Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

5. Lease Serial No.: NMNM114978

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

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

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

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

8. Lease Name and Well No.: ROADRUNNER FEDERAL 25 OBL 8H

2. Name of Operator: STRATA PRODUCTION COMPANY

9. API Well No.: 30-015-49596

3a. Address: P O BOX 1030, ROSWELL, NM 88202-1030

3b. Phone No. *(include area code)*: (575) 622-1127

10. Field and Pool, or Exploratory: FORTY NINER RIDGE UNIT/DELAWARE

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

At surface: SWSE / 330 FSL / 1650 FEL / LAT 32.269613 / LONG -103.8309777

At proposed prod. zone: NWNE / 100 FNL / 1980 FEL / LAT 32.2829522 / LONG -103.8320436

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 25/T23S/R30E/NMP

14. Distance in miles and direction from nearest town or post office*: 16 miles

12. County or Parish: EDDY

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 330 feet

16. No of acres in lease:

17. Spacing Unit dedicated to this well: 400.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 2376 feet

19. Proposed Depth: 7767 feet / 12076 feet

20. BLM/BIA Bond No. in file: FED: NM 1538

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3338 feet

22. Approximate date work will start*: 02/01/2022

23. Estimated duration: 59 days

24. Attachments

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

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

| 25. Signature | Name *(Printed/Typed)* | Date |
|---|---|---|
| (Electronic Submission) | LUPE RINCON-GARCIA / Ph: (575) 622-1127 | 10/14/2021 |

Title:

| Approved by *(Signature)* | Name *(Printed/Typed)* | Date |
|---|---|---|
| (Electronic Submission) | Cody Layton / Ph: (575) 234-5959 | 06/02/2022 |

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

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

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

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

**Approval Date: 06/02/2022**

District I
1625 N. French Dr., Hobbs, NM 88240
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District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☐ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

| 1 API Number | 2 Pool Code | 3 Pool Name |
|---|---|---|
| 30-015-49596 | 24750 | FORTY NINER RIDGE DELAWARE |

| 4 Property Code | 5 Property Name | 6 Well Number |
|---|---|---|
| 332909 | ROADRUNNER FED 25 OBL | 8H |

| 7 OGRID NO. | 8 Operator Name | 9 Elevation |
|---|---|---|
| 21712 | STRATA PRODUCTION COMPANY | 3338' |

## 10 Surface Location

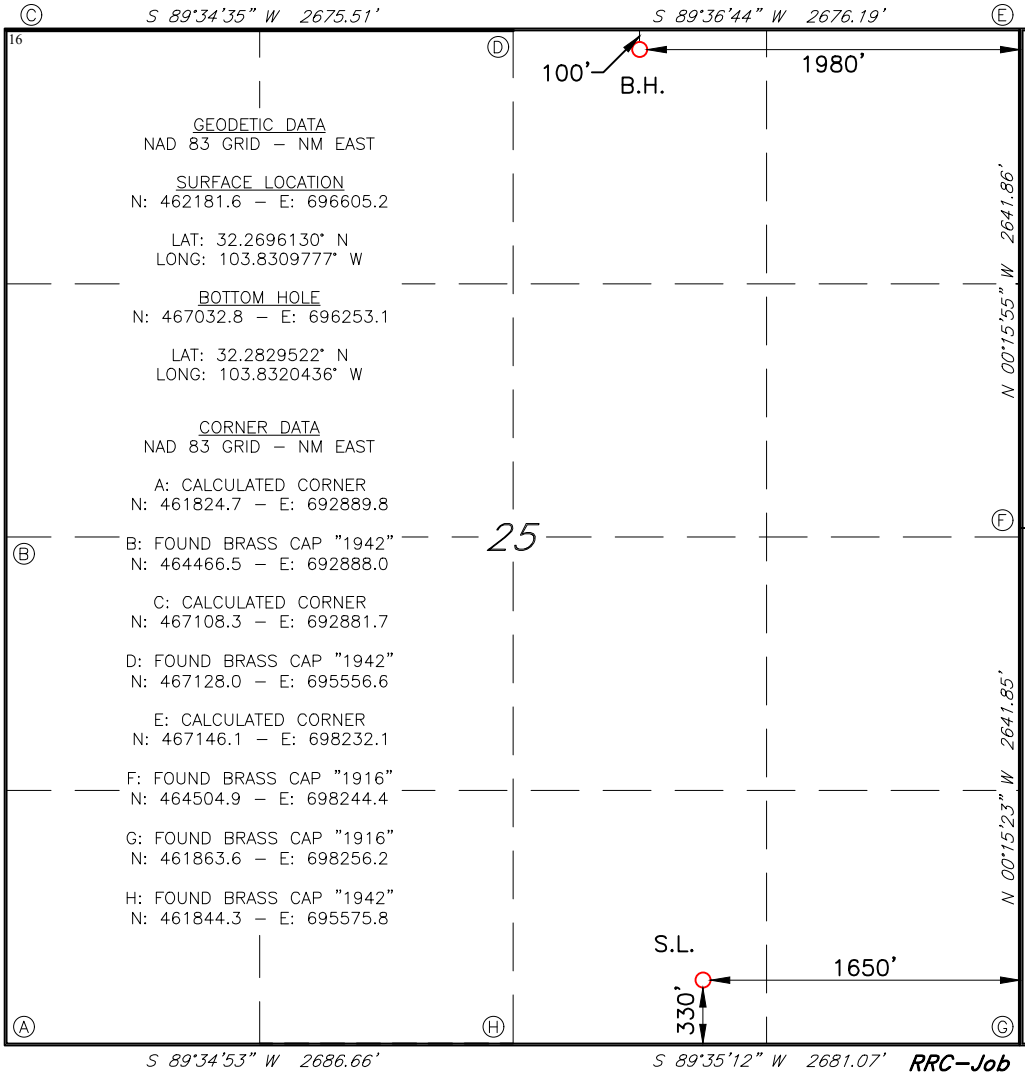
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet From the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| O | 25 | 23S | 30E | | 330 | SOUTH | 1650 | EAST | EDDY |

## 11 Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| B | 25 | 23S | 30E | | 100 | NORTH | 1980 | EAST | EDDY |

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

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




## 17 OPERATOR CERTIFICATION

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

Jerry Elgin — 10/13/2021
Signature — Date

Jerry Elgin
Printed Name

jelgin@stratanm.com
E-mail Address

## 18 SURVEYOR CERTIFICATION

*I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.*

07-01-21
Date of Survey

Signature and Seal of Professional Surveyor:

ROBERT M. HOWETT — NEW MEXICO — 19680 — PROFESSIONAL SURVEYOR

19680
Certificate Number

RRC–Job No.: LS21060669

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:** Strata Production Company **OGRID:** 21712 **Date:** 06 / 06 / 2022

**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 |
|---|---|---|---|---|---|---|
| Roadrunner Federal 25 OBL 8H | | O, Section 25 T23S, R30E | 330' FSL, 1650' FEL | 600 | 1200 | 2000 |

**IV. Central Delivery Point Name:** Roadrunner Federal 25 OBL 8H [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 |
|---|---|---|---|---|---|---|
| Roadrunner Federal 25 OBL 8H | | 08/31/2022 | 09/21/2022 | 10/05/2022 | 10/12/2022 | 10/15/2022 |

**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: | Jerry Elgin |
| Printed Name: | **Jerry Elgin** |
| Title: | **Vice President Operations** |
| E-mail Address: | **jelgin@ stratanm. com** |
| Date: | **09/14/2021** |
| Phone: | **575-622-127** |

**OIL CONSERVATION DIVISION**
**(Only applicable when submitted as a standalone form)**

| | |
|---|---|
| Approved By: | |
| Title: | |
| Approval Date: | |
| Conditions of Approval: | |

# Strata Production Company

## Natural Gas Management Plan

Description for Sections:

VI. Separation Equipment

VII. Operational Practices

VIII. Best Management Practices

**VI.** Separation equipment will be sized by stated manufacture daily throughput capacities and anticipated daily production rates to ensure adequate capacity. Closed vent system piping, compression needs and VRU's will be sized to ensure adequate capacity for anticipated production volumes and conditions.

**VII**. Strata Production Company (SPC) will take following actions to comply with the regulations listed in 19.15.27.8

A. Venting and flaring of natural gas
SPC will maximize the recovery of natural gas by minimizing the waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. SPC will ensure that well(s) will be connected to a natural gas gathering system with sufficient capacity to transport natural gas. If there is not adequate takeaway for the gas, well(s) will be shut in until the natural gas gathering system is available.

B. Venting and flaring during drilling operations
All drilling operations will be equipped with a rig flare located at least 100 ft from the nearest surface hole. Rig flare will be utilized to combust any natural gas that is brought to surface during normal drilling operations. In the case of emergency venting or flaring the volumes will be estimated and reported appropriately.

C. Venting and flaring during completion or recompletion operations
During completion operations any natural gas brought to surface will be flared. Immediately following completions operations, all well flow will be directed to permanent separation equipment. Produced natural gas from separation equipment will be sent to sales. It is not anticipated that gas will not meet pipeline standards. However, if natural gas does not meet gathering pipeline quality specifications, SPC will flare the natural gas for 60 days or until the natural gas meets the pipeline quality specifications, whichever is sooner. SPC will ensure that the flare is sized properly and is equipped with automatic igniter or continuous pilot. The gas

sample will be analyzed twice per week and the gas will be routed into a gathering system as soon as it is confirmed to be within pipeline specifications.

