

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

General Information  
Phone: (505) 629-6116

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

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

Form C-101  
August 1, 2011

Permit 383848

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

|  |  |                               |
|--|--|-------------------------------|
| 1. Operator Name and Address<br>RILEY PERMIAN OPERATING COMPANY, LLC<br>29 E Reno Avenue, Suite 500<br>Oklahoma City, OK 73104 |  | 2. OGRID Number<br>372290     |
|  |  | 3. API Number<br>30-015-56848 |
| 4. Property Code<br>337359   | 5. Property Name<br>MARTY FEE SOUTH 11 7 | 6. Well No.<br>004H           |

**7. Surface Location**

|               |               |                 |              |              |                   |               |                   |               |                |
|---------------|---------------|-----------------|--------------|--------------|-------------------|---------------|-------------------|---------------|----------------|
| UL - Lot<br>H | Section<br>11 | Township<br>18S | Range<br>26E | Lot Idn<br>H | Feet From<br>1950 | N/S Line<br>N | Feet From<br>1040 | E/W Line<br>E | County<br>Eddy |
|---------------|---------------|-----------------|--------------|--------------|-------------------|---------------|-------------------|---------------|----------------|

**8. Proposed Bottom Hole Location**

|               |              |                 |              |              |                   |               |                   |               |                |
|---------------|--------------|-----------------|--------------|--------------|-------------------|---------------|-------------------|---------------|----------------|
| UL - Lot<br>F | Section<br>7 | Township<br>18S | Range<br>27E | Lot Idn<br>F | Feet From<br>2310 | N/S Line<br>N | Feet From<br>2662 | E/W Line<br>W | County<br>Eddy |
|---------------|--------------|-----------------|--------------|--------------|-------------------|---------------|-------------------|---------------|----------------|

**9. Pool Information**

|                        |       |
|------------------------|-------|
| RED LAKE:GLORIETA-YESO | 51120 |
|------------------------|-------|

**Additional Well Information**

|                           |                             |  |                           |                                    |
|---------------------------|-----------------------------|--|---------------------------|------------------------------------|
| 11. Work Type<br>New Well | 12. Well Type<br>OIL        | 13. Cable/Rotary                       | 14. Lease Type<br>Private | 15. Ground Level Elevation<br>3310 |
| 16. Multiple<br>N         | 17. Proposed Depth<br>11116 | 18. Formation<br>Yeso                  | 19. Contractor            | 20. Spud Date<br>6/1/2025          |
| Depth to Ground water     |                             | Distance from nearest fresh water well |                           | Distance to nearest surface water  |

☒ We will be using a closed-loop system in lieu of lined pits

**21. Proposed Casing and Cement Program**

| Type | Hole Size | Casing Size | Casing Weight/ft | Setting Depth | Sacks of Cement | Estimated TOC |
|------|-----------|-------------|------------------|---------------|-----------------|---------------|
| Surf | 12.25     | 9.625       | 36               | 1250          | 645             | 0             |
| Prod | 8.75      | 7           | 32               | 3050          | 125             | 0             |
| Prod | 8.75      | 5.5         | 20               | 11116         | 2285            | 2435          |

**Casing/Cement Program: Additional Comments**

|  |
|--|
|  |
|--|

**22. Proposed Blowout Prevention Program**

| Type       | Working Pressure | Test Pressure | Manufacturer |
|------------|------------------|---------------|--------------|
| Double Ram | 3000             | 2000          |              |

|   |                                  |                                 |
|---|----------------------------------|---------------------------------|
| 23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.<br>I further certify I have complied with 19.15.14.9 (A) NMAC <input type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> , if applicable. | <b>OIL CONSERVATION DIVISION</b> |                                 |
| Signature:  |                                  |                                 |
| Printed Name: Electronically filed by Spence Laird  | Approved By: Jeffrey Harrison    |                                 |
| Title: EHSR   | Title: Petroleum Specialist III  |                                 |
| Email Address: spencelaire@rileypermian.com   | Approved Date: 6/20/2025         | Expiration Date: 6/20/2027      |
| Date: 4/16/2025   | Phone: 405-543-1411              | Conditions of Approval Attached |

|   |  |                      |   |
|---|--|----------------------|---|
| C-102<br><br>Submit Electronically<br>Via OCD Permitting            | State of New Mexico<br><br>Energy, Minerals & Natural Resources Department<br><b>OIL CONSERVATION DIVISION</b> | Revised July 9, 2024 |   |
|   |  | Submittal Type:      | <input checked="" type="checkbox"/> Initial Submittal |
|   |  |                      | <input type="checkbox"/> Amended Report               |
|   |  |                      | <input type="checkbox"/> As Drilled                   |
| Property Name and Well Number<br><br><b>MARTY FEE SOUTH 11 7 4H</b> |  |                      |   |

## WELL LOCATION AND ACREAGE DEDICATION PLAT

|  |   |  |
|--|---|--|
| API Number<br><b>30-015- 56848</b>   | Pool Code<br><b>51120</b>                                   | Pool Name<br><b>RED LAKE; GLORIETA-YESO</b>  |
| Property Code<br><b>337359</b>   | Property Name<br><b>MARTY FEE SOUTH 11 7</b>                | Well Number<br><b>004H</b>   |
| OGRID No.<br><b>372290</b>   | Operator Name<br><b>RILEY PERMIAN OPERATING COMPANY LLC</b> | Ground Level Elevation<br><b>3310'</b>   |
| Surface Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal |   | Mineral Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal |

## Surface Location

|               |         |          |       |     |                   |                   |              |               |        |
|---------------|---------|----------|-------|-----|-------------------|-------------------|--------------|---------------|--------|
| UL or Lot No. | Section | Township | Range | Lot | Feet from the N/S | Feet from the E/W | Latitude     | Longitude     | County |
| H             | 11      | 18 S     | 26 E  |     | 1950 FNL          | 1040 FEL          | N 32.764374° | W 104.347239° | EDDY   |

## Bottom Hole Location If Different From Surface

|               |         |          |       |     |                   |                   |              |               |        |
|---------------|---------|----------|-------|-----|-------------------|-------------------|--------------|---------------|--------|
| UL or Lot No. | Section | Township | Range | Lot | Feet from the N/S | Feet from the E/W | Latitude     | Longitude     | County |
| F             | 7       | 18 S     | 27 E  |     | 2310 FNL          | 2662 FWL          | N 32.763328° | W 104.317815° | EDDY   |

|                                  |  |                                 |   |                                     |
|----------------------------------|--|---------------------------------|---|-------------------------------------|
| Dedicated Acres<br><b>481.47</b> | Infill or Defining Well<br><b>Defining</b> | Defining Well API<br><b>N/A</b> | Overlapping Spacing Unit (Y/N)<br><b>N</b>  | Consolidated Code<br><b>Pending</b> |
| Order Numbers <b>Pending</b>     |  |                                 | Well Setbacks are under Common Ownership: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |                                     |

## Kick Off Point (KOP)

|               |         |          |       |     |                   |                   |           |            |        |
|---------------|---------|----------|-------|-----|-------------------|-------------------|-----------|------------|--------|
| UL or lot no. | Section | Township | Range | Lot | Feet from the N/S | Feet from the E/W | Latitude  | Longitude  | County |
| H             | 11      | 18 S     | 26 E  |     | 2075 FNL          | 708 FEL           | 32.764025 | 104.346162 | Eddy   |

## First Take Point (FTP)

|               |         |          |       |     |                   |                   |              |               |        |
|---------------|---------|----------|-------|-----|-------------------|-------------------|--------------|---------------|--------|
| UL or lot no. | Section | Township | Range | Lot | Feet from the N/S | Feet from the E/W | Latitude     | Longitude     | County |
| E             | 12      | 18 S     | 26 E  |     | 2310 FNL          | 100 FWL           | N 32.763370° | W 104.343538° | EDDY   |

## Last Take Point (LTP)

|               |         |          |       |     |                   |                   |              |               |        |
|---------------|---------|----------|-------|-----|-------------------|-------------------|--------------|---------------|--------|
| UL or lot no. | Section | Township | Range | Lot | Feet from the N/S | Feet from the E/W | Latitude     | Longitude     | County |
| F             | 7       | 18 S     | 27 E  |     | 2311 FNL          | 2572 FWL          | N 32.763328° | W 104.318107° | EDDY   |

|   |  |  |
|---|--|--|
| Unitized Area or Area of Uniform Interest | Spacing Unity Type<br><input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical | Ground Floor Elevation<br><b>3335'</b> |
|---|--|--|

## OPERATOR CERTIFICATION

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 or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore 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.

Spence Laird 04/03/2025  
Signature Date

Spence Laird  
Print Name

spencelaird@rileypermian.com  
E-mail Address

## SURVEYORS CERTIFICATION



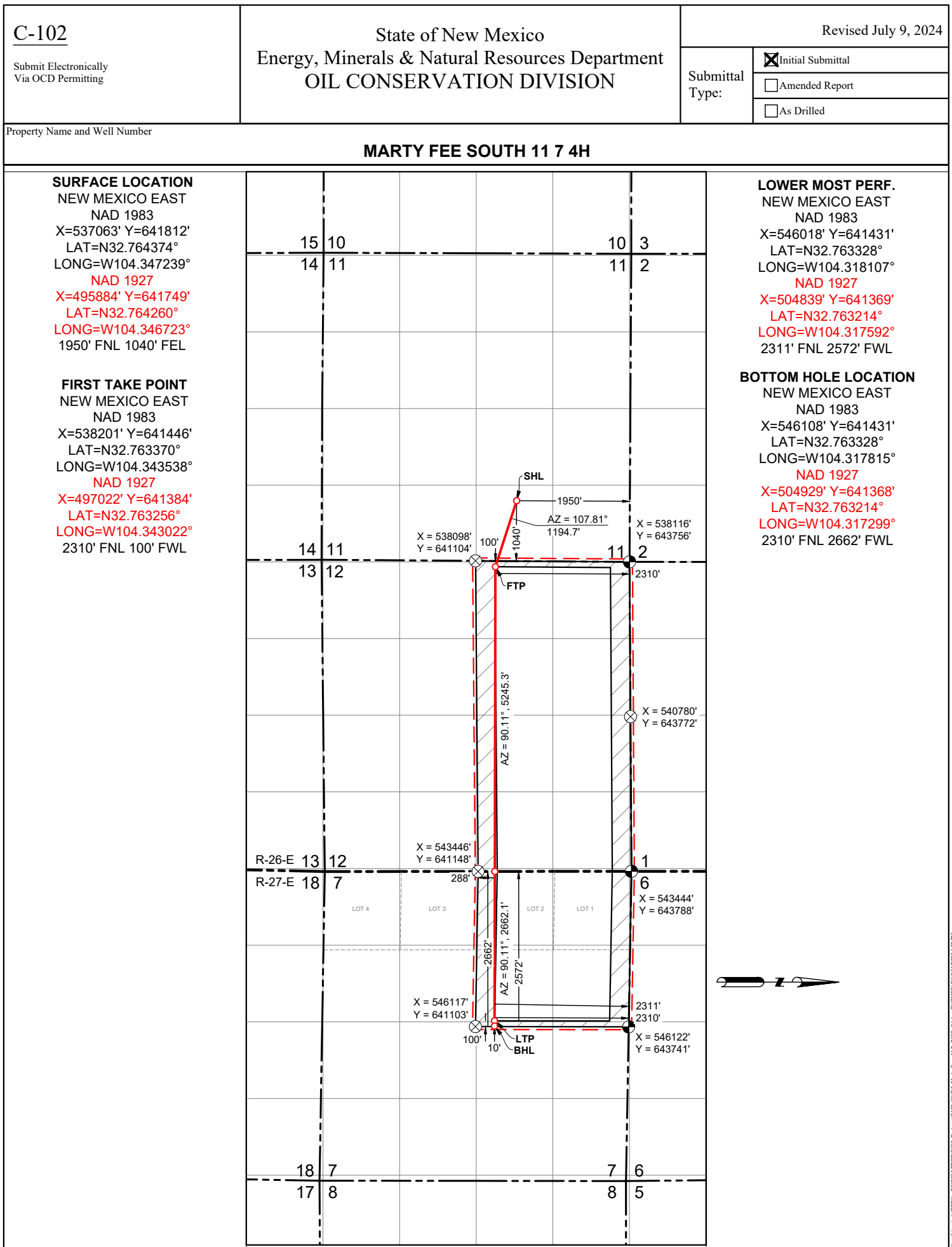
Signature and Seal of Professional Surveyor Date

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.

MITCHELL L. MCDONALD, N.M. P.L.S.

Certificate Number 29821 Date of Survey JANUARY 17, 2025

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.



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

Form APD Conditions

Permit 383848

**PERMIT CONDITIONS OF APPROVAL**

|   |                                     |
|---|-------------------------------------|
| Operator Name and Address:<br>RILEY PERMIAN OPERATING COMPANY, LLC [372290]<br>29 E Reno Avenue, Suite 500<br>Oklahoma City, OK 73104 | API Number:<br>30-015-56848         |
|   | Well:<br>MARTY FEE SOUTH 11 7 #004H |

| OCD Reviewer     | Condition   |
|------------------|---|
| jeffrey.harrison | Administrative order required for non-standard spacing unit prior to production.  |
| jeffrey.harrison | Notify the OCD 24 hours prior to casing & cement.   |
| jeffrey.harrison | A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.  |
| jeffrey.harrison | File As Drilled C-102 and a directional Survey with C-104 completion packet.  |
| jeffrey.harrison | Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string. |
| jeffrey.harrison | Cement is required to circulate on both surface and production strings of casing.   |
| jeffrey.harrison | Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.                  |
| jeffrey.harrison | If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.  |
| jeffrey.harrison | This well is in the Roswell Aquifer. Casing must be sat and cemented back to surface to protect the Roswell Aquifer.  |





Company: Riley Permian Operating Co., LLC  
Well: Marty Fee South 11-7 4H  
County: Eddy County, New Mexico (NAD 83)  
Rig: Akita 519  
Wellbore: Wellbore #1  
Design: Design #1  
Date: 15:52, March 17 2025

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 6.641°  
To convert a Magnetic Direction to a True Direction, Add 6.633° East  
To convert a True Direction to a Grid Direction, Add 0.008°



Azimuths to Grid North  
True North: 0.01°  
Magnetic North: 6.64°  
  
Magnetic Field  
Strength: 47372.9nT  
Dip Angle: 60.32°  
Date: 3/13/2025  
Model: HDGM2025

SURVEY PROGRAM

| Depth From | Depth To | Survey/Plan             | Tool     |
|------------|----------|-------------------------|----------|
| 0.00       | 11115.90 | Design #1 (Wellbore #1) | MWD+HRGM |



