

Form 3160-3
(June 2015)FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER 1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other 1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No. 9. API Well No. <div style="color: red; font-weight: bold;">30-015-57171</div>		
2. Name of Operator 3a. Address 3b. Phone No. (include area code)		10. Field and Pool, or Exploratory 11. Sec., T. R. M. or Blk. and Survey or Area 12. County or Parish 13. State		
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		14. Distance in miles and direction from nearest town or post office* 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 16. No of acres in lease 17. Spacing Unit dedicated to this well 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 19. Proposed Depth 20. BLM/BIA Bond No. in file 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start* 23. Estimated duration		
24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable) <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> 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). </td> <td style="width: 50%; vertical-align: top;"> 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. </td> </tr> </table>			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.
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25. Signature Title		Name (Printed/Typed) Date		
Approved by (Signature) Title		Name (Printed/Typed) Office Date		

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)

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5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM. |
|---|---|

25. Signature Title	Name (Printed/Typed) Office	Date Date
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Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
 Conditions of approval, if any, are attached.

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

(Continued on page 2)

*(Instructions on page 2)



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

WELL LOCATION INFORMATION

API Number 30-015-57171	Pool Code 24750	Pool Name FORTY NINER RIDGE DELAWARE
Property Code 28510	Property Name FORTY NINER RIDGE UNIT 16/9 EDL	Well Number 39H
OGRID No. 21712	Operator Name STRATA PRODUCTION COMPANY	Ground Level Elevation 3180'
Surface Owner: <input checked="" type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		Mineral Owner: <input checked="" type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal

Surface Location

UL E	Section 16	Township 23S	Range 30E	Lot	Ft. from N/S 2395 FNL	Ft. from E/W 310 FWL	Latitude 32.3058127°N	Longitude 103.8938563°W	County EDDY
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Bottom Hole Location

UL D	Section 9	Township 23S	Range 30E	Lot	Ft. from N/S 100 FNL	Ft. from E/W 380 FWL	Latitude 32.3266273°N	Longitude 103.8937329°W	County EDDY
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Dedicated Acres 240	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
Order Numbers. Pending CA NMNM 104965			Well setbacks are under Common Ownership: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Kick Off Point (KOP)

UL E	Section 16	Township 23S	Range 30E	Lot	Ft. from N/S 2395 FNL	Ft. from E/W 310 FWL	Latitude 32.3058127°N	Longitude 103.8938563°W	County EDDY
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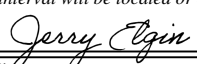
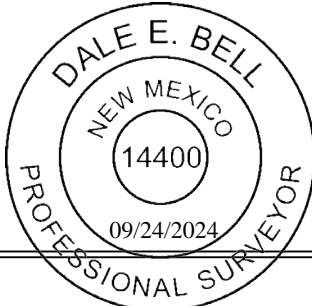
First Take Point (FTP)

UL E	Section 16	Township 23S	Range 30E	Lot	Ft. from N/S 2395 FNL	Ft. from E/W 330 FWL	Latitude 32.3058124°N	Longitude 103.8937915°W	County EDDY
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Last Take Point (LTP)

UL D	Section 9	Township 23S	Range 30E	Lot	Ft. from N/S 100 FNL	Ft. from E/W 380 FWL	Latitude 32.3266273°N	Longitude 103.8937329°W	County EDDY
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Unitized Area or Area of Uniform Interest 3800	Spacing Unit Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation: 3180'
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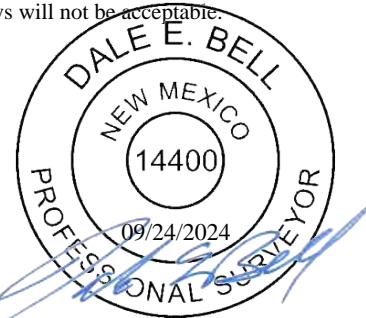
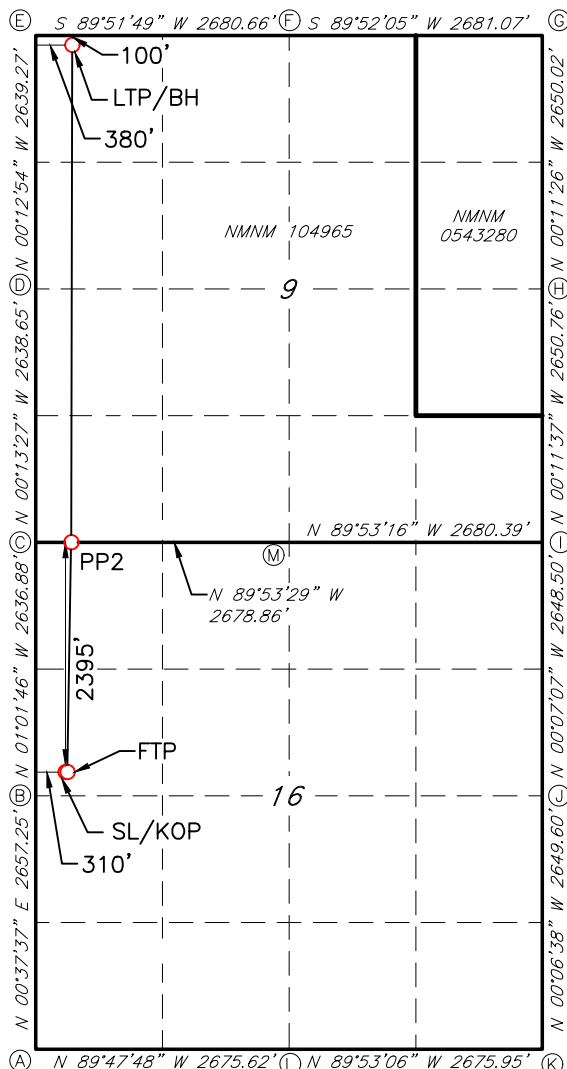
OPERATOR CERTIFICATIONS <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the 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.</i> <i>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.</i>  09/25/2024 Signature Date		SURVEYOR CERTIFICATIONS <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me under my supervision, and that the same is true and correct to the best of my belief.</i>  Signature and Seal of Professional Surveyor	
Printed Name Jerry Elgin, VP of Operations		Certificate Number 14400	Date of Survey 08/01/2024
Email Address jelgin@stratanm.com			

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.

ACREAGE DEDICATION PLATS

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

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



GEODETTIC DATA
NAD 83 GRID — NM EAST

SURFACE LOCATION (SL)
N 475265.4 — E: 677116.6

LAT: 32.3058127° N
LONG: 103.8938563° W

KICK OFF POINT (KOP)
2395' FNL & 310' FWL — SEC.16
N: 475265.4 — E: 677116.6

LAT: 32.3058127° N
LONG: 103.8938563° W

FIRST TAKE POINT (FTP)
2395' FNL & 330' FWL — SEC.16
N: 475265.4 — E: 677136.6

LAT: 32.3058124° N
LONG: 103.8937915° W

PROPOSED PENETRATION POINT 2 (PPP2)
0' FSL & 370' FWL — SEC.9
N: 477659.4 — E: 677133.5

LAT: 32.312393° N
LONG: 103.893770° W

LAST TAKE POINT (LTP)
N: 482837.8 — E: 677123.7

LAT: 32.3266273° N
LONG: 103.8937329° W

BOTTOM HOLE (BH)
N: 482837.8 — E: 677123.7

LAT: 32.3266273° N
LONG: 103.8937329° W

CORNER DATA
NAD 83 GRID — NM EAST

A: FOUND BRASS CAP "1942" N: 472367.7 — E: 676781.9	G: FOUND BRASS CAP "1942" N: 482949.4 — E: 682103.9
B: FOUND BRASS CAP "1942" N: 475024.2 — E: 676811.0	H: FOUND BRASS CAP "1942" N: 480299.9 — E: 682112.7
C: FOUND BRASS CAP "1942" N: 477660.1 — E: 676763.6	I: FOUND BRASS CAP "1942" N: 477649.8 — E: 682121.7
D: FOUND BRASS CAP "1942" N: 480298.2 — E: 676753.3	J: FOUND BRASS CAP "1942" N: 475001.9 — E: 682127.2
E: FOUND BRASS CAP "1942" N: 482936.8 — E: 676743.4	K: FOUND BRASS CAP "1942" N: 472352.8 — E: 682132.3
F: FOUND BRASS CAP "1942" N: 482943.2 — E: 679423.4	L: FOUND BRASS CAP "1942" N: 472358.2 — E: 679456.9
	M: FOUND BRASS CAP "1942" N: 477655.0 — E: 679441.9