D. Venting and flaring during production operations
Natural gas will not be flared with the exceptions and provisions listed in the 19.15.27.8 D. (1) through (4). If there is not adequate takeaway for the separator gas, well(s) will be shut in until the natural gas gathering system is available with exception of emergency or malfunction situations. Venting and/or flaring volumes will be estimated and reported appropriately.

E. Performance standards
SPC will comply with the performance standards requirements and provisions listed in 19.15.27.8 E. (1) through (8). All equipment will be designed and sized to handle maximum anticipated pressures and throughputs to minimize the waste. Production storage tanks constructed after May 25, 2021, will be equipped with automatic gauging system. Flares constructed after May 25, 2021, will be equipped with automatic igniter or continuous pilot. Flares will be located at least 100' from the well and storage tanks unless otherwise approved by the division. SPC will conduct AVO inspections as described in 19.15.27.8 E (5) (a) with frequencies specified in 19.15.27.8 E (5) (b) and (c). All emergencies will be resolved as quickly and safely as feasible to minimize waste.

F. Measurement or estimation of vented and flared natural gas
The volume of natural gas that is vented or flared as the result of malfunction or emergency during drilling and completions operations will be estimated. The volume of natural gas that is vented, flared, or beneficially used during production operations, will be measured or estimated. SPC will install equipment to measure the volume of natural gas flared from existing process piping or a flowline piped from equipment such as high-pressure separators, heater treaters, or vapor recovery units associated with a well or facility associated with a well authorized by an APD issued after May 25, 2021, that has an average daily production greater than 60 mcf per day. If metering is not practicable due to circumstances such as low flow rate or low pressure venting and flaring, SPC will estimate the volume of vented or flared natural gas. Measuring equipment will conform to industry standards and will not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

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

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

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



## QUESTIONS

| | |
|---|---|
| Operator:<br>STRATA PRODUCTION CO<br>P.O. Box 1030<br>Roswell, NM 882021030 | OGRID:<br>21712 |
| | Action Number:<br>48529 |
| | Action Type:<br>[UF-NGMP] NG Management Plan (NGMP) |

**QUESTIONS**

| **II. Type:** | |
|---|---|
| Original | True |
| Amendment due to 19.15.27.9.D(6)(a) NMAC | *Not answered.* |
| Amendment due to 19.15.27.9.D(6)(b) NMAC | *Not answered.* |
| Other | *Not answered.* |
| If other, please describe | *Not answered.* |

| **III. Well(s)** | |
|---|---|
| Number of wells identified above | 10 |

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

COMMENTS

Action 48529

## COMMENTS

| | |
|---|---|
| Operator:<br>STRATA PRODUCTION CO<br>P.O. Box 1030<br>Roswell, NM 882021030 | OGRID:<br>21712 |
| | Action Number:<br>48529 |
| | Action Type:<br>[UF-NGMP] NG Management Plan (NGMP) |

**COMMENTS**

| Created By | Comment | Comment Date |
|---|---|---|
| kpickford | KP GEO Review 10/21/2021 | 10/21/2021 |

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## CONDITIONS

| | |
|---|---|
| Operator:<br>STRATA PRODUCTION CO<br>P.O. Box 1030<br>Roswell, NM 882021030 | OGRID:<br>21712 |
| | Action Number:<br>48529 |
| | Action Type:<br>[UF-NGMP] NG Management Plan (NGMP) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| kpickford | None | 10/21/2021 |

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

# Drilling Plan Data Report
06/02/2022

**APD ID:** 10400071741 **Submission Date:** 10/14/2021

**Operator Name:** STRATA PRODUCTION COMPANY

**Well Name:** ROADRUNNER FEDERAL 25 OBL **Well Number:** 8H

**Well Type:** OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

## Section 1 - Geologic Formations

| Formation ID | Formation Name | Elevation | True Vertical | Measured Depth | Lithologies | Mineral Resources | Producing Formatio |
|---|---|---|---|---|---|---|---|
| 3381182 | TOP SALT | 3087 | 575 | 575 | SALT | NONE | N |
| 3381183 | BASE OF SALT | -871 | 3958 | 3958 | SALT | NONE | N |
| 3381184 | CHERRY CANYON | -1851 | 4938 | 4938 | LIMESTONE, SANDSTONE, SILTSTONE | NATURAL GAS, OIL | Y |
| 3381185 | BRUSHY CANYON | -3046 | 6133 | 6133 | LIMESTONE, SANDSTONE, SILTSTONE | NATURAL GAS, OIL | Y |
| 3381186 | BONE SPRING | -4755 | 7842 | 7842 | LIMESTONE, SHALE | NATURAL GAS, OIL | N |

## Section 2 - Blowout Prevention

**Pressure Rating (PSI):** 3M **Rating Depth:** 7700

**Equipment:** Annular, Blind Rams, Double Rams, Mud Gas Separator, Remote kill line and other equipment as listed on 3M attachment.

**Requesting Variance?** NO

**Variance request:**

**Testing Procedure:** BOPE will be tested by an independent service company to 250# psi low pressure and 3000# psi high pressure per Onshore Oil and Gas Order 2 requirements.

**Choke Diagram Attachment:**

RR_Fed_25_OBL_8H_CHOKE_DIAGRAM_20210908132151.pdf

**BOP Diagram Attachment:**

RR_Fed_25_OBL_8H_BOP_20210908132848.pdf

RR_Fed_25_OBL_8H_BOPE_DESCRIPTION_20220125182024.pdf

**Operator Name:** STRATA PRODUCTION COMPANY

**Well Name:** ROADRUNNER FEDERAL 25 OBL **Well Number:** 8H

## Section 3 - Casing

| Casing ID | String Type | Hole Size | Csg Size | Condition | Standard | Tapered String | Top Set MD | Bottom Set MD | Top Set TVD | Bottom Set TVD | Top Set MSL | Bottom Set MSL | Calculated casing length MD | Grade | Weight | Joint Type | Collapse SF | Burst SF | Joint SF Type | Joint SF | Body SF Type | Body SF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SURFACE | 17.5 | 13.375 | NEW | API | N | 0 | 450 | 0 | 450 | 3338 | 2888 | 450 | H-40 | 48 | ST&C | 3.95 | 3.74 | DRY | 14.9 | DRY | 25 |
| 2 | INTERMEDIATE | 12.25 | 9.625 | NEW | API | N | 0 | 4000 | 0 | 4000 | 3335 | -662 | 4000 | J-55 | 40 | LT&C | 1.24 | 1.9 | DRY | 3.25 | DRY | 4.46 |
| 3 | PRODUCTION | 8.75 | 5.5 | NEW | API | N | 0 | 12076 | 0 | 7767 | 3335 | -4429 | 12076 | HCP-110 | 20 | BUTT | 2.74 | 3.06 | DRY | 2.64 | DRY | 2.76 |

**Casing Attachments**

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

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

RR_Fed_25_OBL_8H_Casing_Worksheet_20211012142036.pdf

**Operator Name:** STRATA PRODUCTION COMPANY

**Well Name:** ROADRUNNER FEDERAL 25 OBL **Well Number:** 8H

**Casing Attachments**

**Casing ID:** 2 **String** INTERMEDIATE

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

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

RR_Fed_25_OBL_8H_Casing_Worksheet_20211012142546.pdf

**Casing ID:** 3 **String** PRODUCTION

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

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

RR_Fed_25_OBL_8H_Casing_Worksheet_20211012142929.pdf

## Section 4 - Cement

| String Type | Lead/Tail | Stage Tool Depth | Top MD | Bottom MD | Quantity(sx) | Yield | Density | Cu Ft | Excess% | Cement type | Additives |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SURFACE | Lead | | 0 | 450 | 575 | 1.33 | 14.8 | 135 | 100 | Class C | CaCl, LCM |
| INTERMEDIATE | Lead | | 0 | 3050 | 1047 | 1.98 | 12.6 | 369 | 100 | Class C Poz | Salt, gel, extender, LCM |
| INTERMEDIATE | Tail | | 3050 | 4000 | 150 | 1.34 | 14.8 | 36 | 100 | Class C | LCM |
| PRODUCTION | Lead | 5200 | 0 | 4700 | 467 | 2.64 | 11.5 | 220 | 50 | Class C Poz | Salt, gel, extender, LCM |

**Operator Name:** STRATA PRODUCTION COMPANY

**Well Name:** ROADRUNNER FEDERAL 25 OBL **Well Number:** 8H

| String Type | Lead/Tail | Stage Tool Depth | Top MD | Bottom MD | Quantity(sx) | Yield | Density | Cu Ft | Excess% | Cement type | Additives |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PRODUCTION | Tail | | 4700 | 5200 | 128 | 1.34 | 14.8 | 31 | 50 | Class C Poz | none |
| PRODUCTION | Lead | 5200 | 5200 | 7000 | 289 | 2.38 | 11.8 | 122 | 50 | Class H Poz | Salt, gel, extender, LCM |
| PRODUCTION | Tail | | 7000 | 12401 | 1539 | 1.22 | 14.4 | 335 | 50 | Class H Poz | Salt, gel, extender, LCM |

## Section 5 - Circulating Medium

**Mud System Type:** Closed

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

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

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

**Describe what will be on location to control well or mitigate other conditions:** Kelly cock in the drill string, a full opening drill pipe stabbing valve on rig floor, remote kill line, mud gas separator.

**Describe the mud monitoring system utilized:** Pason pit level monitors, hourly weight check and viscosity, gel strength and pH, solids control.