SECTION DETAILS

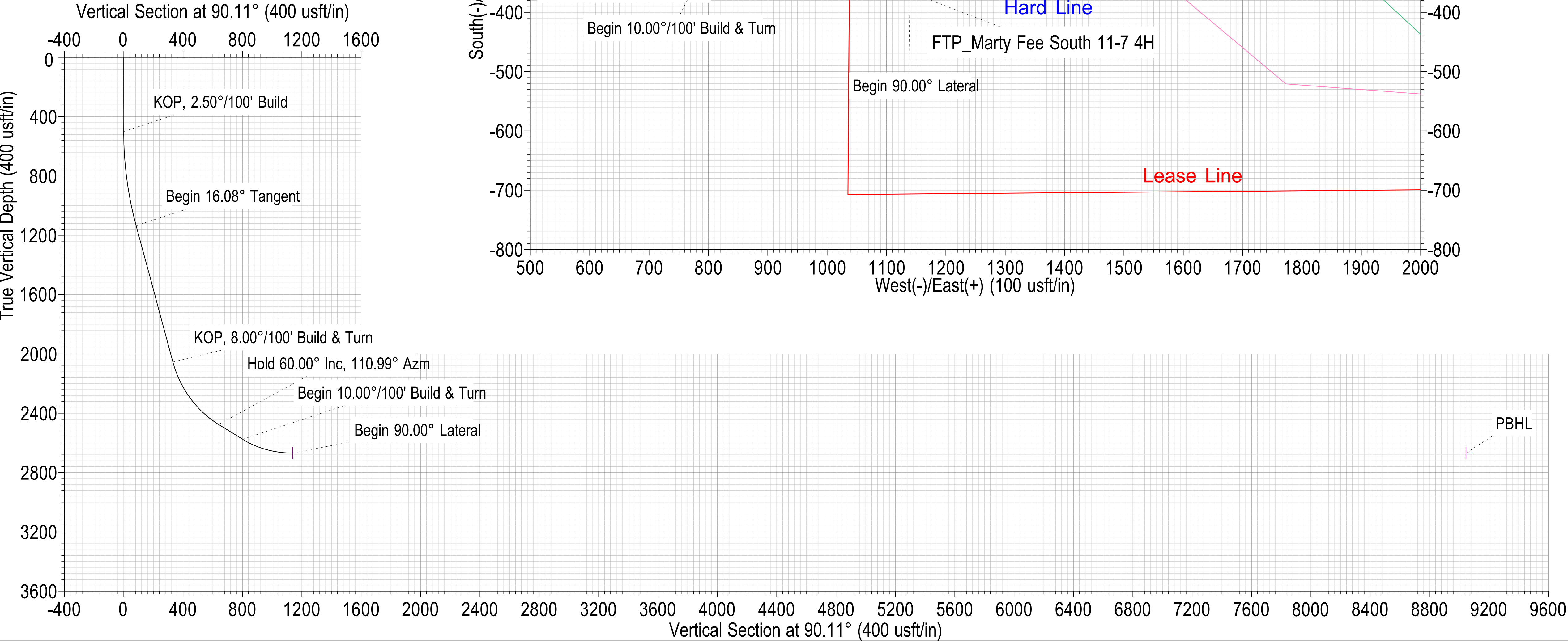
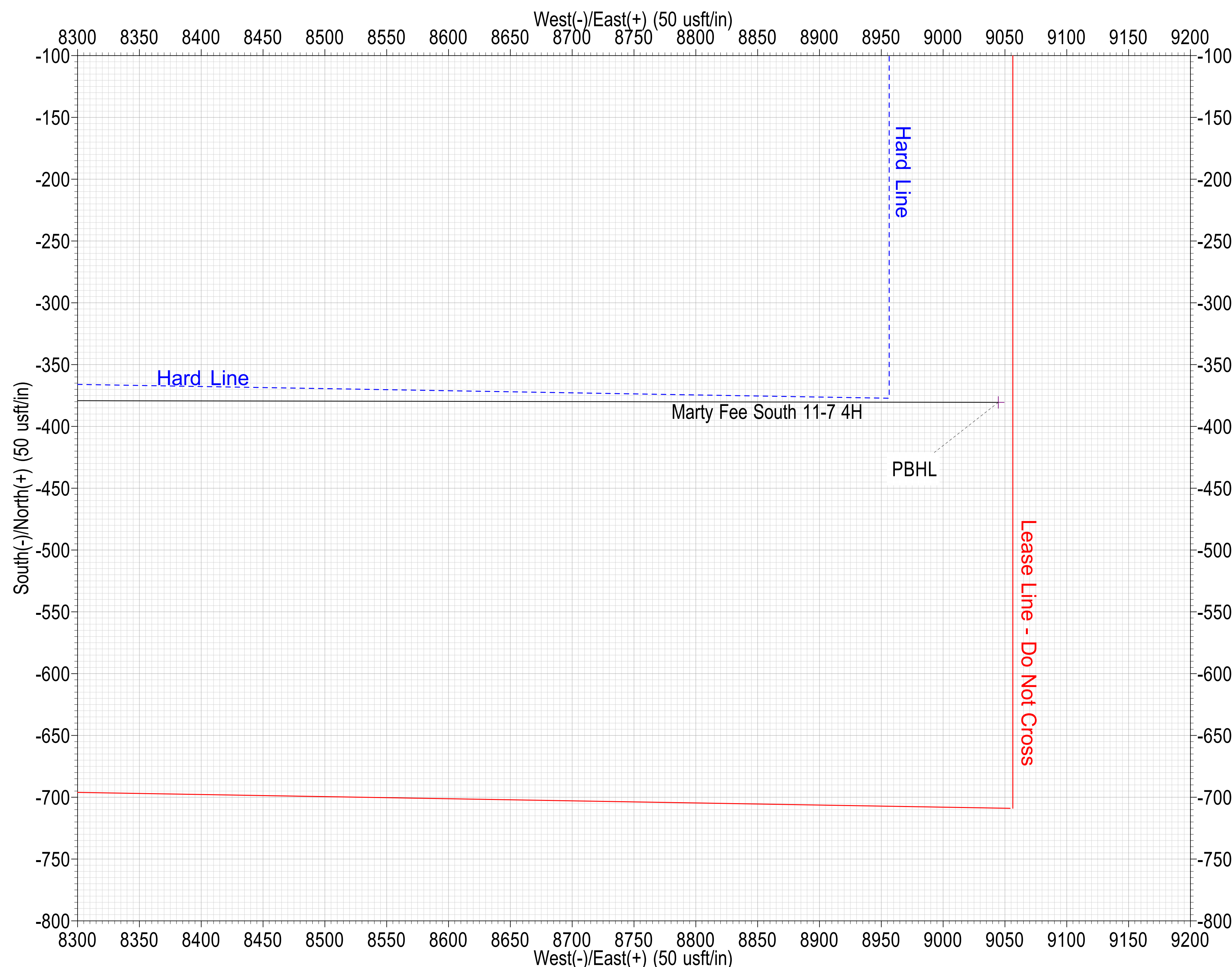
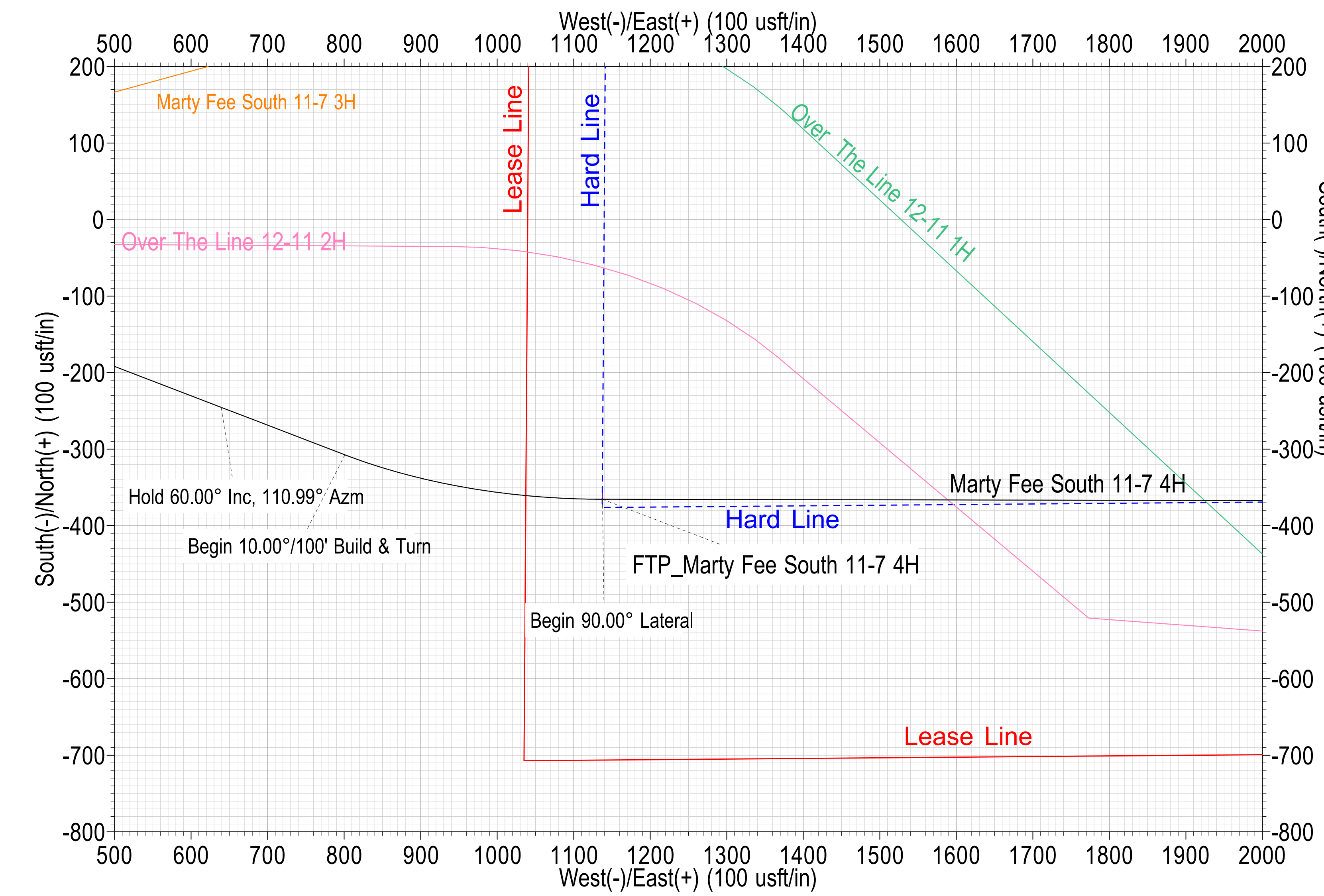
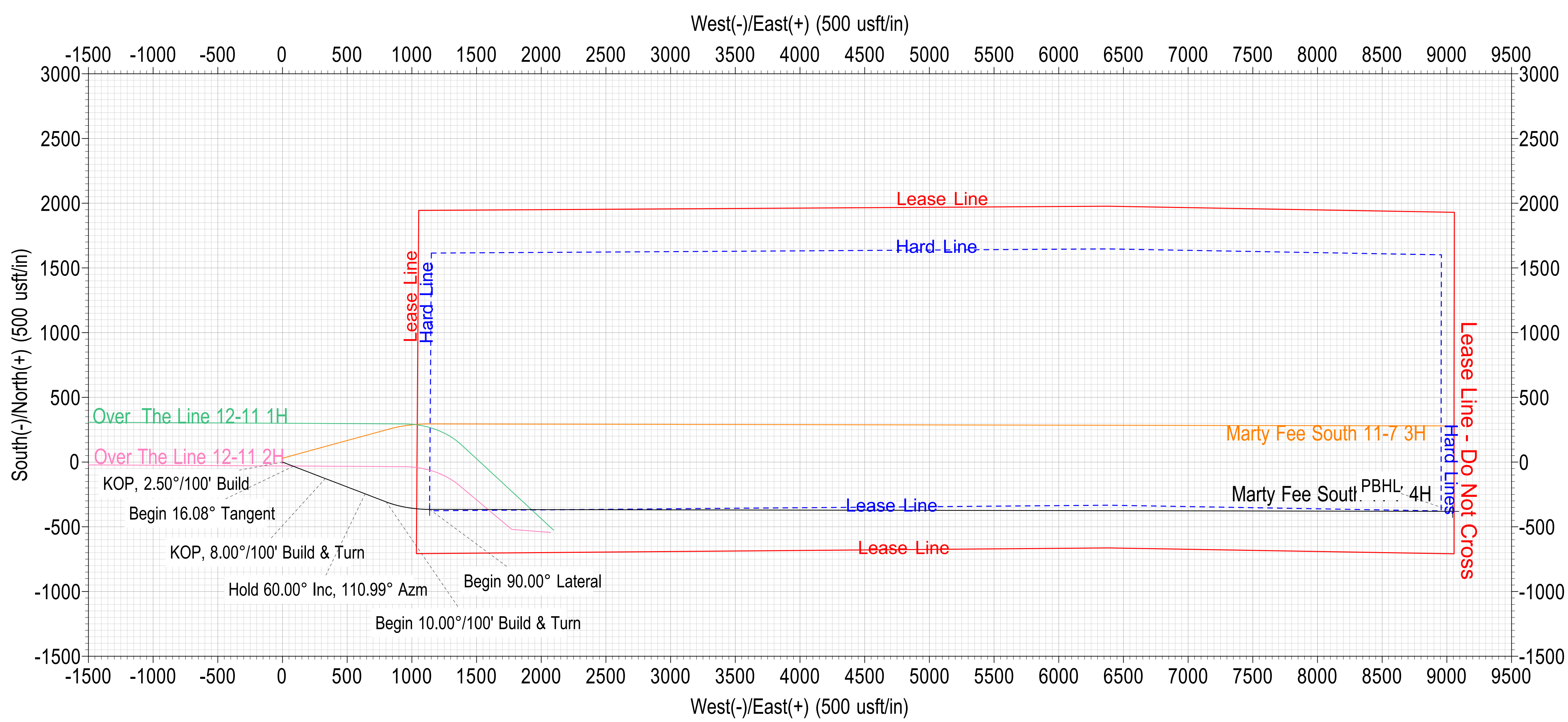
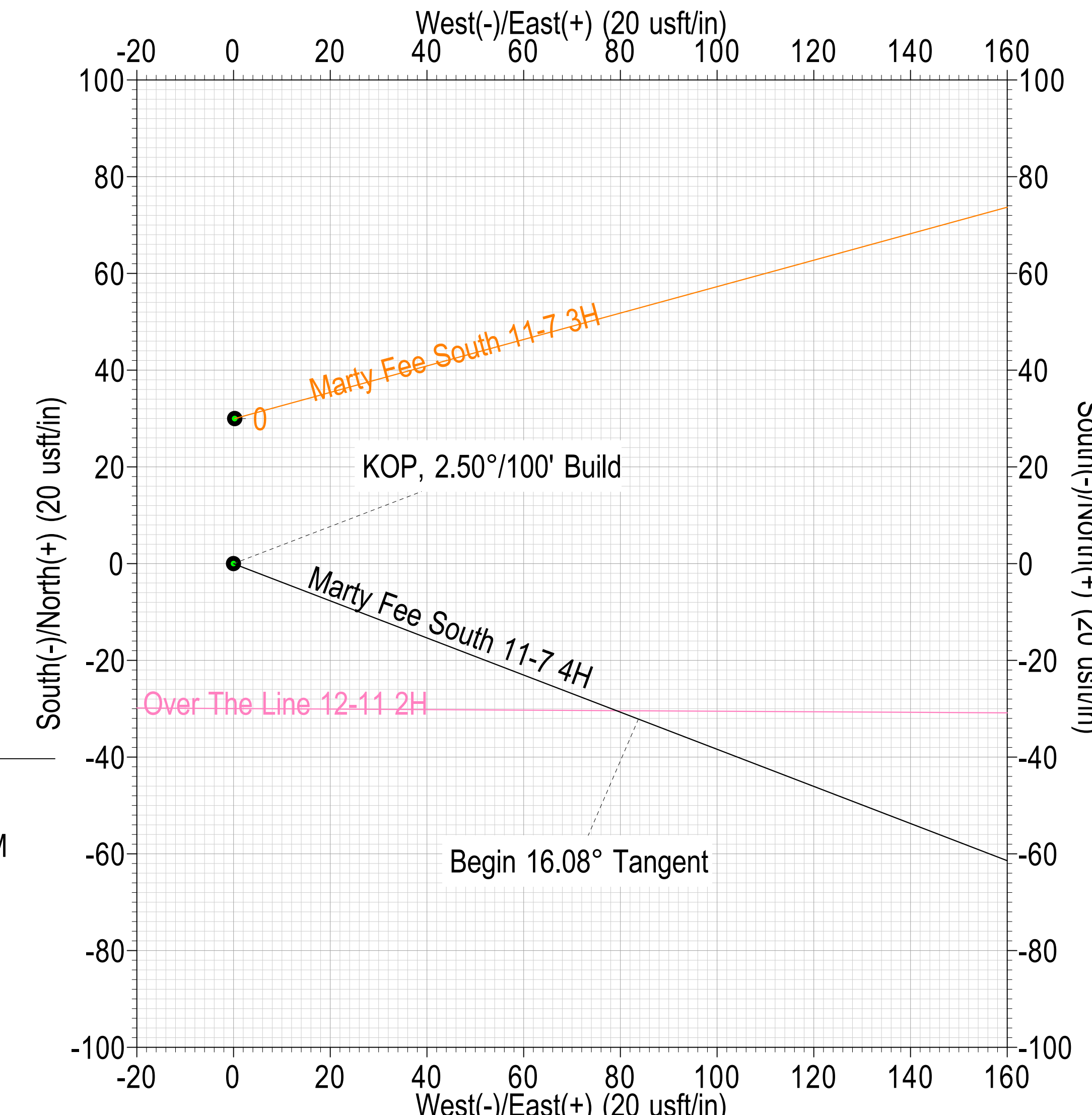
| MD       | Inc   | Azi    | TVD     | +N/-S   | +E/-W   | Dleg  | TFace   | Vsect   | Annotation                     |
|----------|-------|--------|---------|---------|---------|-------|---------|---------|--------------------------------|
| 0.00     | 0.00  | 0.00   | 0.00    | 0.00    | 0.00    | 0.00  | 0.000   | 0.00    | KOP, 2.50°/100' Build          |
| 500.00   | 0.00  | 0.00   | 500.00  | 0.00    | 0.00    | 0.00  | 0.000   | 0.00    | Begin 16.08° Tangent           |
| 1143.30  | 16.08 | 110.99 | 1134.89 | -32.13  | 83.74   | 2.50  | 110.994 | 83.80   | KOP, 8.00°/100' Build & Turn   |
| 2099.96  | 16.08 | 110.99 | 2054.11 | -127.08 | 331.17  | 0.00  | 0.000   | 331.41  | Hold 60.00° Inc, 110.99° Azm   |
| 2648.93  | 60.00 | 110.99 | 2475.95 | -245.33 | 639.32  | 8.00  | 0.001   | 639.79  | Begin 10.00°/100' Build & Turn |
| 2848.93  | 60.00 | 110.99 | 2575.95 | -307.39 | 801.03  | 0.00  | 0.000   | 801.62  | Begin 90.00° Lateral           |
| 3208.82  | 90.00 | 90.11  | 2669.00 | -365.49 | 1137.61 | 10.00 | -37.348 | 1138.31 | PBHL                           |
| 11115.90 | 90.00 | 90.11  | 2669.00 | -380.57 | 9044.67 | 0.00  | 0.000   | 9045.38 |                                |

WELL DETAILS: Marty Fee South 11-7 4H

| +N/-S | +E/-W | GL @ 3310.00<br>Northing | Well @ 3329.00usft (Akita 519)<br>Easting | Latitude  | Longitude   |
|-------|-------|--------------------------|---|-----------|-------------|
| 0.00  | 0.00  | 641811.60                | 537063.05                                 | 32.764374 | -104.347239 |

DESIGN TARGET DETAILS

| Name                         | TVD     | +N/-S   | +E/-W   | Northing  | Easting   | Latitude  | Longitude   |
|------------------------------|---------|---------|---------|-----------|-----------|-----------|-------------|
| FTP_Marty Fee South 11-7 4H  | 2669.00 | -365.49 | 1137.61 | 641446.11 | 538200.66 | 32.763370 | -104.343538 |
| PBHL_Marty Fee South 11-7 4H | 2669.00 | -380.57 | 9044.67 | 641431.03 | 546107.72 | 32.763328 | -104.317815 |







