	5.312	
1,700.00	1,700.00	1,700.00	1,700.00	6.00	6.00	179.20	-59.98	0.84	59.99	47.98	12.01	4.995	
1,800.00	1,800.00	1,800.00	1,800.00	6.36	6.36	179.20	-59.98	0.84	59.99	47.26	12.73	4.714	
1,900.00	1,900.00	1,900.00	1,900.00	6.72	6.72	179.20	-59.98	0.84	59.99	46.54	13.44	4.462	
2,000.00	2,000.00	2,000.00	2,000.00	7.08	7.08	179.20	-59.98	0.84	59.99	45.83	14.16	4.236	
2,100.00	2,100.00	2,100.00	2,100.00	7.44	7.44	179.20	-59.98	0.84	59.99	45.11	14.88	4.032	
2,200.00	2,200.00	2,200.00	2,200.00	7.80	7.80	179.20	-59.98	0.84	59.99	44.39	15.59	3.847	
2,300.00	2,300.00	2,300.00	2,300.00	8.16	8.16	179.20	-59.98	0.84	59.99	43.68	16.31	3.678	
2,400.00	2,400.00	2,400.00	2,400.00	8.51	8.51	179.20	-59.98	0.84	59.99	42.96	17.03	3.523	
2,500.00	2,500.00	2,500.00	2,500.00	8.87	8.87	179.20	-59.98	0.84	59.99	42.24	17.74	3.381	
2,600.00	2,600.00	2,600.00	2,600.00	9.23	9.23	179.20	-59.98	0.84	59.99	41.52	18.46	3.249	
2,700.00	2,700.00	2,700.00	2,700.00	9.59	9.59	179.20	-59.98	0.84	59.99	40.81	19.18	3.128 CC	
2,704.45	2,704.45	2,704.45	2,704.45	9.60	9.61	119.20	-59.98	0.84	59.99	40.78	19.21	3.123	
2,800.00	2,800.00	2,799.97	2,799.97	9.95	9.94	119.07	-59.99	1.28	60.17	40.28	19.89	3.025 ES	
2,900.00	2,899.94	2,899.88	2,899.82	10.30	10.28	118.50	-60.03	4.76	61.88	41.30	20.58	3.007 SF	
3,000.00	2,999.70	2,999.72	2,999.40	10.65	10.63	117.57	-60.11	11.72	65.40	44.13	21.27	3.074	
3,100.00	3,099.17	3,099.50	3,098.68	11.00	10.97	116.76	-60.23	21.71	70.71	48.74	21.97	3.219	
3,200.00	3,198.21	3,199.24	3,197.88	11.35	11.32	118.00	-60.36	32.14	77.64	54.97	22.67	3.425	
3,300.00	3,296.87	3,298.83	3,296.91	11.70	11.66	120.64	-60.48	42.55	85.92	62.55	23.36	3.677	
3,400.00	3,395.50	3,398.40	3,395.94	12.06	12.01	122.93	-60.61	52.96	94.44	70.37	24.06	3.924	
3,500.00	3,494.14	3,497.94	3,494.94	12.41	12.36	131.81	-60.74	63.37	103.50	78.73	24.77	4.179	
3,600.00	3,592.84	3,597.28	3,593.73	12.77	12.70	144.39	-60.86	73.75	114.73	89.26	25.47	4.504	
3,700.00	3,691.49	3,696.05	3,692.14	13.13	13.05	151.73	-60.96	82.13	128.25	102.07	26.18	4.899	