## Circulating Medium Table

| Top Depth | Bottom Depth | Mud Type | Min Weight (lbs/gal) | Max Weight (lbs/gal) | Density (lbs/cu ft) | Gel Strength (lbs/100 sqft) | PH | Viscosity (CP) | Salinity (ppm) | Filtration (cc) | Additional Characteristics |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 450 | WATER-BASED MUD | 8.5 | 8.9 | | | 10 | | | | Spud with fresh water and build mud while drilling |
| 450 | 4200 | SALT SATURATED | 10 | 10.5 | | | 10 | | | | Drill with brine water with LCM and gel sweeps |
| 4200 | 12401 | WATER-BASED MUD | 9.5 | 10.2 | | | 10 | | | | Drill with water based mud using sliders and gel sweeps in the lateral. |

**Operator Name:** STRATA PRODUCTION COMPANY

**Well Name:** ROADRUNNER FEDERAL 25 OBL **Well Number:** 8H

## Section 6 - Test, Logging, Coring

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

None

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

CALIPER,CEMENT BOND LOG,COMPENSATED DENSILOG,DUAL LATERAL LOG/MICRO-SPHERICALLY FOCUSED,GAMMA RAY LOG,MUD LOG/GEOLOGICAL LITHOLOGY LOG,

**Coring operation description for the well:**

None

## Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 3360 **Anticipated Surface Pressure:** 1651

**Anticipated Bottom Hole Temperature(F):** 125

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

**Describe:**

**Contingency Plans geoharzards description:**

**Contingency Plans geohazards**

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

**Hydrogen sulfide drilling operations**

RR_Fed_25_OBL_8H_H2S_Plan_20210916134926.pdf

## Section 8 - Other Information

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

RR_Fed_25_OBL_8H_Lateral_20211013144648.pdf

RR_Fed_25_OBL_8H_Wellbore_Diagram_20211014094010.pdf

**Other proposed operations facets description:**

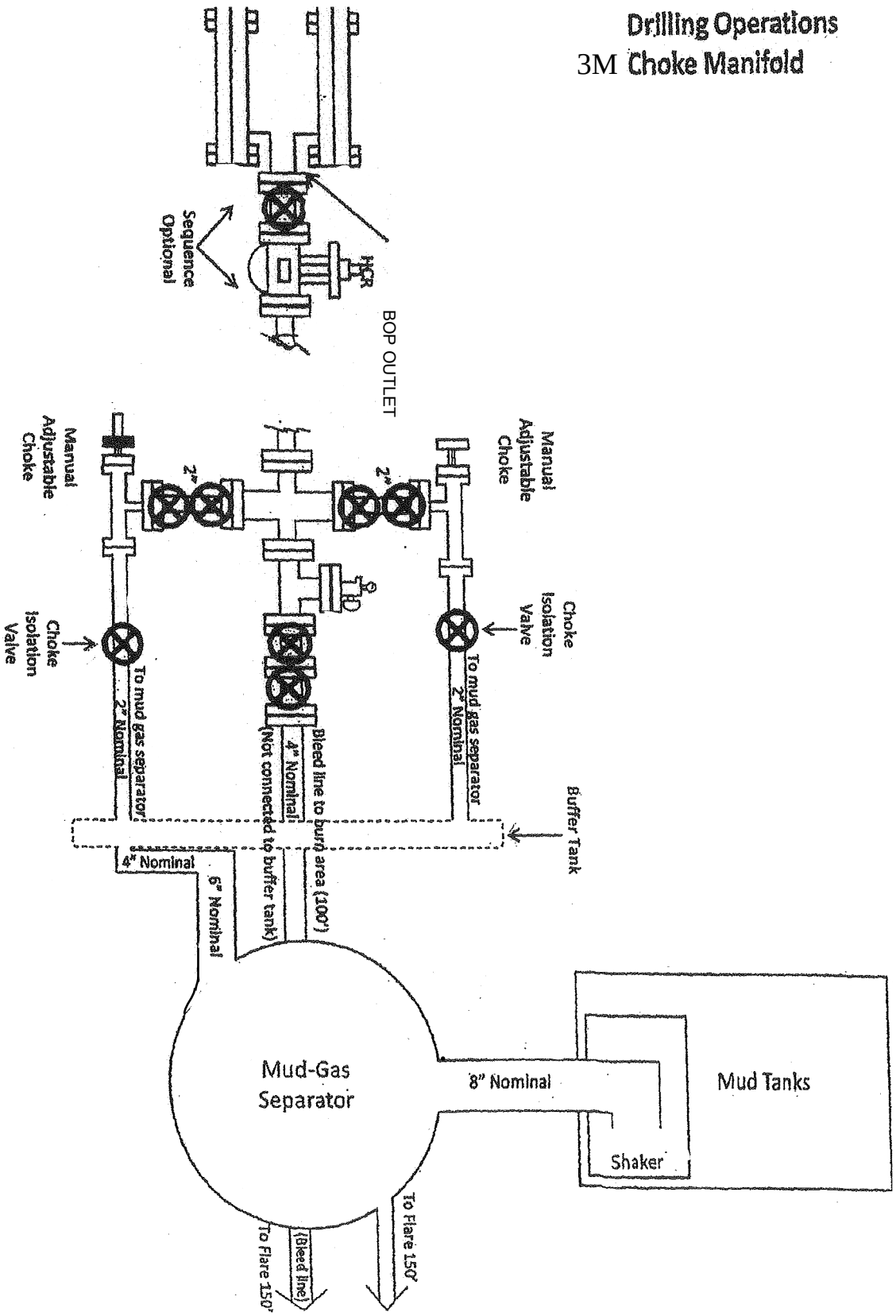
**Other proposed operations facets attachment:**

RR_Fed_25_OBL_8H_Gas_Capture_Plan_20211014094037.pdf

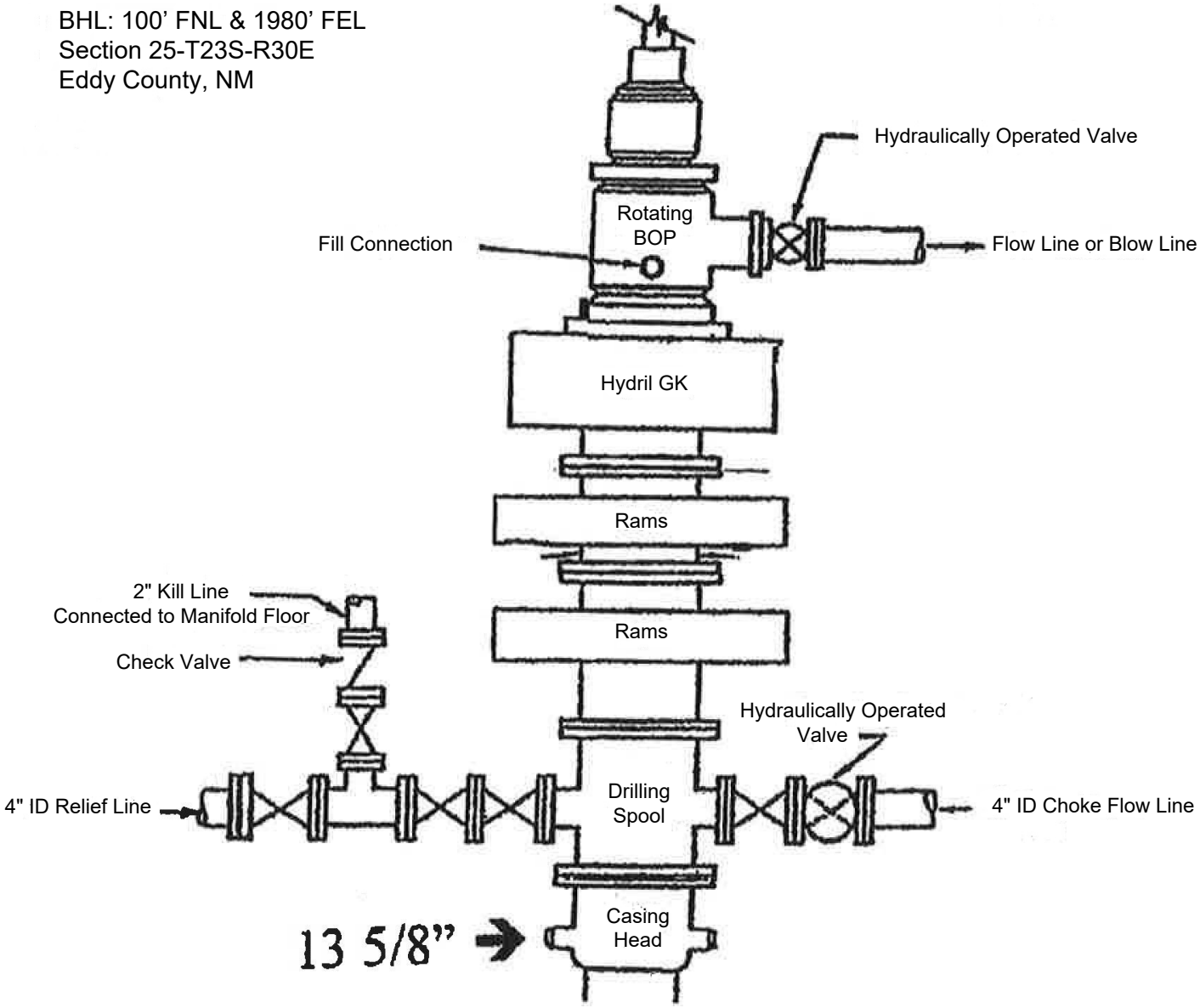
**Other Variance attachment:**

STRATA PRODUCTION COMPANY


Roadrunner Federal 25 OBL 8H
SHL: 330’ FSL & 1650’ FEL
BHL: 100’ FNL & 1980’ FEL
Section 25-T23S-R30E
Eddy County, NM



STRATA PRODUCTION COMPANY
**Roadrunner Federal 25 OBL 8H**
SHL: 330' FSL & 1650' FEL
BHL: 100' FNL & 1980' FEL
Section 25-T23S-R30E
Eddy County, NM




3000# PSI WORKING PRESSURE
BLOWOUT PREVENTER HOOK-UP

The blowout preventer assembly shall consist of one single type blind ram preventer and one single type pipe ram preventer, both hydraulically operated; a Hydril "GK" preventer; a rotating blowout preventer; valves; chokes and connections, as illustrated. If a tapered drill string is used, a ram preventer must be provided for each size of drill pipe. Casing and tubing rams to fit the preventers are to be available as needed. If correct in size, the flanged outlets of the ram preventer may be used for connecting to the 4-inch I.D. choke flow line and 4-inch I.D. relief line, except when air or gas drilling. All preventer connections are to be open-face flanged.

