

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 NM OIL CONSERVATION
ARTESIA DISTRICT
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised July 18, 2013

SEP 15 2015

☐ AMENDED REPORT

RECEIVED

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

¹ Operator Name and Address Strata Production Company PO Box 1030 Roswell, NM 88202-1030		² OGRID Number 21712
⁴ Property Code 28510		³ Property Name Forty-Niner Ridge <i>Unit</i>
		⁶ Well No. 22L #34V
		⁵ API Number 30-015 43359

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
L	22	23S	30E	NA	1497'	FSL	665'	FWL	Eddy

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
L	22	23S	30E	NA	1497'	FSL	665'	FWL	Eddy

9. Pool Information

Pool Name Forty-Niner Ridge Delaware	Pool Code 24750
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Additional Well Information

¹¹ Work Type N	¹² Well Type O	¹³ Cable/Rotary R	¹⁴ Lease Type S	¹⁵ Ground Level Elevation 3259'
¹⁶ Multiple No	¹⁷ Proposed Depth 7750'	¹⁸ Formation Delaware	¹⁹ Contractor TBD	²⁰ Spud Date 01/01/2016
Depth to Ground water 150'		Distance from nearest fresh water well 1500'		Distance to nearest surface water NA

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

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
H40	17-1/2"	13-3/8"	48#	400'	765	Circ to Surf
J55	12-1/4"	9-5/8"	36#	3480'	900	Circ to Surf
N80	8-3/4"	7"	26#	7500'	600	Circ to +/- 3000'

Casing/Cement Program: Additional Comments

--

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Hydraulically Operated - 2 Ram w/ annular	3000	3000	Schaffer

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that I have complied with 19.15.14.9 (A) NMAC <input type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input type="checkbox"/> if applicable. Signature: <i>Paul Ragsdale</i> Printed name: Paul Ragsdale Title: Operations Manager E-mail Address: pragsdale@stratanm.net Date: 08-27-2015	<div style="text-align: center; border-bottom: 1px solid black; padding-bottom: 5px;"> OIL CONSERVATION DIVISION </div> Approved By: <i>[Signature]</i> Title: <i>Dist # Supervisor</i> Approved Date: <i>9/16/2015</i> Expiration Date: <i>9/16/2017</i> Conditions of Approval Attached
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NM OIL CONSERVATION

ARTESIA DISTRICT

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

SEP 15 2015

RECEIVED

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 30-015-43359		² Pool Code 24750	³ Pool Name FORTY NINER RIDGE DELAWARE
⁴ Property Code 28510	⁵ Property Name FORTY NINER RIDGE UNIT 22L		⁶ Well Number 34V
⁷ GRID NO. 21712	⁸ Operator Name STRATA PRODUCTION COMPANY		⁹ Elevation 3259'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
L	22	23S	30E		1497	SOUTH	665	WEST	EDDY