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:** 09/ 04/ 24

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
Forty Niner Ridge Unit		Sec 16-T23S-R30E	2395' FNL &	1,200	2,600	3,300
16 9 EDL #39H			310' FWL			

IV. Central Delivery Point Name: CTB #3 [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
Forty Niner Ridge Unit		6/11/2025	6/26/2025	7/11/2025	7/24/2025	7/27/2025
16 9 EDL #39H						

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
Forty Niner Ridge Unit 16 21 EDL #39H		1,900	832,000

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
Strata Production Co.	Forty Niner Ridge	Sec 30-T23S-R30E	7/27/2025	36,000,000

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

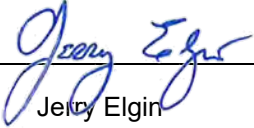
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(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:	Jerry Elgin
Title:	Vice President Operations
E-mail Address:	jelgin@stratanm.com
Date:	09/04/2024
Phone:	575-622-1127, ext 18
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**

**Forty Niner Ridge Unit 16 21 EDL #39H
Section 16-T23S-R30E
Eddy County, New Mexico**

Attachment to NMOCD Form NGMP

VI. Separation Equipment

Well site separation equipment consists of a 4' X 15' X 500 psi WP 2 phase separator at the well site in Section 30-T23S-R31E to separate the gas from the oil and water and a 6' X 20' X 250 psi 3 phase separator that separates any residual gas, water, and oil. The gas is routed to a gas gathering line that connects to Strata's corridor through the field to Common Tank Battery 2 in the SWNW of Section 23-T23S-R30E where the gas goes through a 2 phase separator to remove any residual liquids, then through a compressor and into an interconnect with Enterprise GD LLC located in the NENE of Section 22-T23S-R30E (all in Eddy County, NM).

The oil and water are routed to Common Tank Battery 3 in the NENE of Section 22-T23S-R30E where the oil goes through a separator to remove any residual gas then through a heater treater to remove any residual water. The oil is then stored in 500 bbl steel tanks at the battery. The facility separator, heater treater, and tanks are tied into a vapor recover system so any liberated gas is routed into the gas gathering line.

VII. Strata Production Company will take the following actions to comply with regulations outlined in 19.15.27.8.

A. Venting and Flaring of Natural Gas

Strata will maximize recovery of natural gas by minimizing the waste, as defined in 19.15.2 NMAC, of natural gas through venting and flaring. Strata will be connected to natural gas gathering systems with sufficient capacity to transport its produced natural gas. If there is inadequate capacity to transport the gas, the well(s) will be shut in until there is adequate capacity or other arrangements can be made to avoid waste.

B. Venting and Flaring During Drilling Operations

Drilling rigs shall be equipped with a rig flare located at least 100 ft from the well. The flare will be utilized to combust any natural gas produced through drilling operations. Should gas be flared, an estimated volume will be reported as required by statutes. Gas will not be flared during normal drilling operations.

C. Venting and Flaring During Completion Operations

Natural gas produced during completion operations will be flared. All gas produced will be directed to permanent separation equipment and into sales as soon as practical. If natural gas does not meet pipeline specifications, Strata may flare the gas for up to 60 days or until the gas meets pipeline specifications, whichever is sooner. Strata will properly size the flare which will be equipped with automatic ignition source. The gas will be sampled no less than twice per week and the gas will be routed through Strata's gathering system as soon as it meets pipeline specifications.

D. Venting and Flaring During Production Operations

Natural gas will not be flared during normal production operations except as is allowed under 19.15.27.8 D (1)-(4). If capacity is inadequate, well(s) will be shut in until there is adequate capacity or other arrangements can be made to avoid waste except during emergency or malfunction situations. Flared volumes will be reported as required by statutes.

E. Performance Standards

Strata will comply with the performance standards per 19.15.27.8 E (1)-(8). All equipment will be designed to accommodate anticipated volumes and pressures. Storage tanks will be equipped with automatic gauging equipment connected to Strata's SCADA system. Flares will be located at least 100 ft from wells and storage tanks and will be equipped with automatic ignition sources. Strata will conduct AVO inspections to comply with 19.15.27.8 E (5) (a) and 19.15.27.8 E (5) (b)-(c). Any emergency situations resulting in flaring will be resolved to minimize waste.

F. Measurement of Vented and Flared Natural Gas

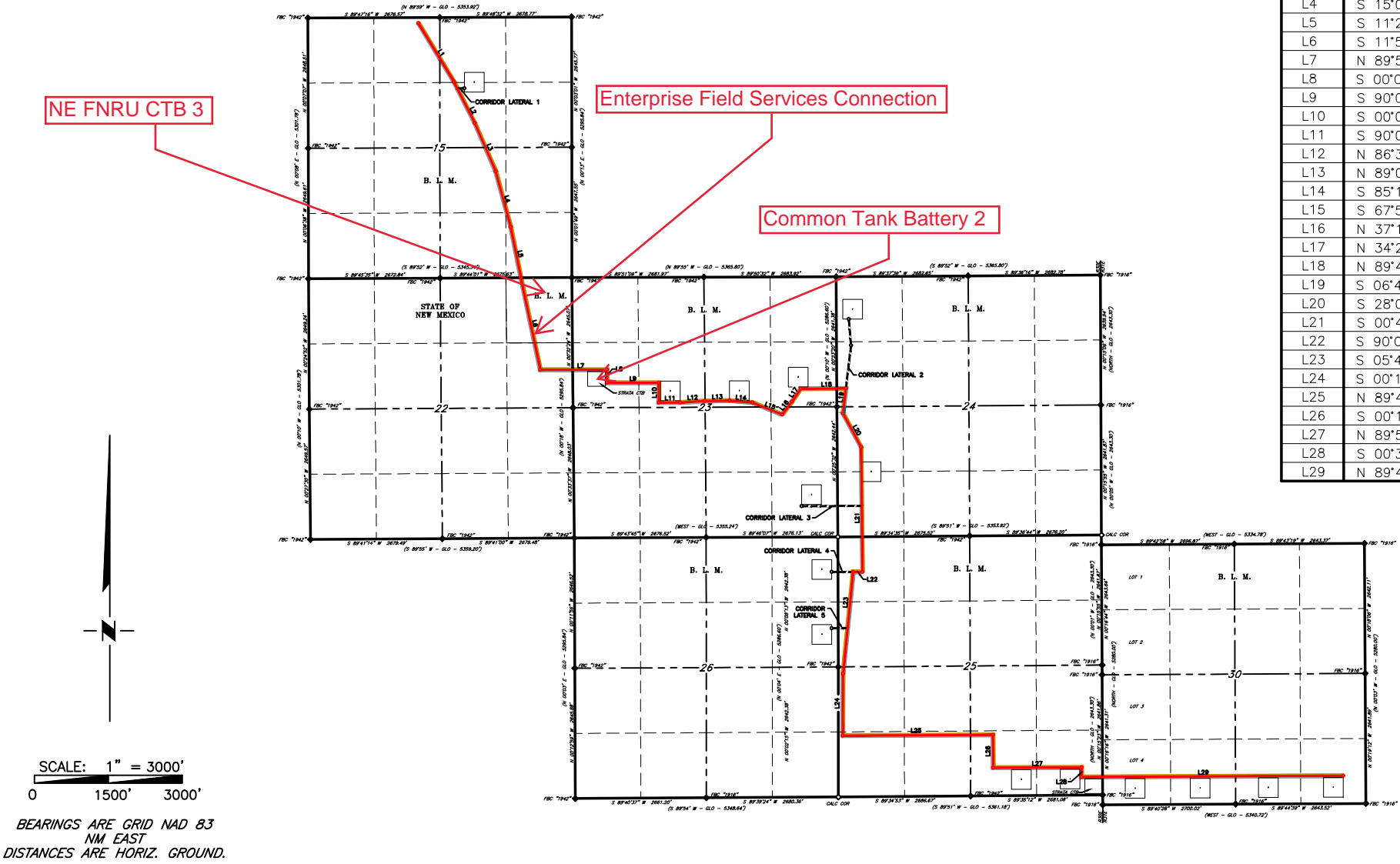
Gas flared as the result of emergency or malfunction will be metered. Gas used beneficially during production operations will be metered or estimated. Should metering be impractical due to equipment malfunction or low flow, Strata will estimate the volume of gas vented or flared. All metering equipment will conform to industry standards and will not be equipped with a bypass around metering equipment except for the sole purpose of inspecting or servicing the metering equipment.

