Form 3160-3 FORM APPROVED OMB No. 1004-0137 (June 2015) Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. BUREAU OF LAND MANAGEMENT APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. DRILL REENTER 1a. Type of work: 1b. Type of Well: Oil Well Gas Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing Single Zone Multiple Zone 2. Name of Operator 9. API Well No. 30-015**-5**5359 10. Field and Pool, or Exploratory 3a. Address 3b. Phone No. (include area code) 4. Location of Well (Report location clearly and in accordance with any State requirements.*) 11. Sec., T. R. M. or Blk. and Survey or Area At surface At proposed prod. zone 14. Distance in miles and direction from nearest town or post office* 12. County or Parish 13. State 15. Distance from proposed* 16. No of acres in lease 17. Spacing Unit dedicated to this well location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 18. Distance from proposed location* 19. Proposed Depth 20. BLM/BIA Bond No. in file to nearest well, drilling, completed, applied for, on this lease, ft. 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) 1. Well plat certified by a registered surveyor. 4. Bond to cover the operations unless covered by an existing bond on file (see 2. A Drilling Plan. Item 20 above). 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. SUPO must be filed with the appropriate Forest Service Office). 6. Such other site specific information and/or plans as may be requested by the 25. Signature Name (Printed/Typed) Date Title Approved by (Signature) Name (Printed/Typed) Date Title 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 Released to Imaging: 8/27/2024 9:31:47 AM Approval Date: 08/02/2024

*(Instructions on page 2)

District I 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 District II 811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 District III 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462 State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

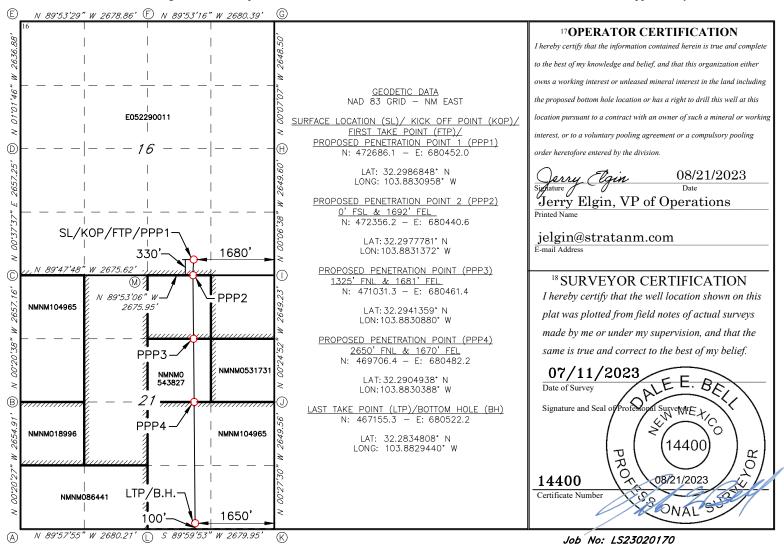
Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

■ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

	API Number	r		² Pool Code	;		³ Pool Na	me				
30-015-553	359			24750)	FORTY :	NINER RII	DGE D	ELAV	VARE		
4Property Co	de				5 Property 1	Name			ť	Well Number		
28510				FORTY	Y NINER	RIDGE UNIT				31H		
7 OGRID 1			8 Operator Name 9Elevation									
2171	2		STRATA PRODUCTION COMPANY 3184'									
¹⁰ Surface Location												
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/We	East/West line County			
0	16	23S	30E		330	SOUTH	1680	EAS	ST	EDDY		
•			11	Bottom F	Hole Location	n If Different Fr	om Surface					
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/We	est line	County		
0	21	23S	30E		100	SOUTH	1650	EAS	ST	EDDY		
12 Dedicated Acres	13 Joint	or Infill 14	Consolidation	Code 15 (Order No.							
200												

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.



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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	r		² Pool Code			³ Pool Na	me				
				24750		FORTY 1	NINER RII	OGE DE	ELAWAF	${ m kE}$		
4Property Co	de				5 Property N		6 Well Number					
				FORTY	NINER 1	RIDGE UNIT	Γ		31	1 H		
7 OGRID 1	I	8 Operator Name 9 Elevation										
2171	2		STRATA PRODUCTION COMPANY 3184'									
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			11]	Bottom Ho	ole Location	If Different Fr	om Surface					
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/Wes	st line	County		
0	21	23S	30E		100	SOUTH	1650	EAS	T	EDDY		
12 Dedicated Acres	13 Joint	or Infill 14 (Consolidation	Code 15 Or	rder No.							
200												

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.

6	17OPERATOR 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
<u>CORNER DATA</u> NAD 83 GRID — NM EAST	owns a working interest or unleased mineral interest in the land including
A: FOUND BRASS CAP "1942"	the proposed bottom hole location or has a right to drill this well at this
N: 467056.9 — E: 676813.6	location pursuant to a contract with an owner of such a mineral or working
B: FOUND BRASS CAP "1942" N: 469711.2 — E: 676797.8	interest, or to a voluntary pooling agreement or a compulsory pooling
C: FOUND BRASS CAP "1942"	order heretofore entered by the division.
N: 472367.7 - E: 676781.9	Jerry Egin 08/21/2023
D: FOUND BRASS CAP "1942" N: 475024.2 - E: 676811.0	Jerry Elgin, VP of Operations
5 50000 DD100 01D "1010"	Printed Name
E: FOUND BRASS CAP "1942" N: 477660.1 - E: 676763.6	jelgin@stratanm.com
F: FOUND BRASS CAP "1942" N: 477655.0 — E: 679441.9	E-mail Address
G: FOUND BRASS CAP "1942" N: 477649.8 - E: 682121.7	¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this
	, ,,,
H: FOUND BRASS CAP "1942" N: 475001.9 - E: 682127.2	plat was plotted from field notes of actual surveys made by me or under my supervision, and that the
I: FOUND BRASS CAP "1942" N: 472352.8 — E: 682132.3	same is true and correct to the best of my belief.
J: FOUND BRASS CAP "1942" N: 469704.3 - E: 682151.4	07/11/2023 E E. B
K: FOUND BRASS CAP "1942" N: 467055.4 - E: 682172.6	Signature and Seal of Profesional Survey ME
L: FOUND BRASS CAP "1942" N: 467055.3 - E: 679493.2	[[14400]]
M: FOUND BRASS CAP "1942" N: 472358.2 – E: 679456.9	14400 08/21/2023 Certificate Number ONAL SONAL