# **Riley Permian Operating Co., LLC**

**Eddy County, New Mexico (NAD 83)  
Marty Fee South 11-7 (3H, 4H)  
Marty Fee South 11-7 4H**

**Wellbore #1  
Design #1**

## **Anticollision Report**

**18 March, 2025**





## Anticollision Report



|                           |                                  |                                     |                                |
|---------------------------|----------------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>           | Riley Permian Operating Co., LLC | <b>Local Co-ordinate Reference:</b> | Well Marty Fee South 11-7 4H   |
| <b>Project:</b>           | Eddy County, New Mexico (NAD 83) | <b>TVD Reference:</b>               | Well @ 3329.00usft (Akita 519) |
| <b>Reference Site:</b>    | Marty Fee South 11-7 (3H, 4H)    | <b>MD Reference:</b>                | Well @ 3329.00usft (Akita 519) |
| <b>Site Error:</b>        | 0.00 usft                        | <b>North Reference:</b>             | Grid                           |
| <b>Reference Well:</b>    | Marty Fee South 11-7 4H          | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Well Error:</b>        | 0.00 usft                        | <b>Output errors are at</b>         | 2.00 sigma                     |
| <b>Reference Wellbore</b> | Wellbore #1                      | <b>Database:</b>                    | TRG_EDMConroe                  |
| <b>Reference Design:</b>  | Design #1                        | <b>Offset TVD Reference:</b>        | Reference Datum                |

|                                     |   |
|-------------------------------------|---|
| <b>Reference</b>                    | Design #1   |
| <b>Filter type:</b>                 | NO GLOBAL FILTER: Using user defined selection & filtering criteria |
| <b>Interpolation Method:</b>        | MD Interval 100.00usft  |
| <b>Depth Range:</b>                 | Unlimited   |
| <b>Results Limited by:</b>          | Maximum centre distance of 2,000.00usft                             |
| <b>Warning Levels Evaluated at:</b> | 2.00 Sigma  |
| <b>Error Model:</b>                 | ISCWSA  |
| <b>Scan Method:</b>                 | Closest Approach 3D   |
| <b>Error Surface:</b>               | Pedal Curve   |
| <b>Casing Method:</b>               | Not applied   |

| Survey Tool Program |           | Date                    | 3/17/2025 |                 |  |
|---------------------|-----------|-------------------------|-----------|-----------------|--|
| From (usft)         | To (usft) | Survey (Wellbore)       | Tool Name | Description     |  |
| 0.00                | 11,115.90 | Design #1 (Wellbore #1) | MWD+HRGM  | OWSG MWD + HRGM |  |

| Summary   |  |                                       |  |   |                      |            |
|---|--|---------------------------------------|--|---|----------------------|------------|
| Site Name<br>Offset Well - Wellbore - Design      | Reference<br>Measured<br>Depth<br>(usft) | Offset<br>Measured<br>Depth<br>(usft) | Distance<br>Between<br>Centres<br>(usft) | Distance<br>Between<br>Ellipses<br>(usft) | Separation<br>Factor | Warning    |
| Marty Fee South 11-7 (3H, 4H)                     |  |                                       |  |   |                      |            |
| Marty Fee South 11-7 3H - Wellbore #1 - Design #1 | 500.00                                   | 500.00                                | 30.00                                    | 26.55                                     | 8.700                | CC, ES     |
| Marty Fee South 11-7 3H - Wellbore #1 - Design #1 | 11,115.90                                | 11,535.82                             | 799.34                                   | 453.37                                    | 2.310                | SF         |
| Over The Line 12-11 (1H, 2H)                      |  |                                       |  |   |                      |            |
| Over The Line 12-11 1H - Wellbore #1 - Design #1  | 3,500.00                                 | 2,600.00                              | 458.67                                   | 421.03                                    | 12.185               | SF         |
| Over The Line 12-11 1H - Wellbore #1 - Design #1  | 3,636.00                                 | 2,539.13                              | 442.99                                   | 407.82                                    | 12.596               | CC, ES     |
| Over The Line 12-11 2H - Wellbore #1 - Design #1  | 3,743.40                                 | 2,749.43                              | 76.38                                    | 34.47                                     | 1.823                | CC, ES, SF |

| Offset Design: Marty Fee South 11-7 (3H, 4H) - Marty Fee South 11-7 3H - Wellbore #1 - Design #1 |                       |                       |                       |                  |               |                        |              |              |                        |                                  |                           |                   | Offset Site Error: | 0.00 usft |           |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|------------------------|--------------|--------------|------------------------|----------------------------------|---------------------------|-------------------|--------------------|-----------|-----------|
| Survey Program: 0-MWD+HRGM   |                       | Reference Offset      |                       | Semi Major Axis  |               | Offset Wellbore Centre |              |              | Rule Assigned:         |                                  |                           |                   | Offset Well Error: |           | 0.00 usft |
| Measured Depth (usft)  | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Azimuth from North (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Distance Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning            |           |           |
| 0.00   | 0.00                  | 0.00                  | 0.00                  | 0.00             | 0.00          | 0.516                  | 30.00        | 0.27         | 30.00                  |                                  |                           |                   |                    |           |           |
| 100.00   | 100.00                | 100.00                | 100.00                | 0.29             | 0.29          | 0.516                  | 30.00        | 0.27         | 30.00                  | 29.42                            | 0.58                      | 51.662            |                    |           |           |
| 200.00   | 200.00                | 200.00                | 200.00                | 0.65             | 0.65          | 0.516                  | 30.00        | 0.27         | 30.00                  | 28.70                            | 1.30                      | 23.119            |                    |           |           |
| 300.00   | 300.00                | 300.00                | 300.00                | 1.01             | 1.01          | 0.516                  | 30.00        | 0.27         | 30.00                  | 27.99                            | 2.01                      | 14.892            |                    |           |           |
| 400.00   | 400.00                | 400.00                | 400.00                | 1.37             | 1.37          | 0.516                  | 30.00        | 0.27         | 30.00                  | 27.27                            | 2.73                      | 10.983            |                    |           |           |
| 500.00   | 500.00                | 500.00                | 500.00                | 1.72             | 1.72          | 0.516                  | 30.00        | 0.27         | 30.00                  | 26.55                            | 3.45                      | 8.700             | CC, ES             |           |           |
| 600.00   | 599.97                | 599.81                | 599.80                | 2.07             | 2.08          | -1.324                 | 30.29        | 1.32         | 31.08                  | 26.93                            | 4.15                      | 7.492             |                    |           |           |
| 700.00   | 699.75                | 699.57                | 699.51                | 2.42             | 2.43          | -6.133                 | 31.15        | 4.46         | 34.47                  | 29.63                            | 4.84                      | 7.118             |                    |           |           |
| 800.00   | 799.14                | 799.22                | 799.00                | 2.77             | 2.78          | -12.278                | 32.57        | 9.69         | 40.53                  | 34.98                            | 5.55                      | 7.302             |                    |           |           |
| 900.00   | 897.97                | 898.70                | 898.20                | 3.15             | 3.14          | -18.259                | 34.57        | 16.99        | 49.54                  | 43.27                            | 6.27                      | 7.898             |                    |           |           |
| 1,000.00   | 996.04                | 997.96                | 996.98                | 3.54             | 3.50          | -23.311                | 37.13        | 26.34        | 61.63                  | 54.62                            | 7.01                      | 8.793             |                    |           |           |
| 1,100.00   | 1,093.17              | 1,096.95              | 1,095.26              | 3.97             | 3.87          | -27.292                | 40.24        | 37.71        | 76.79                  | 69.03                            | 7.76                      | 9.895             |                    |           |           |
| 1,200.00   | 1,189.37              | 1,195.72              | 1,193.05              | 4.42             | 4.24          | -30.082                | 43.90        | 51.10        | 94.44                  | 85.91                            | 8.53                      | 11.073            |                    |           |           |
| 1,300.00   | 1,285.45              | 1,294.75              | 1,290.78              | 4.90             | 4.63          | -31.059                | 48.13        | 66.56        | 111.97                 | 102.66                           | 9.31                      | 12.022            |                    |           |           |
| 1,400.00   | 1,381.54              | 1,394.02              | 1,388.36              | 5.39             | 5.03          | -30.852                | 52.92        | 84.10        | 128.93                 | 118.81                           | 10.13                     | 12.732            |                    |           |           |
| 1,500.00   | 1,477.63              | 1,493.43              | 1,485.67              | 5.89             | 5.44          | -29.879                | 58.28        | 103.71       | 145.33                 | 134.36                           | 10.97                     | 13.249            |                    |           |           |
| 1,600.00   | 1,573.71              | 1,592.78              | 1,582.46              | 6.40             | 5.87          | -28.388                | 64.19        | 125.31       | 161.25                 | 149.41                           | 11.84                     | 13.616            |                    |           |           |
| 1,700.00   | 1,669.80              | 1,691.42              | 1,678.39              | 6.91             | 6.31          | -26.972                | 70.26        | 147.50       | 177.09                 | 164.35                           | 12.74                     | 13.905            |                    |           |           |
| 1,800.00   | 1,765.88              | 1,790.07              | 1,774.31              | 7.43             | 6.75          | -25.790                | 76.32        | 169.68       | 193.03                 | 179.39                           | 13.64                     | 14.151            |                    |           |           |

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



## Anticollision Report



|                           |                                  |                                     |                                |
|---------------------------|----------------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>           | Riley Permian Operating Co., LLC | <b>Local Co-ordinate Reference:</b> | Well Marty Fee South 11-7 4H   |
| <b>Project:</b>           | Eddy County, New Mexico (NAD 83) | <b>TVD Reference:</b>               | Well @ 3329.00usft (Akita 519) |
| <b>Reference Site:</b>    | Marty Fee South 11-7 (3H, 4H)    | <b>MD Reference:</b>                | Well @ 3329.00usft (Akita 519) |
| <b>Site Error:</b>        | 0.00 usft                        | <b>North Reference:</b>             | Grid                           |
| <b>Reference Well:</b>    | Marty Fee South 11-7 4H          | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Well Error:</b>        | 0.00 usft                        | <b>Output errors are at</b>         | 2.00 sigma                     |
| <b>Reference Wellbore</b> | Wellbore #1                      | <b>Database:</b>                    | TRG_EDMConroe                  |
| <b>Reference Design:</b>  | Design #1                        | <b>Offset TVD Reference:</b>        | Reference Datum                |

## Offset Design: Marty Fee South 11-7 (3H, 4H) - Marty Fee South 11-7 3H - Wellbore #1 - Design #1

| Survey Program: 0-MWD+HRGM  |                             | Offset                      |                             | Semi Major Axis     |                  | Azimuth<br>from North<br>(°) | Offset Wellbore Centre |                 | Rule Assigned:<br>Distance<br>Between<br>Centres<br>(usft) |                    | Minimum<br>Separation<br>(usft) | Separation<br>Factor | Warning            |                    |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|------------------------------|------------------------|-----------------|--|--------------------|---------------------------------|----------------------|--------------------|--------------------|
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Reference<br>(usft) | Offset<br>(usft) |                              | +N/-S<br>(usft)        | +E/-W<br>(usft) | Between<br>Centres<br>(usft)                               | Ellipses<br>(usft) |                                 |                      | Offset Site Error: | Offset Well Error: |
| 1,900.00                    | 1,861.97                    | 1,888.71                    | 1,870.23                    | 7.95                | 7.20             | -24.789                      | 82.39                  | 191.87          | 209.03   | 194.48             | 14.56                           | 14.362               | 0.00 usft          | 0.00 usft          |
| 2,000.00                    | 1,958.06                    | 1,987.36                    | 1,966.16                    | 8.47                | 7.65             | -23.931                      | 88.46                  | 214.06          | 225.10   | 209.62             | 15.48                           | 14.543               |                    |                    |
| 2,099.96                    | 2,054.11                    | 2,085.96                    | 2,062.05                    | 9.00                | 8.10             | -23.188                      | 94.52                  | 236.24          | 241.21   | 224.80             | 16.41                           | 14.701               |                    |                    |
| 2,200.00                    | 2,147.99                    | 2,183.70                    | 2,157.10                    | 9.59                | 8.56             | -23.634                      | 100.53                 | 258.23          | 262.03   | 244.68             | 17.35                           | 15.101               |                    |                    |
| 2,300.00                    | 2,236.14                    | 2,278.27                    | 2,249.05                    | 10.32               | 9.00             | -25.923                      | 106.35                 | 279.50          | 292.24   | 273.95             | 18.30                           | 15.973               |                    |                    |
| 2,400.00                    | 2,316.89                    | 2,367.85                    | 2,336.17                    | 11.22               | 9.42             | -29.322                      | 111.86                 | 299.65          | 332.23   | 313.02             | 19.21                           | 17.293               |                    |                    |
| 2,500.00                    | 2,388.66                    | 2,450.71                    | 2,416.74                    | 12.29               | 9.81             | -33.178                      | 116.96                 | 318.29          | 382.38   | 362.31             | 20.07                           | 19.048               |                    |                    |
| 2,600.00                    | 2,450.06                    | 2,527.87                    | 2,491.75                    | 13.57               | 10.17            | -36.943                      | 121.73                 | 335.73          | 442.63   | 421.75             | 20.88                           | 21.197               |                    |                    |
| 2,700.00                    | 2,501.48                    | 2,624.37                    | 2,583.33                    | 15.03               | 10.69            | -38.934                      | 129.69                 | 364.85          | 509.10   | 487.20             | 21.90                           | 23.247               |                    |                    |
| 2,800.00                    | 2,551.48                    | 2,738.21                    | 2,684.97                    | 16.58               | 11.43            | -38.590                      | 143.14                 | 414.06          | 572.74   | 549.50             | 23.25                           | 24.636               |                    |                    |
| 2,900.00                    | 2,599.89                    | 2,869.47                    | 2,790.38                    | 18.21               | 12.50            | -36.104                      | 163.69                 | 489.20          | 630.89   | 605.76             | 25.13                           | 25.106               |                    |                    |
| 3,000.00                    | 2,636.98                    | 3,015.02                    | 2,888.48                    | 19.99               | 14.03            | -32.389                      | 191.95                 | 592.60          | 684.16   | 656.46             | 27.70                           | 24.697               |                    |                    |
| 3,100.00                    | 2,660.24                    | 3,140.00                    | 2,955.04                    | 21.89               | 15.66            | -30.018                      | 219.82                 | 694.53          | 731.52   | 701.01             | 30.51                           | 23.975               |                    |                    |
| 3,200.00                    | 2,668.95                    | 3,226.07                    | 2,998.07                    | 23.84               | 16.89            | -30.923                      | 239.47                 | 766.42          | 778.17   | 745.54             | 32.63                           | 23.848               |                    |                    |
| 3,300.00                    | 2,669.00                    | 3,720.08                    | 3,120.00                    | 25.80               | 25.53            | 0.112                        | 294.65                 | 1,230.08        | 799.63   | 757.23             | 42.40                           | 18.858               |                    |                    |
| 3,400.00                    | 2,669.00                    | 3,820.08                    | 3,120.00                    | 27.81               | 27.51            | 0.112                        | 294.46                 | 1,330.08        | 799.63   | 753.76             | 45.86                           | 17.434               |                    |                    |
| 3,500.00                    | 2,669.00                    | 3,920.08                    | 3,120.00                    | 29.88               | 29.55            | 0.112                        | 294.26                 | 1,430.08        | 799.62   | 750.23             | 49.40                           | 16.187               |                    |                    |
| 3,600.00                    | 2,669.00                    | 4,020.08                    | 3,120.00                    | 31.98               | 31.62            | 0.112                        | 294.07                 | 1,530.08        | 799.62   | 746.63             | 52.99                           | 15.089               |                    |                    |
| 3,700.00                    | 2,669.00                    | 4,120.08                    | 3,120.00                    | 34.11               | 33.73            | 0.112                        | 293.87                 | 1,630.08        | 799.62   | 742.98             | 56.63                           | 14.119               |                    |                    |
| 3,800.00                    | 2,669.00                    | 4,220.08                    | 3,120.00                    | 36.27               | 35.87            | 0.112                        | 293.68                 | 1,730.08        | 799.61   | 739.30             | 60.31                           | 13.258               |                    |                    |
| 3,900.00                    | 2,669.00                    | 4,320.08                    | 3,120.00                    | 38.45               | 38.03            | 0.112                        | 293.48                 | 1,830.08        | 799.61   | 735.58             | 64.02                           | 12.489               |                    |                    |
| 4,000.00                    | 2,669.00                    | 4,420.08                    | 3,120.00                    | 40.64               | 40.21            | 0.112                        | 293.29                 | 1,930.08        | 799.61   | 731.84             | 67.76                           | 11.800               |                    |                    |
| 4,100.00                    | 2,669.00                    | 4,520.08                    | 3,120.00                    | 42.85               | 42.41            | 0.112                        | 293.09                 | 2,030.08        | 799.60   | 728.08             | 71.52                           | 11.179               |                    |                    |
| 4,200.00                    | 2,669.00                    | 4,620.08                    | 3,120.00                    | 45.07               | 44.62            | 0.112                        | 292.90                 | 2,130.08        | 799.60   | 724.29             | 75.30                           | 10.618               |                    |                    |
| 4,300.00                    | 2,669.00                    | 4,720.08                    | 3,120.00                    | 47.31               | 46.84            | 0.112                        | 292.70                 | 2,230.08        | 799.59   | 720.49             | 79.10                           | 10.108               |                    |                    |
| 4,400.00                    | 2,669.00                    | 4,820.08                    | 3,120.00                    | 49.55               | 49.07            | 0.112                        | 292.51                 | 2,330.08        | 799.59   | 716.68             | 82.91                           | 9.644                |                    |                    |
| 4,500.00                    | 2,669.00                    | 4,920.08                    | 3,120.00                    | 51.80               | 51.31            | 0.112                        | 292.31                 | 2,430.07        | 799.59   | 712.85             | 86.74                           | 9.219                |                    |                    |
| 4,600.00                    | 2,669.00                    | 5,020.08                    | 3,120.00                    | 54.06               | 53.56            | 0.112                        | 292.11                 | 2,530.07        | 799.58   | 709.01             | 90.57                           | 8.828                |                    |                    |
| 4,700.00                    | 2,669.00                    | 5,120.08                    | 3,120.00                    | 56.32               | 55.82            | 0.112                        | 291.92                 | 2,630.07        | 799.58   | 705.17             | 94.41                           | 8.469                |                    |                    |
| 4,800.00                    | 2,669.00                    | 5,220.08                    | 3,120.00                    | 58.59               | 58.08            | 0.112                        | 291.72                 | 2,730.07        | 799.58   | 701.31             | 98.27                           | 8.137                |                    |                    |
| 4,900.00                    | 2,669.00                    | 5,320.08                    | 3,120.00                    | 60.87               | 60.35            | 0.112                        | 291.53                 | 2,830.07        | 799.57   | 697.45             | 102.12                          | 7.829                |                    |                    |
| 5,000.00                    | 2,669.00                    | 5,420.08                    | 3,120.00                    | 63.15               | 62.62            | 0.112                        | 291.33                 | 2,930.07        | 799.57   | 693.58             | 105.99                          | 7.544                |                    |                    |
| 5,100.00                    | 2,669.00                    | 5,520.08                    | 3,120.00                    | 65.43               | 64.90            | 0.112                        | 291.14                 | 3,030.07        | 799.56   | 689.70             | 109.86                          | 7.278                |                    |                    |
| 5,200.00                    | 2,669.00                    | 5,620.08                    | 3,120.00                    | 67.72               | 67.18            | 0.112                        | 290.94                 | 3,130.07        | 799.56   | 685.82             | 113.74                          | 7.030                |                    |                    |
| 5,300.00                    | 2,669.00                    | 5,720.08                    | 3,120.00                    | 70.01               | 69.47            | 0.112                        | 290.75                 | 3,230.07        | 799.56   | 681.94             | 117.62                          | 6.798                |                    |                    |
| 5,400.00                    | 2,669.00                    | 5,820.08                    | 3,120.00                    | 72.30               | 71.75            | 0.112                        | 290.55                 | 3,330.07        | 799.55   | 678.05             | 121.51                          | 6.580                |                    |                    |
| 5,500.00                    | 2,669.00                    | 5,920.08                    | 3,120.00                    | 74.60               | 74.05            | 0.112                        | 290.36                 | 3,430.07        | 799.55   | 674.15             | 125.40                          | 6.376                |                    |                    |
| 5,600.00                    | 2,669.00                    | 6,020.08                    | 3,120.00                    | 76.89               | 76.34            | 0.112                        | 290.16                 | 3,530.07        | 799.55   | 670.25             | 129.29                          | 6.184                |                    |                    |
| 5,700.00                    | 2,669.00                    | 6,120.08                    | 3,120.00                    | 79.19               | 78.63            | 0.112                        | 289.97                 | 3,630.07        | 799.54   | 666.35             | 133.19                          | 6.003                |                    |                    |
| 5,800.00                    | 2,669.00                    | 6,220.08                    | 3,120.00                    | 81.49               | 80.93            | 0.112                        | 289.77                 | 3,730.07        | 799.54   | 662.45             | 137.09                          | 5.832                |                    |                    |
| 5,900.00                    | 2,669.00                    | 6,320.08                    | 3,120.00                    | 83.80               | 83.23            | 0.112                        | 289.57                 | 3,830.07        | 799.53   | 658.54             | 140.99                          | 5.671                |                    |                    |
| 6,000.00                    | 2,669.00                    | 6,420.08                    | 3,120.00                    | 86.10               | 85.53            | 0.112                        | 289.38                 | 3,930.07        | 799.53   | 654.64             | 144.90                          | 5.518                |                    |                    |
| 6,100.00                    | 2,669.00                    | 6,520.08                    | 3,120.00                    | 88.41               | 87.84            | 0.112                        | 289.18                 | 4,030.07        | 799.53   | 650.72             | 148.80                          | 5.373                |                    |                    |
| 6,200.00                    | 2,669.00                    | 6,620.08                    | 3,120.00                    | 90.72               | 90.14            | 0.112                        | 288.99                 | 4,130.07        | 799.52   | 646.81             | 152.71                          | 5.236                |                    |                    |
| 6,300.00                    | 2,669.00                    | 6,720.08                    | 3,120.00                    | 93.03               | 92.45            | 0.112                        | 288.79                 | 4,230.07        | 799.52   | 642.90             | 156.62                          | 5.105                |                    |                    |
| 6,400.00                    | 2,669.00                    | 6,820.08                    | 3,120.00                    | 95.34               | 94.76            | 0.112                        | 288.60                 | 4,330.07        | 799.52   | 638.98             | 160.54                          | 4.980                |                    |                    |
| 6,500.00                    | 2,669.00                    | 6,920.08                    | 3,120.00                    | 97.65               | 97.06            | 0.112                        | 288.40                 | 4,430.07        | 799.51   | 635.06             | 164.45                          | 4.862                |                    |                    |
| 6,600.00                    | 2,669.00                    | 7,020.08                    | 3,120.00                    | 99.96               | 99.37            | 0.112                        | 288.21                 | 4,530.07        | 799.51   | 631.14             | 168.37                          | 4.749                |                    |                    |
| 6,700.00                    | 2,669.00                    | 7,120.08                    | 3,120.00                    | 102.27              | 101.69           | 0.112                        | 288.01                 | 4,630.07        | 799.50   | 627.22             | 172.28                          | 4.641                |                    |                    |
| 6,800.00                    | 2,669.00                    | 7,220.08                    | 3,120.00                    | 104.59              | 104.00           | 0.112                        | 287.82                 | 4,730.07        | 799.50   | 623.30             | 176.20                          | 4.537                |                    |                    |
| 6,900.00                    | 2,669.00                    | 7,320.08                    | 3,120.00                    | 106.90              | 106.31           | 0.112                        | 287.62                 | 4,830.07        | 799.50   | 619.37             | 180.12                          | 4.439                |                    |                    |