VIII. Maintenance Activities

For maintenance activities involving production equipment and compression, venting will be limited to depressurization of the equipment to provide safe working conditions. In the event maintenance is required on pressurized equipment, associated producing wells will be shut in to minimize waste. Gas normally routed through a vapor recovery unit may be routed to flares to avoid venting for the maintenance of VRU's and associated equipment.

STRATA PRODUCTION COMPANY
PROPOSED MAIN CORRIDOR FOR THE STRATA WELL LOCATIONS
SECTIONS 15, 22, 23, 24, 26 & 25, T23S, R30E, &
SECTION 30, T23S, R31E
N. M. P. M., EDDY CO., NEW MEXICO

LINE TABLE		
LINE	BEARING	LENGTH
L1	S 31°10'54" E	1,393.05'
L2	S 26°50'18" E	940.07'
L3	S 23°25'43" E	1,068.15'
L4	S 15°04'07" E	1,172.60'
L5	S 11°23'46" E	1,045.11'
L6	S 11°50'29" E	1,917.56'
L7	N 89°59'28" E	1,355.67'
L8	S 00°03'54" W	266.11'
L9	S 90°00'00" E	1,052.12'
L10	S 00°00'00" E	400.00'
L11	S 90°00'00" E	435.01'
L12	N 86°35'57" E	501.54'
L13	N 89°05'05" E	505.83'
L14	S 85°11'20" E	461.01'
L15	S 67°54'39" E	648.93'
L16	N 37°19'53" E	334.18'
L17	N 34°24'00" E	314.74'
L18	N 89°48'35" E	916.97'
L19	S 06°40'55" W	505.50'
L20	S 28°02'19" E	779.64'
L21	S 00°40'33" E	2,533.37'
L22	S 90°00'00" W	188.59'
L23	S 05°46'06" W	2,078.49'
L24	S 00°18'48" W	1,259.84'
L25	N 89°42'50" E	3,053.28'
L26	S 00°16'48" E	664.28'
L27	N 89°57'10" E	1,796.25'
L28	S 00°39'28" E	195.02'
L29	N 89°42'06" E	5,307.92'



LEGEND

() RECORD DATA - GLO
◇ CALCULATED CORNER
◆ FOUND MONUMENT AS NOTED

— PROPOSED MAIN CORRIDOR
— ACCESS ROAD
— ELECTRIC LINE

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RRC

701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

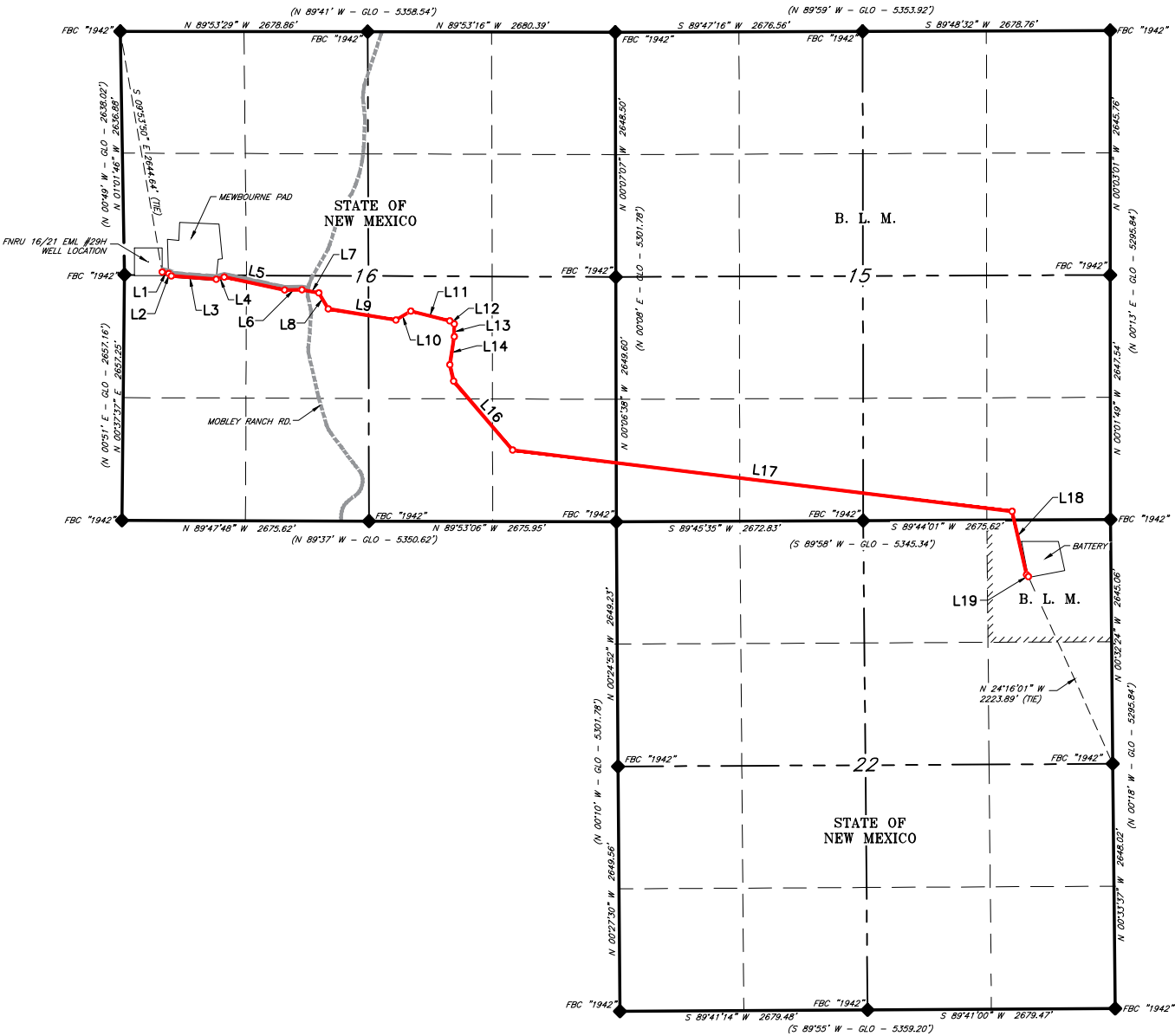
SCALE: 1" = 3000'	NO.	REVISION	DATE
DATE: 5/22/2019			
SURVEYED BY: BK/AS			
DRAWN BY: GA			
APPROVED BY: RMH			
SHEET: 1 OF 12	JOB NO.: LS19050633		
DWG. NO.: 19050633-1			

STRATA PRODUCTION COMPANY

FNRU 16-21 EML #29H PIPELINE & ELECTRIC LINE

SECTIONS 15, 16 & 22, T23S, R30E

N. M. P. M., EDDY CO., NEW MEXICO



LINE TABLE		
LINE	BEARING	LENGTH
L1	S 76°53'01" E	71.90'
L2	S 48°02'23" E	38.69'
L3	S 85°40'26" E	487.02'
L4	N 74°43'52" E	90.73'
L5	S 77°58'08" E	667.50'
L6	N 89°09'42" E	187.18'
L7	S 79°18'09" E	186.64'
L8	S 30°23'57" E	200.40'
L9	S 80°39'54" E	743.03'
L10	N 59°03'16" E	187.49'
L11	S 75°56'28" E	434.59'
L12	S 55°28'08" E	59.57'
L13	S 00°01'28" E	136.55'
L14	S 08°58'43" W	308.42'
L15	S 12°58'10" E	182.16'
L16	S 40°32'54" E	982.04'
L17	S 83°00'39" E	5,446.36'
L18	S 12°50'37" E	704.53'
L19	S 44°05'06" E	28.02'



- LEGEND
- ()

RECORD DATA - GLO
- ◆

FOUND MONUMENT AS NOTED
- PROPOSED UTILITY EASEMENT
- EXISTING ACCESS ROAD
- MOBLEY RANCH RD.