Minimum operating equipment for the preventers and hydraulically operated valves shall be as follows: (1)Multiple pumps, driven by a continuous source of power, capable of fluid charging the total accumulator volume from the nitrogen precharge pressure to its rated pressure within_____ minutes. Also, the pumps are to be connected to the hydraulic operating system which is to be a closed system. (2) Accumulators with a precharge of nitrogen of not less than 750 PSI and connected so as to receive the aforementioned fluid charge. With the charging pumps shut down, the pressurized fluid volume stored in the accumulators must be sufficient to close all the pressure-operated devices simultaneously within_____ seconds; after closure, the remaining accumulator pressure shall be not less than 1000 PSI with the remaining accumulator fluid volume at least _____ percent of the original. (3) When requested, an additional source of power, remote and equivalent, is to be available to operate the above pumps; or there shall be additional pumps operated by separate power and equal in performance capabilities.

The closing manifold and remote closing manifold shall have a separate control for each pressure-operated device. Controls are to be labeled, with control handles indicating open and closed positions. A pressure reducer and regulator must be provided for operating the Hydril preventer. When requested, a second pressure reducer shall be available to limit operating fluid pressures to ram preventers. Gulf Legion No. 38 hydraulic oil, an equivalent or better, is to be used as the fluid to operate the hydraulic equipment.

The choke manifold, choke flow line, relief line, and choke lines are to be supported by metal stands and adequately anchored. The choke flow line, relief line, and choke lines shall be constructed as straight as possible and without sharp bends. Easy and safe access is to be maintained to the choke manifold. If deemed necessary, walkways and stairways shall be erected in and around the choke manifold. All valves are to be selected for operation in the presence of oil, gas, and drilling fluids. The choke flow line valves and relief line valves connected to the drilling spool and all ram type preventers must be equipped with stem extensions, universal joints if needed, and hand wheels which are to extend beyond the edge of the derrick substructure. All other valves are to be equipped with handles.

* To include derrick floor mounted controls.

STRATA PRODUCTION COMPANY
Roadrunner Federal 25 OBL 8H
SHL: 330' FSL & 1650' FEL
BHL: 100' FNL & 1980' FEL
Section 25-T23S-R30E
Eddy County, NM

# BLOWOUT PREVENTER EQUIPMENT DESCRIPTION

***All equipment should be at least 3,000 psi WP or higher unless otherwise specified.***

1. Bell Nipple.
2. Hydril bag type preventer.
3. Ram type pressure operated blowout preventer with blind rams.
4. Flanged spool with one 3" and one 2" (minimum) outlet.
5. 2" (minimum) flanged plug or gate valve.
6. 2"x 2"x 2" (minimum) flanged.
7. 3" gate valve.
8. Ram type pressure operated blowout preventer with pipe rams.
9. Flanged type casing head with one side outlet.
10. 2" threaded (or flanged) plug or gate valve. Flanged on 5000# WP, threaded on 3000# WP or less.
11. 3" flanged spacer spool.
12. 3"x 2" x 2"x 2" flanged cross.
13. 2" flanged plug or gate valve.
14. 2" flanged adjustable choke.
15. 2" threaded flange.
16. 2" XXH Nipple.
17. 2" forged steel 90 Ell.
18. Cameron (or equal) threaded pressure gauge.
19. Threaded flange.
20. 2" flanged tee.
21. 2" flanged plug or gate valve.
22. 2 ½" pipe, 300' to pit, anchored.
23. 2 ½" SE valve.
24. 2 ½" line to steel pit or separator.

**NOTES:**

1). Items 3, 4, and 8 may be replaced with double ram type preventer with side outlets between the rams.

2). The two valves next to the stack on the fill and kill line to be closed unless drill string is being pulled.

3). Kill line is for emergency use only. This connection shall not be used for filling.

4). Replacement pipe rams and blind rams shall always be on location.

5). Only type U, LSW and QRC ram type preventers with secondary seals are acceptable for 5000 psi WP and higher BOP stacks.

6). Type E ram-type BOP's with factory modified side outlets may be used on 3000 psi or lower WP BOP stacks.

**Strata Production Company**
**Roadrunner Federal 25 OBL #8H**
**Section 25, T23S, R30E**
**SL: 330' FSL & 1,650' FEL of Section 25**
**BHL: 100' FNL & 1,980' FEL of Section 25**

| Hole Size | Casing Interval From | To | Csg Size | Weight | Grade | Connection | SF Collapse | SF Burst | SF Joint Tension | SF Body Tension |
|---|---|---|---|---|---|---|---|---|---|---|
| 17.5 | 0 | 450 | 13.375 | 48 | API | STC | 3.95 | 3.74 | 14.9 | 25.0 |
| 12.25 | 0 | 4000 | 9.625 | 40 | API | LTC | 1.24 | 1.90 | 3.25 | 4.46 |
| 8.75 | 0 | 12076 | 5.5 | 20 | API | Buttress | 2.74 | 3.06 | 2.76 | 2.64 |
| | | | | | | | | | | |
| **BLM Minimum SF** | | | | | | | **1.125** | **1.00** | **1.60** | **1.60** |

| | Y or N |
|---|---|
| Is casing new? If used, attach certificate as required in Onshore Order #1. | Y |
| Is casing API approved? 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 justifications (loading assumptions, casing design criteria). | Y |
| Will the pipe be kept at a mimimum of 1/3 fluid filled to avoid approacing 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? | NA |
| Is well within the designated 4 string boundary? | NA |
| | |
| Is well located in SOPA but not in R-111-P? | N |
| If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing? | NA |
| | |
| Is well located in R-111-P and SOPA? | Y |
| If yes, are the first 3 strings cemented to the surface? | Y |
| Is 2nd string set 100' to 600' below the base of salt? | Y |
| | |
| Is well located in high Cave/Karst? | Y |
| If yes, are there two strings cemented to the surface? | Y |
| If yes, is there a contingency casing if lost circulation occurs? | |
| | |
| Is well located in critical Cave/Karst? | N |
| If yes, are there three strings cemented to surface? | NA |

**Strata Production Company**
**Roadrunner Federal 25 OBL 8H**
**SHL: 330′ FSL & 1650′ FEL**
**BHL: 100′ FNL & 1980′ FEL**
**Section 25-T23S-R30E**
**Eddy County, NM**

## HYDROGEN SULFIDE DRILLING OPERATIONS 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:

A. The hazards and characteristics of hydrogen sulfide ($H_2S$).

B. The proper use and maintenance of personal protective equipment and life support systems.

C. The proper use of $H_2S$ detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.

D. The proper techniques for first aid and rescue procedures.

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

A. The effects of $H_2S$ on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.

B. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.

C. The contents and requirements of the $H_2S$ Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable $H_2S$ zone (within 3 days or 500 feet) and weekly $H_2S$ and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific $H_2S$ Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

## II. $H_2S$ SAFETY EQUIPMENT AND SYSTEMS

Note: All $H_2S$ 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 reasonably expected to contain $H_2S$.

A. Well Control Equipment:
All BOP and BOP equipment is shown in the attachments.
Flare line.
Choke manifold with a remotely operated choke as shown in Attachment #5.
Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
Auxiliary equipment to include annular preventer, mud-gas separator, rotating head.

B. Protective equipment for essential personnel:
Mark II Surviveair 30-minute units located in the dog house and at briefing areas.

C. $H_2S$ detection and monitoring equipment:

2 - portable $H_2S$ monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when $H_2S$ levels of 20 ppm are reached.

D. Visual warning systems:

Caution/Danger signs 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.

Wind Direction indicators as seen in the H2S Well Site Diagram.

