

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**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.*Case Serial No.
NM114356

SUBMIT IN TRIPLICATE - Other instructions on page 2		6. If Indian, Allottee or Tribe Name
1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other	2. Name of Operator STRATA PRODUCTION COMPANY Contact: SHAMMY DENNIS E-Mail: sdennis@stratanm.com	7. If Unit or CA/Agreement, Name and/or No.
3a. Address PO BOX 1030 ROSWELL, NM 88202	3b. Phone No. (include area code) Ph: 575-622-1127 Ext: 13 Fx: 575-623-3533	8. Well Name and No. SANDY FEDERAL 4H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 24 T23S R30E Mer NMP NWSW 2180FSL 515FWL 32.289197 N Lat, 103.841304 W Lon		9. API Well No. 30-015-41042
		10. Field and Pool or Exploratory Area F N R DELAWARE
		11. County or Parish, State EDDY COUNTY, NM

12. CHECK THE 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	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ 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 recompleat 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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

1)Change Bottom Hole Location from Section 24-T23S-R30E, 1710' FSL, 330' FEL to Section 19-T23S-R30E, 1710' FSL, 100' FEL.

RECEIVED

OCT 16 2018

DISTRICT II-ARTESIA O.C.D.

2)Run 5 1/2" casing to 17317' (measured depth)and 7700' + or - (TVD). The first stage of cement will be from 17317' to the DV tool at 5500' which will consist of 2000 sacks of 50/50 Poz/H + 5% PF44(BWOW)(SALT) + 2% PF20(Bentonite Gel) + 0.7% PF606(Fluid loss) + 0.2% PF65

Density 14.4lb/gal, Yield 1.29 cu.ft/sk, H2O 5.724 gal/sk

- All previous COAs will apply.

14. I hereby certify that the foregoing is true and correct. Electronic Submission #437286 verified by the BLM Well Information System For STRATA PRODUCTION COMPANY, sent to the Carlsbad Committed to AFMSS for processing by MUSTAFA HAQUE on 09/27/2018 ()	
Name (Printed/Typed) PAUL RAGSDALE	Title OPERATIONS MANAGER
Signature (Electronic Submission)	Date 09/26/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>Mustafa Haque</u>	Title Petroleum Engineer Carlsbad Field Office	Date <u>10-11-2018</u>
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.

(Instructions on page 2)

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED *****RUP 10-23-18*

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

OCT 16 2018

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEED DISTRICT ARTESIA O.C.D.
DISTRICT PLAT

¹ API Number 30-015-41042		² Pool Code 24750		³ Pool Name FORTY NINER RIDGE DELAWARE	
⁴ Property Code 39123		⁵ Property Name SANDY FEDERAL			⁶ Well Number 4H
⁷ OGRID NO. 21712		⁸ Operator Name STRATA PRODUCTION COMPANY			⁹ Elevation 3265'

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	24	23S	30E		2180	SOUTH	515	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
I	19	23S	31E		1710	SOUTH	100	EAST	EDDY

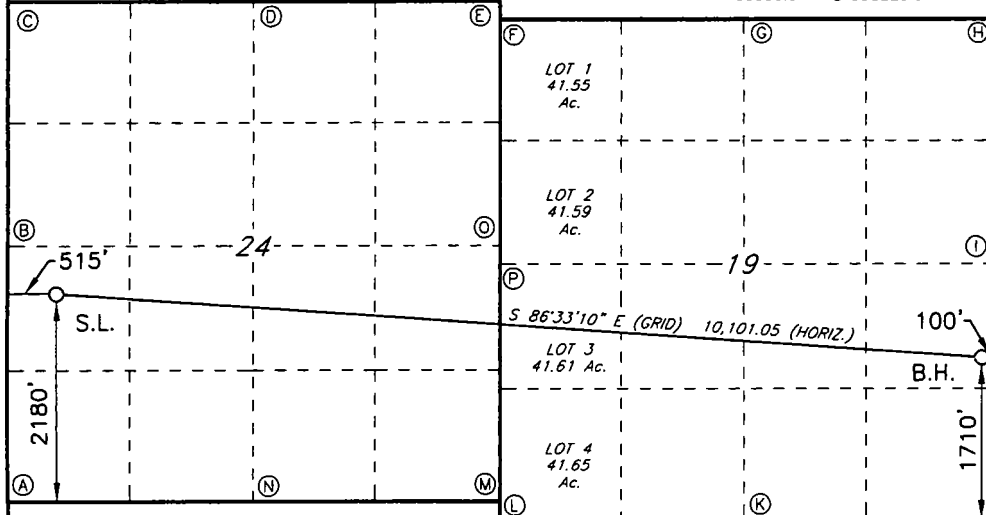
¹² Dedicated Acres 160	¹³ Joint or Infill 321.61	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