Job No: LS23020170

I. Operator:

Strata Production Company

State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

Date: 08 / 25 / 23

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

OGRID: _

21712

II. Type: ⊠ Original □	Amendment	due to \(\simeq\) 19.15.27.9	.D(6)(a) NMA	C □ 19.15.27.9.D(6)(b) NMAC □	Other.	
If Other, please describe:							
III. Well(s): Provide the be recompleted from a si					wells proposed to	be dri	lled or proposed to
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	P	Anticipated roduced Water BBL/D
Forty Niner Ridge Unit		Sec 15-T23S-R30E	330' FSL &	800	1,200		2,200
#31H			1,650' FEL				
IV. Central Delivery Po V. Anticipated Schedul or proposed to be recomp	le: Provide th				well or set of we		7.9(D)(1) NMAC] cosed to be drilled
Well Name	API	Spud Date	TD Reached Date	Completion Commencement			First Production Date
Forty Niner Ridge Unit		2/28/2025	3/28/2025	3/7/2025	3/12/2	025	3/17/2025
#31H							
VII. Operational Pract Subsection A through F of VIII. Best Management during active and planned	ices: 🛛 Attaction 19.15.27.8	ch a complete descrip NMAC.	otion of the ac	tions Operator will	I take to comply	with t	he requirements of

Section 2 Enhanced Plan

			<u>/E APRIL 1, 2022</u>									
	2022, an operator that complete this section.		e with its statewide natural ga	as capture requirement for the applicable								
	s that it is not require for the applicable rep	-	ction because Operator is in o	compliance with its statewide natural gas								
IX. Anticipated Na	tural Gas Production	n:										
Well API Anticipated Average Anticipated Volume of Natural Gas Rate MCF/D Gas for the First Year MC												
Forty Niner Ridge	Unit #31H		1,200	400,000								
X. Natural Gas Gathering System (NGGS): Operator System UH STP of Tig in Apricinated Gathering Available Maximum Daily Congeity												
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	3/17/2025	15,000,000								
production operation the segment or porticular the segment or porticular the segment or porticular the segment or porticular the segment or volume for the segment of the s	ns to the existing or plon of the natural gas gatherom the well prior to e. Operator ⊠ does □g system(s) described s plan to manage proof ty: □ Operator asserd in Paragraph (2) of	anned interconnect of gathering system(s) to nering system \(\mathbb{Z}\) will the date of first product does not anticipate the above will continue to duction in response to the total confidentiality pure	the natural gas gathering syste which the well(s) will be conditionally will not have capacity to getion. That its existing well(s) connect to meet anticipated increases in the increased line pressure. Suant to Section 71-2-8 NMS .27.9 NMAC, and attaches a few which we will be considered to the conditional transfer.	ticipated pipeline route(s) connecting the em(s), and the maximum daily capacity of nected. ather 100% of the anticipated natural gas ed to the same segment, or portion, of the line pressure caused by the new well(s). SA 1978 for the information provided in full description of the specific information								

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;
- reinjection for underground storage; (e)
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- fuel cell production; and (h)
- (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
- 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: Ozory Egy									
Printed Name: Jelp Elgin									
Title: Vice President Operations									
E-mail Address: jelgin@stratanm.com									
Date: 08/25/2023									
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 #31H 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

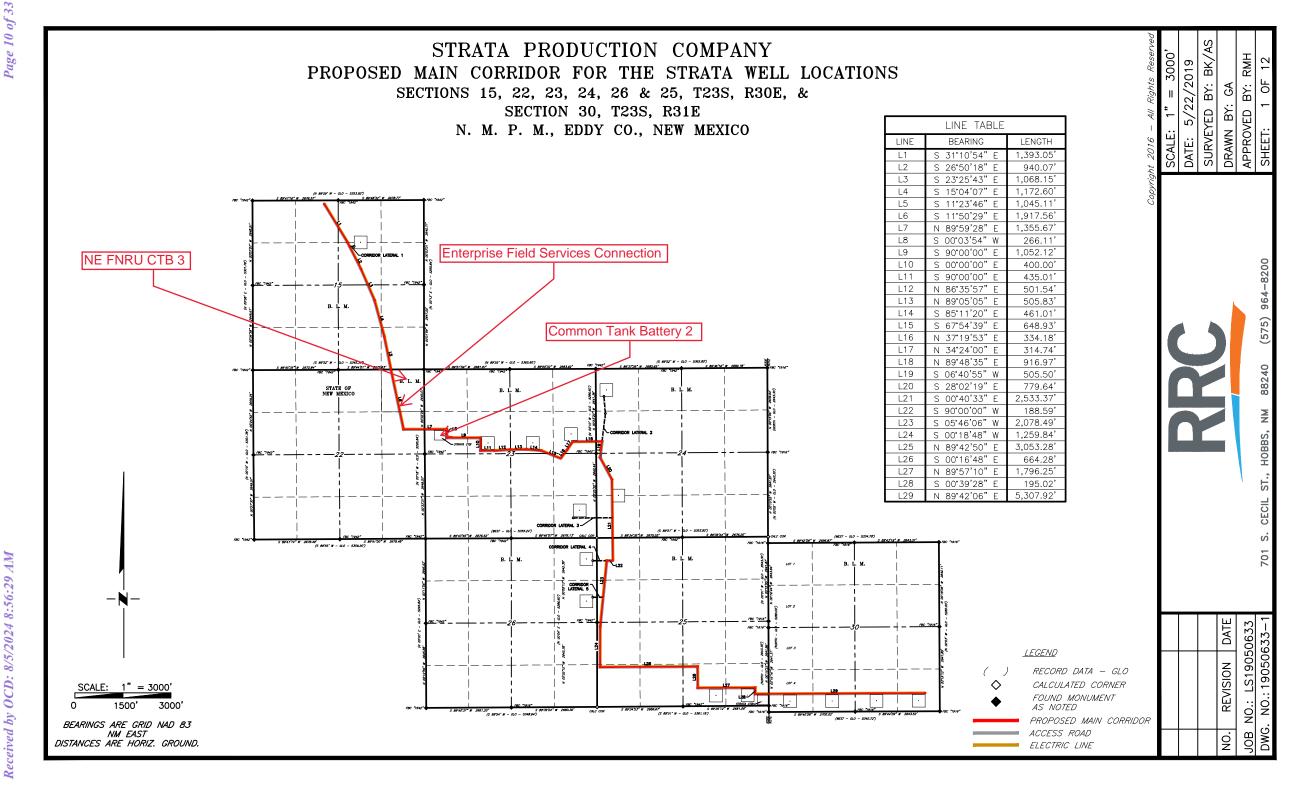
Strata will comply with the performance standards per 19.15.27.8 E (1)-(8). All equipment will be designed to accommodate anticipated volumes and pressures. Storage tanks will be equipped with automatic gauging equipment connected to Strata's SCADA system. Flares will be located at least 100 ft from 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