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





## Anticollision Report



|                           |                                  |                                     |                                |
|---------------------------|----------------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>           | Riley Permian Operating Co., LLC | <b>Local Co-ordinate Reference:</b> | Well Marty Fee South 11-7 4H   |
| <b>Project:</b>           | Eddy County, New Mexico (NAD 83) | <b>TVD Reference:</b>               | Well @ 3329.00usft (Akita 519) |
| <b>Reference Site:</b>    | Marty Fee South 11-7 (3H, 4H)    | <b>MD Reference:</b>                | Well @ 3329.00usft (Akita 519) |
| <b>Site Error:</b>        | 0.00 usft                        | <b>North Reference:</b>             | Grid                           |
| <b>Reference Well:</b>    | Marty Fee South 11-7 4H          | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Well Error:</b>        | 0.00 usft                        | <b>Output errors are at</b>         | 2.00 sigma                     |
| <b>Reference Wellbore</b> | Wellbore #1                      | <b>Database:</b>                    | TRG_EDMConroe                  |
| <b>Reference Design:</b>  | Design #1                        | <b>Offset TVD Reference:</b>        | Reference Datum                |

## Offset Design: Marty Fee South 11-7 (3H, 4H) - Marty Fee South 11-7 3H - Wellbore #1 - Design #1

| Survey Program: 0-MWD+HRGM  |                             | Offset                      |                             | Semi Major Axis     |                  | Azimuth<br>from North<br>(°) | Offset Wellbore Centre |                 | Rule Assigned:<br>Distance<br>Between<br>Centres<br>Ellipses<br>Minimum<br>Separation |                               | Separation<br>Factor | Warning  |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|------------------------------|------------------------|-----------------|---|-------------------------------|----------------------|----------|
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Reference<br>(usft) | Offset<br>(usft) |                              | +N/-S<br>(usft)        | +E/-W<br>(usft) | Between<br>Centres<br>(usft)  | Between<br>Ellipses<br>(usft) |                      |          |
| 7,000.00                    | 2,669.00                    | 7,420.08                    | 3,120.00                    | 109.22              | 108.62           | 0.112                        | 287.43                 | 4,930.07        | 799.49  | 615.45                        | 184.05               | 4.344    |
| 7,100.00                    | 2,669.00                    | 7,520.08                    | 3,120.00                    | 111.54              | 110.94           | 0.112                        | 287.23                 | 5,030.07        | 799.49  | 611.52                        | 187.97               | 4.253    |
| 7,200.00                    | 2,669.00                    | 7,620.08                    | 3,120.00                    | 113.85              | 113.25           | 0.112                        | 287.04                 | 5,130.07        | 799.49  | 607.59                        | 191.89               | 4.166    |
| 7,300.00                    | 2,669.00                    | 7,720.08                    | 3,120.00                    | 116.17              | 115.57           | 0.112                        | 286.84                 | 5,230.07        | 799.48  | 603.67                        | 195.82               | 4.083    |
| 7,400.00                    | 2,669.00                    | 7,820.08                    | 3,120.00                    | 118.49              | 117.89           | 0.112                        | 286.64                 | 5,330.07        | 799.48  | 599.74                        | 199.74               | 4.003    |
| 7,500.00                    | 2,669.00                    | 7,920.08                    | 3,120.00                    | 120.81              | 120.21           | 0.112                        | 286.45                 | 5,430.07        | 799.47  | 595.81                        | 203.67               | 3.925    |
| 7,600.00                    | 2,669.00                    | 8,020.08                    | 3,120.00                    | 123.13              | 122.52           | 0.112                        | 286.25                 | 5,530.07        | 799.47  | 591.87                        | 207.60               | 3.851    |
| 7,700.00                    | 2,669.00                    | 8,120.08                    | 3,120.00                    | 125.45              | 124.84           | 0.112                        | 286.06                 | 5,630.07        | 799.47  | 587.94                        | 211.52               | 3.780    |
| 7,800.00                    | 2,669.00                    | 8,220.08                    | 3,120.00                    | 127.77              | 127.16           | 0.112                        | 285.86                 | 5,730.07        | 799.46  | 584.01                        | 215.45               | 3.711    |
| 7,900.00                    | 2,669.00                    | 8,320.08                    | 3,120.00                    | 130.09              | 129.48           | 0.112                        | 285.67                 | 5,830.07        | 799.46  | 580.08                        | 219.38               | 3.644    |
| 8,000.00                    | 2,669.00                    | 8,420.08                    | 3,120.00                    | 132.41              | 131.80           | 0.112                        | 285.47                 | 5,930.07        | 799.46  | 576.14                        | 223.31               | 3.580    |
| 8,100.00                    | 2,669.00                    | 8,520.08                    | 3,120.00                    | 134.74              | 134.12           | 0.112                        | 285.28                 | 6,030.07        | 799.45  | 572.21                        | 227.24               | 3.518    |
| 8,200.00                    | 2,669.00                    | 8,620.08                    | 3,120.00                    | 137.06              | 136.44           | 0.112                        | 285.08                 | 6,130.07        | 799.45  | 568.27                        | 231.17               | 3.458    |
| 8,300.00                    | 2,669.00                    | 8,720.08                    | 3,120.00                    | 139.38              | 138.77           | 0.112                        | 284.89                 | 6,230.07        | 799.44  | 564.34                        | 235.11               | 3.400    |
| 8,400.00                    | 2,669.00                    | 8,820.08                    | 3,120.00                    | 141.71              | 141.09           | 0.112                        | 284.69                 | 6,330.07        | 799.44  | 560.40                        | 239.04               | 3.344    |
| 8,500.00                    | 2,669.00                    | 8,920.08                    | 3,120.00                    | 144.03              | 143.41           | 0.112                        | 284.50                 | 6,430.07        | 799.44  | 556.47                        | 242.97               | 3.290    |
| 8,600.00                    | 2,669.00                    | 9,020.08                    | 3,120.00                    | 146.35              | 145.73           | 0.112                        | 284.30                 | 6,530.07        | 799.43  | 552.53                        | 246.91               | 3.238    |
| 8,700.00                    | 2,669.00                    | 9,120.08                    | 3,120.00                    | 148.68              | 148.06           | 0.112                        | 284.11                 | 6,630.07        | 799.43  | 548.59                        | 250.84               | 3.187    |
| 8,800.00                    | 2,669.00                    | 9,220.08                    | 3,120.00                    | 151.00              | 150.38           | 0.112                        | 283.91                 | 6,730.07        | 799.43  | 544.65                        | 254.77               | 3.138    |
| 8,900.00                    | 2,669.00                    | 9,320.08                    | 3,120.00                    | 153.33              | 152.70           | 0.112                        | 283.71                 | 6,830.07        | 799.42  | 540.71                        | 258.71               | 3.090    |
| 9,000.00                    | 2,669.00                    | 9,420.08                    | 3,120.00                    | 155.65              | 155.03           | 0.112                        | 283.52                 | 6,930.07        | 799.42  | 536.78                        | 262.64               | 3.044    |
| 9,100.00                    | 2,669.00                    | 9,520.08                    | 3,120.00                    | 157.98              | 157.35           | 0.112                        | 283.32                 | 7,030.07        | 799.41  | 532.84                        | 266.58               | 2.999    |
| 9,200.00                    | 2,669.00                    | 9,620.08                    | 3,120.00                    | 160.30              | 159.68           | 0.112                        | 283.13                 | 7,130.07        | 799.41  | 528.90                        | 270.51               | 2.955    |
| 9,300.00                    | 2,669.00                    | 9,720.08                    | 3,120.00                    | 162.63              | 162.00           | 0.112                        | 282.93                 | 7,230.07        | 799.41  | 524.96                        | 274.45               | 2.913    |
| 9,400.00                    | 2,669.00                    | 9,820.08                    | 3,120.00                    | 164.96              | 164.33           | 0.112                        | 282.74                 | 7,330.07        | 799.40  | 521.02                        | 278.39               | 2.872    |
| 9,500.00                    | 2,669.00                    | 9,920.08                    | 3,120.00                    | 167.28              | 166.65           | 0.112                        | 282.54                 | 7,430.07        | 799.40  | 517.08                        | 282.32               | 2.832    |
| 9,600.00                    | 2,669.00                    | 10,020.08                   | 3,120.00                    | 169.61              | 168.98           | 0.112                        | 282.35                 | 7,530.07        | 799.40  | 513.14                        | 286.26               | 2.793    |
| 9,700.00                    | 2,669.00                    | 10,120.08                   | 3,120.00                    | 171.94              | 171.30           | 0.112                        | 282.15                 | 7,630.07        | 799.39  | 509.19                        | 290.20               | 2.755    |
| 9,800.00                    | 2,669.00                    | 10,220.08                   | 3,120.00                    | 174.26              | 173.63           | 0.112                        | 281.96                 | 7,730.06        | 799.39  | 505.25                        | 294.14               | 2.718    |
| 9,900.00                    | 2,669.00                    | 10,320.08                   | 3,120.00                    | 176.59              | 175.95           | 0.112                        | 281.76                 | 7,830.06        | 799.38  | 501.31                        | 298.07               | 2.682    |
| 10,000.00                   | 2,669.00                    | 10,420.08                   | 3,120.00                    | 178.92              | 178.28           | 0.112                        | 281.57                 | 7,930.06        | 799.38  | 497.37                        | 302.01               | 2.647    |
| 10,100.00                   | 2,669.00                    | 10,520.08                   | 3,120.00                    | 181.24              | 180.61           | 0.112                        | 281.37                 | 8,030.06        | 799.38  | 493.43                        | 305.95               | 2.613    |
| 10,200.00                   | 2,669.00                    | 10,620.08                   | 3,120.00                    | 183.57              | 182.93           | 0.112                        | 281.17                 | 8,130.06        | 799.37  | 489.49                        | 309.89               | 2.580    |
| 10,300.00                   | 2,669.00                    | 10,720.08                   | 3,120.00                    | 185.90              | 185.26           | 0.112                        | 280.98                 | 8,230.06        | 799.37  | 485.54                        | 313.83               | 2.547    |
| 10,400.00                   | 2,669.00                    | 10,820.08                   | 3,120.00                    | 188.23              | 187.59           | 0.112                        | 280.78                 | 8,330.06        | 799.37  | 481.60                        | 317.77               | 2.516    |
| 10,500.00                   | 2,669.00                    | 10,920.08                   | 3,120.00                    | 190.56              | 189.91           | 0.112                        | 280.59                 | 8,430.06        | 799.36  | 477.66                        | 321.70               | 2.485    |
| 10,600.00                   | 2,669.00                    | 11,020.08                   | 3,120.00                    | 192.88              | 192.24           | 0.112                        | 280.39                 | 8,530.06        | 799.36  | 473.71                        | 325.64               | 2.455    |
| 10,700.00                   | 2,669.00                    | 11,120.08                   | 3,120.00                    | 195.21              | 194.57           | 0.112                        | 280.20                 | 8,630.06        | 799.36  | 469.77                        | 329.58               | 2.425    |
| 10,800.00                   | 2,669.00                    | 11,220.08                   | 3,120.00                    | 197.54              | 196.90           | 0.112                        | 280.00                 | 8,730.06        | 799.35  | 465.83                        | 333.52               | 2.397    |
| 10,900.00                   | 2,669.00                    | 11,320.08                   | 3,120.00                    | 199.87              | 199.23           | 0.112                        | 279.81                 | 8,830.06        | 799.35  | 461.88                        | 337.46               | 2.369    |
| 11,000.00                   | 2,669.00                    | 11,420.08                   | 3,120.00                    | 202.20              | 201.55           | 0.112                        | 279.61                 | 8,930.06        | 799.34  | 457.94                        | 341.40               | 2.341    |
| 11,100.00                   | 2,669.00                    | 11,520.08                   | 3,120.00                    | 204.53              | 203.88           | 0.112                        | 279.42                 | 9,030.06        | 799.34  | 454.00                        | 345.34               | 2.315    |
| 11,111.91                   | 2,669.00                    | 11,531.99                   | 3,120.00                    | 204.80              | 204.16           | 0.112                        | 279.39                 | 9,041.97        | 799.34  | 453.53                        | 345.81               | 2.311    |
| 11,115.90                   | 2,669.00                    | 11,535.82                   | 3,120.00                    | 204.90              | 204.25           | 0.098                        | 279.39                 | 9,045.80        | 799.34  | 453.37                        | 345.97               | 2.310 SF |