¹⁶ GEODETIC DATA NAD 83 GRID - NM EAST SURFACE LOCATION N 469291.5 - E 693380.6 LAT: 32.2891976° N LONG: 103.8413049° W BOTTOM HOLE N: 468684.3 - E: 703461.1 LAT: 32.2873972° N LONG: 103.8086938° W	CORNER DATA NAD 83 GRID - NM EAST A: CALCULATED CORNER N 467108.2 - E 692881.7 B: FOUND BRASS CAP "1942" N 469750.0 - E 692862.1 C: FOUND BRASS CAP "1942" N 472390.8 - E 692844.2 D: FOUND BRASS CAP "1942" N 472408.2 - E 695526.2 E: FOUND BRASS CAP "1916" N 472426.7 - E 698208.3 F: FOUND BRASS CAP "1916" N: 472231.9 - E: 698209.1 G: FOUND BRASS CAP "1916" N: 472244.2 - E: 700897.8	H: FOUND BRASS CAP "1916" N: 472249.6 - E: 703536.9 I: FOUND BRASS CAP "1916" N: 469616.5 - E: 703555.8 J: FOUND BRASS CAP "1916" N: 466975.2 - E: 703571.0 K: FOUND BRASS CAP "1916" N: 466962.4 - E: 700928.2 L: FOUND BRASS CAP "1916" N: 466949.0 - E: 698232.0 M: CALCULATED CORNER N 467146.1 - E 698232.1 N: FOUND BRASS CAP "1942" N 467128.0 - E 695556.6 O: FOUND BRASS CAP "1916" N 469787.4 - E 698219.9 P: FOUND BRASS CAP "1942" N 469590.6 - E 698220.6
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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.

Paul Ragsdale 9/26/18
Signature Date
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.

9-21-2017
Date of Survey
Signature and Seal of Professional Surveyor
19680
Certificate Number
REV: 9/21/18 BH Sec19

RRC-Job No: LS1709621R

RUP 10-23-18.

Strata Production Company

Well: Sandy Federal #4
 Site: Section 24-T23S-R30E
 Project: Eddy County, New Mexico NAD83 NM E
 Design: rev1