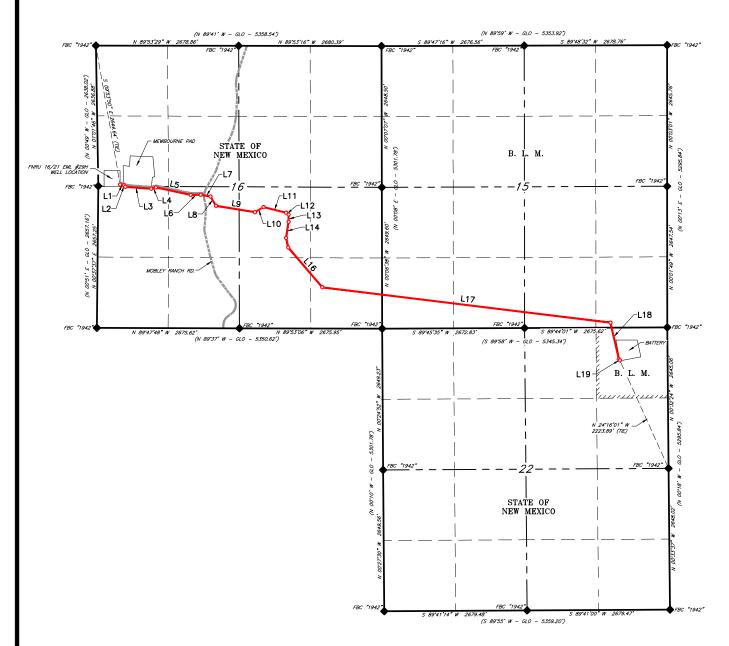
Gas flared as the result of emergency of malfunction will be metered. Gas used beneficially during production operations will be metered or estimated. Should metering be impractical due to equipment malfunction or low flow, Strata will estimate the volume of gas vented or flared. All metering equipment 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.

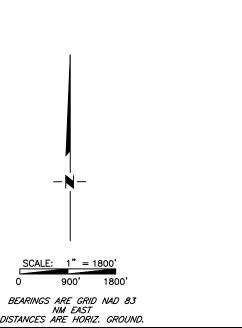
VIII. Maintenance Activities

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 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.

1	REROUTE	3/23/23							
NO.	REVISION	DATE							
IOP NO - 1 523030268P									

DWG. NO.: 23030268R-1

ENERGY SERVICES, LLC.

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

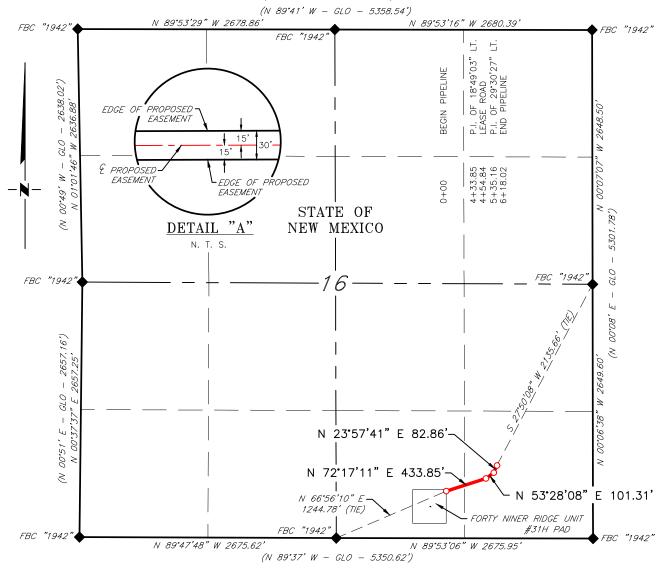
STRATA PRODUCTION COMPANY

FLOWLINE 1 FOR THE FORTY NINER RIDGE UNIT

#31H WELL LOCATION

SECTION 16, T23S, R30E

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



DESCRIPTION

A strip of land 30 feet wide, being 618.02 feet or 37.456 rods in length, lying in Section 16, Township 23 South, Range 30 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across State of New Mexico land:

BEGINNING at Engr. Sta. 0+00, a point in the Southeast quarter of Section 16, which bears, N 66*56'10" E, 1,244.78 feet from a brass cap, stamped "1942", found for the South quarter corner of Section 16;

Thence N 72°17'11" E, 433.85 feet, to Engr. Sta. 4+33.85, a P. I. of 18°49'03" left;

Thence N 53°28'08" E, 101.31 feet, to Engr. Sta. 5+35.16, a P. I. of 29°30'27" left;

Thence N 23°57'41" E, 82.86 feet, to Engr. Sta. 6+18.02, the End of Survey, a point in the Southeast quarter of Section 16, which bears, S 27°50'08" W, 2,135.66 feet from a brass cap, stamped "1942", found for the East quarter corner of Section 16.