3,800.00	3,790.12	3,794.61	3,790.57	13.48	13.39	152.84	-61.02	87.11	142.48	115.60	26.88	5.301	
3,900.00	3,888.75	3,892.81	3,888.75	13.84	13.73	154.99	-61.04	88.70	157.16	129.58	27.57	5.700	
4,000.00	3,987.38	3,991.44	3,987.38	14.20	14.08	157.30	-61.04	88.70	172.28	144.00	28.28	6.092	
4,100.00	4,086.01	4,090.07	4,086.01	14.56	14.44	159.25	-61.04	88.70	187.64	158.65	28.99	6.473	
4,200.00	4,184.64	4,188.69	4,184.64	14.92	14.79	160.89	-61.04	88.70	203.18	173.48	29.70	6.841	
4,300.00	4,283.27	4,287.32	4,283.27	15.28	15.14	162.30	-61.04	88.70	218.86	188.44	30.41	7.196	
4,400.00	4,381.90	4,385.95	4,381.90	15.64	15.49	163.53	-61.04	88.70	234.65	203.52	31.12	7.539	
4,500.00	4,480.53	4,484.58	4,480.53	16.00	15.84	164.60	-61.04	88.70	250.53	218.69	31.84	7.869	
4,600.00	4,579.16	4,583.21	4,579.16	16.37	16.20	165.54	-61.04	88.70	266.49	233.94	32.55	8.187	
4,700.00	4,677.78	4,681.84	4,677.78	16.73	16.55	166.37	-61.04	88.70	282.51	249.24	33.26	8.493	
4,800.00	4,776.41	4,780.47	4,776.41	17.09	16.90	167.12	-61.04	88.70	298.58	264.60	33.98	8.787	
4,900.00	4,875.04	4,879.10	4,875.04	17.46	17.25	167.79	-61.04	88.70	314.70	280.00	34.69	9.071	
5,000.00	4,973.67	4,977.73	4,973.67	17.82	17.61	168.39	-61.04	88.70	330.85	295.44	35.41	9.344	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	Local Co-ordinate Reference:	Well Mongo 25 Fed Com 552H
Project:	Eddy County, NM (NAD83)	TVD Reference:	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	MD Reference:	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Mongo 25 Fed Com 552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 752H - OH - Plan 1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+IFR1+MS													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,100.00	5,072.30	5,076.36	5,072.30	18.19	17.96	168.94	-61.04	88.70	347.04	310.91	36.13	9.607	
5,200.00	5,170.93	5,174.99	5,170.93	18.55	18.31	169.44	-61.04	88.70	363.25	326.41	36.84	9.860	