M3P
 DIRECTIONAL
 SERVICES



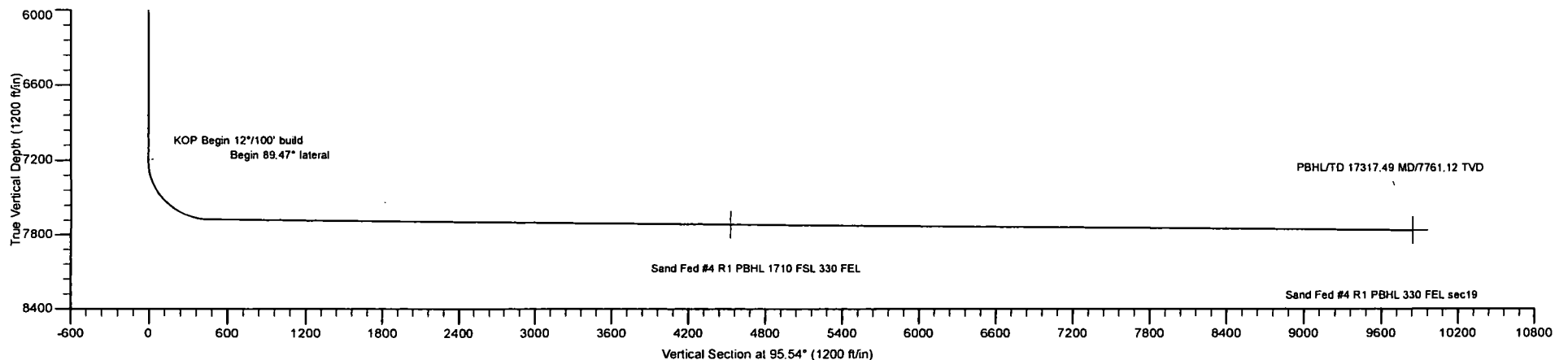
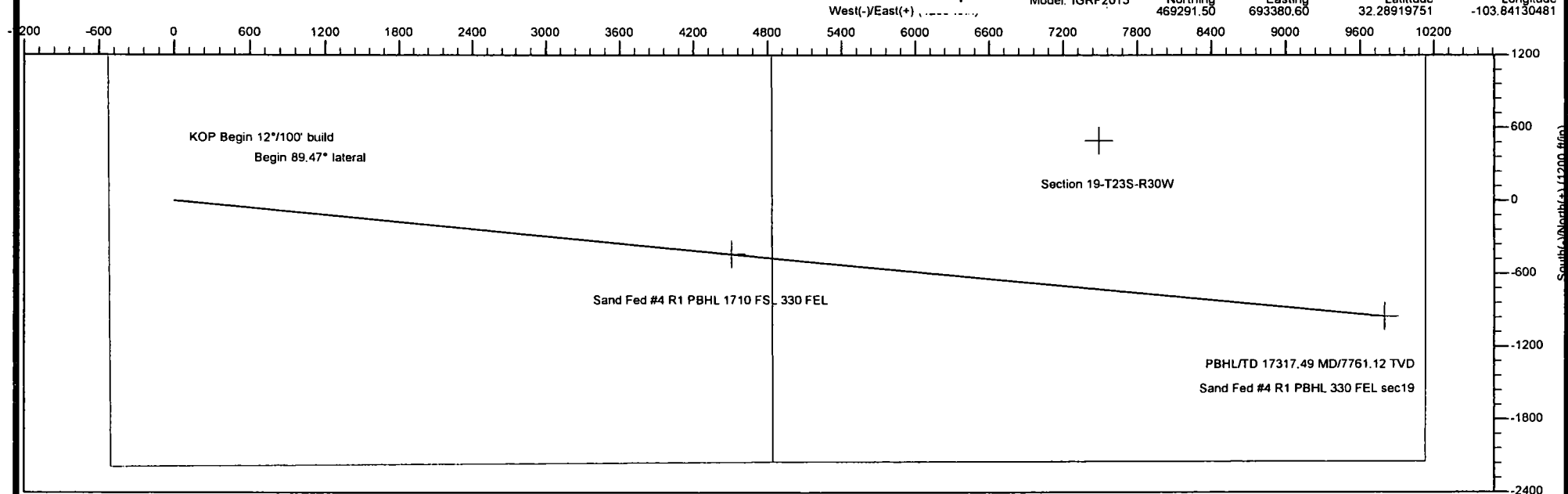
Azimuths to Grid North
 True North: -0.26°
 Magnetic North: 6.70°
 Magnetic Field
 Strength: 47838.2nT
 Dip Angle: 60.07°
 Date: 7/17/2018
 Model: IGRF2015

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level
 Depth Reference: RKB=3265+15 @ 3280.00ft
 Surface location

Northing 469291.50 Easting 693380.60 Latitude 32.28919751 Longitude -103.84130481