Said strip of land contains 0.426 acres, more or less, and is allocated by forties as follows:

500 1000 BEARINGS ARE GRID NAD 83 NM EAST DISTANCES ARE HORIZ. GROUND.

> RECORD DATA - GLO FOUND MONUMENT AS NOTED

PROPOSED PIPELINE

I, Dale E. Bell, New Mexico Professional Surveyor No. 14400, do hereby certify that this Plat and the actual survey on the ground upon which it is based were performed by me or under my direct supervision; that I am responsible for this survey, said survey and plat meets the Minimum Standards for Land Surveying in the State of New Mexico and that it is true and correct to the best of my knowledge and belief.

12.176 Rods

25.280 Rods

0.139 Acres

0.287 Acres

PALE E. BEL N MEXICO 08/21/2023 15/0NAL SUR

NM PS 14400 Dale E. Bell

SW 1/4 SE 1/4

SE 1/4 SE 1/4

NO. **REVISION** DATE JOB NO.: LS23070601 NO.: 23070601-1

ENERGY SERVICES, LLC. 701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200 SCALE: 1" = 1000DATE: 07/19/2023 SURVEYED BY: JF/MP/HA DRAWN BY: AR APPROVED BY: DEB SHEET: 1 OF 1

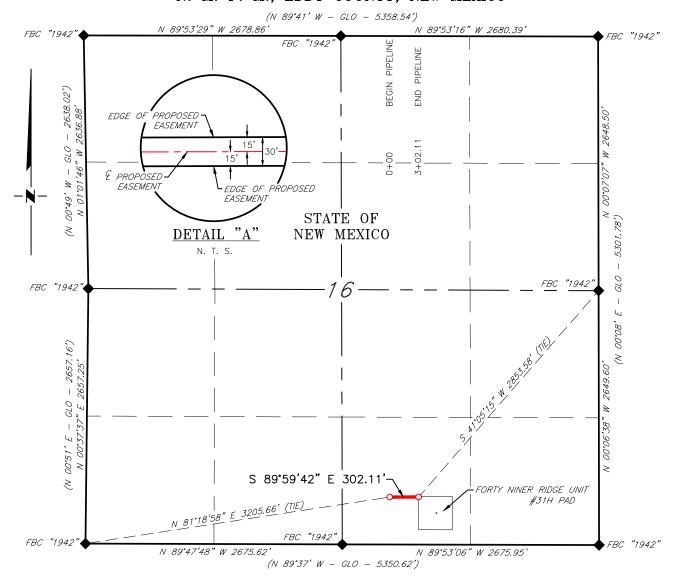
STRATA PRODUCTION COMPANY

FLOWLINE 2 FOR THE FORTY NINER RIDGE UNIT

#31H WELL LOCATION

SECTION 16, T23S, R30E

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



DESCRIPTION

A strip of land 30 feet wide, being 302.11 feet or 18.310 rods in length, lying in Section 16, Township 23 South, Range 30 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across State of New Mexico land:

BEGINNING at Engr. Sta. 0+00, a point in the Southeast quarter of Section 16, which bears, N 81°18'58" E, 3,205.66 feet from a brass cap, stamped "1942", found for the Southwest corner of Section 16;

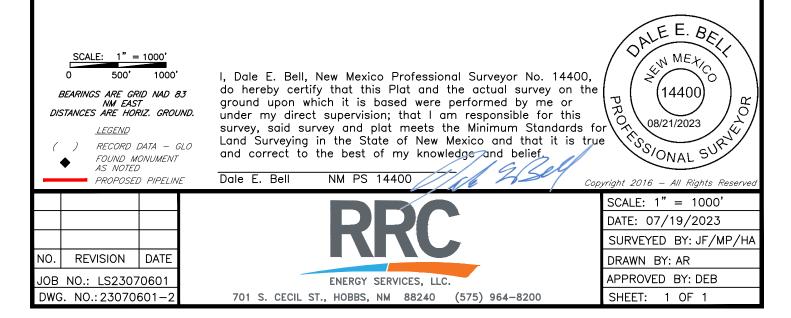
Thence S 89°59'42" E, 302.11 feet, to Engr. Sta. 3+02.11, the End of Survey, a point in the Southeast quarter of Section 16, which bears, S 41°05'15" W, 2,853.58 feet from a brass cap, stamped "1942", found for the East quarter corner of Section 16.

Said strip of land contains 0.208 acres, more or less, and is allocated by forties as follows:

SW 1/4 SE 1/4

18.310 Rods

0.208 Acres





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

Drilling Plan Data Report

APD ID: 10400094042 **Submission Date:** 10/12/2023

Operator Name: STRATA PRODUCTION COMPANY

Well Name: FORTY NINER RIDGE UNIT Well Number: 31H

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
12203447	RUSTLER	3184	55	55	SALT	NONE	N
12203448	SALADO	2813	371	371	SALT	NONE	N
12203449	BASE OF SALT	-322	3506	3506	SALT	NONE	N
12203450	LAMAR	-390	3574	3574	LIMESTONE, SHALE	NATURAL GAS, OIL	Y
12203451	BELL CANYON	-429	3613	3613	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL	Y
12203452	CHERRY CANYON	-1321	4505	4505	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL	Y
12203453	BRUSHY CANYON	-2607	5791	5791	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL	Y
12203454	BONE SPRING	-4278	7462	7462	LIMESTONE, SANDSTONE, SILTSTONE	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:

Forty_Niner_Ridge_Unit__31H_Choke_Diagram_20230821095627.pdf

BOP Diagram Attachment:

Forty_Niner_Ridge_Unit__31H_BOPE_Description_20230821095639.pdf

Forty_Niner_Ridge_Unit__31H_BOPE_20230821095640.pdf

Well Name: FORTY NINER RIDGE UNIT Well Number: 31H

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	3184	2734	450	H-40	48	ST&C	3.95	7.39	DRY	14.9	DRY	25
2	INTERMED IATE	12.2 5	9.625	NEW	API	N	0	3800	0	3800	3184	-616	3800	N-80	43.5	LT&C	1.56	2	DRY	2.73	DRY	4.66
3	PRODUCTI ON	8.5	5.5	NEW	API	Υ	0	13300	6900	7555	-3716	-4371	13300	P- 110	-	OTHER - DWC-IC	3.39	1.83	DRY	2.41	DRY	2.51

Casing Attachments

Casing ID: 1 String SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Forty_Niner_Ridge_Unit__31H_Casing_Worksheet_20231011162004.pdf

Well Name: FORTY NINER RIDGE UNIT Well Number: 31H

Casing Attachments

Casing ID: 2

String

INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Forty_Niner_Ridge_Unit__31H_Casing_Worksheet_20231011162016.pdf

Casing ID: 3

String

PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Forty_Niner_Ridge_Unit__31H_Tapered_String_20231011162027.pdf

Casing Design Assumptions and Worksheet(s):

Forty_Niner_Ridge_Unit__31H_Casing_Worksheet_20231011162044.pdf

Section 4 - Cement

	xcess%	Additives
SURFACE Lead 0 450 469 1.33 14.8 62	25 100 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	3300	1330 0	1992	1.43	13.2	2857	50	Class H	None

Well Name: FORTY NINER RIDGE UNIT Well Number: 31H

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 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)	НД	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	3800	SALT SATURATED	10	10.5			10				Drill with brine water with LCM and gel sweeps.
3800	1330 0	WATER-BASED MUD	8.5	9.5			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, COMPENSATED DENSILOG, DUAL LATERAL LOG/MICRO-SPHERICALLY FOCUSED, GAMMA RAY LOG, CEMENT BOND LOG, MUD LOG/GEOLOGICAL LITHOLOGY LOG,

Coring operation description for the well:

None

Well Name: FORTY NINER RIDGE UNIT Well Number: 31H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 3360 Anticipated Surface Pressure: 1697

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

Forty_Niner_Ridge_Unit__31H_H2S_Plan_20230821103519.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

FNRU_31H_Preliminary_Directional_Plan_20230927094053.pdf

FNRU__31H_WBD_Permitting_20231011162752.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

NGMP_Form_Forty_Niner_Ridge_Unit_20230927094750.pdf

Other Variance attachment:

Strata Production Company Forty Niner Ridge Unit #31H Received by OCD: 8/5/2024 8:56:29 AM Section 16-123S-R30E

SHL: 330' FSL and 1,680' FEL of Section 16 BHL: 100' FSL and 1,650' FEL of Section 21

Eddy County, NM

		Inclination	Azimuth							Subson	Sagment	Sagment		Original	Original	Original
#	MD (ft)	Inclination (deg)	(deg)	TVD (ft)	DX (ft)	DY (ft)	Х	(ft)	Y (ft)	Subsea (ft)	Segment Length	Segment Inclination	Offset	Azimuth (deg)	Original DX (ft)	Original DY (ft)
	0	0	0	0		0	0	680452	472686.2	3184	0	0		0		
	99.28	0	0			0	0		472686.2			0		0		
	198.55	0.00001	0			0	0		472686.2					0		
	297.83	0.00002	0			0	0		472686.2					0		
	397.1 496.38	0.00003	0			0	0		472686.2 472686.2	2786.9 2687.62				0		
	595.65	0.00005	178.6443	595.65		0	0		472686.2					0		
	694.93	0.00007	178.0443			0	0		472686.2					0		
	794.2		178.3623			0	0		472686.2	2389.8				0		
	893.48	0.00004	0			0	0		472686.2					0		
	992.75	0.00007	178.0036	992.75		0	0	680452	472686.2	2191.25	99.28	0.00002		0		
	1092.03	0.00004	0	1092.03		0	0	680452	472686.2	2091.97	99.28	0.00002		0		
	1191.3	0.00007	177.7426	1191.3		0	0	680452	472686.2	1992.7	99.28	0.00002		0		
	1290.58	0.00003	0	1290.58		0	0		472686.2	1893.42	99.28			0		
	1389.86	0.00008	177.6201	1389.86		0	0	680452	472686.2	1794.15				0		
	1489.13	0.00003	0			0	0		472686.2	1694.87				0		
	1588.41		177.3189			0	0		472686.2					0		
	1687.68 1786.96	0.00003	0 177.2036			0	0		472686.2 472686.2	1496.32 1397.04				0		
	1886.23	0.00008	177.2036	1886.23		0	0		472686.2	1297.77				0		
	1985.51		176.9854			0	0		472686.2	1198.49				0		
	2084.78	0.00002	0.5054	2084.78		0	0		472686.2	1099.22				0		
	2184.06	0.00009	176.9383			0	0		472686.2	999.94				0		
	2283.33	0.00002	0	2283.33		0	0	680452	472686.2	900.67	99.28	0.00003		0		
	2382.61	0.00009	176.761	2382.61		0	0	680452	472686.2	801.39	99.28	0.00003		0		
	2481.88	0.00002	0			0	0	680452	472686.2	702.12	99.28	0.00003		0		
	2581.16		176.7035			0	0		472686.2	602.84				0		
	2680.44	0.00002	0			0	0		472686.2	503.57				0		
	2779.71		176.5858			0	0		472686.2	404.29				0		
	2878.99	0.00002	176 5006			0	0		472686.2	305.01				0		
	2978.26 3077.54	0.00009	176.5096 0			0	0		472686.2 472686.2	205.74 106.46				0		
	3176.81		176.4556			0	0		472686.2	7.19				0		
	3276.09	0.00001	0			0	0		472686.2	-92.09				0		
	3375.36		176.3643			0	0		472686.2	-191.36				0		
	3474.64	0.00001	0	3474.64		0	0	680452	472686.2	-290.64	99.28	0.00004		0		
	3573.91	0.0001	176.3216	3573.91		0	0	680452	472686.2	-389.91	99.28	0.00004		0		
	3673.19	0.00001	0	3673.19		0	0	680452	472686.2	-489.19	99.28	0.00004		0		
	3772.46	0.0001	176.261	3772.46		0	0		472686.2	-588.46				0		
	3871.74	0.00001	0			0	0	680452		-687.74				0		
	3971.01	0.0001	176.234			0	0		472686.2	-787.01				0		
	4070.29 4169.57	0.00001	0 176.228			0	0		472686.2 472686.2	-886.29				0 0		
	4268.84	0.0001 0.00001	176.228			0	0		472686.2	-985.57 -1084.84				0		
	4368.12		176.2387	4368.12		0	0	680452	472686.2			0.00004		0		
	4467.39	0.00001	0			0	0		472686.2					0		
	4566.67	0.0001	176.223			0	0		472686.2					0		
	4665.94	0.00001	0	4665.94		0	0	680452	472686.2	-1481.94	99.28	0.00004		0		
	4765.22	0.0001	176.2152	4765.22		0	0	680452	472686.2	-1581.22	99.28	0.00004		0		
	4864.49	0.00001	0			0	0		472686.2		99.28			0		
	4963.77	0.0001	176.231			0	0		472686.2					0		
	5063.04	0.00001	0			0	0		472686.2					0		
	5162.32		176.2678			0	0		472686.2					0		
	5261.59 5360.87	0.00001	0 176.2996			0	0		472686.2 472686.2					0 0		
	5460.15	0.0001	170.2990			0	0		472686.2					0		
	5559.42		176.2736			0	0		472686.2					0		
	5658.7	0.00001	0			0	0		472686.2					0		
	5757.97		176.3084			0	0		472686.2					0		
	5857.25	0.00001	0			0	0		472686.2					0		
	5956.52	0.00009	176.3665	5956.52		0	0	680452	472686.2	-2772.52	99.28	0.00004		0		
	6055.8	0.00002	0	6055.8		0	0		472686.2					0		
	6155.07		176.4541			0	0		472686.2					0		
	6254.35	0.00002	0			0	0		472686.2					0		
	6353.62		176.5236			0	0		472686.2					0		
	6452.9	0.00002	176 5004			0	0		472686.2					0		
	6552.17		176.5804			0	0		472686.2					0		
	6651.45 6750.73	0.00002	0 176.6912			0	0		472686.2 472686.2					0		
	0,30.73	5.50003	1,0.0312	5,30.73		5	J	000432	+, 2000.2	5500.75	33.20	0.00003		3		