E. Mud Program: The mud program has been designed to minimize the volume of $H_2S$ circulated to the surface.

F. Metallurgy:
All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for $H_2S$ service.

G. Communication:
Company vehicles equipped with cellular telephone.

# W A R N I N G

**YOU ARE ENTERING AN $H_2S$ 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. *CK WITH STRATA FOREMAN AT MAIN OFFICE*

STRATA PRODUCTION COMPANY

575-622-1127 EXT 18
575-626-7909

# EMERGENCY NUMBERS

**911 Must have Correct County & State & Directions to your location**

| | | |
|---|---|---|
| **Eddy County Sheriff's Office** | | **575-887-7551** |
| **Lea County Sherrif's Office** | **(Lovington)** | **575-396-3611** |
| **New Mexico State Police** | **(Roswell)** | **575-622-7200** |
| **Eastern NM Medical Center** | **(Roswell)** | **575-622-8170** |
| **Lea Regional Hospital** | **(Hobbs)** | **575-492-5000** |
| **Carlsbad Hospital** | | **575-887-4100** |
| **Carlsbad Fire Department** | | **575-885-3125** |
| **Ambulance Service** | | **575-885-2111** |

| | |
|---|---|
| **BLM Carlsbad** | **575-234-5972** |
| **BLM Hobbs** | **575-393-3612** |
| **NMOCD Hobbs** | **575-393-6161** |
| **Mosaic Potash Carlsbad** | **575-887-2871** |

| | |
|---|---|
| **Strata Office** | **575-622-1127** |
| **Matt Murphy** | **575-622-1127 x33** |
| **Jerry Elgin** | **575-622-1127 x18** |
| **Richard Marr** | **575-626-1479** |
| **Pilar Mendoza** | **575-626-8161** |
| **Mitch Krakauskas** | **575-622-1127 x23** |

Mewbourne Oil Company
Project: Eddy County, NM
Site: Sec 25-T23S-R30E
Well: Roadrunner Fed 25 OBL #8H
Wellbore: Wellbore #1
Plan: Plan #1 (Roadrunner Fed 25 OBL #8H/Wellbore #1)

WELL DETAILS: Roadrunner Fed 25 OBL #8H

Ground Elevation:: 3338.0
RKB Elevation: 3338+20 @ 3358.0usft
Rig Name:

| Northing | Easting | Latitude | Longitude |
|---|---|---|---|
| 462181.60 | 696605.20 | 32° 16' 10.606 N | 103° 49' 51.520 W |

DESIGN TARGET DETAILS

| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
|---|---|---|---|---|---|---|---|
| BHL Roadrunner Fed 25 OBL #8H - plan hits target center | 7767.0 | 4453.5 | -351.2 | 466635.10 | 696254.00 | 32° 16' 54.693 N | 103° 49' 55.368 W |

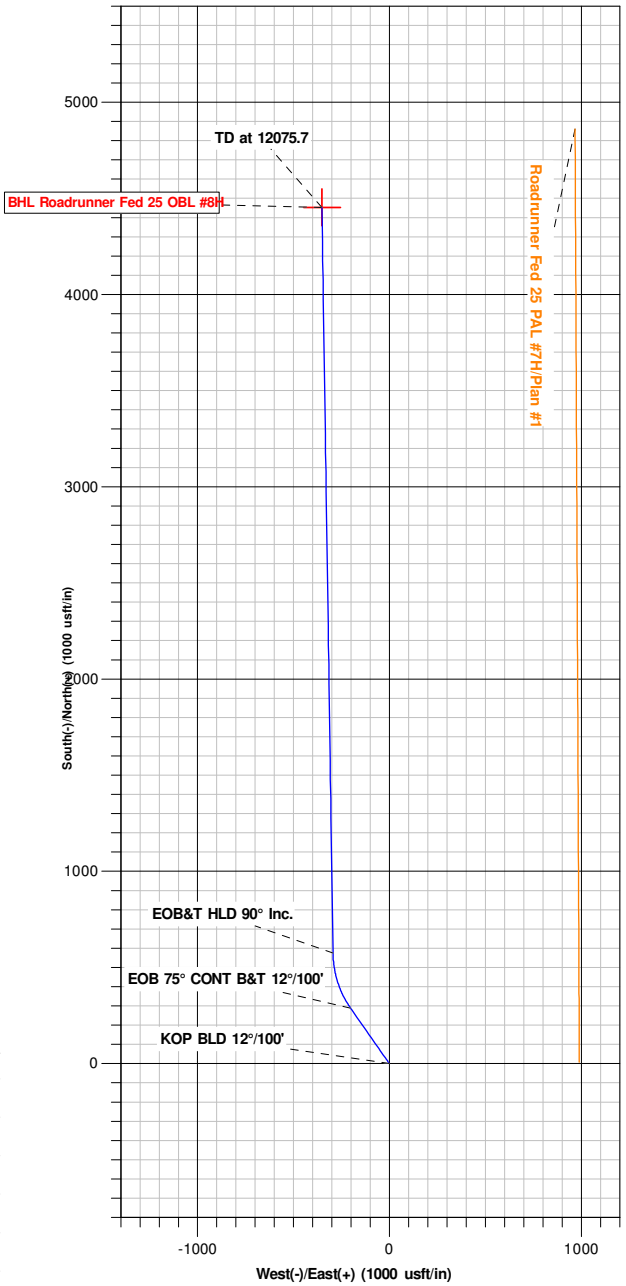
Section Details

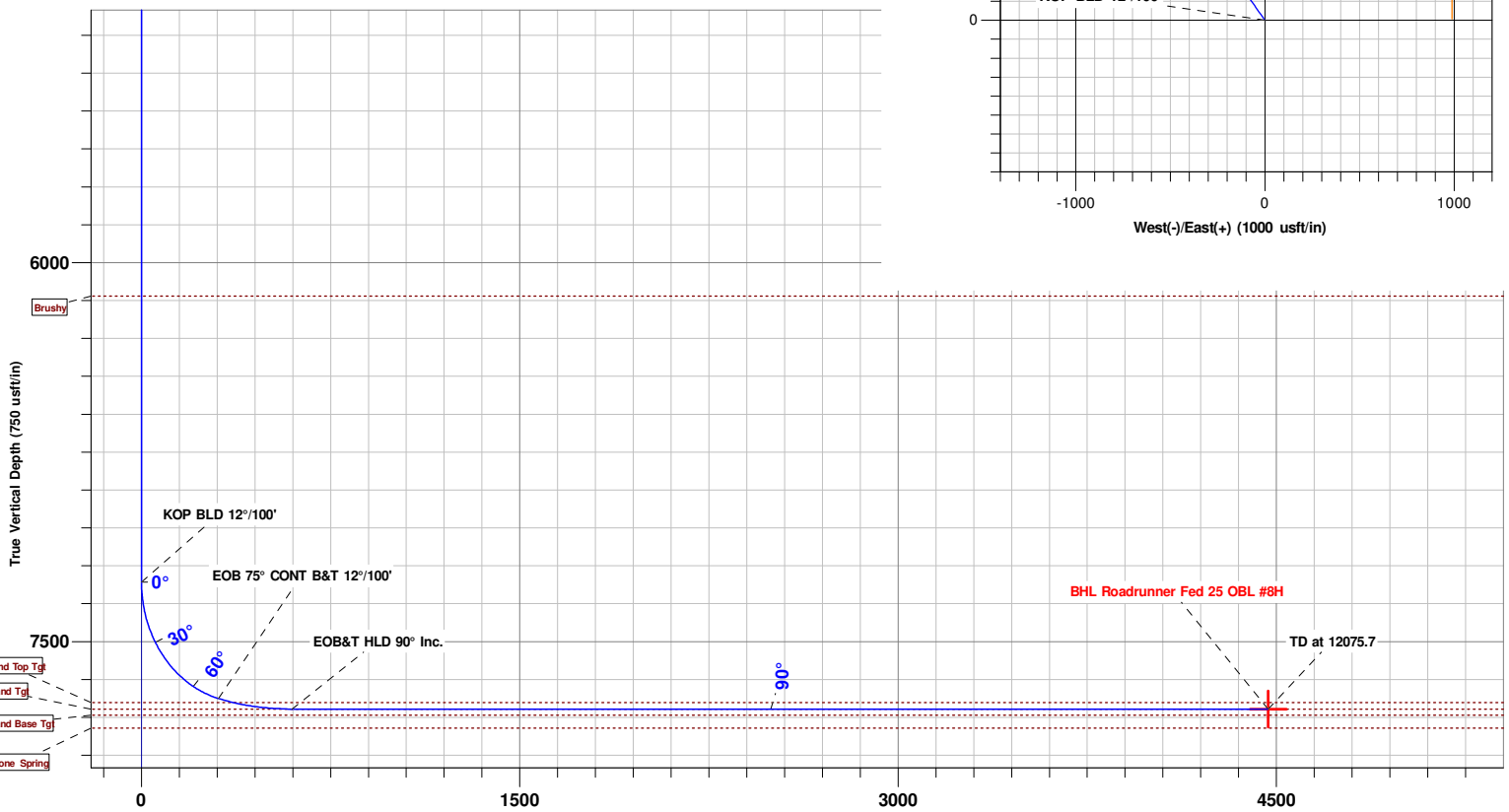
| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSect |
|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 |
| 7264.5 | 0.00 | 0.00 | 7264.5 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 |
| 7889.5 | 75.00 | 325.00 | 7725.7 | 289.9 | -203.0 | 12.00 | 325.00 | 304.9 |
| 8197.2 | 90.00 | 359.15 | 7767.0 | 575.5 | -293.7 | 12.00 | 69.12 | 596.8 |
| 12075.7 | 90.00 | 359.15 | 7767.0 | 4453.5 | -351.2 | 0.00 | 0.00 | 4467.3 |


Azimuths to Grid North
True North: -0.27°
Magnetic North: 6.36°

Magnetic Field
Strength: 47510.0nT
Dip Angle: 60.01°
Date: 08/19/2021
Model: IGRF2015

PANTHER



PANTHER

# Strata Production Company

**Eddy County, NM**
**Sec 25-T23S-R30E**
**Roadrunner Fed 25 OBL #8H**

**Wellbore #1**

**Plan: Plan #1**

# Standard Planning Report

**19 August, 2021**

PANTHER

# Microsoft
Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Roadrunner Fed 25 OBL #8H |
| **Company:** | Strata Production Company | **TVD Reference:** | 3338+20 @ 3358.0usft |
| **Project:** | Eddy County, NM | **MD Reference:** | 3338+20 @ 3358.0usft |
| **Site:** | Sec 25-T23S-R30E | **North Reference:** | Grid |
| **Well:** | Roadrunner Fed 25 OBL #8H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Wellbore #1 | | |
| **Design:** | Plan #1 | | |