5,300.00	5,269.56	5,273.62	5,269.56	18.92	18.66	169.90	-61.04	88.70	379.49	341.93	37.56	10.104	
5,400.00	5,368.19	5,372.25	5,368.19	19.28	19.02	170.31	-61.04	88.70	395.75	357.48	38.28	10.340	
5,500.00	5,466.82	5,470.88	5,466.82	19.65	19.37	170.70	-61.04	88.70	412.03	373.04	38.99	10.567	
5,600.00	5,565.45	5,569.51	5,565.45	20.01	19.72	171.06	-61.04	88.70	428.33	388.62	39.71	10.786	
5,700.00	5,664.08	5,668.14	5,664.08	20.38	20.08	171.39	-61.04	88.70	444.64	404.21	40.43	10.998	
5,800.00	5,762.71	5,766.77	5,762.71	20.75	20.43	171.69	-61.04	88.70	460.97	419.82	41.15	11.203	
5,900.00	5,861.34	5,865.39	5,861.34	21.11	20.78	171.98	-61.04	88.70	477.30	435.44	41.87	11.400	
6,000.00	5,959.97	5,964.02	5,959.97	21.48	21.13	172.25	-61.04	88.70	493.65	451.06	42.59	11.592	
6,100.00	6,058.60	6,062.65	6,058.60	21.85	21.49	172.50	-61.04	88.70	510.01	466.70	43.31	11.777	
6,200.00	6,157.23	6,161.28	6,157.23	22.22	21.84	172.73	-61.04	88.70	526.38	482.35	44.03	11.956	
6,300.00	6,255.85	6,259.91	6,255.85	22.58	22.19	172.95	-61.04	88.70	542.75	498.00	44.75	12.130	
6,400.00	6,354.48	6,358.54	6,354.48	22.95	22.55	173.16	-61.04	88.70	559.13	513.67	45.47	12.298	
6,500.00	6,453.11	6,457.17	6,453.11	23.32	22.90	173.36	-61.04	88.70	575.52	529.33	46.19	12.461	
6,600.00	6,551.74	6,555.80	6,551.74	23.69	23.25	173.54	-61.04	88.70	591.92	545.01	46.91	12.619	
6,700.00	6,650.37	6,654.43	6,650.37	24.06	23.60	173.71	-61.04	88.70	608.32	560.69	47.63	12.772	
6,800.00	6,749.00	6,753.06	6,749.00	24.43	23.96	173.88	-61.04	88.70	624.72	576.37	48.35	12.921	
6,900.00	6,847.63	6,851.69	6,847.63	24.80	24.31	174.04	-61.04	88.70	641.13	592.06	49.07	13.065	
7,000.00	6,946.26	6,950.32	6,946.26	25.16	24.66	174.19	-61.04	88.70	657.55	607.75	49.79	13.206	
7,100.00	7,045.10	7,049.16	7,045.10	25.53	25.02	174.34	-61.04	88.70	672.62	622.11	50.51	13.315	
7,200.00	7,144.41	7,148.47	7,144.41	25.90	25.37	174.46	-61.04	88.70	684.28	633.04	51.23	13.356	
7,300.00	7,244.06	7,248.12	7,244.06	26.26	25.73	174.54	-61.04	88.70	692.48	640.53	51.95	13.329	