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



## Anticollision Report



|                           |                                  |                                     |                                |
|---------------------------|----------------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>           | Riley Permian Operating Co., LLC | <b>Local Co-ordinate Reference:</b> | Well Marty Fee South 11-7 4H   |
| <b>Project:</b>           | Eddy County, New Mexico (NAD 83) | <b>TVD Reference:</b>               | Well @ 3329.00usft (Akita 519) |
| <b>Reference Site:</b>    | Marty Fee South 11-7 (3H, 4H)    | <b>MD Reference:</b>                | Well @ 3329.00usft (Akita 519) |
| <b>Site Error:</b>        | 0.00 usft                        | <b>North Reference:</b>             | Grid                           |
| <b>Reference Well:</b>    | Marty Fee South 11-7 4H          | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Well Error:</b>        | 0.00 usft                        | <b>Output errors are at</b>         | 2.00 sigma                     |
| <b>Reference Wellbore</b> | Wellbore #1                      | <b>Database:</b>                    | TRG_EDMConroe                  |
| <b>Reference Design:</b>  | Design #1                        | <b>Offset TVD Reference:</b>        | Reference Datum                |

## Offset Design: Over The Line 12-11 (1H, 2H) - Over The Line 12-11 1H - Wellbore #1 - Design #1

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

| Survey Program: 0-MWD+HRGM |                       | Reference             |                       | Offset           |               | Semi Major Axis |              | Azimuth      |                        | 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) | from North (°)  | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor       | Warning |                              |  |
| 700.00                     | 699.75                | 4,266.76              | 2,661.00              | 2.42             | 45.47         | 0.316           | 299.99       | 9.81         | 1,984.54               | 1,965.97                | 18.57                     | 106.853                 |         |                              |  |
| 800.00                     | 799.14                | 4,256.57              | 2,661.00              | 2.77             | 45.25         | 0.316           | 299.93       | 20.00        | 1,886.99               | 1,868.36                | 18.63                     | 101.268                 |         |                              |  |
| 900.00                     | 897.97                | 4,242.34              | 2,661.00              | 3.15             | 44.95         | 0.316           | 299.85       | 34.23        | 1,790.48               | 1,771.78                | 18.70                     | 95.756                  |         |                              |  |
| 1,000.00                   | 996.04                | 4,224.09              | 2,661.00              | 3.54             | 44.57         | 0.316           | 299.75       | 52.48        | 1,695.28               | 1,676.51                | 18.78                     | 90.279                  |         |                              |  |
| 1,100.00                   | 1,093.17              | 4,201.86              | 2,661.00              | 3.97             | 44.09         | 0.316           | 299.63       | 74.71        | 1,601.70               | 1,582.81                | 18.89                     | 84.803                  |         |                              |  |
| 1,200.00                   | 1,189.37              | 4,176.31              | 2,661.00              | 4.42             | 43.56         | 0.316           | 299.49       | 100.26       | 1,509.79               | 1,490.74                | 19.05                     | 79.255                  |         |                              |  |
| 1,300.00                   | 1,285.45              | 4,150.39              | 2,661.00              | 4.90             | 43.01         | 0.316           | 299.35       | 126.18       | 1,418.65               | 1,399.33                | 19.32                     | 73.433                  |         |                              |  |
| 1,400.00                   | 1,381.54              | 4,124.47              | 2,661.00              | 5.39             | 42.47         | 0.316           | 299.20       | 152.10       | 1,328.29               | 1,308.59                | 19.69                     | 67.454                  |         |                              |  |
| 1,500.00                   | 1,477.63              | 4,098.55              | 2,661.00              | 5.89             | 41.92         | 0.316           | 299.06       | 178.01       | 1,238.86               | 1,218.67                | 20.19                     | 61.357                  |         |                              |  |
| 1,600.00                   | 1,573.71              | 4,072.64              | 2,661.00              | 6.40             | 41.38         | 0.316           | 298.92       | 203.93       | 1,150.59               | 1,129.74                | 20.85                     | 55.189                  |         |                              |  |
| 1,700.00                   | 1,669.80              | 4,046.72              | 2,661.00              | 6.91             | 40.85         | 0.316           | 298.78       | 229.85       | 1,063.77               | 1,042.07                | 21.70                     | 49.024                  |         |                              |  |
| 1,800.00                   | 1,765.88              | 4,020.80              | 2,661.00              | 7.43             | 40.31         | 0.316           | 298.63       | 255.77       | 978.78                 | 955.99                  | 22.79                     | 42.949                  |         |                              |  |
| 1,900.00                   | 1,861.97              | 3,994.88              | 2,661.00              | 7.95             | 39.77         | 0.316           | 298.49       | 281.68       | 896.14                 | 871.97                  | 24.17                     | 37.071                  |         |                              |  |
| 2,000.00                   | 1,958.06              | 3,968.96              | 2,661.00              | 8.47             | 39.24         | 0.316           | 298.35       | 307.60       | 816.57                 | 790.65                  | 25.92                     | 31.507                  |         |                              |  |
| 2,099.96                   | 2,054.11              | 3,943.06              | 2,661.00              | 9.00             | 38.71         | 0.316           | 298.21       | 333.51       | 741.08                 | 713.00                  | 28.08                     | 26.395                  |         |                              |  |
| 2,200.00                   | 2,147.99              | 3,910.94              | 2,661.00              | 9.59             | 38.06         | 0.316           | 298.03       | 365.62       | 674.18                 | 643.54                  | 30.64                     | 22.006                  |         |                              |  |
| 2,300.00                   | 2,236.14              | 3,866.93              | 2,661.00              | 10.32            | 37.17         | 0.316           | 297.79       | 409.63       | 621.81                 | 588.35                  | 33.46                     | 18.582                  |         |                              |  |
| 2,400.00                   | 2,316.89              | 3,811.87              | 2,661.00              | 11.22            | 36.06         | 0.316           | 297.48       | 464.69       | 586.39                 | 550.14                  | 36.25                     | 16.175                  |         |                              |  |
| 2,500.00                   | 2,388.66              | 3,746.83              | 2,661.00              | 12.29            | 34.78         | 0.316           | 297.12       | 529.73       | 568.79                 | 530.15                  | 38.64                     | 14.722                  |         |                              |  |
| 2,555.46                   | 2,424.07              | 3,706.92              | 2,661.00              | 13.00            | 34.00         | 0.316           | 296.90       | 569.64       | 566.36                 | 526.66                  | 39.70                     | 14.267                  |         |                              |  |
| 2,600.00                   | 2,450.06              | 3,673.08              | 2,661.00              | 13.57            | 33.34         | 0.316           | 296.72       | 603.48       | 567.83                 | 527.47                  | 40.35                     | 14.071                  |         |                              |  |
| 2,700.00                   | 2,501.48              | 3,592.87              | 2,661.00              | 15.03            | 31.82         | 0.316           | 296.28       | 683.69       | 579.84                 | 538.41                  | 41.42                     | 13.997                  |         |                              |  |
| 2,800.00                   | 2,551.48              | 3,511.85              | 2,661.00              | 16.58            | 30.31         | 0.316           | 295.83       | 764.71       | 598.16                 | 556.01                  | 42.14                     | 14.194                  |         |                              |  |
| 2,900.00                   | 2,599.89              | 3,429.55              | 2,661.00              | 18.21            | 28.83         | 0.316           | 295.38       | 847.01       | 620.65                 | 578.09                  | 42.56                     | 14.584                  |         |                              |  |
| 3,000.00                   | 2,636.98              | 3,339.61              | 2,661.00              | 19.99            | 27.27         | 0.316           | 294.88       | 936.95       | 640.66                 | 597.95                  | 42.72                     | 14.998                  |         |                              |  |
| 3,100.00                   | 2,660.24              | 2,831.35              | 2,526.32              | 21.89            | 18.42         | 35.474          | 134.92       | 1,382.04     | 622.15                 | 583.18                  | 38.97                     | 15.964                  |         |                              |  |
| 3,200.00                   | 2,668.95              | 2,769.29              | 2,495.30              | 23.84            | 17.48         | 32.253          | 98.42        | 1,421.49     | 575.31                 | 536.15                  | 39.16                     | 14.691                  |         |                              |  |
| 3,300.00                   | 2,669.00              | 2,705.63              | 2,463.46              | 25.80            | 16.52         | 28.658          | 60.97        | 1,461.95     | 527.85                 | 488.86                  | 38.98                     | 13.540                  |         |                              |  |
| 3,400.00                   | 2,669.00              | 2,641.96              | 2,431.63              | 27.81            | 15.58         | 24.034          | 23.52        | 1,502.42     | 487.95                 | 449.66                  | 38.29                     | 12.743                  |         |                              |  |
| 3,500.00                   | 2,669.00              | 2,600.00              | 2,410.05              | 29.88            | 14.98         | 15.322          | -0.92        | 1,528.82     | 458.67                 | 421.03                  | 37.64                     | 12.185 SF               |         |                              |  |
| 3,600.00                   | 2,669.00              | 2,550.00              | 2,381.71              | 31.98            | 14.30         | 5.125           | -28.89       | 1,559.04     | 444.13                 | 408.35                  | 35.78                     | 12.413                  |         |                              |  |
| 3,636.00                   | 2,669.00              | 2,539.13              | 2,375.17              | 32.74            | 14.17         | 0.109           | -34.79       | 1,565.42     | 442.99                 | 407.82                  | 35.17                     | 12.596 CC, ES           |         |                              |  |
| 3,700.00                   | 2,669.00              | 2,515.12              | 2,360.27              | 34.11            | 13.86         | -8.835          | -47.58       | 1,579.23     | 446.58                 | 412.93                  | 33.65                     | 13.271                  |         |                              |  |
| 3,800.00                   | 2,669.00              | 2,480.10              | 2,337.42              | 36.27            | 13.44         | -23.371         | -65.60       | 1,598.71     | 466.34                 | 435.34                  | 31.00                     | 15.041                  |         |                              |  |
| 3,900.00                   | 2,669.00              | 2,450.00              | 2,316.76              | 38.45            | 13.08         | -36.776         | -80.47       | 1,614.77     | 501.86                 | 473.39                  | 28.46                     | 17.631                  |         |                              |  |
| 4,000.00                   | 2,669.00              | 2,418.36              | 2,294.08              | 40.64            | 12.74         | -47.643         | -95.45       | 1,630.96     | 550.46                 | 524.38                  | 26.08                     | 21.106                  |         |                              |  |
| 4,100.00                   | 2,669.00              | 2,400.00              | 2,280.48              | 42.85            | 12.54         | -55.886         | -103.83      | 1,640.01     | 609.47                 | 585.04                  | 24.44                     | 24.942                  |         |                              |  |
| 4,200.00                   | 2,669.00              | 2,366.26              | 2,254.68              | 45.07            | 12.20         | -62.248         | -118.59      | 1,655.96     | 676.11                 | 653.45                  | 22.66                     | 29.836                  |         |                              |  |
| 4,300.00                   | 2,669.00              | 2,350.00              | 2,241.89              | 47.31            | 12.04         | -66.817         | -125.41      | 1,663.33     | 748.87                 | 727.22                  | 21.65                     | 34.589                  |         |                              |  |
| 4,400.00                   | 2,669.00              | 2,322.14              | 2,219.45              | 49.55            | 11.78         | -70.518         | -136.62      | 1,675.44     | 826.06                 | 805.44                  | 20.62                     | 40.066                  |         |                              |  |
| 4,500.00                   | 2,669.00              | 2,300.00              | 2,201.17              | 51.80            | 11.58         | -73.330         | -145.11      | 1,684.61     | 906.82                 | 886.90                  | 19.92                     | 45.521                  |         |                              |  |
| 4,600.00                   | 2,669.00              | 2,284.57              | 2,188.21              | 54.06            | 11.45         | -75.461         | -150.79      | 1,690.75     | 990.30                 | 970.80                  | 19.50                     | 50.785                  |         |                              |  |
| 4,700.00                   | 2,669.00              | 2,267.86              | 2,173.97              | 56.32            | 11.32         | -77.204         | -156.74      | 1,697.17     | 1,075.98               | 1,056.81                | 19.17                     | 56.134                  |         |                              |  |
| 4,800.00                   | 2,669.00              | 2,250.00              | 2,158.53              | 58.59            | 11.17         | -78.653         | -162.83      | 1,703.76     | 1,163.43               | 1,144.52                | 18.91                     | 61.525                  |         |                              |  |
| 4,900.00                   | 2,669.00              | 2,250.00              | 2,158.53              | 60.87            | 11.17         | -79.630         | -162.83      | 1,703.76     | 1,252.46               | 1,233.54                | 18.91                     | 66.215                  |         |                              |  |
| 5,000.00                   | 2,669.00              | 2,224.53              | 2,136.14              | 63.15            | 10.98         | -80.760         | -171.07      | 1,712.66     | 1,342.40               | 1,323.71                | 18.69                     | 71.811                  |         |                              |  |
| 5,100.00                   | 2,669.00              | 2,200.00              | 2,114.17              | 65.43            | 10.79         | -81.710         | -178.49      | 1,720.68     | 1,433.63               | 1,415.09                | 18.54                     | 77.313                  |         |                              |  |
| 5,200.00                   | 2,669.00              | 2,200.00              | 2,114.17              | 67.72            | 10.79         | -82.284         | -178.49      | 1,720.68     | 1,525.45               | 1,506.83                | 18.61                     | 81.948                  |         |                              |  |
| 5,300.00                   | 2,669.00              | 2,176.55              | 2,092.95              | 70.01            | 10.63         | -83.003         | -185.27      | 1,728.00     | 1,618.06               | 1,599.52                | 18.53                     | 87.302                  |         |                              |  |
| 5,400.00                   | 2,669.00              | 2,145.30              | 2,064.66              | 72.30            | 10.41         | -83.710         | -194.29      | 1,737.75     | 1,710.95               | 1,692.52                | 18.44                     | 92.795                  |         |                              |  |
| 5,500.00                   | 2,669.00              | 2,114.04              | 2,036.37              | 74.60            | 10.19         | -84.343         | -203.32      | 1,747.50     | 1,804.07               | 1,785.69                | 18.38                     | 98.168                  |         |                              |  |

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



## Anticollision Report



|                           |                                  |                                     |                                |
|---------------------------|----------------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>           | Riley Permian Operating Co., LLC | <b>Local Co-ordinate Reference:</b> | Well Marty Fee South 11-7 4H   |
| <b>Project:</b>           | Eddy County, New Mexico (NAD 83) | <b>TVD Reference:</b>               | Well @ 3329.00usft (Akita 519) |
| <b>Reference Site:</b>    | Marty Fee South 11-7 (3H, 4H)    | <b>MD Reference:</b>                | Well @ 3329.00usft (Akita 519) |
| <b>Site Error:</b>        | 0.00 usft                        | <b>North Reference:</b>             | Grid                           |
| <b>Reference Well:</b>    | Marty Fee South 11-7 4H          | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Well Error:</b>        | 0.00 usft                        | <b>Output errors are at</b>         | 2.00 sigma                     |
| <b>Reference Wellbore</b> | Wellbore #1                      | <b>Database:</b>                    | TRG_EDMConroe                  |
| <b>Reference Design:</b>  | Design #1                        | <b>Offset TVD Reference:</b>        | Reference Datum                |

**Offset Design:** Over The Line 12-11 (1H, 2H) - Over The Line 12-11 1H - Wellbore #1 - Design #1

|                                   |                 |                 |                 |                        |      |               |               |               |               |                       |                 |                   |                                     |
|-----------------------------------|-----------------|-----------------|-----------------|------------------------|------|---------------|---------------|---------------|---------------|-----------------------|-----------------|-------------------|-------------------------------------|
| <b>Survey Program:</b> 0-MWD+HRGM |                 |                 |                 |                        |      |               |               |               |               |                       |                 |                   | <b>Offset Site Error:</b> 0.00 usft |
| <b>Reference</b>                  |                 |                 |                 |                        |      |               |               |               |               |                       |                 |                   | <b>Offset Well Error:</b> 0.00 usft |
| <b>Measured</b>                   | <b>Vertical</b> | <b>Measured</b> | <b>Vertical</b> | <b>Semi Major Axis</b> |      | <b>Offset</b> | <b>Offset</b> | <b>Offset</b> | <b>Offset</b> | <b>Rule Assigned:</b> |                 |                   |                                     |
| <b>Depth</b>                      | <b>Depth</b>    | <b>Depth</b>    | <b>Depth</b>    | <b>Reference</b>       |      |               |               |               |               | <b>Distance</b>       |                 |                   |                                     |
| <b>(usft)</b>                     | <b>(usft)</b>   | <b>(usft)</b>   | <b>(usft)</b>   | <b>(usft)</b>          |      | <b>(usft)</b> | <b>(usft)</b> | <b>(usft)</b> | <b>(usft)</b> | <b>Between</b>        | <b>Between</b>  | <b>Minimum</b>    | <b>Separation</b>                   |
|                                   |                 |                 |                 |                        |      |               |               |               |               | <b>Centres</b>        | <b>Ellipses</b> | <b>Separation</b> | <b>Factor</b>                       |
|                                   |                 |                 |                 |                        |      |               |               |               |               | <b>(usft)</b>         | <b>(usft)</b>   | <b>(usft)</b>     | <b>Warning</b>                      |
| 5,600.00                          | 2,669.00        | 2,082.79        | 2,008.08        | 76.89                  | 9.97 | -84.913       | -212.34       | 1,757.25      | 1,897.37      | 1,879.02              | 18.35           | 103.416           |                                     |
| 5,700.00                          | 2,669.00        | 2,051.54        | 1,979.80        | 79.19                  | 9.76 | -85.428       | -221.37       | 1,767.00      | 1,990.83      | 1,972.48              | 18.34           | 108.540           |                                     |