**Project** Eddy County, NM

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

**Site** Sec 25-T23S-R30E

| | | | | | |
|---|---|---|---|---|---|
| **Site Position:** | | **Northing:** | 462,188.80 usft | **Latitude:** | 32° 16' 10.632 N |
| **From:** | Map | **Easting:** | 697,594.80 usft | **Longitude:** | 103° 49' 39.993 W |
| **Position Uncertainty:** | 0.0 usft | **Slot Radius:** | 13-3/16 " | **Grid Convergence:** | 0.27 ° |

**Well** Roadrunner Fed 25 OBL #8H

| | | | | | | |
|---|---|---|---|---|---|---|
| **Well Position** | **+N/-S** | -7.2 usft | **Northing:** | 462,181.60 usft | **Latitude:** | 32° 16' 10.606 N |
| | **+E/-W** | -989.6 usft | **Easting:** | 696,605.20 usft | **Longitude:** | 103° 49' 51.520 W |
| **Position Uncertainty** | | 0.0 usft | **Wellhead Elevation:** | | **Ground Level:** | 3,338.0 usft |

**Wellbore** Wellbore #1

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|---|---|---|---|---|---|
| | IGRF2015 | 08/19/21 | 6.62 | 60.01 | 47,510.02786308 |

**Design** Plan #1

**Audit Notes:**

| | | | | | |
|---|---|---|---|---|---|
| **Version:** | | **Phase:** | PLAN | **Tie On Depth:** | 0.0 |

| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
|---|---|---|---|---|
| | 7,767.0 | 0.0 | 0.0 | 355.49 |

**Plan Survey Tool Program** **Date** 08/19/21

| | Depth From (usft) | Depth To (usft) | Survey (Wellbore) | Tool Name | Remarks |
|---|---|---|---|---|---|
| 1 | 0.0 | 12,075.7 | Plan #1 (Wellbore #1) | MWD | |
| | | | | OWSG MWD - Standard | |

**Plan Sections**

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | TFO (°) | Target |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,264.5 | 0.00 | 0.00 | 7,264.5 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,889.5 | 75.00 | 325.00 | 7,725.7 | 289.9 | -203.0 | 12.00 | 12.00 | 0.00 | 325.00 | |
| 8,197.2 | 90.00 | 359.15 | 7,767.0 | 575.5 | -293.7 | 12.00 | 4.87 | 11.10 | 69.12 | |
| 12,075.7 | 90.00 | 359.15 | 7,767.0 | 4,453.5 | -351.2 | 0.00 | 0.00 | 0.00 | 0.00 | BHL Roadrunner Fed |

PANTHER

# Microsoft

Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Roadrunner Fed 25 OBL #8H |
| **Company:** | Strata Production Company | **TVD Reference:** | 3338+20 @ 3358.0usft |
| **Project:** | Eddy County, NM | **MD Reference:** | 3338+20 @ 3358.0usft |
| **Site:** | Sec 25-T23S-R30E | **North Reference:** | Grid |
| **Well:** | Roadrunner Fed 25 OBL #8H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Wellbore #1 | | |
| **Design:** | Plan #1 | | |

**Planned Survey**

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 100.0 | 0.00 | 0.00 | 100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 200.0 | 0.00 | 0.00 | 200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 300.0 | 0.00 | 0.00 | 300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 400.0 | 0.00 | 0.00 | 400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 500.0 | 0.00 | 0.00 | 500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 600.0 | 0.00 | 0.00 | 600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 700.0 | 0.00 | 0.00 | 700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 800.0 | 0.00 | 0.00 | 800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 900.0 | 0.00 | 0.00 | 900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,000.0 | 0.00 | 0.00 | 1,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,100.0 | 0.00 | 0.00 | 1,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,200.0 | 0.00 | 0.00 | 1,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,300.0 | 0.00 | 0.00 | 1,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,400.0 | 0.00 | 0.00 | 1,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,500.0 | 0.00 | 0.00 | 1,500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,600.0 | 0.00 | 0.00 | 1,600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,700.0 | 0.00 | 0.00 | 1,700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,800.0 | 0.00 | 0.00 | 1,800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,900.0 | 0.00 | 0.00 | 1,900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,000.0 | 0.00 | 0.00 | 2,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,100.0 | 0.00 | 0.00 | 2,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,200.0 | 0.00 | 0.00 | 2,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,300.0 | 0.00 | 0.00 | 2,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,400.0 | 0.00 | 0.00 | 2,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,500.0 | 0.00 | 0.00 | 2,500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,600.0 | 0.00 | 0.00 | 2,600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,700.0 | 0.00 | 0.00 | 2,700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,800.0 | 0.00 | 0.00 | 2,800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,900.0 | 0.00 | 0.00 | 2,900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,000.0 | 0.00 | 0.00 | 3,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,100.0 | 0.00 | 0.00 | 3,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,200.0 | 0.00 | 0.00 | 3,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,300.0 | 0.00 | 0.00 | 3,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,400.0 | 0.00 | 0.00 | 3,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,500.0 | 0.00 | 0.00 | 3,500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,600.0 | 0.00 | 0.00 | 3,600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,700.0 | 0.00 | 0.00 | 3,700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,800.0 | 0.00 | 0.00 | 3,800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,900.0 | 0.00 | 0.00 | 3,900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,000.0 | 0.00 | 0.00 | 4,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,100.0 | 0.00 | 0.00 | 4,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,200.0 | 0.00 | 0.00 | 4,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,300.0 | 0.00 | 0.00 | 4,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,400.0 | 0.00 | 0.00 | 4,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,500.0 | 0.00 | 0.00 | 4,500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,600.0 | 0.00 | 0.00 | 4,600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,700.0 | 0.00 | 0.00 | 4,700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,800.0 | 0.00 | 0.00 | 4,800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 4,900.0 | 0.00 | 0.00 | 4,900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,000.0 | 0.00 | 0.00 | 5,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,100.0 | 0.00 | 0.00 | 5,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,200.0 | 0.00 | 0.00 | 5,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,300.0 | 0.00 | 0.00 | 5,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |

PANTHER

# Microsoft

Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Roadrunner Fed 25 OBL #8H |
| **Company:** | Strata Production Company | **TVD Reference:** | 3338+20 @ 3358.0usft |
| **Project:** | Eddy County, NM | **MD Reference:** | 3338+20 @ 3358.0usft |
| **Site:** | Sec 25-T23S-R30E | **North Reference:** | Grid |
| **Well:** | Roadrunner Fed 25 OBL #8H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Wellbore #1 | | |
| **Design:** | Plan #1 | | |