SCALE: 1" = 1800'

0 900' 1800'

BEARINGS ARE GRID NAD 83 NM EAST

DISTANCES ARE HORIZ. GROUND.

1	REROUTE	3/23/23
NO.	REVISION	DATE
JOB NO.: LS23030268R		
DWG. NO.: 23030268R-1		



701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1800'
DATE: 03/08/2023
SURVEYED BY: JF/GA
DRAWN BY: LM
APPROVED BY: DEB
SHEET: 1 OF 5



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

Drilling Plan Data Report

07/28/2025

APD ID: 10400100228

Submission Date: 11/12/2024

Operator Name: STRATA PRODUCTION COMPANY

Well Name: FORTY NINER RIDGE UNIT 16 9 EDL

Well Number: 39H

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
16095375	SALADO	3180	590	590	SALT	NONE	N
16095362	BASE OF SALT	-363	3543	3543	SALT	NONE	N
16095376	BELL CANYON	-578	3758	3758	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL	Y
16095372	CHERRY CANYON	-1299	4479	4479	LIMESTONE, SHALE	NATURAL GAS, OIL	Y
16095373	BRUSHY CANYON	-2610	5790	5790	LIMESTONE, SHALE	NATURAL GAS, OIL	Y
16095374	DELAWARE SAND	-4260	7440	7440	LIMESTONE, SHALE	NATURAL GAS, OIL	Y
16095371	BONE SPRING	-4410	7590	7590	LIMESTONE, SHALE	NONE	N
16095369		0					
16095370		0					

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:

FNRU_16_9_EDL_39H_Choke_Diagram_20250207105639.pdf

BOP Diagram Attachment:

FNRU_16_9_EDL_39H_BOPE_Description_20250207105705.pdf

FNRU_16_9_EDL_39H_BOPE_20250207105706.pdf

Operator Name: STRATA PRODUCTION COMPANY

Well Name: FORTY NINER RIDGE UNIT 16 9 EDLWell Number: 39H

FNRU_16_9_EDL_39H_Choke_Diagram_20250207105639.pdf

FNRU_16_9_EDL_39H_BOPE_Description_20250207105705.pdf

FNRU_16_9_EDL_39H_BOPE_20250207105706.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	450	0	450	3180	2730	450	H-40	48	ST&C	3.95	7.39	DRY	14.91	DRY	25.05
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	3800	0	3800	3180	-620	3800	N-80	43.5	LT&C	2.32	3.2	DRY	6.5	DRY	6.08
3	PRODUCTION	8.5	7.0	NEW	API	Y	0	6800	0	6800	3180	-3620	6800	HCP-110	29	LT&C	2.89	3.17	DRY	2.32	DRY	2.7
4	PRODUCTION	8.5	5.5	NEW	API	Y	6800	14149	6800	7440	-3620	-4260	7349	HCP-110	20	LT&C	3.44	3.31	DRY	3.73	DRY	4.54

Casing Attachments

Casing ID: 1StringSURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

FNRU_16_9_EDL_39H_Casing_Worksheet_20250625140945.pdf

Operator Name: STRATA PRODUCTION COMPANY**Well Name:** FORTY NINER RIDGE UNIT 16 9 EDL**Well Number:** 39H**Casing Attachments****Casing ID:** 2 **String** INTERMEDIATE**Inspection Document:****Spec Document:****Tapered String Spec:****Casing Design Assumptions and Worksheet(s):**

FNRU_16_9_EDL_39H_Casing_Worksheet_20250625141023.pdf

Casing ID: 3 **String** PRODUCTION**Inspection Document:****Spec Document:****Tapered String Spec:**

FNRU_16_9_EDL_39H_Tapered_String_20250625141045.pdf

Casing Design Assumptions and Worksheet(s):

FNRU_16_9_EDL_39H_Casing_Worksheet_20250625141108.pdf

Casing ID: 4 **String** PRODUCTION**Inspection Document:****Spec Document:****Tapered String Spec:**

FNRU_16_9_EDL_39H_Tapered_String_20250625141139.pdf

Casing Design Assumptions and Worksheet(s):

FNRU_16_9_EDL_39H_Casing_Worksheet_20250625141157.pdf

Section 4 - Cement

Operator Name: STRATA PRODUCTION COMPANY**Well Name:** FORTY NINER RIDGE UNIT 16 9 EDL**Well Number:** 39H

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	469	1.33	14.8	623	100	Class C	CaCl, LCM

INTERMEDIATE	Lead		0	3300	813	1.91	12.9	1550	50	Class C	Salt, gel, extender, LCM
INTERMEDIATE	Tail		3300	3800	194	1.33	14.8	258	65	Class C	Salt, LCM
PRODUCTION	Lead		0	5200	200	2.51	11	500	100	Class C	N/A - Circulate Out
PRODUCTION	Tail		5200	14149	1875	1.43	13.2	2684	25	Class C	Salt, gel, extender, LCM
PRODUCTION	Lead	5200	3300	5200	321	1.34	14.8	427	50	Class C	None

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 43 CFR 3172:****Diagram of the equipment for the circulating system in accordance with 43 CFR 3172:****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 a rig floor, remote kill line, and mud gas separator.**Describe the mud monitoring system utilized:** Pason pit level monitors, hourly weight check, viscosity, gel strength and pH, and 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.

Operator Name: STRATA PRODUCTION COMPANY**Well Name:** FORTY NINER RIDGE UNIT 16 9 EDL**Well Number:** 39H

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
450	3800	SALT SATURATED	10	10.5			10				Drill with brine water with LCM and gel sweeps.
3800	1414 9	WATER-BASED MUD	9.5	10.2			10				Drill with water based mud using sliders and gel sweeps in the lateral.

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

Coring operation description for the well:

None

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 3000

Anticipated Surface Pressure: 1363

Anticipated Bottom Hole Temperature(F): 130

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

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

FNRU_16_9_EDL_39H_H2S_Plan_20250207105854.pdf

Operator Name: STRATA PRODUCTION COMPANY

Well Name: FORTY NINER RIDGE UNIT 16 9 EDL

Well Number: 39H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

FNRU_39H_Permitting_WBD_20250625134556.pdf

Scout_FNRU_16_9_EDL_39H_Plan_Data_Prelim_1_20250625134604.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

FNRU_16_9_EDL_39H_NGMP_20250207105912.pdf

Other Variance request(s)?: N

Other Variance attachment:

Strata Production Co

Eddy County, NM (NAD 83)

Forty Niner Ridge Unit

FNRU 16_9 EDL #39H

API: 30-015-00039

OH

Plan: Prelim 1

Standard Planning Report

25 June, 2025

SDT
Planning Report

Database:	EDM 5000 Multi User Db	Local Co-ordinate Reference:	Well FNRU 16_9 EDL #39H
Company:	Strata Production Co	TVD Reference:	3180+26 @ 3206.00usft (ICD 333)
Project:	Eddy County, NM (NAD 83)	MD Reference:	3180+26 @ 3206.00usft (ICD 333)
Site:	Forty Niner Ridge Unit	North Reference:	Grid
Well:	FNRU 16_9 EDL #39H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim 1		

Project	Eddy County, NM (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Forty Niner Ridge Unit			
Site Position:		Northing:	475,265.42 usft	Latitude: 32.305813
From:	Lat/Long	Easting:	677,116.59 usft	Longitude: -103.893857
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	