## Anticollision Report



|                           |                                  |                                     |                                |
|---------------------------|----------------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>           | Riley Permian Operating Co., LLC | <b>Local Co-ordinate Reference:</b> | Well Marty Fee South 11-7 4H   |
| <b>Project:</b>           | Eddy County, New Mexico (NAD 83) | <b>TVD Reference:</b>               | Well @ 3329.00usft (Akita 519) |
| <b>Reference Site:</b>    | Marty Fee South 11-7 (3H, 4H)    | <b>MD Reference:</b>                | Well @ 3329.00usft (Akita 519) |
| <b>Site Error:</b>        | 0.00 usft                        | <b>North Reference:</b>             | Grid                           |
| <b>Reference Well:</b>    | Marty Fee South 11-7 4H          | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Well Error:</b>        | 0.00 usft                        | <b>Output errors are at</b>         | 2.00 sigma                     |
| <b>Reference Wellbore</b> | Wellbore #1                      | <b>Database:</b>                    | TRG_EDMConroe                  |
| <b>Reference Design:</b>  | Design #1                        | <b>Offset TVD Reference:</b>        | Reference Datum                |

## Offset Design: Over The Line 12-11 (1H, 2H) - Over The Line 12-11 2H - Wellbore #1 - Design #1

| Survey Program: 0-MWD+HRGM  |                             | Offset                      |                             | Semi Major Axis     |                  | Azimuth<br>from North<br>(°) | Offset Wellbore Centre |                 | Rule Assigned:<br>Distance<br>Between<br>Centres<br>(usft) |                               | Minimum<br>Separation<br>(usft) | Separation<br>Factor | Warning |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|------------------------------|------------------------|-----------------|--|-------------------------------|---------------------------------|----------------------|---------|
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Reference<br>(usft) | Offset<br>(usft) |                              | +N/-S<br>(usft)        | +E/-W<br>(usft) | Between<br>Centres<br>(usft)                               | Between<br>Ellipses<br>(usft) |                                 |                      |         |
| 1,000.00                    | 996.04                      | 1,533.35                    | 1,525.27                    | 3.54                | 5.92             | 105.451                      | -530.06                | 1,897.95        | 1,988.23   | 1,979.35                      | 8.88                            | 223.893              |         |
| 1,100.00                    | 1,093.17                    | 1,620.67                    | 1,609.33                    | 3.97                | 6.35             | 105.522                      | -528.30                | 1,874.35        | 1,939.57   | 1,930.02                      | 9.56                            | 202.911              |         |
| 1,200.00                    | 1,189.37                    | 1,694.08                    | 1,680.01                    | 4.42                | 6.72             | 105.562                      | -526.83                | 1,854.56        | 1,887.86   | 1,877.67                      | 10.19                           | 185.247              |         |
| 1,300.00                    | 1,285.45                    | 1,742.01                    | 1,726.35                    | 4.90                | 6.95             | 105.554                      | -525.92                | 1,842.40        | 1,837.14   | 1,826.41                      | 10.73                           | 171.270              |         |
| 1,400.00                    | 1,381.54                    | 4,529.45                    | 3,135.00                    | 5.39                | 40.96            | 0.318                        | -30.78                 | 150.28          | 1,753.66   | 1,737.07                      | 16.59                           | 105.680              |         |
| 1,500.00                    | 1,477.63                    | 4,503.53                    | 3,135.00                    | 5.89                | 40.40            | 0.317                        | -30.92                 | 176.20          | 1,657.78   | 1,641.29                      | 16.49                           | 100.528              |         |
| 1,600.00                    | 1,573.71                    | 4,477.61                    | 3,135.00                    | 6.40                | 39.85            | 0.317                        | -31.07                 | 202.11          | 1,561.97   | 1,545.57                      | 16.40                           | 95.235               |         |
| 1,700.00                    | 1,669.80                    | 4,451.70                    | 3,135.00                    | 6.91                | 39.30            | 0.317                        | -31.21                 | 228.03          | 1,466.28   | 1,449.95                      | 16.33                           | 89.807               |         |
| 1,800.00                    | 1,765.88                    | 4,425.78                    | 3,135.00                    | 7.43                | 38.75            | 0.317                        | -31.35                 | 253.95          | 1,370.70   | 1,354.43                      | 16.27                           | 84.244               |         |
| 1,900.00                    | 1,861.97                    | 4,399.86                    | 3,135.00                    | 7.95                | 38.20            | 0.316                        | -31.50                 | 279.87          | 1,275.28   | 1,259.04                      | 16.24                           | 78.541               |         |
| 2,000.00                    | 1,958.06                    | 4,373.94                    | 3,135.00                    | 8.47                | 37.65            | 0.316                        | -31.64                 | 305.78          | 1,180.04   | 1,163.81                      | 16.24                           | 72.684               |         |
| 2,099.96                    | 2,054.11                    | 4,348.03                    | 3,135.00                    | 9.00                | 37.11            | 0.316                        | -31.78                 | 331.69          | 1,085.08   | 1,068.81                      | 16.27                           | 66.674               |         |
| 2,200.00                    | 2,147.99                    | 4,315.92                    | 3,135.00                    | 9.59                | 36.43            | 0.316                        | -31.96                 | 363.80          | 992.84   | 976.53                        | 16.31                           | 60.870               |         |
| 2,300.00                    | 2,236.14                    | 4,271.91                    | 3,135.00                    | 10.32               | 35.52            | 0.316                        | -32.20                 | 407.81          | 907.38   | 890.96                        | 16.42                           | 55.270               |         |
| 2,400.00                    | 2,316.89                    | 4,216.85                    | 3,135.00                    | 11.22               | 34.38            | 0.316                        | -32.50                 | 462.87          | 830.83   | 814.11                        | 16.71                           | 49.707               |         |
| 2,500.00                    | 2,388.66                    | 4,151.81                    | 3,135.00                    | 12.29               | 33.05            | 0.316                        | -32.86                 | 527.91          | 765.31   | 747.99                        | 17.32                           | 44.181               |         |
| 2,600.00                    | 2,450.06                    | 4,078.06                    | 3,135.00                    | 13.57               | 31.56            | 0.316                        | -33.27                 | 601.66          | 712.76   | 694.44                        | 18.32                           | 38.908               |         |
| 2,700.00                    | 2,501.48                    | 3,997.85                    | 3,135.00                    | 15.03               | 29.97            | 0.316                        | -33.71                 | 681.87          | 673.11   | 653.40                        | 19.71                           | 34.146               |         |
| 2,800.00                    | 2,551.48                    | 3,916.83                    | 3,135.00                    | 16.58               | 28.40            | 0.316                        | -34.16                 | 762.89          | 638.03   | 616.52                        | 21.51                           | 29.662               |         |
| 2,900.00                    | 2,599.89                    | 3,834.53                    | 3,135.00                    | 18.21               | 26.84            | 0.316                        | -34.61                 | 845.19          | 607.52   | 583.95                        | 23.57                           | 25.772               |         |
| 3,000.00                    | 2,636.98                    | 3,744.59                    | 3,135.00                    | 19.99               | 25.20            | 0.316                        | -35.11                 | 935.13          | 586.73   | 561.40                        | 25.33                           | 23.163               |         |
| 3,100.00                    | 2,660.24                    | 3,207.44                    | 2,981.56                    | 21.89               | 16.13            | 67.608                       | -207.37                | 1,399.59        | 513.33   | 488.51                        | 24.82                           | 20.682               |         |
| 3,200.00                    | 2,668.95                    | 3,142.79                    | 2,949.24                    | 23.84               | 15.28            | 68.736                       | -243.36                | 1,442.48        | 438.03   | 413.77                        | 24.26                           | 18.056               |         |
| 3,300.00                    | 2,669.00                    | 3,076.36                    | 2,916.02                    | 25.80               | 14.43            | 71.686                       | -280.34                | 1,486.55        | 367.07   | 344.33                        | 22.74                           | 16.139               |         |
| 3,400.00                    | 2,669.00                    | 2,984.88                    | 2,867.12                    | 27.81               | 13.38            | 80.615                       | -330.00                | 1,545.73        | 295.97   | 275.84                        | 20.13                           | 14.702               |         |
| 3,500.00                    | 2,669.00                    | 2,899.09                    | 2,812.84                    | 29.88               | 12.52            | 92.257                       | -372.66                | 1,596.57        | 221.09   | 204.04                        | 17.05                           | 12.964               |         |
| 3,600.00                    | 2,669.00                    | 2,828.78                    | 2,762.69                    | 31.98               | 11.92            | 109.843                      | -404.30                | 1,634.28        | 146.14   | 129.91                        | 16.23                           | 9.006                |         |
| 3,700.00                    | 2,669.00                    | 2,771.16                    | 2,718.15                    | 34.11               | 11.48            | 151.381                      | -427.79                | 1,662.27        | 85.45  | 54.02                         | 31.44                           | 2.718                |         |
| 3,743.40                    | 2,669.00                    | 2,749.43                    | 2,700.62                    | 35.05               | 11.32            | -179.926                     | -436.03                | 1,672.10        | 76.38  | 34.47                         | 41.91                           | 1.823 CC, ES, SF     |         |
| 3,800.00                    | 2,669.00                    | 2,723.65                    | 2,679.31                    | 36.27               | 11.15            | -149.949                     | -445.37                | 1,683.22        | 91.57  | 46.40                         | 45.17                           | 2.027                |         |
| 3,900.00                    | 2,669.00                    | 2,684.12                    | 2,645.67                    | 38.45               | 10.90            | -125.327                     | -458.71                | 1,699.12        | 160.64   | 122.44                        | 38.19                           | 4.206                |         |
| 4,000.00                    | 2,669.00                    | 2,650.00                    | 2,615.76                    | 40.64               | 10.69            | -115.219                     | -469.25                | 1,711.68        | 245.82   | 212.15                        | 33.67                           | 7.301                |         |
| 4,100.00                    | 2,669.00                    | 2,622.74                    | 2,591.31                    | 42.85               | 10.54            | -109.632                     | -477.00                | 1,720.92        | 335.97   | 304.85                        | 31.11                           | 10.798               |         |
| 4,200.00                    | 2,669.00                    | 2,600.00                    | 2,570.58                    | 45.07               | 10.42            | -106.097                     | -483.01                | 1,728.08        | 428.51   | 398.99                        | 29.52                           | 14.515               |         |
| 4,300.00                    | 2,669.00                    | 2,577.73                    | 2,550.01                    | 47.31               | 10.30            | -103.749                     | -488.48                | 1,734.60        | 522.49   | 494.03                        | 28.46                           | 18.359               |         |
| 4,400.00                    | 2,669.00                    | 2,559.55                    | 2,533.01                    | 49.55               | 10.21            | -101.967                     | -492.64                | 1,739.56        | 617.47   | 589.79                        | 27.68                           | 22.305               |         |
| 4,500.00                    | 2,669.00                    | 2,550.00                    | 2,524.03                    | 51.80               | 10.16            | -100.458                     | -494.71                | 1,742.03        | 713.24   | 686.16                        | 27.09                           | 26.333               |         |
| 4,600.00                    | 2,669.00                    | 2,529.45                    | 2,504.54                    | 54.06               | 10.06            | -99.497                      | -498.92                | 1,747.04        | 809.49   | 782.85                        | 26.64                           | 30.386               |         |
| 4,700.00                    | 2,669.00                    | 2,516.87                    | 2,492.53                    | 56.32               | 10.01            | -98.604                      | -501.31                | 1,749.89        | 906.25   | 879.97                        | 26.27                           | 34.492               |         |
| 4,800.00                    | 2,669.00                    | 2,500.00                    | 2,476.32                    | 58.59               | 9.93             | -97.926                      | -504.30                | 1,753.46        | 1,003.41   | 977.43                        | 25.97                           | 38.635               |         |
| 4,900.00                    | 2,669.00                    | 2,500.00                    | 2,476.32                    | 60.87               | 9.93             | -97.187                      | -504.30                | 1,753.46        | 1,100.83   | 1,075.10                      | 25.73                           | 42.778               |         |
| 5,000.00                    | 2,669.00                    | 2,486.31                    | 2,463.09                    | 63.15               | 9.87             | -96.695                      | -506.55                | 1,756.14        | 1,198.52   | 1,172.99                      | 25.52                           | 46.956               |         |
| 5,100.00                    | 2,669.00                    | 2,477.99                    | 2,455.00                    | 65.43               | 9.83             | -96.229                      | -507.84                | 1,757.68        | 1,296.44   | 1,271.09                      | 25.35                           | 51.140               |         |
| 5,200.00                    | 2,669.00                    | 2,470.39                    | 2,447.61                    | 67.72               | 9.80             | -95.823                      | -508.96                | 1,759.01        | 1,394.56   | 1,369.36                      | 25.20                           | 55.332               |         |
| 5,300.00                    | 2,669.00                    | 2,450.00                    | 2,427.68                    | 70.01               | 9.71             | -95.541                      | -511.73                | 1,762.31        | 1,492.99   | 1,467.94                      | 25.05                           | 59.610               |         |
| 5,400.00                    | 2,669.00                    | 2,450.00                    | 2,427.68                    | 72.30               | 9.71             | -95.182                      | -511.73                | 1,762.31        | 1,591.31   | 1,566.36                      | 24.95                           | 63.773               |         |
| 5,500.00                    | 2,669.00                    | 2,450.00                    | 2,427.68                    | 74.60               | 9.71             | -94.866                      | -511.73                | 1,762.31        | 1,689.82   | 1,664.95                      | 24.87                           | 67.934               |         |
| 5,600.00                    | 2,669.00                    | 2,450.00                    | 2,427.68                    | 76.89               | 9.71             | -94.586                      | -511.73                | 1,762.31        | 1,788.50   | 1,763.69                      | 24.81                           | 72.088               |         |
| 5,700.00                    | 2,669.00                    | 2,450.00                    | 2,427.68                    | 79.19               | 9.71             | -94.335                      | -511.73                | 1,762.31        | 1,887.32   | 1,862.57                      | 24.76                           | 76.236               |         |
| 5,800.00                    | 2,669.00                    | 2,450.00                    | 2,427.68                    | 81.49               | 9.71             | -94.110                      | -511.73                | 1,762.31        | 1,986.26   | 1,961.55                      | 24.71                           | 80.375               |         |

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





## Anticollision Report

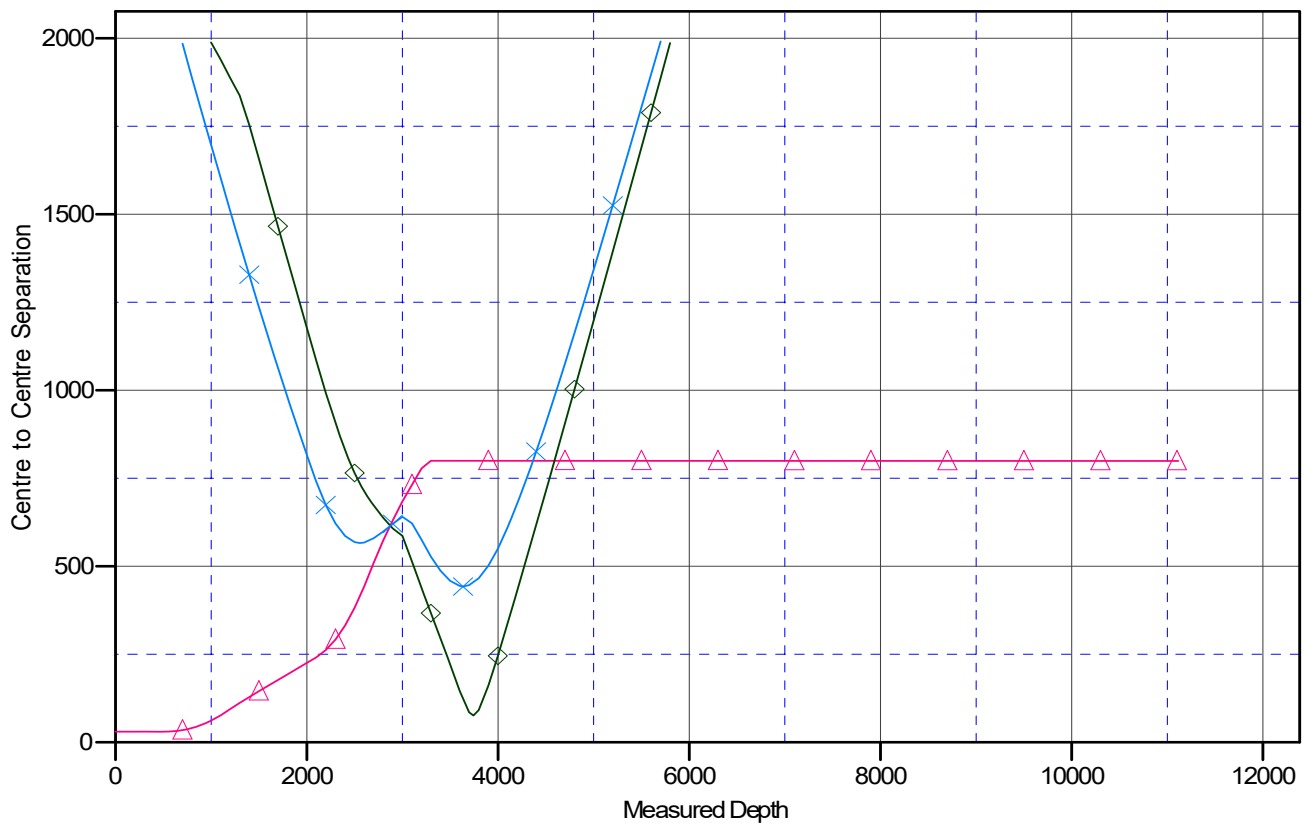


|                           |                                  |                                     |                                |
|---------------------------|----------------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>           | Riley Permian Operating Co., LLC | <b>Local Co-ordinate Reference:</b> | Well Marty Fee South 11-7 4H   |
| <b>Project:</b>           | Eddy County, New Mexico (NAD 83) | <b>TVD Reference:</b>               | Well @ 3329.00usft (Akita 519) |
| <b>Reference Site:</b>    | Marty Fee South 11-7 (3H, 4H)    | <b>MD Reference:</b>                | Well @ 3329.00usft (Akita 519) |
| <b>Site Error:</b>        | 0.00 usft                        | <b>North Reference:</b>             | Grid                           |
| <b>Reference Well:</b>    | Marty Fee South 11-7 4H          | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Well Error:</b>        | 0.00 usft                        | <b>Output errors are at</b>         | 2.00 sigma                     |
| <b>Reference Wellbore</b> | Wellbore #1                      | <b>Database:</b>                    | TRG_EDMConroe                  |
| <b>Reference Design:</b>  | Design #1                        | <b>Offset TVD Reference:</b>        | Reference Datum                |