6850	0.00002	0	6850	0	0	680452	472686.2	-3666	99.28	0.00003	0
6881.5	4.42657	180.8402	6881.47	-0.02	-1.22	680452	472684.9	-3697.47	31.5	2.21326	1.22
6911.96	8.5703	180.7871	6911.72	-0.07	-4.67	680452	472681.5	-3727.72	30.46	6.49847	4.67
6943.29	12.74076	180.75	6942.51	-0.14	-10.46	680451.9	472675.7	-3758.51	31.33	10.6556	10.46
6974.63	16.74357	180.7006	6972.81	-0.24	-18.43	680451.8	472667.7	-3788.81	31.34	14.74199	18.43
7005.09	20.53811	180.6591	7001.67	-0.36	-28.16	680451.7	472658	-3817.67	30.46	18.64083	28.17
7036.53	24.29999	180.6081	7030.73	-0.49	-40.15	680451.6	472646	-3846.73	31.45	22.41914	40.16
7067.13	27.87697	180.5615	7058.21	-0.63	-53.61	680451.4	472632.6	-3874.21	30.6	26.0887	53.61
7097.81	31.34119	180.5085	7084.87	-0.77	-68.76	680451.3	472617.4	-3900.87	30.68	29.60872	68.76
7128.55	34.76117	180.4572	7110.64	-0.91	-85.53	680451.1	472600.6	-3926.64	30.75	33.0516	85.53
7160.3	38.2015	180.3982	7136.16	-1.05	-104.39	680451	472581.8	-3952.16	31.74	36.48091	104.4
7191.15	41.5276	180.3412	7159.84	-1.18	-124.17	680450.9	472562	-3975.84	30.85	39.86444	124.17
7222.03	44.8097	180.2787	7182.35	-1.29	-145.29	680450.8	472540.9	-3998.35	30.88	43.16866	145.29
7252.91	48.11439	180.2157	7203.62	-1.39	-167.67	680450.7	472518.5	-4019.62	30.88	46.46219	167.68
7283.77	51.41034	180.147	7223.56	-1.46	-191.23	680450.6	472494.9	-4039.56	30.86	49.76264	191.24
7314.6	54.76397	180	7242.07	-1.51	-215.87	680450.5	472470.3	-4058.07	30.83	53.08683	215.88
7345.37	58.14341	180	7259.07	-1.53	-241.52	680450.5	472444.6	-4075.07	30.77	56.45422	241.52
7376.08	61.61409	180	7274.48	-1.51	-268.08	680450.5	472418.1	-4090.48	30.71		268.08
7407.65	65.25039	179.7615	7288.6	-1.45	-296.3	680450.6	472389.9	-4104.6	31.56		296.31
7438.21	68.90472	179.8207	7300.5	-1.35	-324.45	680450.7	472361.7	-4116.5	30.56		324.45
7469.63	72.75404	179.5798	7310.81	-1.19	-354.12	680450.9	472332	-4126.81	31.42		354.12
7500.08	76.64157	179.6207	7318.85	-0.99	-383.49		472302.7	-4134.85	30.45	74.6981	383.49
7531.45	80.74239	179.3724	7325	-0.72	-414.24	680451.3		-4141	31.37	78.69198	414.24
7561.93	84.88609	179.3954	7328.81	-0.39	-444.47	680451.7	472241.7	-4144.81	30.48	82.81368	444.47
7592.52	89.11366	179.1378	7330.41	0	-475	680452		-4146.41	30.58	87.00008	475
7701.59	89.11508	179.1435	7332.1	1.64	-584.05	680453.7	472102.1	-4148.1	109.07	89.11428	584.05
7800.74	89.11632	179.1485	7333.63	3.11	-683.18	680455.2	472003	-4149.63	99.16	89.11571	683.19
7899.9	89.11755	179.1534	7335.16	4.58	-782.31	680456.6	471903.8	-4151.16	99.16	89.11712	782.33
7999.05		179.1581	7336.68	6.04	-881.45	680458.1	471804.7	-4152.68	99.16	89.11797	881.47
8098.21	89.11985	179.1627	7338.21	7.5	-980.58	680459.5	471705.6	-4154.21	99.16	89.11938	980.61
8197.36	89.12094	179.167	7339.73	8.94	-1079.71	680461		-4155.73	99.15		1079.75
8296.52		179.1713	7341.25	10.38	-1178.85	680462.4	471507.3	-4157.25	99.16	89.12164	1178.89
8395.67	89.12302	179.1754	7342.77	11.81	-1277.98	680463.9	471408.2	-4158.77	99.16		1278.03
8494.83	89.12401	179.1793	7344.28	13.23	-1377.11	680465.3	471309	-4160.28	99.16	89.12361	1377.18