7,400.00	7,343.95	7,348.00	7,343.95	26.62	26.09	174.59	-61.04	88.70	697.21	644.55	52.67	13.238	
7,500.00	7,443.93	7,447.99	7,443.93	26.96	26.45	-152.45	-61.04	88.70	698.51	645.14	53.37	13.089	
7,600.00	7,543.93	7,547.99	7,543.93	27.31	26.80	-152.45	-61.04	88.70	698.51	644.44	54.07	12.918	
7,700.00	7,643.93	7,647.99	7,643.93	27.66	27.16	-152.45	-61.04	88.70	698.51	643.73	54.78	12.751	
7,800.00	7,743.93	7,747.99	7,743.93	28.01	27.52	-152.45	-61.04	88.70	698.51	643.02	55.49	12.588	
7,900.00	7,843.93	7,847.99	7,843.93	28.36	27.88	-152.45	-61.04	88.70	698.51	642.31	56.20	12.430	
8,000.00	7,943.93	7,947.99	7,943.93	28.71	28.24	-152.45	-61.04	88.70	698.51	641.60	56.91	12.275	
8,100.00	8,043.93	8,047.99	8,043.93	29.06	28.59	-152.45	-61.04	88.70	698.51	640.89	57.61	12.124	
8,200.00	8,143.93	8,147.99	8,143.93	29.41	28.95	-152.45	-61.04	88.70	698.51	640.19	58.32	11.977	
8,300.00	8,243.93	8,247.99	8,243.93	29.90	29.31	-62.58	-61.04	88.70	698.41	639.23	59.18	11.802	
8,400.00	8,343.15	8,347.21	8,343.15	30.22	29.67	-63.87	-61.04	88.70	693.22	633.36	59.86	11.581	
8,500.00	8,438.87	8,442.93	8,438.87	30.53	30.01	-67.08	-61.04	88.70	680.95	620.44	60.51	11.253	
8,600.00	8,528.20	8,532.26	8,528.20	30.82	30.33	-71.94	-61.04	88.70	663.70	602.58	61.12	10.858	
8,700.00	8,608.41	8,612.47	8,608.41	31.09	30.62	-77.90	-61.04	88.70	644.84	583.15	61.69	10.453	
8,800.00	8,677.07	8,681.13	8,677.07	31.34	30.86	-83.98	-61.04	88.70	628.73	566.54	62.19	10.110	
8,900.00	8,732.09	8,736.15	8,732.09	31.56	31.06	-89.04	-61.04	88.70	620.26	557.64	62.62	9.905	
8,924.00	8,743.08	8,747.13	8,743.08	31.61	31.10	-89.98	-61.04	88.70	619.88	557.17	62.71	9.886	
9,000.00	8,771.81	8,775.86	8,771.81	31.76	31.20	-92.04	-61.04	88.70	623.80	560.86	62.94	9.911	
9,100.00	8,795.00	8,799.06	8,795.00	31.95	31.28	-92.26	-61.04	88.70	641.98	578.85	63.13	10.169	
9,200.00	8,801.05	8,805.11	8,801.05	32.11	31.31	-89.71	-61.04	88.70	674.81	611.64	63.17	10.683	
9,300.00	8,799.90	8,803.95	8,799.90	32.29	31.30	-89.61	-61.04	88.70	720.21	657.07	63.14	11.407	