Reference Depths are relative to Well @ 3329.00usft (Akita 519)  
 Offset Depths are relative to Offset Datum  
 Central Meridian is -104.333334

Coordinates are relative to: Marty Fee South 11-7 4H  
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone  
 Grid Convergence at Surface is: -0.008°

## Ladder Plot



## LEGEND

Marty Fee South 11-7 3H, Wellbore #1, Design #1 V0
 Over The Line 12-11 2H, Wellbore #1, Design #1 V0
 Over The Line 12-11 1H, Wellbore #1, Design #1 V0



## Anticollision Report

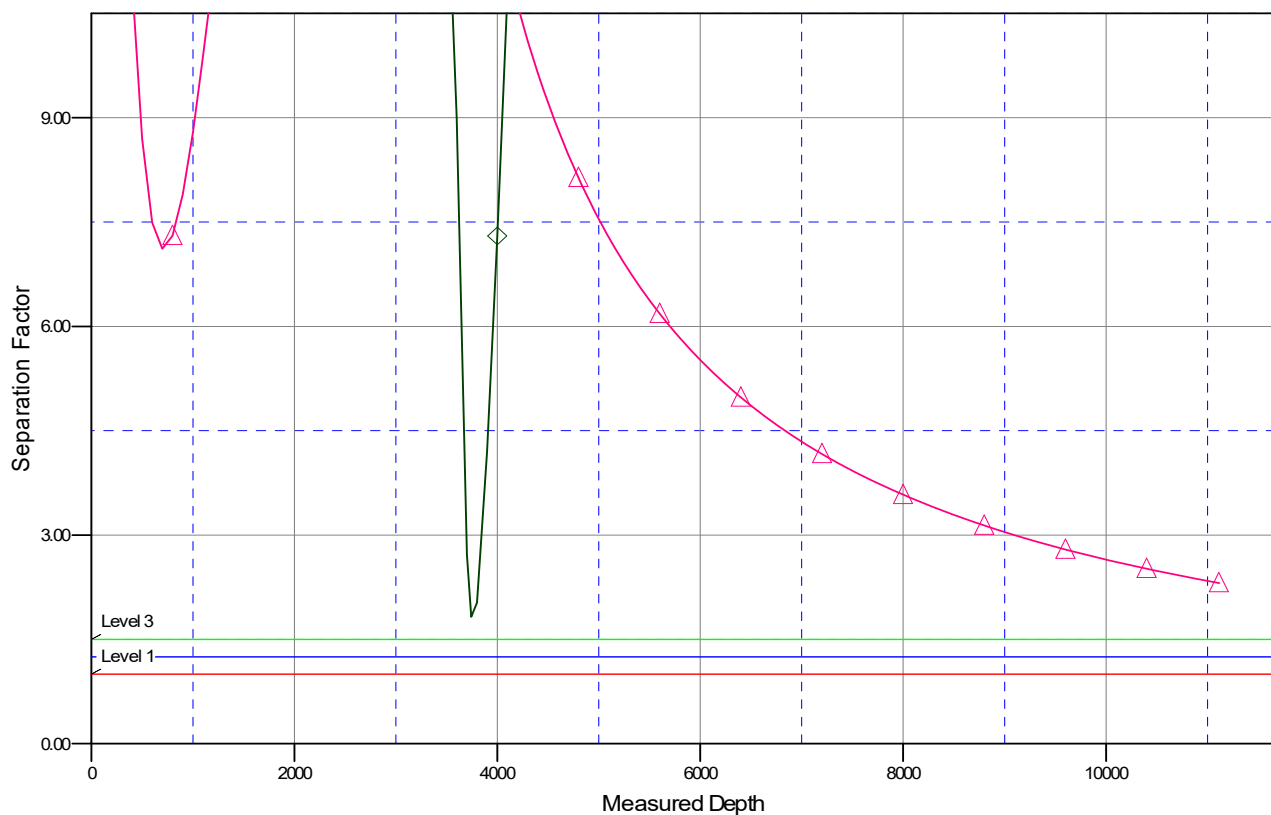


|                           |                                  |                                     |                                |
|---------------------------|----------------------------------|-------------------------------------|--------------------------------|
| <b>Company:</b>           | Riley Permian Operating Co., LLC | <b>Local Co-ordinate Reference:</b> | Well Marty Fee South 11-7 4H   |
| <b>Project:</b>           | Eddy County, New Mexico (NAD 83) | <b>TVD Reference:</b>               | Well @ 3329.00usft (Akita 519) |
| <b>Reference Site:</b>    | Marty Fee South 11-7 (3H, 4H)    | <b>MD Reference:</b>                | Well @ 3329.00usft (Akita 519) |
| <b>Site Error:</b>        | 0.00 usft                        | <b>North Reference:</b>             | Grid                           |
| <b>Reference Well:</b>    | Marty Fee South 11-7 4H          | <b>Survey Calculation Method:</b>   | Minimum Curvature              |
| <b>Well Error:</b>        | 0.00 usft                        | <b>Output errors are at</b>         | 2.00 sigma                     |
| <b>Reference Wellbore</b> | Wellbore #1                      | <b>Database:</b>                    | TRG_EDMConroe                  |
| <b>Reference Design:</b>  | Design #1                        | <b>Offset TVD Reference:</b>        | Reference Datum                |

Reference Depths are relative to Well @ 3329.00usft (Akita 519)  
 Offset Depths are relative to Offset Datum  
 Central Meridian is -104.333334

Coordinates are relative to: Marty Fee South 11-7 4H  
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone  
 Grid Convergence at Surface is: -0.008°

## Separation Factor Plot



## LEGEND

Marty Fee South 11-7 3H, Wellbore #1, Design #1 V0
 Over The Line 12-11 2H, Wellbore #1, Design #1 V0
 Over The Line 12-11 1H, Wellbore #1, Design #1 V0

DRILLING PROGRAM



Riley Exploration-Permian, LLC

Marty Fee South Pad

Marty Fee South 4H

Lot H Section 11, Township 18 South, Range 26 East, 6<sup>th</sup> P.M.

Eddy County, New Mexico

Owner: Bureau of Land Management

Land code: Exempt Agricultural Land

1. Geologic Name of Surface Formation

Quaternary

Estimated Tops of Important Geologic Markers:

| Top           | TC Thickness | Subsea | Top from KB | Lithology     | Expected Fluids  |
|---------------|--------------|--------|-------------|---------------|------------------|
| Quaternary    | 353          | 3,339  | -10         | Salt/Red beds | Usable Water     |
| Queen         | 417          | 2,986  | 344         | ANHY/Dolomite | None             |
| Grayburg      | 247          | 2,569  | 761         | ANHY/Dolomite | Natural Gas, Oil |
| San Andres    | 1320         | 2,322  | 1,008       | ANHY/Dolomite | Natural Gas, Oil |
| Glorieta      | 95           | 1,002  | 2,328       | ANHY/Dolomite | Natural Gas, Oil |
| Paddock       | 121          | 907    | 2,423       | ANHY/Dolomite | Natural Gas, Oil |
| Lower Paddock | 125          | 786    | 2,544       | ANHY/Dolomite | Natural Gas, Oil |
| Target        |              | 661    | 2,669       | ANHY/Dolomite | Natural Gas, Oil |

| Target @ 0' VS | TVD   | INC   |
|----------------|-------|-------|
|                | 2,669 | 90.00 |

2. Blowout Prevention

\*Variance Requested for flex hose\*

Riley Permian requests a variance to use a flex line from the BOP to the choke manifold. Documentation will be attached in the APD and be readily available. No external damage to the flex line. Flex line to be installed as straight as possible with no bends.

\*Riley Permian will be utilize a 5M BOP\*

| Condition                     | Specify what type and where? |
|-------------------------------|------------------------------|
| BH Pressure at Deepest TVD    | ~1400 psi                    |
| Abnormal Temperature          | No                           |
| BH Temperature at Deepest TVD | 105-deg F                    |

BOP/BOPE will be tested by an independent service company to 250 psi low and 70% of working pressure high unless otherwise required, as per Onshore Order 2 requirements. The System may be upgraded to a higher

pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed with be functional and tested.

Pipe rams will be operationally checked each 24-horu period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

|  |   |                                       |
|--|---|---------------------------------------|
|  | Formation integrity test will be performed per Onshore Order #2.<br>On Exploratory wells or 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. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i. |                                       |
|  | Y   | Are anchors required by manufacturer? |
|  | A conventional wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days.<br>See attached schematics.  |                                       |

3. BOP Break Testing Request

Riley Exploration Permian LLC requests permission to adjust the BOP break testing requirements as follows:

BOP break test under the following conditions:

- After a full BOP test is conducted
- When skidding to drill the production section, where the surface casing point is shallower than the 3 Bone Spring or 10,000’ TVD
- When skidding to drill a production section that does not penetrate the 3<sup>rd</sup> Bone Spring or deeper

If the kill line is broken prior to skid, four tests will be performed:

- The void between the wellead and the spool (one on each side for two tests)
- The spool between the kill lines and the choke manifold (consisting of two tests)

If the kill line is not broken prior to skid, two tests will be performed:

- The void between the wellhead and the pipe rams

4. Casing Program

All casing strings will be test in accordance with onshore oil and gas order #2 III.B.1.h.

| Casing<br>Formation Set<br>Interval | Hole<br>Size (in.) | Casing Interval |             | Casing<br>Size<br>(in.) | Weight<br>(lbs) | Grade  | Conn. | SF<br>Collapse                | SF<br>Burst | Body SF<br>Tension | Joint SF<br>Tension |
|-------------------------------------|--------------------|-----------------|-------------|-------------------------|-----------------|--------|-------|-------------------------------|-------------|--------------------|---------------------|
|                                     |                    | From (ft.)      | To<br>(ft.) |                         |                 |        |       |                               |             |                    |                     |
| San Andres                          | 12.25              | 0               | 1250        | 9.625                   | 36              | J-55   | BTC   | 1.125                         | 1.2         | 1.4                | 1.4                 |
| N/A                                 | 8.75               | 0               | 3050        | 7                       | 32              | HCL-80 | BTC   | 1.125                         | 1.2         | 1.4                | 1.4                 |
| Yeso                                | 8.75               | 3050            | 11116       | 5.5                     | 20              | HCL-80 | BTC   | 1.125                         | 1.2         | 1.4                | 1.4                 |
|                                     |                    |                 |             |                         |                 |        |       | SF Values will MEET or EXCEED |             |                    |                     |



|  |        |
|--|--------|
|  | Y or N |
| Is casing new? If used, attach certification as required in Onshore Order #1   | Y      |
| Does casing meet API specifications? If no, attach casing specification sheet.   | Y      |
| Is premium or uncommon casing planned? If yes attach casing specification sheet.   | N      |
| Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria). | Y      |
| Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?                | Y      |
| Is well located within Capitan Reef?   | N      |
| If yes, does production casing cement tie back a minimum of 50' above the Reef?  |        |
| Is well within the designated 4 string boundary.   |        |
| Is well located in SOPA but not in R-111-P?  | N      |
| If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?                       |        |
| Is well located in R-111-P and SOPA?   | N      |
| If yes, are the first three strings cemented to surface?   |        |
| Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?   |        |
| Is well located in high Cave/Karst?  | N      |
| If yes, are there two strings cemented to surface?   |        |
| Is well located in critical Cave/Karst?  | N      |
| If yes, are there three strings cemented to surface?   |        |

5. Cement Program:

| Casing String     | Top (ft.) | Bottom (ft.) | % Excess |
|-------------------|-----------|--------------|----------|
| Surface (Lead)    | 0         | 950          | 100%     |
| Surface (Tail)    | 875       | 1250         | 100%     |
| Production (Lead) | 0         | 2300         | 35%+     |
| Production (Tail) | 2435      | 11116        | 35%+     |

| Casing String     | # Sx | Wt. (lb/gal) | Yld (ft3/sk) | H2O (gal/sk) | 500# Compressive Strength (hours) | Slurry Description       |
|-------------------|------|--------------|--------------|--------------|-----------------------------------|--------------------------|
| Surface (lead)    | 450  | 12.8         | 1.43         | 6.65         | 6:44                              | 50/50 Poz C Premium Plus |
| Surface (tail)    | 195  | 14.8         | 1.33         | 6.32         | 8:05                              | Class C Premium Plus     |
| Production (lead) | 125  | 11.5         | 2.29         | 12.63        | N/A                               | 50/50 Poz C Premium Plus |
| Production (tail) | 2285 | 13.7         | 1.31         | 5.61         | N/A                               | 35/65 Poz C Premium Plus |

6. Types and Characteristics of the Proposed Mud System:

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. The following is a general list of products: Barite, Bentonite, Gypsum, Lime, Soda Ash, Caustic Soda, Nut Plug, Cedar Fiber, Cotton Seed Hulls, Drilling Paper, Salt Water Clay, CACL2. Riley will utilize a closed mud system.

| Depth      |          | Type            | Weight (ppg) | Viscosity (cp) | Water Loss |
|------------|----------|-----------------|--------------|----------------|------------|
| From (ft.) | To (ft.) |                 |              |                |            |
| 0          | 1250     | Water-Based Mud | 8.6-8.9      | 32-36          | N/C        |
| 1250       | TD       | Water-Based Mud | 8.6-8.10     | 32-37          | N/C        |

PVT/Pason/Visual Monitoring will be used to monitor the loss or gain of fluid.

7. Logging, Testing and Coring Program:

| Logging, Coring and Testing. |   |          |
|------------------------------|---|----------|
| Yes                          | Will run GR from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM. |          |
| No                           | Logs are planned based on well control or offset log information.   |          |
| No                           | Drill stem test? If yes, explain  |          |
| No                           | Coring? If yes, explain   |          |
| Additional logs planned      |   | Interval |
| No                           | Resistivity   |          |
| No                           | Density   |          |
| No                           | CBL   |          |
| Yes                          | Mud log   | SCP - TD |
| No                           | PEX   |          |

8. Drilling Conditions

Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

|  |                   |
|--|-------------------|
| Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM. |                   |
| N  | H2S is present    |
| Y  | H2S Plan attached |

Total estimated cuttings volume: 990 bbls

**NOTES REGARDING THE BLOWOUT PREVENTERS**

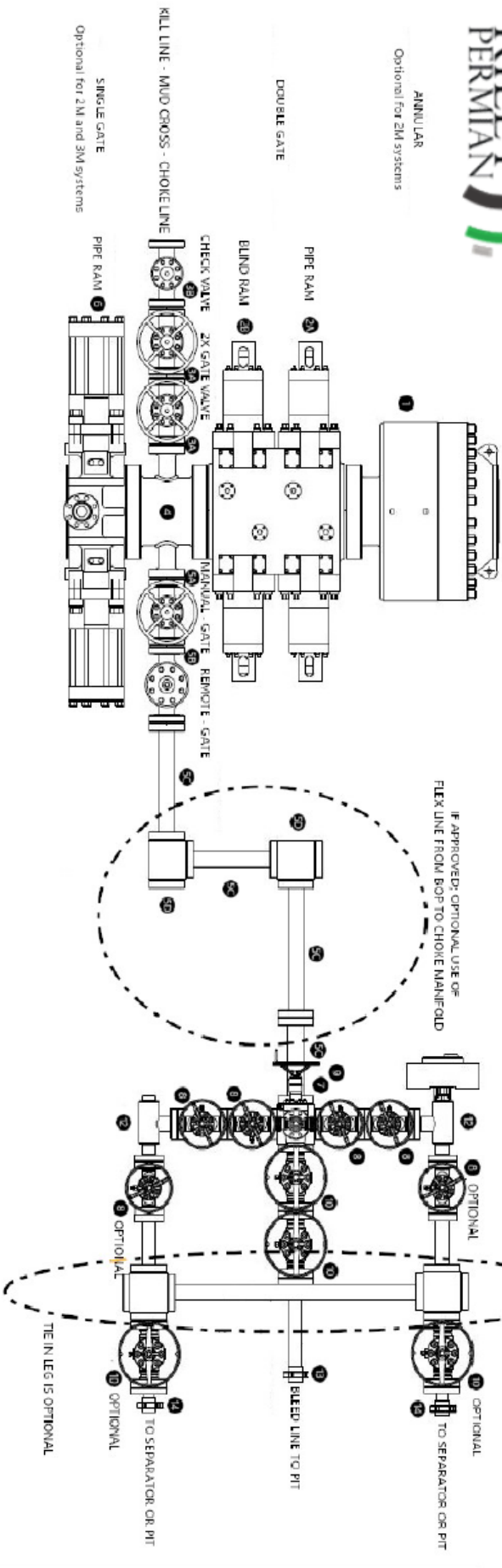
**Marty Fee 4H**

**Eddy County, New Mexico**

1. Drilling nipple to be so constructed that it can be removed without use of a welder through rotary table opening, with minimum I.D. equal to preventer bore.
2. Wear ring to be properly installed in head.
3. Blow out preventer and all fittings must be in good condition, 3000 psi WP minimum.
4. All fittings to be flanged.
5. Safety valve must be available on rig floor at all times with proper connections, valve to be full 3000 psi WP minimum.
6. All choke and fill lines to be securely anchored especially ends of choke lines.
7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
8. Kelly cock on Kelly.
9. Extension wrenches and hands wheels to be properly installed.
10. Blow out preventer control to be located as close to driller's position as feasible.
11. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation all API specifications.