¹¹ Bottom Hole Location If Different From Surface

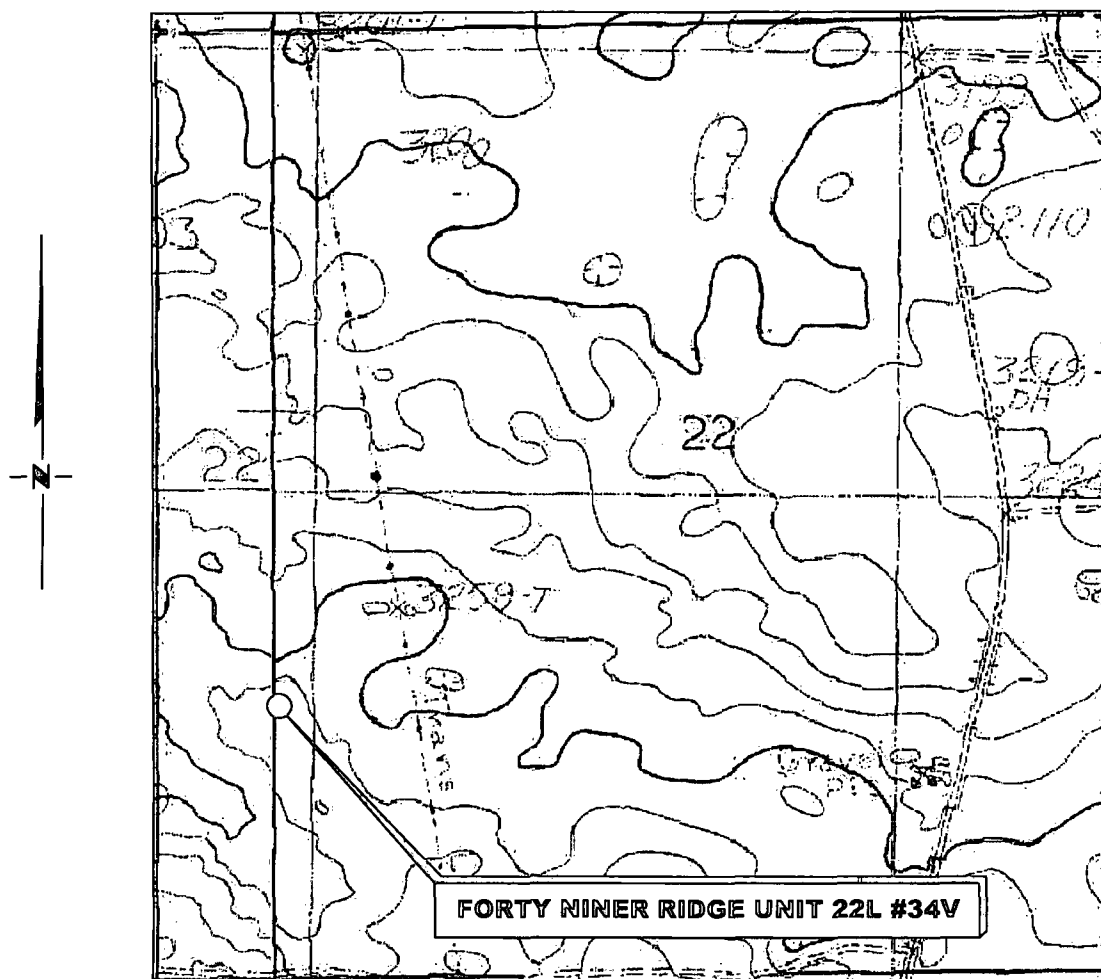
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 40	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

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

¹⁶ (C) (D) (E) (F) (G) (H) (A) (B) 	GEODETIC DATA NAD 27 GRID - NM EAST SURFACE LOCATION N 468496.1 - E 641642.2 LAT: 32.28718060° N LONG: 103.87498310° W CORNER DATA NAD 27 GRID - NM EAST A: FOUND BRASS CAP "1942" N 466995.9 - E 640989.3 B: FOUND BRASS CAP "1942" N 469644.8 - E 640968.1 C: FOUND BRASS CAP "1942" N 472293.3 - E 640949.1 D: FOUND BRASS CAP "1942" N 472304.5 - E 643621.3 E: FOUND BRASS CAP "1942" N 472316.9 - E 646296.3 F: FOUND BRASS CAP "1942" N 469672.6 - E 646321.1 G: FOUND BRASS CAP "1942" N 467025.4 - E 646347.0 H: FOUND BRASS CAP "1942" N 467010.6 - E 643668.1	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature Date 8/2/15 Paul Ragsdale Printed Name pragsdale@stratanm.com E-mail Address
	¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. 8-18-2015 Date of Survey Signature and Seal of Professional Surveyor 19680 Certificate Number	

RRC - Firm No.: TX 10193838 NM 4655451 - Job No.: LS1508465

LOCATION VERIFICATION MAP



**SECTION 22, TWP. 23 SOUTH, RGE. 30 EAST,
N. M. P. M., EDDY CO., NEW MEXICO**

OPERATOR: Strata Production Company
LEASE: Forty Niner Ridge Unit 22L
WELL NO.: 34V
ELEVATION: 3259'

LOCATION: 1497' FSL & 665' FWL
CONTOUR INTERVAL: 10'
USGS TOPO. SOURCE MAP:
Los Medanos, NM (P. E. 1985)

