Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NMOCD Artesia

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

5. Lease Serial No.
NMNM0532769

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
ROADRUNNER FEDERAL COM 3H

2. Name of Operator
STRATA PRODUCTION COMPANY
Contact: PAUL RAGSDALE

9. API Well No.
30-015-42114-00-X1

3a. Address
ROSWELL, NM 88202-1030

3b. Phone No. (include area code)
Ph: 575.622.1127

10. Field and Pool, or Exploratory
FORTY NINER RIDGE

4. Location of Well (*Footage, Sec., T., R., M., or Survey Description*)
Sec 23 T23S R30E SENE 1980FNL 0750FEL
32.173228 N Lat, 103.504325 W Lon

11. County or Parish, and State
EDDY COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original A PD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Strata requests a change in bottom hole location and a change in the Production Casing Program. A Word Document is attached.

Rejected if BHL is changed need plat + directional plan.
Note: if using stronger casing no sundry required.

NM OIL CONSERVATION
ARTESIA DISTRICT
FEB 22 2016
RECEIVED

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #311372 verified by the BLM Well Information System
For STRATA PRODUCTION COMPANY, sent to the Carlsbad
Committed to AFMSS for processing by JENNIFER SANCHEZ on 11/13/2015 (16JAS1111SE)

Name (*Printed/Typed*) PAUL RAGSDALE — Title OPERATIONS MANAGER

Signature (Electronic Submission) — Date 08/03/2015

Accepted for record 2/26/16 BS
NMOCD

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By — Title 02/05/2016 — Date

Conditions of approval, if any, are attached. Approval of this notice 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.

Office

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.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

REVISED PROGNOSIS
FORM 3160-3 APPLICATION FOR PERMIT TO DRILL
STRATA PRODUCTION COMPANY
ROADRUNNER FEDERAL COM #3H
1980' FNL & 750' FEL
SECTION 23-23S-30E
EDDY COUNTY, NEW MEXICO
API 30-015-42114

In conjunction with Form 3160-3, Application for Permit to Drill, Deepen, or Plug Back, Strata Production Company submits the following items in accordance with Onshore Oil and Gas Order Numbers 1 and 2, and all other applicable federal and state regulations.

1. Geologic Name of Surface Formation:

   Permian

2. Estimated Tops:

	TVD	MD
Rustler	150'	150'
Top of Salt	470'	470'
Base of Salt	3659'	3659'
Delaware	3868'	3868'
KOP - curve	7187'	7187'
EOC	7630'	7937'
TD	7630'	**14406'**
Bone Spring	7738'	

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

Surface	150'	Fresh Water
Delaware	3900' - TD	Oil or 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 ~350' and circulating cement back to surface. Potash will be protected by setting 9 5/8" casing at ~3900' and circulating cement back to surface. A 8 3/4" hole will be drilled from the 9 5/8" casing shoe to the kick off point at 7187' and then curved to a target depth of 7630' in the Lower Brushy Canyon. The well will be drilled horizontally until TD is reached. A production string of 5 ½" casing will be run to TD and cemented back to surface.

4. Casing Program:

Hole Size	Depth	OD Csg	Weight, Grade, Collars, New/Used
17 1/2"	350'	13 3/8"	48#, H-40, STC, New
12 1/4"	3900'	9 5/8"	36-40#, J-55, STC, New
8 3/4"	14406'	5 1/2"	20#, HCP-110, BTC, New

Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, Joint Strength 1.8

Cementing Program:

Surface Casing:

13 3/8" casing will be set at ~350' and cemented with 450 sacks Class C with 2% CaCl2, 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.

2 Stage Intermediate Casing Cement Job with DV Tool at 2000'

9 5/8" 36# J-55 casing will be set at ~3900' with a DV tool at 2000' and cemented with 1st stage lead of 450 sacks of 35/65 Poz/C + 5%PF44(BWOW) + 6%PF20 + 3#/skPF42+ 1%PF1 + .125#/skPF29 + .25#/skPF46. Density 12.6, yield 2.06, 10.97 gal/sk H2O. 1st stage tail of 200sks C +.2%PF13. Density 14.8, yield 1.33, 6.35 gal/sk H2O. 2nd stage lead of 575sks 35/65 Poz/C +5%PF44(BWOW) +6%PF20 +3#/skPF42 +1%PF1 +.125#/skPF29 +.25#/skPF46. Density 12.6, yield 2.07, 11.01 gal/sk H2O. 2nd stage tail of 100sks C +.2%PF13. Density 14.8, Yield 1.33, 6.35 gal/sk H2O. Calculated with 100% excess. Cement in sufficient quantity to circulate to surface will be utilized.