Riley Permian  
Exhibit 10  
Minimum BOP and Choke Requirements  
3M and 5M Systems



| BOP - Minimum Requirements |                        |                          |                   |                 |      |   |
|----------------------------|------------------------|--------------------------|-------------------|-----------------|------|---|
|                            | Description            | ID (in.)                 | Nom. OD (in.)     | Optional        | Note |   |
| 1                          | Annular                |                          |                   | Yes - 2M        |      |   |
| 2A                         |                        | Pipe Ram                 |                   |                 |      |   |
| 2B                         |                        | Double Gate<br>Blind Ram | 3 1/8             | No              |      |   |
| 3A                         |                        | Gate                     |                   |                 |      |   |
| 3A                         |                        | Gate                     | 2                 |                 |      |   |
| 3B                         |                        | Check Valve              |                   | No              |      |   |
|                            |                        | Line                     |                   | 2               |      |   |
| 4                          |                        | Mud Cross                | 2 1/16            |                 | No   | Kill Line - 2" min.<br>Choke Line - 3" min. |
| 5A                         |                        | Choke Line               | Gate - Manual (2) | 3 1/8           | No   |   |
| 5B                         |                        |                          | Gate - Remote (2) |                 | No   |   |
| 5C                         | Line                   |                          |                   | No              |      |   |
| 5D                         | Targeted Tee           |                          | 3                 | No              |      |   |
| 6                          | Single Gate - Pipe Ram |                          |                   | Yes - 2M and 3M |      |   |

Choke Manifold - Minimum Requirements

| Choke Manifold - Minimum Requirements |                                      |           |   |              |           |   |              |            |   |
|---------------------------------------|--------------------------------------|-----------|---|--------------|-----------|---|--------------|------------|---|
|                                       |                                      | 3000 MWHP |   |              | 5000 MWHP |   |              | 10000 MWHP |   |
|                                       | Description                          | ID (in.)  | Nominal OD (in. unless otherwise noted) | Rating (psi) | ID (in.)  | Nominal OD (in. unless otherwise noted) | Rating (psi) | ID (in.)   | Nominal OD (in. unless otherwise noted) |
| 7                                     | Cross - 3" x 3" x 3" x 2"            |           |   | 3,000        |           |   | 5,000        |            |   |
| 8                                     | Valve<br>Gate (2)<br>Plug            | 2 1/16    |   | 3,000        | 2 1/16    |   | 5,000        | 3 1/8      |   |
| 9                                     | Pressure Gauge<br>Gate (2)<br>Plug   |           |   | 3,000        |           |   | 5,000        |            |   |
| 10                                    | Valve<br>Plug                        | 3 1/8     |   | 3,000        | 3 1/8     |   | 5,000        | 3 1/8      |   |
| 11                                    | Remote Operated Adjustable Choke (2) | 2 1/16    |   | 3,000        |           |   | 5,000        |            |   |
| 12                                    | Manual Adjustable Choke              | 2 1/16    |   | 3,000        |           |   | 5,000        |            |   |
| 13                                    | Line                                 |           | 3                                       | 3,000        |           | 3                                       | 5,000        | 3          | 10,000                                  |
| 14                                    | Line                                 |           | 2                                       | 3,000        |           | 2                                       | 5,000        | 2          | 10,000                                  |
| 15                                    | Gas Separator (4)                    |           | 2' x 5'                                 |              |           | 2' x 5'                                 |              | 2' x 5'    |   |

(1) Only one required in 2M system  
(2) Gate valves only to be used for 10M system  
(3) Remote chokes are required for 5M and 10M systems  
(4) Gas separator is optional for 2M and 3M systems



**Riley Permian Operating Company, LLC**  
**Onshore Order #6**  
**Hydrogen Sulfide Drilling Operation Plan**

## **I. HYDROGEN SULFIDE TRAINING**

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H<sub>2</sub>S detectors alarms warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H<sub>2</sub>S on metal components. If high tensile tubular are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H<sub>2</sub>S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H<sub>2</sub>S zone (within 3 days or 500 feet) and weekly H<sub>2</sub>S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan. **The concentrations of H<sub>2</sub>S of wells in this area from surface to TD are low enough that a contingency plan is not required.**

## **II. H<sub>2</sub>S SAFETY EQUIPMENT AND SYSTEMS**

Note: All H<sub>2</sub>S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonable expected to contain H<sub>2</sub>S.

### **1. Well Control Equipment:**

- A. Flare line.
- B. Choke manifold.
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
- D. Auxiliary equipment may include if applicable: annular preventer & rotating head.

### **2. Protective equipment for essential personnel:**

- A. Mark II Survive air 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

**3. H2S detection and monitoring equipment:**

- A. 3x portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 PPM are reached.

**4. Visual warning systems:**

- A. Wind direction indicators as shown on well site diagram (Exhibit #8).
- B. Caution/Danger signs (Exhibit #7) shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

**5. Mud program:**

- A. The mud program has been designed to minimize the volume of H2S circulated to surface. Proper mud weight, safe drilling practices and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

**6. Metallurgy:**

- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
- B. All elastomers used for packing and seals shall be H2S trim.

**7. Communication:**

- A. Radio communications in company vehicles including cellular telephone and 2-way radio.
- B. Land line (telephone) communication at Office.

**8. Well testing:**

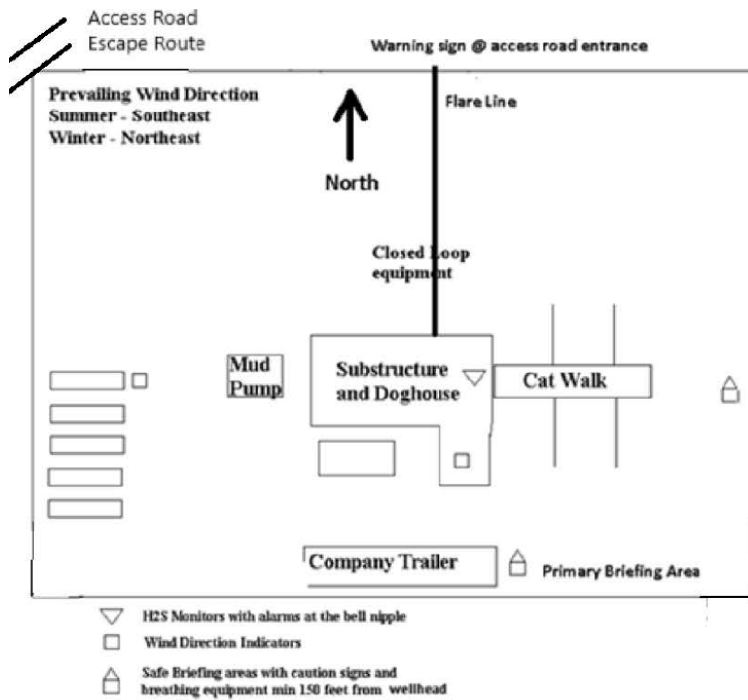
- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H2S environment will use the closed chamber method of testing.
- B. There will be no drill stem testing.

# WARNING

**YOU ARE ENTERING AN H2S AREA  
AUTHORIZED PERSONNEL ONLY**

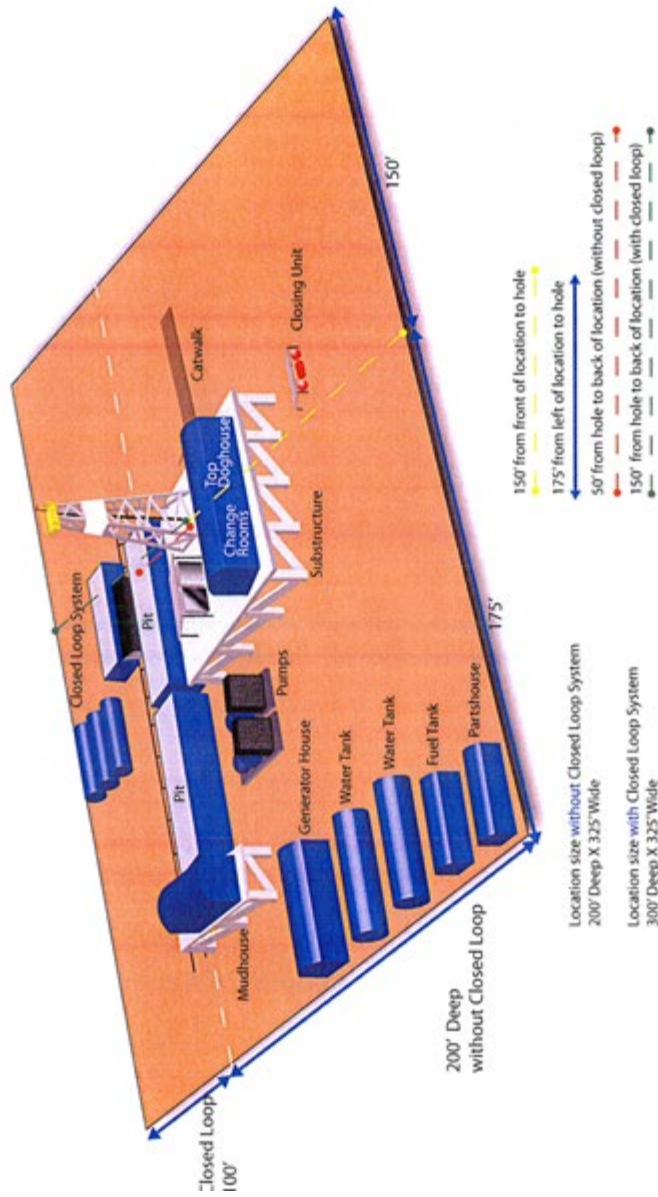
1. BEARDS OR CONTACT LENSES NOT ALLOWED
2. HARD HATS REQUIRED
3. SMOKING IN DESIGNATED AREAS ONLY
4. BE WIND CONSCIOUS AT ALL TIMES
5. CHECK WITH RILEY PERMIAN OPERATING COMPANY MAN AT OFFICE

RILEY PERMIAN OPERATING COMPANY, LLC  
1-405-415-8699



**DRILLING LOCATION H2S SAFTY EQUIPMENT**  
**Exhibit # 8**

**Location Layout**



**EMERGENCY CONTACT LIST – EDDY COUNTY**

| <b>Artesia</b>          | <b>Cellular</b>   | <b>Office</b> |
|-------------------------|-------------------|---------------|
| Spence Laird.....       | 575-703-7382..... | 405-420-8415  |
| Steve Forister.....     | 505-400-4571..... | 405-666-0113  |
| Travis Kerr.....        | 713-823-6933      |               |
| Justing Sappington..... | 361-550-0494      |               |

**Agency Call List (575)****Artesia**

|   |          |
|---|----------|
| State Police.....                             | 746-2703 |
| City Police.....                              | 746-2703 |
| Sheriff's Office.....                         | 746-9888 |
| Ambulance.....                                | 911      |
| Fire Department.....                          | 746-2701 |
| LEPC (Local Emergency Planning Committee..... | 746-2122 |
| NMOCD.....                                    | 748-1283 |

**Carlsbad**

|   |               |
|---|---------------|
| State Police.....                             | 885-3137      |
| City Police.....                              | 885-2111      |
| Sheriff's Office.....                         | 887-7551      |
| Ambulance.....                                | 911           |
| Fire Department.....                          | 885-2111      |
| LEPC (Local Emergency Planning Committee..... | 887-3798      |
| Bureau of Land Management.....                | 887-6544      |
| New Mexico Emergency Response Commission..... | (505)476-9690 |
| 24 Hour.....                                  | (505)827-9126 |



### Emergency Services

Boots & Coots IWC.....1-800-256-9688 or (281)931-8884  
Cudd pressure Control.....(915)699-0139 or (915)563-3356  
Halliburton.....746-2757  
Par Five.....748-9539  
  
Flight For Life-Lubbock, TX.....(806)743-9911  
Aerocare-Lubbock, TX.....(806)747-8923  
Med Flight Air Amb-Albuquerque, NM.....(505)842-4433  
Lifeguard Air Med Svc. Albuquerque, NM.....(505)272-3115

State of New Mexico  
Energy, Minerals and Natural Resources Department

Submit Electronically  
Via E-permitting

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

## NATURAL GAS MANAGEMENT PLAN

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

### Section 1 – Plan Description

Effective May 25, 2021

**I. Operator:** Riley Permian Operating Company LLC **OGRID:** 372290 **Date:** 04 / 04 / 2025

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

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

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

| Well Name               | API            | ULSTR          | Footages            | Anticipated Oil BBL/D | Anticipated Gas MCF/D | Anticipated Produced Water BBL/D |
|-------------------------|----------------|----------------|---------------------|-----------------------|-----------------------|----------------------------------|
| Marty Fee South 11-7 3H | 30-015-PENDING | H - 11-18S-26E | 1920' FNL 1040' FEL | 450                   | 700                   | 4,000                            |
| Marty Fee South 11-7 4H | 30-015-PENDING | H - 11-18S-26E | 1950' FNL 1040' FEL | 450                   | 700                   | 4,000                            |

**IV. Central Delivery Point Name:** Marty South Pad CTB [See 19.15.27.9(D)(1) NMAC]

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

| Well Name               | API            | Spud Date | TD Reached Date | Completion Commencement Date | Initial Flow Back Date | First Production Date |
|-------------------------|----------------|-----------|-----------------|------------------------------|------------------------|-----------------------|
| Marty Fee South 11-7 3H | 30-015-PENDING | 6/1/2025  | 6/8/2025        | 9/1/2025                     | 10/1/2025              | 10/1/2025             |
| Marty Fee South 11-7 4H | 30-015-PENDING | 6/1/2025  | 6/8/2025        | 9/1/2025                     | 10/1/2025              | 10/1/2025             |

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

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

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

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

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

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

**IX. Anticipated Natural Gas Production:**

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

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

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

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

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

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

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

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

### **Section 3 - Certifications**

**Effective May 25, 2021**

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

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

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

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

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

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

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

### **Section 4 - Notices**


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

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

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

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

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

|  |   |
|--|---|
| Signature:   |  |
| Printed Name:  | Spence Laird  |
| Title:   | EH&SR Manager   |
| E-mail Address:  | spencelaird@rileypermian.com  |
| Date:  | 4/14/25   |
| Phone:   | 405-543-1411  |
| OIL CONSERVATION DIVISION<br>(Only applicable when submitted as a standalone form) |   |
|  |   |
| Approved By:   |   |
| Title:   |   |
| Approval Date:   |   |
| Conditions of Approval:  |   |





## Natural Gas Management Plan – Attachment

VI. Separation equipment will be sized by construction engineering staff based on anticipated daily production to ensure adequate capacity.

VII. Riley Permian Operating Company LLC (“Riley”) will take the following actions to comply with the regulations listed in 19.15.27.8:

- A. Riley will maximize the recovery of natural gas by minimizing waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. Spur will ensure that our wells will be connected to a natural gas gathering system with sufficient capacity to transport natural gas.
- B. All drilling operations will be equipped with a rig flare at least 100 feet from the nearest surface hole location. Rig flare will be utilized to combust any natural gas that is brought to surface during normal operations. In the case of emergency, flaring volumes will be reported appropriately.
- C. During completion operations any natural gas brought to surface will be flared. Immediately following completion operations, wells will flow to permanent separation equipment. Produced natural gas from separation equipment will be sent to sales. If natural gas does not meet gathering pipeline specifications, Riley will flare for 60 days or until natural gas meets the pipeline specifications. Riley will ensure flare is properly sized and is equipped with an automatic igniter or continuous pilot. Gas samples will be taken twice per week and natural gas will be routed into a gathering system as soon as the pipeline specifications are met.
- D. Natural gas will not be flared with the exception of 19.15.27.8(D)(1-4). If there is no adequate takeaway for the separator gas, wells will be shut-in until that natural gas gathering system is available with exception of emergency or malfunction situations. Volumes will be reported appropriately.
- E. Riley will comply with performance standards pursuant to 19.15.27.8(E)(1-8). All equipment will be designed and sized to handle maximum pressures to minimize waste. Storage tanks constructed after May 25, 2021 will be equipped with an automatic gauging system that reduces venting of natural gas. Flare stacks installed or replaced after May 25, 2021 will be equipped with an automatic igniter or continuous pilot. Riley will conduct AVO inspections as described in 19.15.27.8(E)(5)(a) with frequencies specified in 19.15.27.8(E)(5)(b) and (c). All emergencies or malfunctions will be resolved as quickly and safely as possible to minimize waste.
- F. The volume of natural gas that is vented or flared as the result of an emergency or malfunction during drilling and/or completion operations will be estimated and reported accordingly. The volume of natural gas that is vented, flared, or beneficially used during production operations will be measured and reported accordingly. Riley will install equipment to measure the volume of natural gas flared from existing piping or a flowline piped from equipment such as high-pressure separators, heater treaters, or VRUs associated with a well of facility associated with a well authorized by an APD after May 25, 2021 that has an average daily production of less than 60,000 cubic feet of natural gas.



If metering is not practicable due to circumstances such as low flow rate or low pressure venting or flaring, Riley will estimate the volume of flared or vented natural gas. Measuring equipment will conform to industry standards and will not be equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing equipment.

VIII. For maintenance activities involving production equipment and compression, venting be limited to the depressurization of the subject equipment to ensure safe working conditions. For maintenance of production equipment, the associated producing wells will be shut-in to eliminate venting. For maintenance of VRUs, all natural gas normally routed to the VRU will be routed to flare.