**Planned Survey**

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|---|---|---|---|---|---|---|---|---|
| 5,400.0 | 0.00 | 0.00 | 5,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,500.0 | 0.00 | 0.00 | 5,500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,600.0 | 0.00 | 0.00 | 5,600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,700.0 | 0.00 | 0.00 | 5,700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,800.0 | 0.00 | 0.00 | 5,800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 5,900.0 | 0.00 | 0.00 | 5,900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 6,000.0 | 0.00 | 0.00 | 6,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 6,100.0 | 0.00 | 0.00 | 6,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 6,200.0 | 0.00 | 0.00 | 6,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 6,300.0 | 0.00 | 0.00 | 6,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 6,400.0 | 0.00 | 0.00 | 6,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 6,500.0 | 0.00 | 0.00 | 6,500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 6,600.0 | 0.00 | 0.00 | 6,600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 6,700.0 | 0.00 | 0.00 | 6,700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 6,800.0 | 0.00 | 0.00 | 6,800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 6,900.0 | 0.00 | 0.00 | 6,900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 7,000.0 | 0.00 | 0.00 | 7,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 7,100.0 | 0.00 | 0.00 | 7,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 7,200.0 | 0.00 | 0.00 | 7,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 7,264.5 | 0.00 | 0.00 | 7,264.5 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| **KOP BLD 12°/100'** | | | | | | | | | |
| 7,275.0 | 1.26 | 325.00 | 7,275.0 | 0.1 | -0.1 | 0.1 | 12.00 | 12.00 | 0.00 |
| 7,300.0 | 4.26 | 325.00 | 7,300.0 | 1.1 | -0.8 | 1.1 | 12.00 | 12.00 | 0.00 |
| 7,325.0 | 7.26 | 325.00 | 7,324.8 | 3.1 | -2.2 | 3.3 | 12.00 | 12.00 | 0.00 |
| 7,350.0 | 10.26 | 325.00 | 7,349.5 | 6.3 | -4.4 | 6.6 | 12.00 | 12.00 | 0.00 |
| 7,375.0 | 13.26 | 325.00 | 7,374.0 | 10.4 | -7.3 | 11.0 | 12.00 | 12.00 | 0.00 |
| 7,400.0 | 16.26 | 325.00 | 7,398.2 | 15.6 | -11.0 | 16.5 | 12.00 | 12.00 | 0.00 |
| 7,425.0 | 19.26 | 325.00 | 7,422.0 | 21.9 | -15.3 | 23.0 | 12.00 | 12.00 | 0.00 |
| 7,450.0 | 22.26 | 325.00 | 7,445.4 | 29.1 | -20.4 | 30.7 | 12.00 | 12.00 | 0.00 |
| 7,475.0 | 25.26 | 325.00 | 7,468.2 | 37.4 | -26.2 | 39.3 | 12.00 | 12.00 | 0.00 |
| 7,500.0 | 28.26 | 325.00 | 7,490.6 | 46.6 | -32.6 | 49.0 | 12.00 | 12.00 | 0.00 |
| 7,525.0 | 31.26 | 325.00 | 7,512.3 | 56.8 | -39.8 | 59.7 | 12.00 | 12.00 | 0.00 |
| 7,550.0 | 34.26 | 325.00 | 7,533.3 | 67.9 | -47.5 | 71.4 | 12.00 | 12.00 | 0.00 |
| 7,575.0 | 37.26 | 325.00 | 7,553.6 | 79.8 | -55.9 | 84.0 | 12.00 | 12.00 | 0.00 |
| 7,600.0 | 40.26 | 325.00 | 7,573.1 | 92.6 | -64.9 | 97.5 | 12.00 | 12.00 | 0.00 |
| 7,625.0 | 43.26 | 325.00 | 7,591.7 | 106.3 | -74.4 | 111.8 | 12.00 | 12.00 | 0.00 |
| 7,650.0 | 46.26 | 325.00 | 7,609.5 | 120.7 | -84.5 | 127.0 | 12.00 | 12.00 | 0.00 |
| 7,675.0 | 49.26 | 325.00 | 7,626.3 | 135.9 | -95.1 | 142.9 | 12.00 | 12.00 | 0.00 |
| 7,700.0 | 52.26 | 325.00 | 7,642.1 | 151.7 | -106.2 | 159.6 | 12.00 | 12.00 | 0.00 |
| 7,725.0 | 55.26 | 325.00 | 7,656.9 | 168.2 | -117.8 | 177.0 | 12.00 | 12.00 | 0.00 |
| 7,750.0 | 58.26 | 325.00 | 7,670.6 | 185.4 | -129.8 | 195.0 | 12.00 | 12.00 | 0.00 |
| 7,775.0 | 61.26 | 325.00 | 7,683.1 | 203.1 | -142.2 | 213.6 | 12.00 | 12.00 | 0.00 |
| 7,800.0 | 64.26 | 325.00 | 7,694.6 | 221.3 | -154.9 | 232.8 | 12.00 | 12.00 | 0.00 |
| 7,825.0 | 67.26 | 325.00 | 7,704.9 | 239.9 | -168.0 | 252.4 | 12.00 | 12.00 | 0.00 |
| 7,850.0 | 70.26 | 325.00 | 7,713.9 | 259.0 | -181.4 | 272.5 | 12.00 | 12.00 | 0.00 |
| 7,875.0 | 73.26 | 325.00 | 7,721.7 | 278.5 | -195.0 | 292.9 | 12.00 | 12.00 | 0.00 |
| 7,889.5 | 75.00 | 325.00 | 7,725.7 | 289.9 | -203.0 | 304.9 | 12.00 | 12.00 | 0.00 |
| **EOB 75° CONT B&T 12°/100'** | | | | | | | | | |
| 7,900.0 | 75.45 | 326.22 | 7,728.4 | 298.3 | -208.7 | 313.8 | 12.00 | 4.31 | 11.58 |
| 7,925.0 | 76.55 | 329.09 | 7,734.4 | 318.8 | -221.7 | 335.2 | 12.00 | 4.41 | 11.50 |
| 7,950.0 | 77.69 | 331.94 | 7,740.0 | 340.0 | -233.7 | 357.3 | 12.00 | 4.54 | 11.40 |
| 7,975.0 | 78.85 | 334.77 | 7,745.1 | 361.8 | -244.7 | 380.0 | 12.00 | 4.65 | 11.30 |
| 8,000.0 | 80.04 | 337.57 | 7,749.7 | 384.3 | -254.6 | 403.2 | 12.00 | 4.76 | 11.21 |

PANTHER

# Microsoft

Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Roadrunner Fed 25 OBL #8H |
| **Company:** | Strata Production Company | **TVD Reference:** | 3338+20 @ 3358.0usft |
| **Project:** | Eddy County, NM | **MD Reference:** | 3338+20 @ 3358.0usft |
| **Site:** | Sec 25-T23S-R30E | **North Reference:** | Grid |
| **Well:** | Roadrunner Fed 25 OBL #8H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Wellbore #1 | | |
| **Design:** | Plan #1 | | |

**Planned Survey**

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|---|---|---|---|---|---|---|---|---|---|
| 8,025.0 | 81.25 | 340.35 | 7,753.7 | 407.3 | -263.4 | 426.8 | 12.00 | 4.85 | 11.12 |
| 8,050.0 | 82.49 | 343.11 | 7,757.3 | 430.8 | -271.2 | 450.8 | 12.00 | 4.93 | 11.05 |
| 8,075.0 | 83.74 | 345.86 | 7,760.3 | 454.8 | -277.8 | 475.2 | 12.00 | 5.00 | 10.99 |
| 8,100.0 | 85.00 | 348.59 | 7,762.7 | 479.0 | -283.3 | 499.8 | 12.00 | 5.06 | 10.94 |
| 8,125.0 | 86.28 | 351.31 | 7,764.6 | 503.6 | -287.7 | 524.6 | 12.00 | 5.10 | 10.89 |
| 8,150.0 | 87.56 | 354.03 | 7,766.0 | 528.3 | -290.9 | 549.5 | 12.00 | 5.14 | 10.86 |
| 8,175.0 | 88.85 | 356.74 | 7,766.7 | 553.2 | -292.9 | 574.5 | 12.00 | 5.16 | 10.84 |
| 8,197.2 | 90.00 | 359.15 | 7,767.0 | 575.5 | -293.7 | 596.8 | 12.00 | 5.17 | 10.83 |
| **EOB&T HLD 90° Inc.** | | | | | | | | | |
| 8,200.0 | 90.00 | 359.15 | 7,767.0 | 578.2 | -293.7 | 599.5 | 0.00 | 0.00 | 0.00 |
| 8,300.0 | 90.00 | 359.15 | 7,767.0 | 678.2 | -295.2 | 699.3 | 0.00 | 0.00 | 0.00 |
| 8,400.0 | 90.00 | 359.15 | 7,767.0 | 778.2 | -296.7 | 799.1 | 0.00 | 0.00 | 0.00 |
| 8,500.0 | 90.00 | 359.15 | 7,767.0 | 878.2 | -298.2 | 898.9 | 0.00 | 0.00 | 0.00 |
| 8,600.0 | 90.00 | 359.15 | 7,767.0 | 978.2 | -299.7 | 998.7 | 0.00 | 0.00 | 0.00 |
| 8,700.0 | 90.00 | 359.15 | 7,767.0 | 1,078.1 | -301.1 | 1,098.5 | 0.00 | 0.00 | 0.00 |
| 8,800.0 | 90.00 | 359.15 | 7,767.0 | 1,178.1 | -302.6 | 1,198.3 | 0.00 | 0.00 | 0.00 |
| 8,900.0 | 90.00 | 359.15 | 7,767.0 | 1,278.1 | -304.1 | 1,298.1 | 0.00 | 0.00 | 0.00 |
| 9,000.0 | 90.00 | 359.15 | 7,767.0 | 1,378.1 | -305.6 | 1,397.9 | 0.00 | 0.00 | 0.00 |
| 9,100.0 | 90.00 | 359.15 | 7,767.0 | 1,478.1 | -307.1 | 1,497.7 | 0.00 | 0.00 | 0.00 |
| 9,200.0 | 90.00 | 359.15 | 7,767.0 | 1,578.1 | -308.5 | 1,597.5 | 0.00 | 0.00 | 0.00 |
| 9,300.0 | 90.00 | 359.15 | 7,767.0 | 1,678.1 | -310.0 | 1,697.3 | 0.00 | 0.00 | 0.00 |
| 9,400.0 | 90.00 | 359.15 | 7,767.0 | 1,778.1 | -311.5 | 1,797.1 | 0.00 | 0.00 | 0.00 |
| 9,500.0 | 90.00 | 359.15 | 7,767.0 | 1,878.1 | -313.0 | 1,896.9 | 0.00 | 0.00 | 0.00 |
| 9,600.0 | 90.00 | 359.15 | 7,767.0 | 1,978.0 | -314.5 | 1,996.7 | 0.00 | 0.00 | 0.00 |
| 9,700.0 | 90.00 | 359.15 | 7,767.0 | 2,078.0 | -316.0 | 2,096.4 | 0.00 | 0.00 | 0.00 |
| 9,800.0 | 90.00 | 359.15 | 7,767.0 | 2,178.0 | -317.4 | 2,196.2 | 0.00 | 0.00 | 0.00 |
| 9,900.0 | 90.00 | 359.15 | 7,767.0 | 2,278.0 | -318.9 | 2,296.0 | 0.00 | 0.00 | 0.00 |
| 10,000.0 | 90.00 | 359.15 | 7,767.0 | 2,378.0 | -320.4 | 2,395.8 | 0.00 | 0.00 | 0.00 |
| 10,100.0 | 90.00 | 359.15 | 7,767.0 | 2,478.0 | -321.9 | 2,495.6 | 0.00 | 0.00 | 0.00 |
| 10,200.0 | 90.00 | 359.15 | 7,767.0 | 2,578.0 | -323.4 | 2,595.4 | 0.00 | 0.00 | 0.00 |
| 10,300.0 | 90.00 | 359.15 | 7,767.0 | 2,678.0 | -324.9 | 2,695.2 | 0.00 | 0.00 | 0.00 |
| 10,400.0 | 90.00 | 359.15 | 7,767.0 | 2,778.0 | -326.3 | 2,795.0 | 0.00 | 0.00 | 0.00 |
| 10,500.0 | 90.00 | 359.15 | 7,767.0 | 2,878.0 | -327.8 | 2,894.8 | 0.00 | 0.00 | 0.00 |
| 10,600.0 | 90.00 | 359.15 | 7,767.0 | 2,977.9 | -329.3 | 2,994.6 | 0.00 | 0.00 | 0.00 |
| 10,700.0 | 90.00 | 359.15 | 7,767.0 | 3,077.9 | -330.8 | 3,094.4 | 0.00 | 0.00 | 0.00 |
| 10,800.0 | 90.00 | 359.15 | 7,767.0 | 3,177.9 | -332.3 | 3,194.2 | 0.00 | 0.00 | 0.00 |
| 10,900.0 | 90.00 | 359.15 | 7,767.0 | 3,277.9 | -333.8 | 3,294.0 | 0.00 | 0.00 | 0.00 |
| 11,000.0 | 90.00 | 359.15 | 7,767.0 | 3,377.9 | -335.2 | 3,393.8 | 0.00 | 0.00 | 0.00 |
| 11,100.0 | 90.00 | 359.15 | 7,767.0 | 3,477.9 | -336.7 | 3,493.6 | 0.00 | 0.00 | 0.00 |
| 11,200.0 | 90.00 | 359.15 | 7,767.0 | 3,577.9 | -338.2 | 3,593.4 | 0.00 | 0.00 | 0.00 |
| 11,300.0 | 90.00 | 359.15 | 7,767.0 | 3,677.9 | -339.7 | 3,693.2 | 0.00 | 0.00 | 0.00 |
| 11,400.0 | 90.00 | 359.15 | 7,767.0 | 3,777.9 | -341.2 | 3,793.0 | 0.00 | 0.00 | 0.00 |
| 11,500.0 | 90.00 | 359.15 | 7,767.0 | 3,877.8 | -342.7 | 3,892.8 | 0.00 | 0.00 | 0.00 |
| 11,600.0 | 90.00 | 359.15 | 7,767.0 | 3,977.8 | -344.1 | 3,992.6 | 0.00 | 0.00 | 0.00 |
| 11,700.0 | 90.00 | 359.15 | 7,767.0 | 4,077.8 | -345.6 | 4,092.4 | 0.00 | 0.00 | 0.00 |
| 11,800.0 | 90.00 | 359.15 | 7,767.0 | 4,177.8 | -347.1 | 4,192.2 | 0.00 | 0.00 | 0.00 |
| 11,900.0 | 90.00 | 359.15 | 7,767.0 | 4,277.8 | -348.6 | 4,292.0 | 0.00 | 0.00 | 0.00 |
| 12,000.0 | 90.00 | 359.15 | 7,767.0 | 4,377.8 | -350.1 | 4,391.8 | 0.00 | 0.00 | 0.00 |
| 12,075.7 | 90.00 | 359.15 | 7,767.0 | 4,453.5 | -351.2 | 4,467.3 | 0.00 | 0.00 | 0.00 |
| **TD at 12075.7** | | | | | | | | | |