9,400.00	8,798.74	8,802.79	8,798.74	32.52	31.30	-89.50	-61.04	88.70	775.91	712.81	63.10	12.297	
9,500.00	8,797.58	8,801.64	8,797.58	32.77	31.29	-89.39	-61.04	88.70	839.86	776.80	63.06	13.319	
9,600.00	8,796.42	8,800.48	8,796.42	33.07	31.29	-89.29	-61.04	88.70	910.32	847.30	63.02	14.445	
9,700.00	8,795.26	8,799.32	8,795.26	33.39	31.28	-89.18	-61.04	88.70	985.90	922.92	62.98	15.654	
9,800.00	8,794.11	8,798.16	8,794.11	33.75	31.28	-89.07	-61.04	88.70	1,065.51	1,002.56	62.95	16.926	
9,900.00	8,792.95	8,797.01	8,792.95	34.15	31.28	-88.97	-61.04	88.70	1,148.32	1,085.39	62.93	18.249	
10,000.00	8,791.79	8,795.85	8,791.79	34.57	31.27	-88.86	-61.04	88.70	1,233.67	1,170.77	62.91	19.612	
10,100.00	8,790.63	10,874.48	9,934.94	35.03	37.51	-151.56	-58.92	-1,087.60	1,301.45	1,250.59	50.86	25.588	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	Local Co-ordinate Reference:	Well Mongo 25 Fed Com 552H
Project:	Eddy County, NM (NAD83)	TVD Reference:	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	MD Reference:	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Mongo 25 Fed Com 552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Mongo 25 Fed Com - Mongo 25 Fed Com 752H - OH - Plan 1													Offset Site Error: 0.00 usft	
Survey Program: Reference		0-MWD+IFR1+MS Offset		Semi Major Axis		Offset Wellbore Centre			Rule Assigned: Distance				Offset Well Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
10,200.00	8,789.48	10,974.48	9,934.09	35.51	37.89	-151.56	-58.74	-1,187.59	1,301.73	1,250.04	51.69	25.183		
10,300.00	8,788.32	11,074.48	9,933.25	36.03	38.30	-151.57	-58.56	-1,287.59	1,302.00	1,249.44	52.56	24.771		
10,400.00	8,787.16	11,174.48	9,932.40	36.57	38.73	-151.58	-58.38	-1,387.58	1,302.27	1,248.80	53.48	24.352		
10,500.00	8,786.00	11,274.48	9,931.56	37.13	39.20	-151.58	-58.20	-1,487.58	1,302.55	1,248.11	54.43	23.929		
10,600.00	8,784.85	11,374.48	9,930.71	37.72	39.68	-151.59	-58.02	-1,587.58	1,302.82	1,247.40	55.43	23.505		