Firm No.: TX 10193838 NM 4655451

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NO.	REVISION	DATE

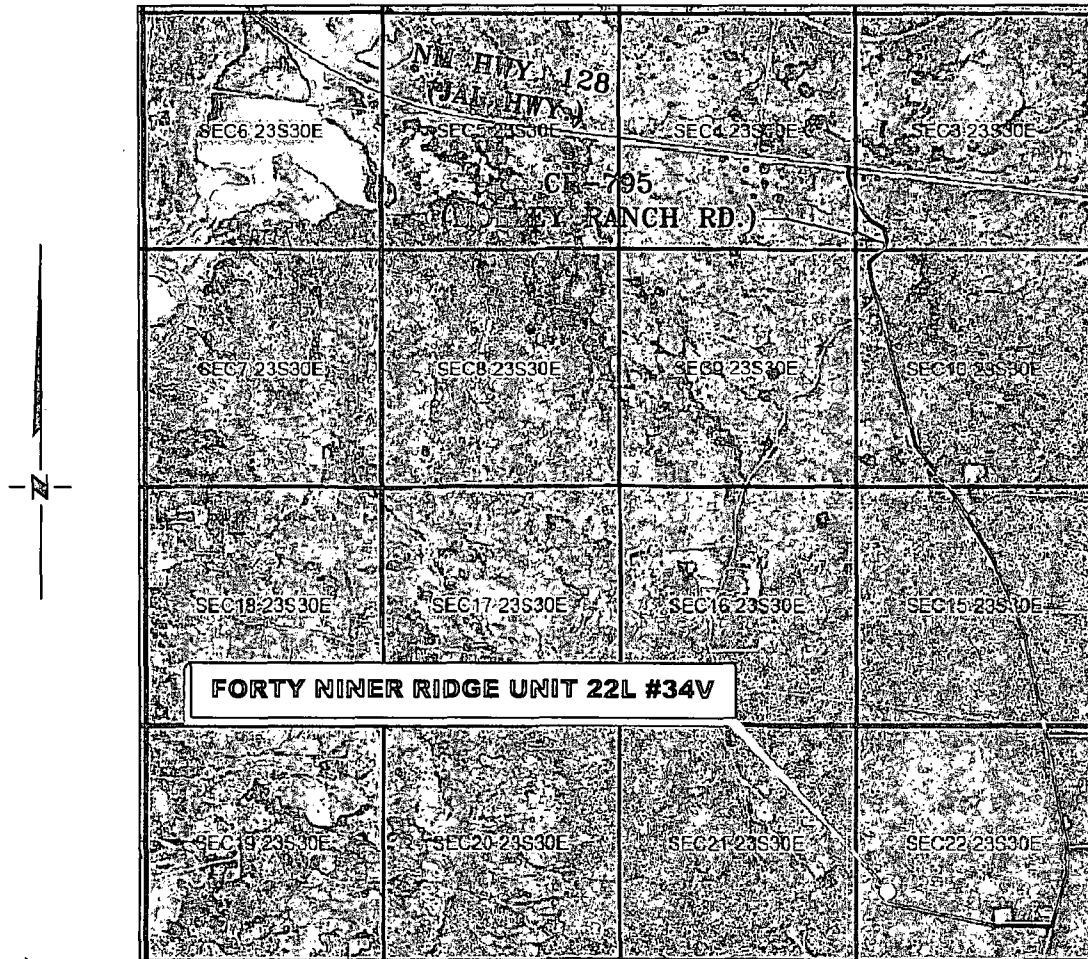
RRC

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1000'
DATE: 8-18-2015
SURVEYED BY: BK/CE
DRAWN BY: CMJ
APPROVED BY: RMH
SHEET : 1 OF 1

VICINITY MAP

NOT TO SCALE



**SECTION 22, TWP. 23 SOUTH, RGE. 30 EAST,
N. M. P. M., EDDY CO., NEW MEXICO**

OPERATOR: Strata Production Company
LEASE: Forty Niner Ridge Unit 22L
WELL NO.: 34V