Well	FNRU 16_9 EDL #39H			
Well Position	+N/-S	0.00 usft	Northing:	475,265.42 usft
	+E/-W	0.00 usft	Easting:	677,116.59 usft
Position Uncertainty		2.00 usft	Wellhead Elevation:	usft
Grid Convergence:		0.23 °	Ground Level:	3,180.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HRGM	6/20/2025	6.43	59.85	47,273.61738650

Design	Prelim 1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.90

Plan Survey Tool Program	Date	6/25/2025		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	14,149.41 Prelim 1 (OH)	MWD+HRGM OWSG Rev5	
			OWSG MWD + HRGM	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,067.15	9.34	1.43	3,065.08	37.99	0.95	2.00	2.00	0.00	1.43	
7,014.46	9.34	1.43	6,960.03	678.62	16.93	0.00	0.00	0.00	0.00	
7,821.07	90.00	359.93	7,440.00	1,243.98	18.31	10.00	10.00	-0.19	-1.52	
8,971.07	90.00	359.93	7,440.00	2,393.98	16.90	0.00	0.00	0.00	0.00	FNRU #39H IP
8,973.01	90.00	359.89	7,440.00	2,395.92	16.90	2.00	0.00	-2.00	-90.00	
14,149.41	90.00	359.89	7,440.00	7,572.32	7.07	0.00	0.00	0.00	0.00	FNRU #39H PBHL

SDT

Planning Report

Database:	EDM 5000 Multi User Db	Local Co-ordinate Reference:	Well FNRU 16_9 EDL #39H
Company:	Strata Production Co	TVD Reference:	3180+26 @ 3206.00usft (ICD 333)
Project:	Eddy County, NM (NAD 83)	MD Reference:	3180+26 @ 3206.00usft (ICD 333)
Site:	Forty Niner Ridge Unit	North Reference:	Grid
Well:	FNRU 16_9 EDL #39H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FNRU #39H SHL									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
450.00	0.00	0.00	450.00	0.00	0.00	0.00	0.00	0.00	0.00
13-3/8" Surface Casing									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
590.00	0.00	0.00	590.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado									
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
2,700.00	2.00	1.43	2,699.98	1.74	0.04	1.74	2.00	2.00	0.00
2,800.00	4.00	1.43	2,799.84	6.98	0.17	6.98	2.00	2.00	0.00
2,900.00	6.00	1.43	2,899.45	15.69	0.39	15.69	2.00	2.00	0.00
3,000.00	8.00	1.43	2,998.70	27.87	0.70	27.87	2.00	2.00	0.00
3,067.15	9.34	1.43	3,065.08	37.99	0.95	37.99	2.00	2.00	0.00
Start 3947.31 hold at 3067.15 MD									
3,100.00	9.34	1.43	3,097.50	43.32	1.08	43.32	0.00	0.00	0.00
3,200.00	9.34	1.43	3,196.17	59.55	1.49	59.55	0.00	0.00	0.00
3,300.00	9.34	1.43	3,294.84	75.78	1.89	75.78	0.00	0.00	0.00
3,400.00	9.34	1.43	3,393.52	92.01	2.30	92.01	0.00	0.00	0.00
3,500.00	9.34	1.43	3,492.19	108.24	2.70	108.24	0.00	0.00	0.00
3,551.49	9.34	1.43	3,543.00	116.60	2.91	116.59	0.00	0.00	0.00
Base Salt									
3,600.00	9.34	1.43	3,590.86	124.47	3.11	124.46	0.00	0.00	0.00
3,700.00	9.34	1.43	3,689.54	140.70	3.51	140.69	0.00	0.00	0.00
3,769.38	9.34	1.43	3,758.00	151.96	3.79	151.95	0.00	0.00	0.00
Bell Canyon									
3,800.00	9.34	1.43	3,788.21	156.93	3.92	156.92	0.00	0.00	0.00
3,811.95	9.34	1.43	3,800.00	158.87	3.96	158.86	0.00	0.00	0.00
9-5/8" Intermediate Casing									

SDT

Planning Report

Database:	EDM 5000 Multi User Db	Local Co-ordinate Reference:	Well FNRU 16_9 EDL #39H
Company:	Strata Production Co	TVD Reference:	3180+26 @ 3206.00usft (ICD 333)
Project:	Eddy County, NM (NAD 83)	MD Reference:	3180+26 @ 3206.00usft (ICD 333)
Site:	Forty Niner Ridge Unit	North Reference:	Grid
Well:	FNRU 16_9 EDL #39H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,900.00	9.34	1.43	3,886.88	173.16	4.32	173.15	0.00	0.00	0.00
4,000.00	9.34	1.43	3,985.56	189.39	4.72	189.38	0.00	0.00	0.00
4,100.00	9.34	1.43	4,084.23	205.62	5.13	205.61	0.00	0.00	0.00
4,200.00	9.34	1.43	4,182.90	221.85	5.53	221.84	0.00	0.00	0.00
4,300.00	9.34	1.43	4,281.58	238.08	5.94	238.07	0.00	0.00	0.00
4,400.00	9.34	1.43	4,380.25	254.31	6.34	254.29	0.00	0.00	0.00
4,500.00	9.34	1.43	4,478.92	270.53	6.75	270.52	0.00	0.00	0.00
4,500.08	9.34	1.43	4,479.00	270.55	6.75	270.54	0.00	0.00	0.00
Cherry Cyn									
4,600.00	9.34	1.43	4,577.60	286.76	7.15	286.75	0.00	0.00	0.00
4,700.00	9.34	1.43	4,676.27	302.99	7.56	302.98	0.00	0.00	0.00
4,800.00	9.34	1.43	4,774.94	319.22	7.96	319.21	0.00	0.00	0.00
4,900.00	9.34	1.43	4,873.62	335.45	8.37	335.44	0.00	0.00	0.00
5,000.00	9.34	1.43	4,972.29	351.68	8.77	351.67	0.00	0.00	0.00
5,100.00	9.34	1.43	5,070.97	367.91	9.18	367.89	0.00	0.00	0.00
5,185.92	9.34	1.43	5,155.74	381.85	9.53	381.84	0.00	0.00	0.00
139 5200' TVD									
5,200.00	9.34	1.43	5,169.64	384.14	9.58	384.12	0.00	0.00	0.00
5,300.00	9.34	1.43	5,268.31	400.37	9.99	400.35	0.00	0.00	0.00
5,400.00	9.34	1.43	5,366.99	416.60	10.39	416.58	0.00	0.00	0.00
5,500.00	9.34	1.43	5,465.66	432.83	10.80	432.81	0.00	0.00	0.00
5,600.00	9.34	1.43	5,564.33	449.06	11.20	449.04	0.00	0.00	0.00
5,700.00	9.34	1.43	5,663.01	465.29	11.61	465.27	0.00	0.00	0.00
5,800.00	9.34	1.43	5,761.68	481.52	12.01	481.50	0.00	0.00	0.00
5,828.70	9.34	1.43	5,790.00	486.18	12.13	486.15	0.00	0.00	0.00
Brushy Cyn									
5,900.00	9.34	1.43	5,860.35	497.75	12.42	497.72	0.00	0.00	0.00
6,000.00	9.34	1.43	5,959.03	513.98	12.82	513.95	0.00	0.00	0.00
6,100.00	9.34	1.43	6,057.70	530.21	13.23	530.18	0.00	0.00	0.00
6,200.00	9.34	1.43	6,156.37	546.43	13.63	546.41	0.00	0.00	0.00
6,300.00	9.34	1.43	6,255.05	562.66	14.04	562.64	0.00	0.00	0.00
6,400.00	9.34	1.43	6,353.72	578.89	14.44	578.87	0.00	0.00	0.00
6,500.00	9.34	1.43	6,452.39	595.12	14.85	595.10	0.00	0.00	0.00
6,600.00	9.34	1.43	6,551.07	611.35	15.25	611.32	0.00	0.00	0.00
6,700.00	9.34	1.43	6,649.74	627.58	15.66	627.55	0.00	0.00	0.00
6,800.00	9.34	1.43	6,748.41	643.81	16.06	643.78	0.00	0.00	0.00
6,876.63	9.34	1.43	6,824.03	656.25	16.37	656.22	0.00	0.00	0.00
FNRU #39H NP									
6,900.00	9.34	1.43	6,847.09	660.04	16.47	660.01	0.00	0.00	0.00
7,000.00	9.34	1.43	6,945.76	676.27	16.87	676.24	0.00	0.00	0.00
7,014.46	9.34	1.43	6,960.03	678.62	16.93	678.59	0.00	0.00	0.00
Start DLS 10.00 TFO -1.52									
7,050.00	12.90	1.01	6,994.90	685.47	17.07	685.44	10.00	10.00	-1.19
7,100.00	17.90	0.69	7,043.09	698.74	17.26	698.71	10.00	10.00	-0.63
7,150.00	22.89	0.51	7,089.94	716.15	17.44	716.12	10.00	10.00	-0.36
7,159.13	23.81	0.49	7,098.32	719.77	17.48	719.74	10.00	10.00	-0.27
FNRU #39H FTP									
7,167.23	24.62	0.47	7,105.70	723.09	17.50	723.06	10.00	10.00	-0.26
139 7500' TVD									
7,200.00	27.89	0.40	7,135.09	737.59	17.61	737.56	10.00	10.00	-0.22
7,250.00	32.89	0.31	7,178.21	762.88	17.77	762.85	10.00	10.00	-0.17
7,300.00	37.89	0.25	7,218.95	791.83	17.91	791.80	10.00	10.00	-0.13
7,350.00	42.89	0.20	7,257.02	824.22	18.03	824.19	10.00	10.00	-0.10