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	7197.00	0.00	0.00	7197.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 12"/100' build
3	7942.59	89.47	95.54	7674.44	-45.69	470.84	12.00	95.54	473.05	Begin 89.47° lateral
4	17317.49	89.47	95.54	7761.12	-951.12	9801.52	0.00	0.00	9847.56	PBHL/TD 17317.49 MD/7761.12 TVD



Standard_Report

Company: Strata Production Company
Project: Eddy County, New Mexico NAD83 NM E
Site: Section 24-T23S-R30E
Well: Sandy Federal #4
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference: Well Sandy Federal #4
TVD Reference: RKB=3265+15 @ 3280.00ft
MD Reference: RKB=3265+15 @ 3280.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: DB_Jul2216dt_v14

Project Eddy County, New Mexico NAD83 NM E

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

Site Section 24-T23S-R30E

Site Position:		Northing:	469,764.58 usft	Latitude:	32.29047045
From:	Map	Easting:	695,542.13 usft	Longitude:	-103.83430296
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.27 °

Well Sandy Federal #4. Surf loc: 2180 FSL 515 FWL Section 24 T23S-R30E

Well Position	+N/-S	0.00 ft	Northing:	469,291.50 usft	Latitude:	32.28919751
	+E/-W	0.00 ft	Easting:	693,380.60 usft	Longitude:	-103.84130481
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	3,265.00 ft

Wellbore Original Hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	7/17/2018	6.97	60.07	47,838.22421578

Design rev1

Audit Notes:

Version: **Phase:** PLAN **Tie On Depth:** 0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	95.54

Survey Tool Program **Date** 7/17/2018

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	17,317.49	rev1 (Original Hole)		

Standard_Report

Company: Strata Production Company
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Site: Section 24-T23S-R30E
Well: Sandy Federal #4
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference: Well Sandy Federal #4
TVD Reference: RKB=3265+15 @ 3280.00ft
MD Reference: RKB=3265+15 @ 3280.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: DB_Jul2216dt_v14

Planned Survey

MD (ft)	Inc (°)	Azi (azimuth) (°)	TVD (ft)	N/S (ft)	E/W (ft)	DLeg (°/100ft)	V. Sec (ft)	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60

Standard_Report

Company: Strata Production Company
Project: Eddy County, New Mexico NAD83 NM E
Site: Section 24-T23S-R30E
Well: Sandy Federal #4
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference: Well Sandy Federal #4
TVD Reference: RKB=3265+15 @ 3280.00ft
MD Reference: RKB=3265+15 @ 3280.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: DB_Jul2216dt_v14

Planned Survey

MD (ft)	Inc (°)	Azi (azimuth) (°)	TVD (ft)	N/S (ft)	E/W (ft)	DLeg (°/100ft)	V. Sec (ft)	Northing (usft)	Easting (usft)
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60

Standard_Report

Company: Strata Production Company
Project: Eddy County, New Mexico NAD83 NM E
Site: Section 24-T23S-R30E
Well: Sandy Federal #4
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference: Well Sandy Federal #4
TVD Reference: RKB=3265+15 @ 3280.00ft
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5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
7,197.00	0.00	0.00	7,197.00	0.00	0.00	0.00	0.00	469,291.50	693,380.60
KOP Begin 12°/100' build									
7,200.00	0.36	95.54	7,200.00	0.00	0.01	12.00	0.01	469,291.50	693,380.61
7,300.00	12.36	95.54	7,299.20	-1.07	11.01	12.00	11.07	469,290.43	693,391.61
7,400.00	24.36	95.54	7,393.94	-4.11	42.31	12.00	42.51	469,287.39	693,422.91
7,500.00	36.36	95.54	7,480.07	-8.98	92.52	12.00	92.96	469,282.52	693,473.12
7,600.00	48.36	95.54	7,553.83	-15.47	159.47	12.00	160.21	469,276.03	693,540.06
7,700.00	60.36	95.54	7,611.99	-23.31	240.21	12.00	241.34	469,268.19	693,620.81
7,800.00	72.36	95.54	7,652.01	-32.14	331.22	12.00	332.78	469,259.36	693,711.82