OR If NO LOSS CIRCULATION IS ENCOUNTERED

9 5/8" casing will be set at ~3900' and cemented with 1100 sacks EconoCem HLC Cement with 5% Salt, 5 lb/bbl Kol-Seal plus 0.3% HR-800,12.9 lb/gal, 1.88 cu.ft yield, 10.58 gal/sk H2O. 250 sacks tail of Class C Cement 14.8 lb/gal, 1.33 yield, 6.32 gal/sk H2P. Calculated with 100% excess. Cement in sufficient quantity to circulate to surface will be utilized.

PRODUCTION CASING CEMENT JOB: A 8 ¾" hole will be drilled to 7187' and then a horizontal lateral will be drilled in the Lower Brushy Canyon formation to 14,406'.
5 1/2" Production Casing 17# BTC P-110 will be run to the total depth of the well and cemented with **1490 sacks of 50/50 Poz H** with + 4.5% Bentonite + 5% bwoc MPA-5 + 0.2% bwoc FL-52 + + 5% bwow Sodium Chloride + 5 lbs/sack LCM-1 + 0.005 lbs/sack Static Free + 1 gals/100 sack FP-6L + 0.125 lbs/sack Cello Flake + 106.5% Fresh Water, 12.0 density, 2.20 yield, 11.1 gal/sk H2O followed by **1750 sacks tail Class H 50/50 Poz Cement** + 0.3% bwoc FL-52 + 0.005 lbs/sack Static Free + 1 gals/100 sack FP-6L + 46.2% Fresh Water. 14.8 density, 1.24 yield, 5.21 gal/sk H2O. Calculated with 50% excess. Actual cement volumes will be calculated using a fluid caliper and cement top will be the surface.

OR IF LOSS CIRCULATION IS ENCOUNTERED

A 2 STAGE CEMENT JOB WITH A DV TOOL AT 5500'.
The **first stage** would be 500 sx of 50/50 Poz H with + 4.5% Bentonite + 5% bwoc MPA-5 + 0.2% bwoc FL-52 + + 5% bwow Sodium Chloride + 5 lbs/sack LCM-1 + 0.005 lbs/sack Static Free + 1 gals/100 sack FP-6L + 0.125 lbs/sack Cello Flake + 106.5% Fresh Water, 12.0 density, 2.20 yield, 11.1 gal/sk H2O **followed by 500 sacks tail** Class H 50/50 Poz Cement + 0.3% bwoc FL-52 + 0.005 lbs/sack Static Free + 1 gals/100 sack FP-6L + 46.2% Fresh Water. 14.8 density, 1.24 yield, 5.21 gal/sk H2O. Calculated with 50% excess.
The **second stage** would be 900 sacks of 35/65 Poz/C + 5%PF44(BWOW) + 6%PF20 + 3#/skPF42+ 1%PF1 + .125#/skPF29 + .25#/skPF46. Density 12.6, yield 2.06, 10.97 gal/sk H2O. Density 12.6, yield 2.07, 11.01 gal/sk H2O. Calculated with 50% excess. Actual cement volumes will be calculated using fluid caliper and electric log caliper calculations with projected cement top at the surface.

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 (hydril) preventer (3000 psi WP). All units will be hydraulically operated and the ram-type preventer will be equipped with blind rams on top and 4 1/2" drill pipe rams on bottom. The 13 5/8" ,5M, BOP's will be nippled 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 of surface casing. Before drilling out of intermediate casing, the ram-type BOP and accessory equipment will be tested to 3000 psi and the hydril 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 sheets. A 2" kill line and 3" choke line will be included in the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include a kelly cock and 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'-3900' brine water 10.0 lb/gal with LCM and gel sweeps
3900'-7200' Cut brine 8.9-9.2 lb/gal with LCM and gel sweeps
7200'-14406'Cut brine 8.9-9.2 lb/gal with sliders and gel sweeps
Sufficient mud materials to maintain weight, viscosity and combat lost circulation will be kept on location.

Mud Monitoring Equipment shall include equipment to monitor the circulation system which shall include but not be limited to daily records of pump 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 4 ½" 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 unit from 9 5/8" intermediate casing to TD and DLL-MSFL, CNL-Density, Gamma Ray, Caliper.

Mudlogging unit will be employed from approximately 3900' 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 eighteen (18) 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 BLM. The anticipated spud date is **June 1, 2015.** 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.

11. Proposed Completion and Fracturing Operations

Once the well has been drilled and casing is cemented, the well will be completed **in the vertical and horizontal lateral** using the "plug and perf" method where perforations will be placed at defined intervals and each interval will be fracture stimulated. It is anticipated that this well will have 8 intervals and each interval will be fractured with 5000 bbls of gelled fresh water carrying 200,000 lbs of 16-30 resin coated sand.
Prior to the frac job, a Cement Bond Log/ Gamma Ray may be run to determine cement competency.
Flowback of the frac water will either be treated and reused or will be sent to deep underground injection.