8593.98	89.12494	179.1831	7345.8	14.65	-1476.25	680466.7	471209.9	-4161.8	99.16	89.12446	1476.32
8693.14	89.12585	179.1868	7347.31	16.06	-1575.38	680468.1	471110.8	-4163.31	99.16	89.12531	1575.46
8792.29	89.12671	179.1902	7348.82	17.46	-1674.51	680469.5	471011.6	-4164.82	99.16		1674.61
8891.45	89.12754	179.1935	7350.33	18.86	-1773.65	680470.9	470912.5	-4166.33	99.16	89.12728	1773.75
8990.6	89.12832	179.1967	7351.84	20.26	-1872.78	680472.3	470813.4	-4167.84	99.16	89.12785	1872.89
9089.76	89.12907	179.1997	7353.35	21.64	-1971.92	680473.7	470714.2	-4169.35	99.16	89.12869	1972.03
9188.92	89.12978	179.2025	7354.86	23.03	-2071.05	680475.1	470615.1	-4170.86	99.16	89.12954	2071.18
9288.07 9387.23	89.13046	179.2053 179.2078	7356.36	24.4	-2170.18 -2269.32	680476.4 680477.8	470516	-4172.36	99.16	89.1301	2170.32 2269.47
9486.38	89.13108 89.13169	179.2078	7357.87 7359.37	25.78	-2368.45	680477.8	470416.8	-4173.87	99.16	89.13067	
	89.13223			27.14	-2368.43	680480.6	470317.7	-4175.37	99.16 99.16	89.13152	2368.61 2467.75
9585.54 9684.69	89.13276	179.2124 179.2145	7360.87 7362.37	28.51 29.87	-2566.72	680481.9	470218.6 470119.4	-4176.87 -4178.37	99.16	89.1318 89.13264	2566.9
9783.85	89.13323	179.2143	7363.87	31.23	-2665.86	680483.3	470119.4	-4179.87	99.16	89.13293	2666.04
9883	89.13368	179.2104	7365.37	32.58	-2764.99	680484.6	469921.2	-4173.87	99.16	89.13349	2765.18
9982.16	89.13407	179.2182	7366.87	33.93	-2864.13	680486	469822	-4181.37	99.16	89.13377	2864.33
10081.31	89.13445	179.2212	7368.37	35.28	-2963.26	680487.3		-4184.37	99.16		2963.47
	89.13476		7369.87				469623.8			89.13462	3062.62
	89.13506		7371.37	37.97			469524.6		99.16	89.1349	3161.76
	89.13529		7372.86	39.32			469425.5			89.13518	3260.9
	89.13551		7374.36	40.66			469326.4			89.13547	3360.05
	89.13567		7375.85	42			469227.2			89.13547	3459.19
	89.13581		7377.35	43.33			469128.1			89.13575	3558.33
	89.13589		7378.85	44.67		680496.7		-4194.85		89.13575	3657.48
	89.13596		7380.34	46.01			468929.8			89.13603	3756.62
	89.13596		7381.84	47.35			468830.7			89.13603	3855.77
	89.13595		7383.33	48.68			468731.5			89.13575	3954.91
	89.13588	179.227	7384.83	50.02			468632.4			89.13603	4054.05
	89.13579		7386.32	51.36			468533.3			89.13575	4153.2
	89.13564	179.226	7387.82	52.7			468434.1			89.13575	4252.34
	89.13547		7389.31	54.04		680506.1		-4205.31		89.13575	4351.49
	89.13525		7390.81	55.38			468235.9			89.13518	4450.63
11667.8		179.2235	7392.31	56.72			468136.7			89.13518	4549.77
11766.95		179.2223	7393.8	58.07		680510.1		-4209.8	99.16	89.1349	4648.92
	89.13438	179.221	7395.3	59.41		680511.5		-4211.3		89.13434	4748.06
	89.13403		7396.65	60.63			467849.2		89.24	89.1344	4837.29
	89.13364	179.218	7398.15	61.98	-4936.05		467750.1			89.13377	4936.44
	89.13319		7399.65	63.33		680515.4		-4215.65		89.13349	5035.58
	89.13271		7401.15	64.69			467551.8			89.13293	5134.72
	89.13218		7402.65	66.05			467452.7			89.13236	5233.87
	89.13163	179.21	7404.15	67.42			467353.6			89.13208	5333.01
	89.13102		7405.66	68.79			467254.4			89.13123	5432.16
	89.13039	179.205	7407.16	70.16			467155.3			89.13067	5531.3