SDT

Planning Report

Database:	EDM 5000 Multi User Db	Local Co-ordinate Reference:	Well FNRU 16_9 EDL #39H
Company:	Strata Production Co	TVD Reference:	3180+26 @ 3206.00usft (ICD 333)
Project:	Eddy County, NM (NAD 83)	MD Reference:	3180+26 @ 3206.00usft (ICD 333)
Site:	Forty Niner Ridge Unit	North Reference:	Grid
Well:	FNRU 16_9 EDL #39H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,400.00	47.89	0.15	7,292.12	859.81	18.14	859.77	10.00	10.00	-0.09
7,450.00	52.89	0.12	7,323.99	898.32	18.23	898.28	10.00	10.00	-0.07
7,500.00	57.89	0.08	7,352.37	939.46	18.30	939.42	10.00	10.00	-0.06
7,550.00	62.89	0.06	7,377.07	982.91	18.35	982.88	10.00	10.00	-0.06
7,600.00	67.89	0.03	7,397.88	1,028.36	18.39	1,028.33	10.00	10.00	-0.05
7,650.00	72.89	0.01	7,414.65	1,075.45	18.40	1,075.41	10.00	10.00	-0.05
7,700.00	77.89	359.98	7,427.26	1,123.81	18.40	1,123.78	10.00	10.00	-0.05
7,750.00	82.89	359.96	7,435.60	1,173.10	18.37	1,173.06	10.00	10.00	-0.04
7,800.00	87.89	359.94	7,439.61	1,222.92	18.33	1,222.89	10.00	10.00	-0.04
7,821.02	90.00	359.93	7,440.00	1,243.94	18.31	1,243.90	10.00	10.00	-0.04
Delaware L Sand Target									
7,821.07	90.00	359.93	7,440.00	1,243.98	18.31	1,243.95	10.00	10.00	-0.04
Start 1150.00 hold at 7821.07 MD									
7,900.00	90.00	359.93	7,440.00	1,322.92	18.21	1,322.88	0.00	0.00	0.00
8,000.00	90.00	359.93	7,440.00	1,422.92	18.09	1,422.88	0.00	0.00	0.00
8,100.00	90.00	359.93	7,440.00	1,522.92	17.96	1,522.88	0.00	0.00	0.00
8,200.00	90.00	359.93	7,440.00	1,622.92	17.84	1,622.88	0.00	0.00	0.00
8,300.00	90.00	359.93	7,440.00	1,722.92	17.72	1,722.88	0.00	0.00	0.00
8,400.00	90.00	359.93	7,440.00	1,822.92	17.60	1,822.88	0.00	0.00	0.00
8,500.00	90.00	359.93	7,440.00	1,922.92	17.48	1,922.88	0.00	0.00	0.00
8,600.00	90.00	359.93	7,440.00	2,022.92	17.35	2,022.88	0.00	0.00	0.00
8,700.00	90.00	359.93	7,440.00	2,122.92	17.23	2,122.88	0.00	0.00	0.00
8,800.00	90.00	359.93	7,440.00	2,222.92	17.11	2,222.88	0.00	0.00	0.00
8,900.00	90.00	359.93	7,440.00	2,322.92	16.99	2,322.88	0.00	0.00	0.00
8,971.07	90.00	359.93	7,440.00	2,393.98	16.90	2,393.95	0.00	0.00	0.00
Start DLS 2.00 TFO -90.00 - FNRU #39H IP									
8,973.01	90.00	359.89	7,440.00	2,395.92	16.90	2,395.89	2.00	0.00	-2.00
Start 5176.41 hold at 8973.01 MD									
9,000.00	90.00	359.89	7,440.00	2,422.92	16.85	2,422.88	0.00	0.00	0.00
9,100.00	90.00	359.89	7,440.00	2,522.91	16.66	2,522.88	0.00	0.00	0.00
9,200.00	90.00	359.89	7,440.00	2,622.91	16.47	2,622.88	0.00	0.00	0.00
9,300.00	90.00	359.89	7,440.00	2,722.91	16.28	2,722.88	0.00	0.00	0.00
9,400.00	90.00	359.89	7,440.00	2,822.91	16.09	2,822.88	0.00	0.00	0.00
9,500.00	90.00	359.89	7,440.00	2,922.91	15.90	2,922.88	0.00	0.00	0.00
9,600.00	90.00	359.89	7,440.00	3,022.91	15.71	3,022.88	0.00	0.00	0.00
9,700.00	90.00	359.89	7,440.00	3,122.91	15.52	3,122.88	0.00	0.00	0.00
9,800.00	90.00	359.89	7,440.00	3,222.91	15.33	3,222.88	0.00	0.00	0.00
9,900.00	90.00	359.89	7,440.00	3,322.91	15.14	3,322.88	0.00	0.00	0.00
10,000.00	90.00	359.89	7,440.00	3,422.91	14.95	3,422.88	0.00	0.00	0.00
10,100.00	90.00	359.89	7,440.00	3,522.91	14.76	3,522.88	0.00	0.00	0.00
10,200.00	90.00	359.89	7,440.00	3,622.91	14.57	3,622.88	0.00	0.00	0.00
10,300.00	90.00	359.89	7,440.00	3,722.91	14.38	3,722.88	0.00	0.00	0.00
10,400.00	90.00	359.89	7,440.00	3,822.91	14.19	3,822.88	0.00	0.00	0.00
10,500.00	90.00	359.89	7,440.00	3,922.91	14.00	3,922.88	0.00	0.00	0.00
10,600.00	90.00	359.89	7,440.00	4,022.91	13.81	4,022.88	0.00	0.00	0.00
10,700.00	90.00	359.89	7,440.00	4,122.91	13.62	4,122.88	0.00	0.00	0.00
10,800.00	90.00	359.89	7,440.00	4,222.91	13.43	4,222.88	0.00	0.00	0.00
10,900.00	90.00	359.89	7,440.00	4,322.91	13.24	4,322.88	0.00	0.00	0.00
11,000.00	90.00	359.89	7,440.00	4,422.91	13.05	4,422.88	0.00	0.00	0.00
11,100.00	90.00	359.89	7,440.00	4,522.91	12.86	4,522.88	0.00	0.00	0.00
11,200.00	90.00	359.89	7,440.00	4,622.91	12.67	4,622.88	0.00	0.00	0.00
11,300.00	90.00	359.89	7,440.00	4,722.91	12.48	4,722.88	0.00	0.00	0.00
11,400.00	90.00	359.89	7,440.00	4,822.91	12.29	4,822.88	0.00	0.00	0.00