LOCATION: 1497' FSL & 665' FWL
ELEVATION: 3259'

Firm No.: TX 10193838 NM 4655451

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NO.	REVISION	DATE
JOB NO.: LS1508465		
DWG. NO.: 1508465VM		

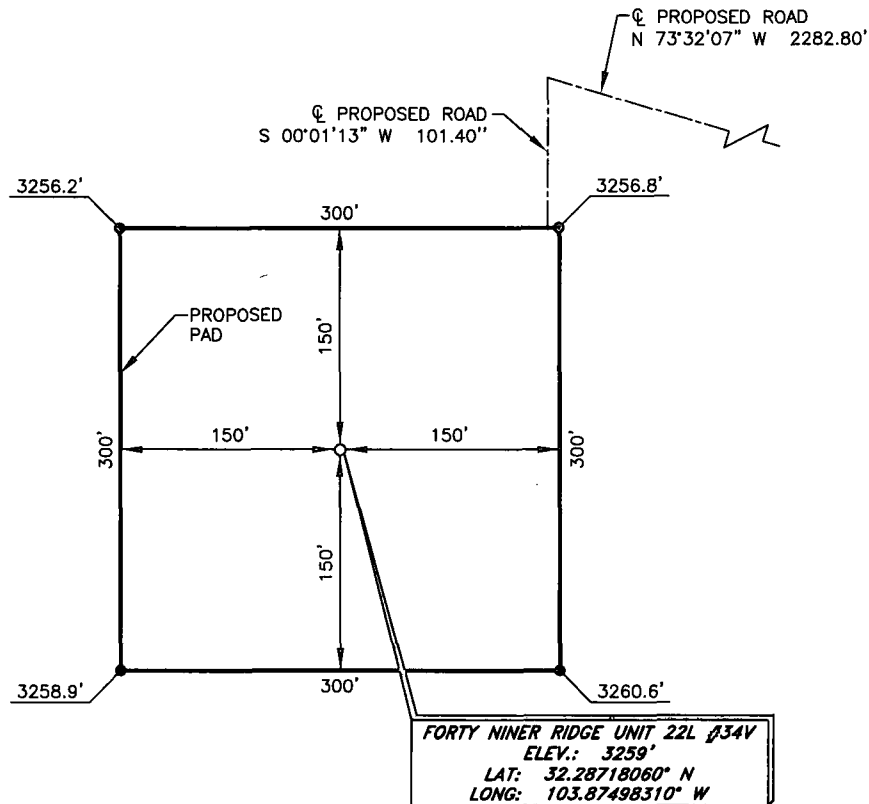
RRC

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: NTS
DATE: 8-18-2015
SURVEYED BY: BK/CE
DRAWN BY: CMJ
APPROVED BY: RMH
SHEET : 1 OF 1

STRATA PRODUCTION COMPANY

FORTY NINER RIDGE UNIT 22L #34V
(1497' FSL & 665' FWL)
SECTION 22, T23S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

From the intersection of NM Hwy. 128 and CR-795 (Mobley Ranch Rd.)
Go South on CR-795 approx. 0.6 miles to a lease road on the left;
Turn left and go Southeast approx. 2.8 miles to a lease road on the right;
Turn right and go West approx. 0.2 miles to the Forty Niner Ridge Unit #6;
Go to the Southwest corner of pad and proposed road;
Follow proposed road Northwest approx. 0.5 miles;
Turn left and go South approx. 251 feet.
Location is on the right.

SCALE: 1" = 100'
0 50 100

BEARINGS ARE
NAD 27 GRID - NM EAST
DISTANCES ARE GROUND

Firm No.: TX 10193838 NM 4655451

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NO.	REVISION	DATE
JOB NO.:	LS1508465	
DWG. NO.:	1508465PAD	

RRC

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 100'
DATE: 8-18-2015
SURVEYED BY: BK/CE
DRAWN BY: CMJ
APPROVED BY: RMH
SHEET : 1 OF 1

DRILLING PROGNOSIS
APPLICATION FOR PERMIT TO DRILL
STRATA PRODUCTION COMPANY
FORTY NINER RIDGE, 22L #34V
SECTION 22-23S-30E