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: Strata Production Company
WELL NAME & NO.: Forty Niner Ridge Unit 31H
LOCATION: Sec 16-23S-30E-NMP
COUNTY: Eddy County, New Mexico

COA

H_2S	No	O Yes		
Potash / WIPP	O None	Secretary	⊙ R-111-P	□ WIPP
Cave / Karst	C Low	Medium	• High	Critical
Wellhead	Conventional	Multibowl	O Both	O Diverter
Cementing	☐ Primary Squeeze	☐ Cont. Squeeze	☐ EchoMeter	□ DV Tool
Special Req	☐ Break Testing	☐ Water Disposal	\square COM	Unit
Variance	☐ Flex Hose	☐ Casing Clearance	☐ Pilot Hole	☐ Capitan Reef
Variance	☐ Four-String	☐ Offline Cementing	☐ Fluid-Filled	☐ Open Annulus
		Batch APD / Sundry		_

A. HYDROGEN SULFIDE

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

B. CASING

- 1. The **13-3/8** inch surface casing shall be set at approximately 450 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of <u>24</u> hours in the Potash Area or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.
 - ❖ In <u>R111 Potash Areas</u> if cement does not circulate to surface on the first two salt protection casing strings, the cement on the 3rd casing salt string must come to surface.
 - ❖ In <u>High Karst Areas</u> if cement does not circulate to surface on the first two salt protection casing strings, the cement on the 3rd casing salt string must come to surface.
- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - Cement to surface. 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 cave/karst, Capitan Reef, or potash.

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)

Eddy County (API No. / US Well No. contains 30-015-#####)

Page 2 of 6

Email **or** call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, BLM NM CFO DrillingNotifications@blm.gov; (575) 361-2822

Lea County (API No. / US Well No. contains 30-025-#####)

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

- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi

for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing 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-P potash area, the NMOCD requirements shall be followed.

В. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in 43 CFR part 3170 Subpart 3172 and API STD 53 Sec. 5.3.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR part 3170 Subpart 3172 must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per 43 CFR part 3170 Subpart 3172.
- C. **DRILLING MUD:** Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.
- D. **WASTE MATERIAL AND FLUIDS:** All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

Strata Production Company

Forty Niner Ridge Unit #31H Sec 16-T23S-R30E

SHL: 330' FSL & 1,680' FEL of Sec 16 BHL: 100' FSL & 1,650' FEL of Sec 21

Eddy County, NM

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

I. <u>HYDROGEN SULFIDE TRAINING</u>

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. <u>H2S SAFETY EQUIPMENT AND SYSTEMS</u>

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, mudgas 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.

WARNING

YOU ARE ENTERING AN H₂S AREA AUTHORIZED PERSONNEL ONLY

- 1. BEARDS OR CONTACT LENSES NOT ALLOWED
- 2. HARD HATS REQUIRED
- 3. SMOKING IN DESIGNATED AREAS ONLY
- 4. BE WIND CONSCIOUS AT ALL TIMES
- 5. CK WITH STRATA FOREMAN AT MAIN OFFICE

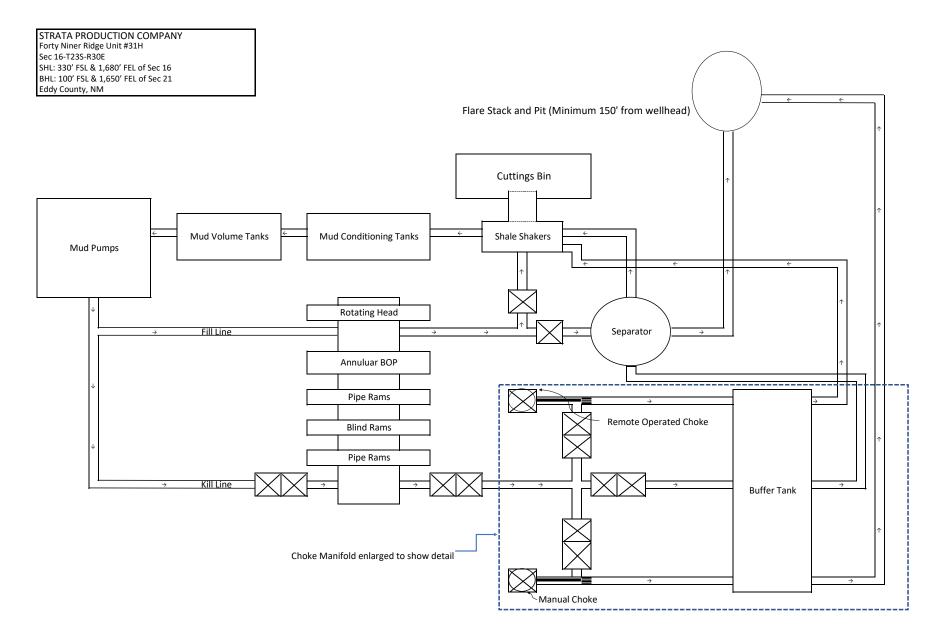
STRATA PRODUCTION COMPANY

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

EMERGENCY NUMBERS

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

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 #31H

Sec 16-T23S-R30E

SHL: 330' FSL & 1,680' FEL of Sec 16 BHL: 100' FSL & 1,650' FEL of Sec 21

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 <u>between</u> 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.

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

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

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

CONDITIONS

Action 370256

CONDITIONS

Operator:	OGRID:
STRATA PRODUCTION CO	21712
P.O. Box 1030	Action Number:
Roswell, NM 882021030	370256
	Action Type:
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify OCD 24 hours prior to casing & cement	8/27/2024
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	8/27/2024
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	8/27/2024
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	8/27/2024
ward.rikala	If cement does not circulate on any string, a CBL is required for that string of casing	8/27/2024
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	8/27/2024
ward.rikala	This well can not be produced until the operator is in compliance with Rule 5.9	8/27/2024
ward.rikala	The operator must comply with all of the regulations for R-111-Q.	8/27/2024