SDT
Planning Report

Database:	EDM 5000 Multi User Db	Local Co-ordinate Reference:	Well FNRU 16_9 EDL #39H
Company:	Strata Production Co	TVD Reference:	3180+26 @ 3206.00usft (ICD 333)
Project:	Eddy County, NM (NAD 83)	MD Reference:	3180+26 @ 3206.00usft (ICD 333)
Site:	Forty Niner Ridge Unit	North Reference:	Grid
Well:	FNRU 16_9 EDL #39H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,500.00	90.00	359.89	7,440.00	4,922.91	12.10	4,922.88	0.00	0.00	0.00
11,600.00	90.00	359.89	7,440.00	5,022.91	11.91	5,022.88	0.00	0.00	0.00
11,700.00	90.00	359.89	7,440.00	5,122.91	11.72	5,122.88	0.00	0.00	0.00
11,800.00	90.00	359.89	7,440.00	5,222.91	11.53	5,222.88	0.00	0.00	0.00
11,900.00	90.00	359.89	7,440.00	5,322.91	11.34	5,322.88	0.00	0.00	0.00
12,000.00	90.00	359.89	7,440.00	5,422.91	11.15	5,422.88	0.00	0.00	0.00
12,100.00	90.00	359.89	7,440.00	5,522.91	10.96	5,522.88	0.00	0.00	0.00
12,200.00	90.00	359.89	7,440.00	5,622.91	10.77	5,622.88	0.00	0.00	0.00
12,300.00	90.00	359.89	7,440.00	5,722.91	10.58	5,722.88	0.00	0.00	0.00
12,400.00	90.00	359.89	7,440.00	5,822.91	10.39	5,822.88	0.00	0.00	0.00
12,500.00	90.00	359.89	7,440.00	5,922.91	10.20	5,922.88	0.00	0.00	0.00
12,600.00	90.00	359.89	7,440.00	6,022.91	10.01	6,022.88	0.00	0.00	0.00
12,700.00	90.00	359.89	7,440.00	6,122.91	9.82	6,122.88	0.00	0.00	0.00
12,800.00	90.00	359.89	7,440.00	6,222.91	9.63	6,222.88	0.00	0.00	0.00
12,900.00	90.00	359.89	7,440.00	6,322.91	9.44	6,322.88	0.00	0.00	0.00
13,000.00	90.00	359.89	7,440.00	6,422.91	9.25	6,422.88	0.00	0.00	0.00
13,100.00	90.00	359.89	7,440.00	6,522.91	9.06	6,522.88	0.00	0.00	0.00
13,200.00	90.00	359.89	7,440.00	6,622.91	8.87	6,622.88	0.00	0.00	0.00
13,300.00	90.00	359.89	7,440.00	6,722.91	8.68	6,722.88	0.00	0.00	0.00
13,400.00	90.00	359.89	7,440.00	6,822.91	8.49	6,822.88	0.00	0.00	0.00
13,500.00	90.00	359.89	7,440.00	6,922.91	8.30	6,922.88	0.00	0.00	0.00
13,600.00	90.00	359.89	7,440.00	7,022.91	8.11	7,022.88	0.00	0.00	0.00
13,700.00	90.00	359.89	7,440.00	7,122.91	7.92	7,122.88	0.00	0.00	0.00
13,800.00	90.00	359.89	7,440.00	7,222.91	7.73	7,222.88	0.00	0.00	0.00
13,900.00	90.00	359.89	7,440.00	7,322.91	7.54	7,322.88	0.00	0.00	0.00
14,000.00	90.00	359.89	7,440.00	7,422.91	7.35	7,422.88	0.00	0.00	0.00
14,100.00	90.00	359.89	7,440.00	7,522.91	7.16	7,522.88	0.00	0.00	0.00
14,149.41	90.00	359.89	7,440.00	7,572.32	7.07	7,572.29	0.00	0.00	0.00
TD at 14149.41 - FNRU #39H PBHL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FNRU #39H SHL - hit/miss target - Shape - Point	0.00	0.00	0.00	0.00	0.00	475,265.42	677,116.59	32.305813	-103.893857
FNRU #39H PBHL - plan hits target center - Point	0.00	0.00	7,440.00	7,572.32	7.07	482,837.74	677,123.66	32.326627	-103.893733
FNRU #39H FTP - plan misses target center by 796.66usft at 7167.23usft MD (7105.70 TVD, 723.09 N, 17.50 E) - Point	0.00	0.00	7,440.00	-0.03	20.02	475,265.39	677,136.62	32.305812	-103.893792
FNRU #39H IP - plan hits target center - Point	0.00	0.00	7,440.00	2,393.98	16.90	477,659.40	677,133.50	32.312393	-103.893770

SDT

Planning Report

Database:	EDM 5000 Multi User Db	Local Co-ordinate Reference:	Well FNRU 16_9 EDL #39H
Company:	Strata Production Co	TVD Reference:	3180+26 @ 3206.00usft (ICD 333)
Project:	Eddy County, NM (NAD 83)	MD Reference:	3180+26 @ 3206.00usft (ICD 333)
Site:	Forty Niner Ridge Unit	North Reference:	Grid
Well:	FNRU 16_9 EDL #39H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim 1		

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
450.00	450.00	13-3/8" Surface Casing	13-3/8	17-1/2	
3,811.95	3,800.00	9-5/8" Intermediate Casing	9-5/8	12-1/2	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
590.00	590.00	Salado				
3,551.49	3,543.00	Base Salt				
3,769.38	3,758.00	Bell Canyon				
4,500.08	4,479.00	Cherry Cyn				
5,828.70	5,790.00	Brushy Cyn				
7,821.02	7,440.00	Delaware L Sand Target				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
2,600.00	2,600.00	0.00	0.00	Start Build 2.00	
3,067.15	3,065.08	37.99	0.95	Start 3947.31 hold at 3067.15 MD	
7,014.46	6,960.03	678.62	16.93	Start DLS 10.00 TFO -1.52	
7,821.07	7,440.00	1,243.98	18.31	Start 1150.00 hold at 7821.07 MD	
8,971.07	7,440.00	2,393.98	16.90	Start DLS 2.00 TFO -90.00	
8,973.01	7,440.00	2,395.92	16.90	Start 5176.41 hold at 8973.01 MD	
14,149.41	7,440.00	7,572.32	7.07	TD at 14149.41	

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Strata Production Company
WELL NAME & NO.:	Forty Niner Ridge Unit 16-9 EDL 39H
LOCATION:	Sec 16-23S-30E-NMP
COUNTY:	Eddy County, New Mexico

Create COAs

H₂S	Cave / Karst	Waste Prevention Rule
Not Reported	Low	Waste Minimization Plan
Potash	R-111-Q Design	
R-111-Q	3-String: Intermediate Designed for Frac Loads	
Wellhead	Casing	
Conventional	3-String Well	
	<input type="checkbox"/> Liner <input type="checkbox"/> Fluid Filled <input type="checkbox"/> Casing Clearance	
<input type="checkbox"/> Flex Hose <input type="checkbox"/> Break Testing	Cementing	
	<input checked="" type="checkbox"/> DV Tool <input type="checkbox"/> Bradenhead <input type="checkbox"/> Echometer <input type="checkbox"/> Offline Cement <input type="checkbox"/> Open Annulus <input type="checkbox"/> Pilot Hole	
Special Requirements		
<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM <input checked="" type="checkbox"/> Unit

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H₂S) monitors shall be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 43 CFR 3176 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

APD is within the R-111-Q defined boundary. Operator must follow all procedures and requirements listed within the updated order.

B. CASING

1. The 13-3/8 inch surface casing shall be set at approximately **420** feet (a minimum of **70'** into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. **Set depth adjusted per BLM geologist.**
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified

- and a temperature survey utilizing an electronic-type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or **500 pounds compressive strength**, whichever is greater (including lead cement.)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing (**set at 3625' per BLM geologist**) is **cement to surface**. If cement does not circulate, see B.1.a, c-d above.
- **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry** due to the presence of cave/karst, Capitan Reef, or potash features.
3. The minimum required fill of cement behind the **7** inch production casing with **5-1/2** inch taper is **500 feet** into the previous casing but not higher than USGS Marker Bed No. 126 (base of the McNutt Potash ore zone.)
- Operator must verify top of cement per R-111-Q requirements. Submit results to the BLM. If cement does not circulate, contact the appropriate BLM office.
 - **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry** due to the presence of cave/karst, Capitan Reef, or potash features.