10,700.00	8,783.69	11,474.48	9,929.87	38.33	40.20	-151.60	-57.84	-1,687.57	1,303.10	1,246.64	56.46	23.081		
10,800.00	8,782.53	11,574.48	9,929.02	38.97	40.74	-151.60	-57.66	-1,787.57	1,303.37	1,245.85	57.52	22.658		
10,900.00	8,781.37	11,674.48	9,928.18	39.63	41.30	-151.61	-57.48	-1,887.56	1,303.65	1,245.02	58.62	22.238		
11,000.00	8,780.22	11,774.48	9,927.33	40.30	41.88	-151.62	-57.30	-1,987.56	1,303.92	1,244.17	59.75	21.822		
11,100.00	8,779.06	11,874.48	9,926.49	41.00	42.49	-151.62	-57.12	-2,087.56	1,304.20	1,243.28	60.91	21.411		
11,200.00	8,777.90	11,974.48	9,925.64	41.72	43.12	-151.63	-56.94	-2,187.55	1,304.47	1,242.37	62.10	21.006		
11,300.00	8,776.74	12,074.48	9,924.80	42.45	43.76	-151.63	-56.76	-2,287.55	1,304.74	1,241.43	63.31	20.608		
11,400.00	8,775.58	12,174.48	9,923.95	43.20	44.43	-151.64	-56.58	-2,387.54	1,305.02	1,240.47	64.55	20.217		
11,500.00	8,774.43	12,274.48	9,923.10	43.96	45.11	-151.65	-56.40	-2,487.54	1,305.29	1,239.48	65.81	19.834		
11,600.00	8,773.27	12,374.48	9,922.26	44.75	45.81	-151.65	-56.22	-2,587.53	1,305.57	1,238.47	67.09	19.459		
11,700.00	8,772.11	12,474.48	9,921.41	45.54	46.52	-151.66	-56.04	-2,687.53	1,305.84	1,237.45	68.40	19.092		
11,800.00	8,770.95	12,574.48	9,920.57	46.35	47.26	-151.67	-55.86	-2,787.53	1,306.12	1,236.40	69.72	18.734		
11,900.00	8,769.80	12,674.48	9,919.72	47.17	48.00	-151.67	-55.68	-2,887.52	1,306.39	1,235.33	71.06	18.384		
12,000.00	8,768.64	12,774.47	9,918.88	48.00	48.77	-151.68	-55.50	-2,987.52	1,306.67	1,234.25	72.42	18.043		
12,100.00	8,767.48	12,874.47	9,918.03	48.84	49.54	-151.69	-55.32	-3,087.51	1,306.94	1,233.14	73.80	17.710		
12,200.00	8,766.32	12,974.47	9,917.19	49.70	50.33	-151.69	-55.13	-3,187.51	1,307.22	1,232.03	75.19	17.386		
12,300.00	8,765.17	13,074.47	9,916.34	50.56	51.13	-151.70	-54.95	-3,287.50	1,307.49	1,230.90	76.59	17.071		
12,400.00	8,764.01	13,174.47	9,915.50	51.44	51.94	-151.71	-54.77	-3,387.50	1,307.77	1,229.75	78.01	16.763		
12,500.00	8,762.85	13,274.47	9,914.65	52.32	52.76	-151.71	-54.59	-3,487.50	1,308.04	1,228.59	79.45	16.465		