1. Geologic Name of Surface Formation:

Permian

2. Estimated Tops:

	MD/TVD
Rustler	150'
Top of Salt	470'
Base of Salt	3375'
Delaware	4380' - 5256'
Cherry Canyon	5408' – 5512'
TD	7500'

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas & Drilling Plan:

Surface	+/- 150'	Fresh Water
Delaware	+/- 3900' – TD	Oil and Gas

No other formations are expected to produce oil, gas or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13 3/8" casing at +/- 400' and by setting 9 5/8 casing at +/-3480' and circulation cement back to surface. A 8 3/4" hole will be drilled from below the 9 5/8" casing shoe until TD is reached. A string of 7" production casing will be run to TD and cemented back to tie in the surface casing at minimum.

4. Casing Program:

<u>Hole size</u>	<u>Depth</u>	<u>OD Csg</u>	<u>Weight, Grade, Collars, New/Used</u>
17 ½"	400'	13 3/8"	48#, H-40, STC, New
12 ¼"	3480'	9 5/8"	40#, J-55, STC, New
8 ¾"	7500'	7"	26#, N-80 LTC, New

Cementing Program:

Surface Casing:

13 3/8" casing will be set at +/-400' and cemented with 600 sacks Class C with 2% CAC12, 14.8 lb/gal, 1.34 cu. Ft. yield, 6.34 gal/sk H2O. Calculated with 100% excess. Cement in sufficient quantity to circulate to surface will be utilized.

Intermediate Casing: 9 5/8" casing will be set at 3480' and cemented with 900 sacks EconoCem HLC Cement with 5% salt, 5lb/bbl Kol-Seal plus 0.3% HR-800, 12.9 lb/gal, 1.88 cu ft. yield, 10.58 gal/sk H2O. 150 sacks tail of Class C Cement 14.8 lb/gal, 1.33 yield, 6.32 gal/sk H2P. Calculated to surface will be utilized.

Production Casing:

It is proposed that 7" casing will be run from the surface to the total depth of the well at 7500' and cemented with 450 sx of (35:65) Poz (Fly Ash) :Class H Cement + 4% bwoc Bentonite + 5% bwoc MPA-5 +0.2% bwoc FL-52 + 0.3% bwoc Sodium Metasilicate + 5% bwoc Sodium Chloride + 5 lbs/sack LCM-1+0.005 lbs/sack Static Free + 1 gals/100 sack FP-6L +0.125lbs/sack Cello Flake +106.5% Fresh Water. 12.5 density, 2.19 yield, 11.1 gal/sk H2O. 150 sacks tail 50/50 Poz/Class H Cement + 0.3% bwoc FL-52 + 0.005 lbs/sack Static Free + 1 gals/100 sack FP-6L + 46.2% Fresh Water. 15.6 density, 1.21 hole and 10% excess in the cased annulus. Cement volumes are sufficient to circulate cement to the surface but will be recalculated using a fluid caliper.

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit "A" will consist of a two ram type (3000 psi WP) preventer and a bag-type (hydrill) preventer (3000 psi WP) . All units will be equipped with blind rams on top and 4 ½" drill pipe rams on bottom. The 13 5/8", 3m, BOP's will be nipped up on the 13 3/8" surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 3000 psi before drilling out surface casing. Before drilling out of intermediate casing, the ram-type BOP and accessory equipment will be tested to 3000 psi and the hydrill to 70% of rated working pressure (2100 psi). Low pressure tests at 250 psi will be conducted prior to the high pressure test.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheet. A 2" kill line and 3" choke line will be included in the drilling spool located below the ram-type BOP. Other floor safety valve (inside BOP) and choke lines and choke manifold with 3000 psi WP rating.