DV Tool: The operator has proposed utilize a DV tool. Operator may adjust depth of DV tool if it remains below the Salado and cement volumes are adjusted accordingly. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. **First Stage:** Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. **Second Stage:** Cement to meet requirements listed for this casing string. If cement does not circulate, contact the appropriate BLM office.

C. PRESSURE CONTROL

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

D. SPECIAL REQUIREMENT(S)

Unit Wells:

The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not

been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

Commercial Well Determination:

A commercial well determination shall be submitted after production has been established for at least six months.

GENERAL REQUIREMENTS

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

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

Contact Eddy County Petroleum Engineering Inspection Staff:

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - i. Notify the BLM when moving in and removing the Spudder Rig.
 - ii. Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or

- if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
 8. Whenever a casing string is cemented in the R-111-Q potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR 3172**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible

- hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - ii. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - iii. Manufacturer representative shall install the test plug for the initial BOP test.
 - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
 - v. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - i. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - ii. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
 - iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve

open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

- iv. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- v. The results of the test shall be reported to the appropriate BLM office.
- vi. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- vii. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- viii. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR 3172**.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

Strata Production Company

Forty Niner Ridge Unit 16 9 EDL #39H
Sec 16-T23S-R30E
SHL: 2,395' FNL & 310' FWL of Sec 16
BHL: 100' FNL & 380' FWL of Sec 9
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 (H₂S).
- B. The proper use and maintenance of personal protective equipment and life support systems.
- C. The proper use of H₂S 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 H₂S 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 H₂S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S 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. H₂S SAFETY EQUIPMENT AND SYSTEMS

Note: All H₂S 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 H₂S.

- 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. H₂S detection and monitoring equipment:
 - 2 - portable H₂S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H₂S 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 H₂S 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 H₂S service.
- G. Communication:
Company vehicles equipped with cellular telephone.

W A R N I N G

**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. CK WITH STRATA FOREMAN AT MAIN OFFICE*

STRATA PRODUCTION COMPANY

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

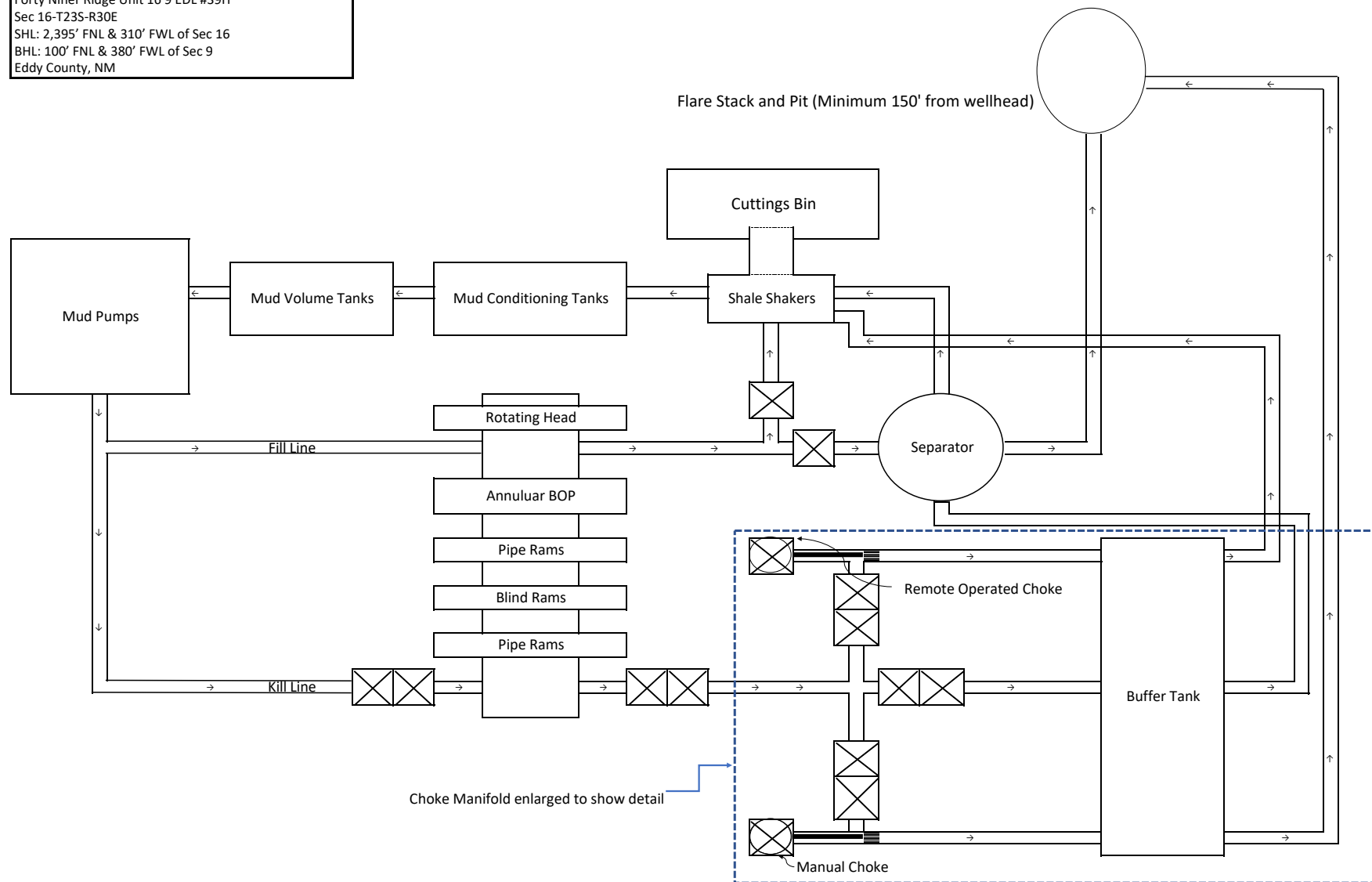
EMERGENCY NUMBERS**911 Must have Correct County & State & Directions to your location**

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
Jerry Elgin	575-622-1127 x18
Cheyenne Scharf	307-360-3062
Rygel Russell	575-626-1479
Pilar Mendoza	575-626-8161
Mitch Krakauskas	575-622-1127 x23

STRATA PRODUCTION COMPANY
Forty Niner Ridge Unit 16 9 EDL #39H
Sec 16-T23S-R30E
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STRATA PRODUCTION COMPANY

Forty Niner Ridge Unit 16 9 EDL #39H

Sec 16-T23S-R30E

SHL: 2,395' FNL & 310' FWL of Sec 16

BHL: 100' FNL & 380' FWL of Sec 9

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.

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

ACKNOWLEDGMENTS

Action 489016

ACKNOWLEDGMENTS

Operator: STRATA PRODUCTION CO P.O. Box 1030 Roswell, NM 882021030	OGRID: 21712
	Action Number: 489016
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

ACKNOWLEDGMENTS

<input type="checkbox"/>	I hereby certify that no additives containing PFAS chemicals will be added to the completion or recompletion of this well.
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CONDITIONS

Action 489016

CONDITIONS

Operator: STRATA PRODUCTION CO P.O. Box 1030 Roswell, NM 882021030	OGRID: 21712
	Action Number: 489016
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
strata	Cement is required to circulate on both surface and intermediate1 strings of casing.	7/28/2025
strata	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	7/28/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	9/2/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	9/2/2025
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	9/2/2025
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	9/2/2025
ward.rikala	No additives containing PFAS chemicals will be added to the drilling fluids or completion fluids used during drilling, completions, or recompletions operations.	9/2/2025
ward.rikala	Operator must comply with all of the R-111-Q requirements.	9/2/2025