12,600.00	8,761.69	13,374.47	9,913.80	53.22	53.60	-151.72	-54.41	-3,587.49	1,308.31	1,227.42	80.89	16.174		
12,700.00	8,760.54	13,474.47	9,912.96	54.12	54.44	-151.73	-54.23	-3,687.49	1,308.59	1,226.24	82.35	15.891		
12,800.00	8,759.38	13,574.47	9,912.11	55.03	55.30	-151.73	-54.05	-3,787.48	1,308.86	1,225.05	83.82	15.616		
12,900.00	8,758.22	13,674.47	9,911.27	55.94	56.16	-151.74	-53.87	-3,887.48	1,309.14	1,223.84	85.29	15.349		
13,000.00	8,757.06	13,774.47	9,910.42	56.87	57.03	-151.75	-53.69	-3,987.48	1,309.41	1,222.63	86.78	15.088		
13,100.00	8,755.90	13,874.47	9,909.58	57.80	57.91	-151.75	-53.51	-4,087.47	1,309.69	1,221.41	88.28	14.835		
13,200.00	8,754.75	13,974.47	9,908.73	58.74	58.80	-151.76	-53.33	-4,187.47	1,309.96	1,220.18	89.79	14.589		
13,300.00	8,753.59	14,074.47	9,907.89	59.68	59.70	-151.76	-53.15	-4,287.46	1,310.24	1,218.93	91.30	14.350		
13,400.00	8,752.43	14,174.47	9,907.04	60.63	60.60	-151.77	-52.97	-4,387.46	1,310.51	1,217.69	92.83	14.118		
13,500.00	8,751.27	14,274.47	9,906.20	61.59	61.51	-151.78	-52.79	-4,487.45	1,310.79	1,216.43	94.36	13.891		
13,600.00	8,750.12	14,374.47	9,905.35	62.55	62.43	-151.78	-52.61	-4,587.45	1,311.06	1,215.16	95.90	13.671		
13,700.00	8,748.96	14,474.47	9,904.51	63.51	63.36	-151.79	-52.43	-4,687.45	1,311.34	1,213.89	97.44	13.457		
13,800.00	8,747.80	14,574.47	9,903.66	64.48	64.29	-151.80	-52.25	-4,787.44	1,311.61	1,212.62	99.00	13.249		
13,900.00	8,746.64	14,674.47	9,902.81	65.46	65.22	-151.80	-52.07	-4,887.44	1,311.89	1,211.33	100.56	13.046		
14,000.00	8,745.49	14,774.47	9,901.97	66.44	66.16	-151.81	-51.89	-4,987.43	1,312.16	1,210.04	102.12	12.849		
14,100.00	8,744.33	14,874.46	9,901.12	67.43	67.11	-151.82	-51.71	-5,087.43	1,312.44	1,208.75	103.69	12.657		
14,200.00	8,743.17	14,974.46	9,900.28	68.42	68.07	-151.82	-51.53	-5,187.42	1,312.71	1,207.44	105.27	12.470		
14,300.00	8,742.01	15,007.35	9,900.00	69.41	68.38	-151.83	-51.47	-5,220.31	1,314.70	1,208.76	105.94	12.410		