6. Proposed Mud System: 0-450' – fresh water with native mud sweeps. 8. 4-8.9 lb/gal, LCM as needed 450'-3800' brine water 10.0 lb/gal with LCM and gel sweeps 3800'-7200' cut brine 8.9-9.2 lb/gal with LCM and cut brine 8.9-9.2 lb/gal as required with sliders and gel sweeps sufficient mud materials to maintain weight, viscosity and combat lost circulation will be kept on location. Mud monitoring shall include equipment to monitor the circulation system which shall include but not be limited to daily records of pumps speeds, visual mud monitoring equipment to detect volume changes such as pit volumes, electronic/mechanical monitoring equipment for pit

volume totalizers, stroke counters and flow sensors. Daily mud tests to determine, as applicable, density, viscosity, gel strength, filtration and pH shall be conducted. Gas detecting equipment will be utilized below the intermediate casing. Gas flare lines and mud-gas separators will be utilized as necessary.

7. Auxiliary Well Control and Monitoring Equipment:

- A. A Kelly cock will be kept in the drill string at all times.
- B. A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- C. Hydrogen Sulfide detection equipment will be in operation after drilling out the 13 3/8" casing shoe until the 7" casing is cemented. Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached.

8. Testing, Logging and Coring Program:

Two man mudlogging until from 9 5/8" intermediate casing to TD and DLL-MSFL, CNL-Density. Gamma Ray, Caliper.

Mudlogging until will be employed from approximately 3500' to TD. The Dual Laterolog will be run from TD back to the intermediate casing and the Compensated Neutron/Density and Gamma Ray logs will be run from TD back to surface. In some cases, Strata elects to run rotary sidewall cores from selected intervals dependent upon logging results.

9. Abnormal Conditions, Pressures, Temperatures and Potential Hazards:

No abnormal pressures or temperatures are anticipated. BHT should not exceed 150 F and BHP should not exceed 3500 psi.

Loss of circulation is possible in the Delaware section of the hole, however, no major loss circulation zones have been reported in offsetting wells. Strata has drilled and completed a number of wells in the immediate area.

To date, Hydrogen Sulfide has not been encountered. However, if Hydrogen Sulfide is encountered, a Hydrogen Sulfide alarm on the drilling rig would be activated. All personnel have had Hydrogen Sulfide training and appropriate breathing apparatus is located on site. If necessary, the well can be shut in utilizing the blowout preventer and other equipment to prevent the migration of Hydrogen Sulfide to the surface.

10. Anticipated Starting Date and Duration of Operations:

Work will not begin until approval has been received from the OCD. The anticipated spud date is January 1, 2016. Once commenced, the drilling operation should be finished in approximately 30 days. If the well is productive, an additional 15 days will be required for completion and testing before a decision is made to install permanent facilities.

STRATA PRODUCTION COMPANY

Emergency Contact List

Strata Personnel:

Paul Ragsdale, Operations Manager	575-626-7903
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Virgil Smith, Production Superintendent	575-626-0528
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Dwight Adamson, Ast. Production Superintendent	575-626-8657
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Sheriff's Departments:

Eddy County	575-887-1888
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Lea County	575-396-3611
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New Mexico State Police	575-392-5588
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Fire Departments:

911

Carlsbad	575-885-3125
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Eunice	575-394-2111
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Hobbs	575-397-3908
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Jal	575-395-2221
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Lovington	575-396-2359
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Hospitals:

911





Carlsbad Medical Emergency	575-887-4100
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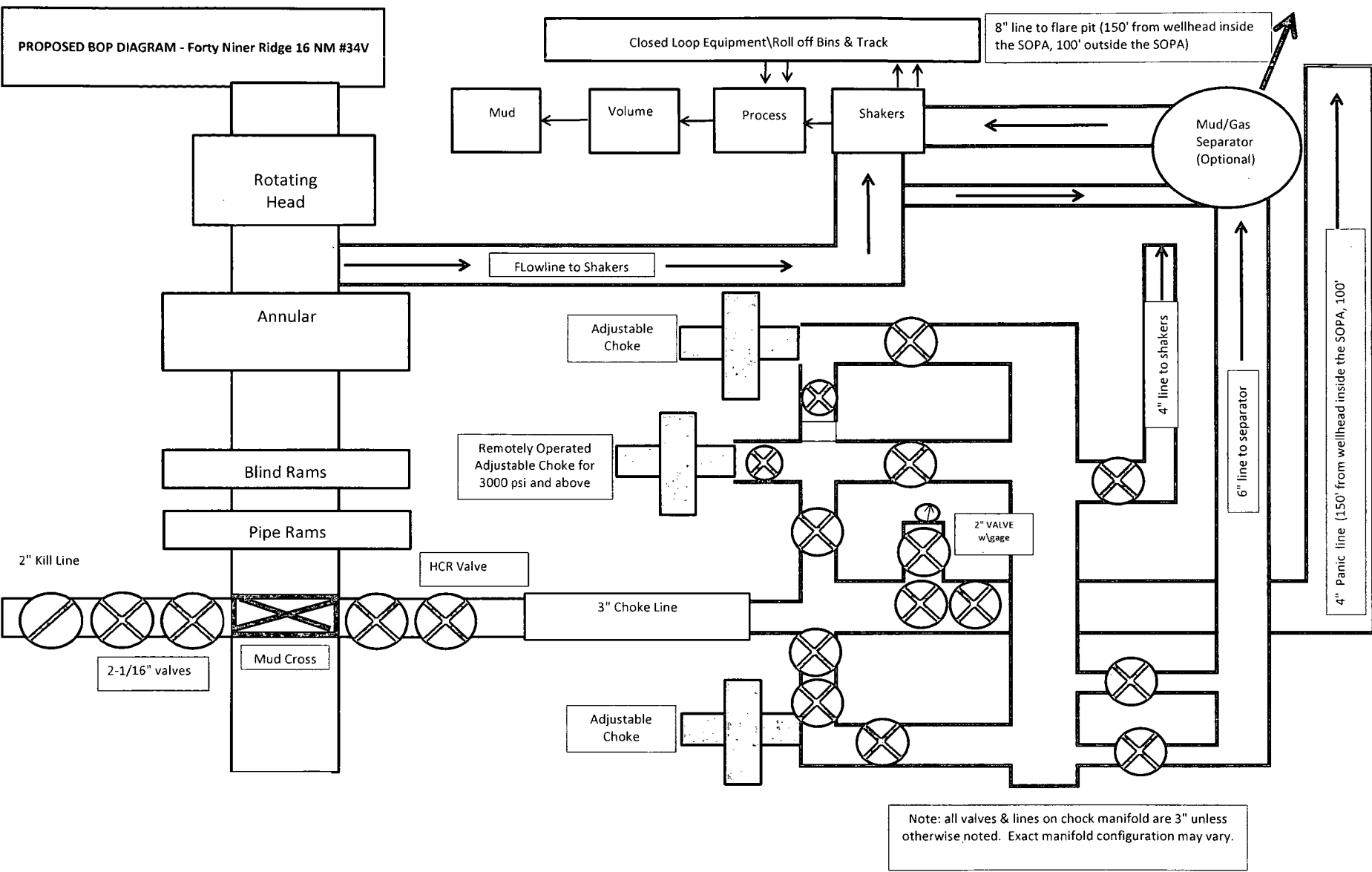
Eunice Medical Emergency	575-394-2112
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Hobbs Medical Emergency	575-397-9308
Jal Medical Emergency	575-395-2221
Lovington Medical Emergency	575-396-2359

Agent Notification:

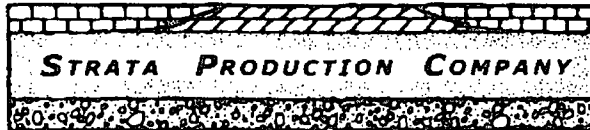
Bureau of Land Management	575-393-3612
New Mexico Oil Conservation Division	575-393-6161
Mosaic Potash - Carlsbad	575-887-2871
Intrepid Potash - Carlsbad	800-451-2888