PANTHER

# Microsoft
Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Roadrunner Fed 25 OBL #8H |
| **Company:** | Strata Production Company | **TVD Reference:** | 3338+20 @ 3358.0usft |
| **Project:** | Eddy County, NM | **MD Reference:** | 3338+20 @ 3358.0usft |
| **Site:** | Sec 25-T23S-R30E | **North Reference:** | Grid |
| **Well:** | Roadrunner Fed 25 OBL #8H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | Wellbore #1 | | |
| **Design:** | Plan #1 | | |

**Design Targets**

| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| BHL Roadrunner Fed 25<br>- plan hits target center<br>- Point | 0.00 | 0.00 | 7,767.0 | 4,453.5 | -351.2 | 466,635.10 | 696,254.00 | 32° 16' 54.693 N | 103° 49' 55.368 W |

**Formations**

| Measured Depth (usft) | Vertical Depth (usft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|---|---|---|---|---|---|
| 251.0 | 251.0 | Top Salt | | 0.00 | 355.49 |
| 3,958.0 | 3,958.0 | Base Salt | | 0.00 | 355.49 |
| 4,938.0 | 4,938.0 | Cherry | | 0.00 | 355.49 |
| 6,133.0 | 6,133.0 | Brushy | | 0.00 | 355.49 |
| 7,959.6 | 7,742.0 | L Sand Top Tgt | | 0.00 | 355.49 |
| 12,075.7 | 7,767.0 | L Sand Tgt | | 0.00 | 355.49 |

**Plan Annotations**

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates +N/-S (usft) | Local Coordinates +E/-W (usft) | Comment |
|---|---|---|---|---|
| 7,264.5 | 7,264.5 | 0.0 | 0.0 | KOP BLD 12°/100' |
| 7,889.5 | 7,725.7 | 289.9 | -203.0 | EOB 75° CONT B&T 12°/100' |
| 8,197.2 | 7,767.0 | 575.5 | -293.7 | EOB&T HLD 90° Inc. |
| 12,075.7 | 7,767.0 | 4,453.5 | -351.2 | TD at 12075.7 |

STRATA PRODUCTION COMPANY

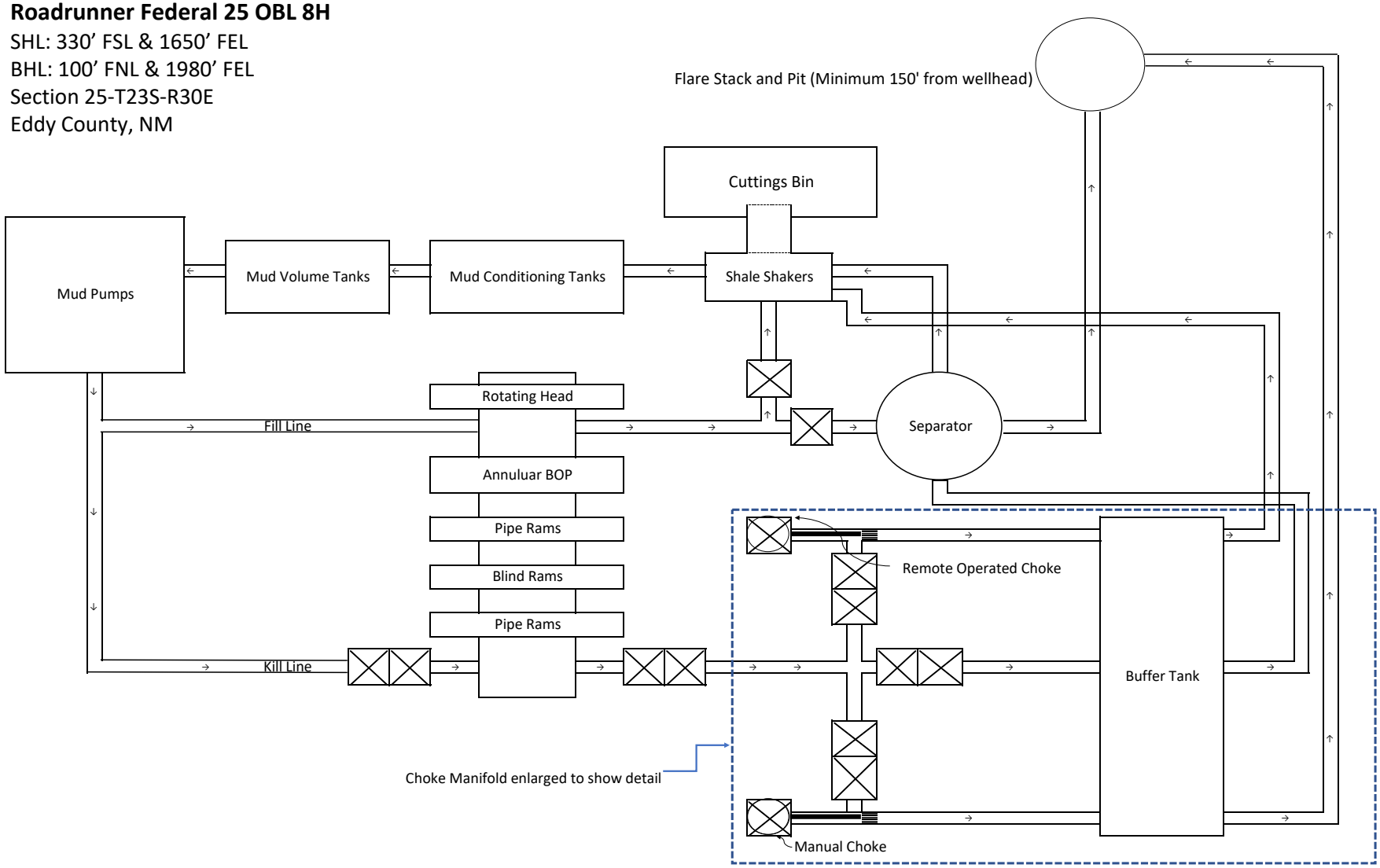
**Roadrunner Federal 25 OBL 8H**

SHL: 330’ FSL & 1650’ FEL

BHL: 100’ FNL & 1980’ FEL

Section 25-T23S-R30E

Eddy County, NM



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

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



## CONDITIONS

| | |
|---|---|
| Operator:<br>STRATA PRODUCTION CO<br>P.O. Box 1030<br>Roswell, NM 882021030 | OGRID:<br>21712 |
| | Action Number:<br>114158 |
| | Action Type:<br>[C-101] BLM - Federal/Indian Land Lease (Form 3160-3) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| kpickford | Notify OCD 24 hours prior to casing & cement | 6/7/2022 |
| kpickford | Will require a File As Drilled C-102 and a Directional Survey with the C-104 | 6/7/2022 |
| kpickford | Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string | 6/7/2022 |
| kpickford | Cement is required to circulate on both surface and intermediate1 strings of casing | 6/7/2022 |
| kpickford | Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system | 6/7/2022 |