14,400.00	8,740.85	15,007.35	9,900.00	70.41	68.38	-151.83	-51.47	-5,220.31	1,323.85	1,217.98	105.87	12.504		
14,473.84	8,740.00	15,007.35	9,900.00	71.02	68.38	-151.83	-51.47	-5,220.31	1,335.38	1,229.46	105.92	12.607		

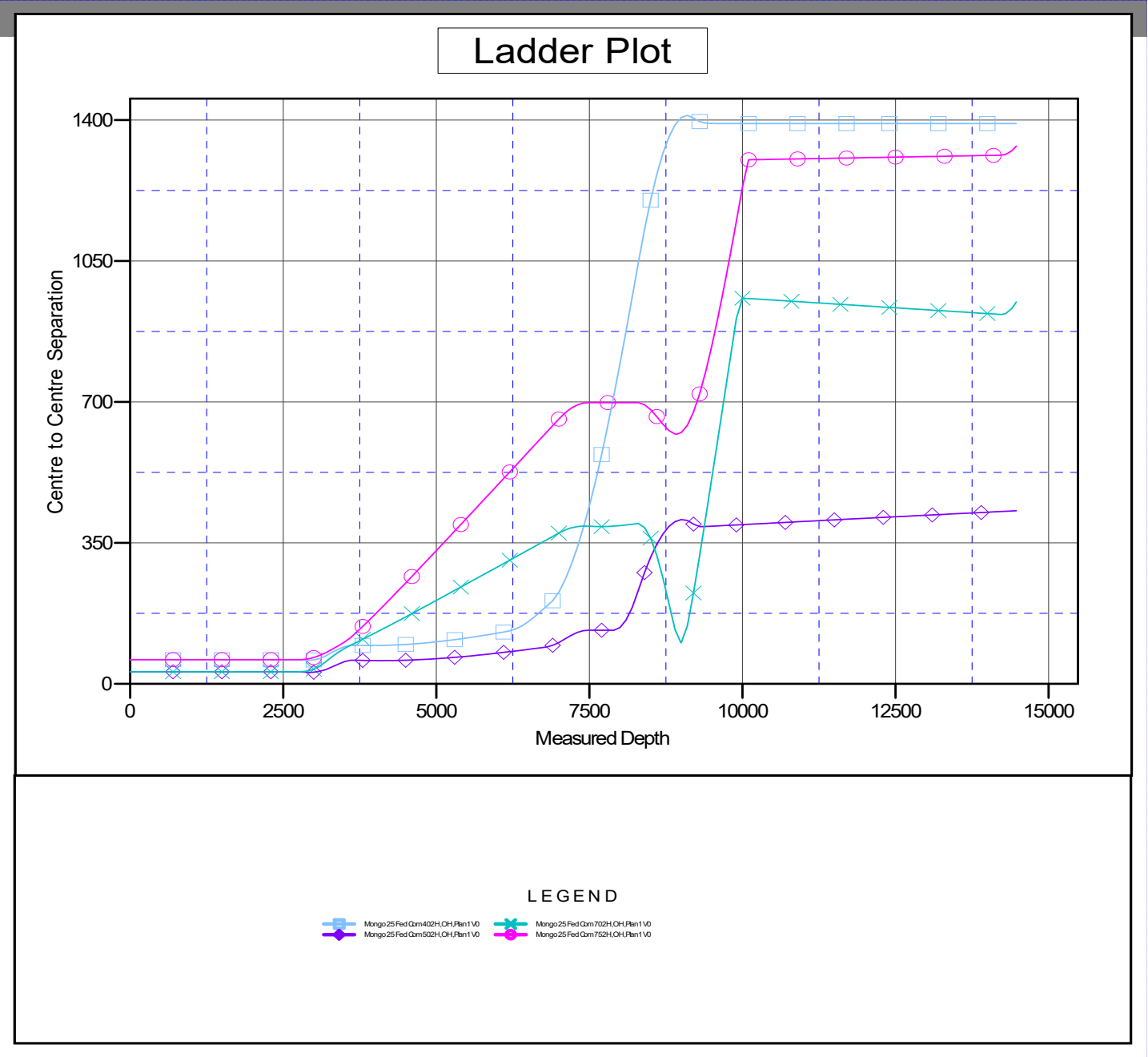
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Legacy Directional Drilling
Anticollision Report

Company:	3R Operating, LLC	Local Co-ordinate Reference:	Well Mongo 25 Fed Com 552H
Project:	Eddy County, NM (NAD83)	TVD Reference:	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	MD Reference:	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Mongo 25 Fed Com 552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to GL 2925 + 25' KB @ 2950.00usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: Mongo 25 Fed Com 552H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.16°



Legacy Directional Drilling

Anticollision Report

Company:	3R Operating, LLC	Local Co-ordinate Reference:	Well Mongo 25 Fed Com 552H
Project:	Eddy County, NM (NAD83)	TVD Reference:	GL 2925 + 25' KB @ 2950.00usft
Reference Site:	Mongo 25 Fed Com	MD Reference:	GL 2925 + 25' KB @ 2950.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Mongo 25 Fed Com 552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to GL 2925 + 25' KB @ 2950.00usft

Offset Depths are relative to Offset Datum

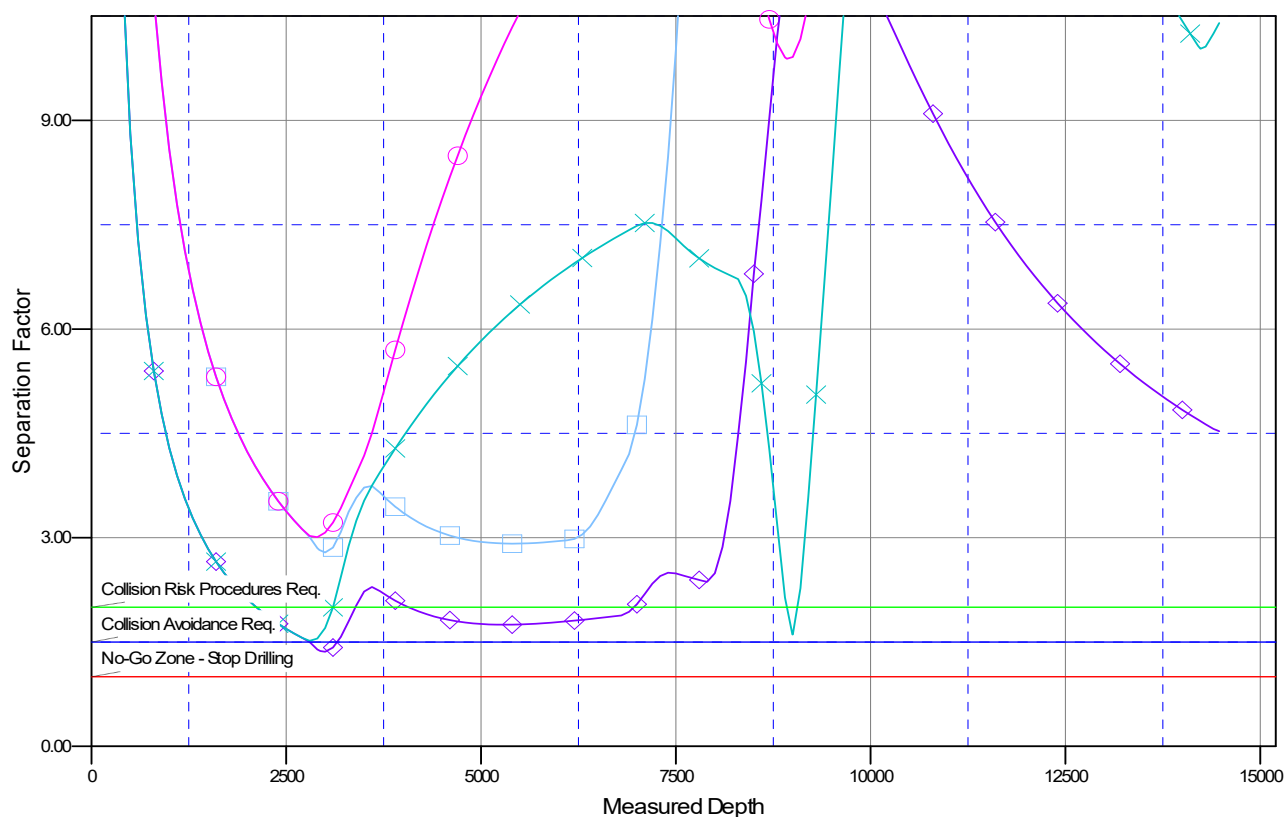
Central Meridian is -104.333334

Coordinates are relative to: Mongo 25 Fed Com 552H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Grid Convergence at Surface is: 0.16°

Separation Factor Plot



LEGEND



CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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 478695

CONDITIONS

Operator: 3R Operating, LLC 20405 State Highway 249 Houston, TX 77070	OGRID: 331569
	Action Number: 478695
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
matthew.gomez	Any previous COA's not addressed within the updated COA's still apply.	6/27/2025