COMPANY STRATA PRODUCTION CO						LEASE TYPE <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEE FEDERAL						API NO.		SPUD DATE 1/1/2016				
WELL NAME FORTY NINER RIDGE Unit 22L #34V								SECTION 22		TWP. 23-S		RANGE 30-E		COUNTY / STATE EDDY / NM		COMP. DATE		
FOOTAGE 1497' FSL & 665' FWL								ELEVATION = 3259' GL		KELLY BUSHING =		STATUS OIL		TOTAL DEPTH = 7750'		P.B.T.D.		
FIELD/POOL/AREA FORTY NINER RIDGE										Size		Sks. Cmt.		Circ Depth		Weight		
LOCATION DESCRIPTION 12 MI E OF LOVING,NM								SURF. CASING		13 3/8"		600		Surface		48#		
								INT. CASING		9 5/8""		900		Surface		36#		
								CASING		7"		500		Surface		26#		
Depth ft.								Description								O.D.	Length	Depth
400								13 3/8" CSG. 48# @400' w/600 sacks										
3480								9 5/8" CSG. 36# SET @ 3480' w/900 sacks										
7500 TD								7" CSG. 26# SET @ 7500' w/ 600 sacks										
								TD = 7500' PBTD =										
COMMENTS: <div style="text-align: right;"> = Existing Packer  = Tubing anchor  = Perfs-Open  = Perfs-Squeezed</div>																		
STRATA PRODUCTION CO P.O. BOX 1030 ROSWELL, NEW MEXICO 88202 Revised 08/21/2015																		



13-5/8" X 3-M BOPE (2 Rams and Rotating Head) & Closed Loop System Equipment Schematic

POST OFFICE DRAWER 1030
ROSWELL, NM 88202-1030



TELEPHONE (575) 622-1127
FACSIMILE (575) 623-3533

1301 NORTH SYCAMORE AVENUE
ROSWELL, NEW MEXICO 88201
www.stratanm.com

September 11, 2015

HAND DELIVERED

Mr. Randy Dade
District Supervisor
NMOCD
811 S. First
Artesia, NM 88210

Re: STRATA-Production APD's

Dear Randy,

Please find in the enclosed packet 5 APD's for drilling new wells in the Forty Niner Ridge Unit in Eddy County. All of these proposed wells are inside the Potash Area. Strata, the BLM and Mosaic Potash have developed the "Olive Branch Drill Island". A map of the Drill Island is attached and a copy of an email from Jim Rutley with the BLM to Mosaic is also attached.

Please let me know if you need any other information. I can be reached at 575-622-1127 ext. 18 or at pragsdale@stratanm.com.

Thanks very much,

Paul Ragsdale

Operations Manager

NM OIL CONSERVATION
ARTESIA DISTRICT

SEP 15 2015

RECEIVED

PGTBA 8/14/2015 10:31:48 AM

Paul Ragsdale

From: Rutley, James <jrutley@blm.gov>
Sent: Wednesday, September 9, 2015 12:23 PM
To: Mitch Krakauskas; Paul Ragsdale; David Lanning
Cc: James Stovall; George MacDonell
Subject: Fwd: Strata Olive Branch request to modify approved drill island
Attachments: Strata request to expand approved olive branch DI to include orange modification.pdf

David,

This is an e-mail to Mosaic requesting a modification to existing approved drill island.

Thanks

Jim

James S. Rutley
Geologist
Carlsbad Field Office
Bureau of Land Management
(575) 234-5904

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----- Forwarded message -----

From: Rutley, James <jrutley@blm.gov>
Date: Tue, Aug 18, 2015 at 3:39 PM
Subject: Strata Olive Branch request to modify approved drill island
To: dan.morehouse@mosaicco.com, "Bell, Ric - Carlsbad (Third Party)" <Ric.Bell@mosaicco.com>, Indra Dahal <idahal@blm.gov>

Dan and Ric,

Attached is a map of the "Approved" Olive Branch Drill Island. The green is for shallow wells as currently classified and the purple is for deep wells as currently classified. The original proposal is in black outline.

Strata has requested to modify (expand) the drill island to include the "orange" triangle. Most of Strata's projects are vertically drilled with a few being drilled as "S" curves which allow them to drill from an allowable surface location then directionally drill to their preferred vertical horizon. The request is for shallow projects only.

Is Mosaic amenable to the modification?

Thanks

Jim

James S. Rutley
Geologist
Carlsbad Field Office
Bureau of Land Management
(575) 234-5904

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