Standard_Report

Company: Strata Production Company
 Project: Eddy County, New Mexico NAD83 NM E
 Site: Section 24-T23S-R30E
 Well: Sandy Federal #4
 Wellbore: Original Hole
 Design: rev1

Local Co-ordinate Reference: Well Sandy Federal #4
 TVD Reference: RKB=3265+15 @ 3280.00ft
 MD Reference: RKB=3265+15 @ 3280.00ft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: DB_Jul2216dt_v14

Planned Survey

MD (ft)	Inc (°)	Azi (azimuth) (°)	TVD (ft)	N/S (ft)	E/W (ft)	DLeg (°/100ft)	V. Sec (ft)	Northing (usft)	Easting (usft)
7,900.00	84.36	95.54	7,672.15	-41.58	428.53	12.00	430.54	469,249.92	693,809.13
7,942.59	89.47	95.54	7,674.44	-45.69	470.84	12.00	473.05	469,245.81	693,851.44
Begin 89.47° lateral									
8,000.00	89.47	95.54	7,674.98	-51.23	527.98	0.00	530.46	469,240.27	693,908.58
8,100.00	89.47	95.54	7,675.90	-60.89	627.51	0.00	630.46	469,230.61	694,008.11
8,200.00	89.47	95.54	7,676.82	-70.55	727.04	0.00	730.45	469,220.95	694,107.64
8,300.00	89.47	95.54	7,677.75	-80.21	826.57	0.00	830.45	469,211.29	694,207.17
8,400.00	89.47	95.54	7,678.67	-89.87	926.10	0.00	930.45	469,201.63	694,306.69
8,500.00	89.47	95.54	7,679.60	-99.52	1,025.62	0.00	1,030.44	469,191.98	694,406.22
8,600.00	89.47	95.54	7,680.52	-109.18	1,125.15	0.00	1,130.44	469,182.32	694,505.75
8,700.00	89.47	95.54	7,681.45	-118.84	1,224.68	0.00	1,230.43	469,172.66	694,605.28
8,800.00	89.47	95.54	7,682.37	-128.50	1,324.21	0.00	1,330.43	469,163.00	694,704.81
8,900.00	89.47	95.54	7,683.30	-138.16	1,423.74	0.00	1,430.42	469,153.34	694,804.33
9,000.00	89.47	95.54	7,684.22	-147.81	1,523.26	0.00	1,530.42	469,143.69	694,903.86
9,100.00	89.47	95.54	7,685.15	-157.47	1,622.79	0.00	1,630.42	469,134.03	695,003.39
9,200.00	89.47	95.54	7,686.07	-167.13	1,722.32	0.00	1,730.41	469,124.37	695,102.92
9,300.00	89.47	95.54	7,686.99	-176.79	1,821.85	0.00	1,830.41	469,114.71	695,202.45
9,400.00	89.47	95.54	7,687.92	-186.45	1,921.38	0.00	1,930.40	469,105.05	695,301.97
9,500.00	89.47	95.54	7,688.84	-196.11	2,020.91	0.00	2,030.40	469,095.40	695,401.50
9,600.00	89.47	95.54	7,689.77	-205.76	2,120.43	0.00	2,130.39	469,085.74	695,501.03
9,700.00	89.47	95.54	7,690.69	-215.42	2,219.96	0.00	2,230.39	469,076.08	695,600.56
9,800.00	89.47	95.54	7,691.62	-225.08	2,319.49	0.00	2,330.39	469,066.42	695,700.09
9,900.00	89.47	95.54	7,692.54	-234.74	2,419.02	0.00	2,430.38	469,056.76	695,799.61
10,000.00	89.47	95.54	7,693.47	-244.40	2,518.55	0.00	2,530.38	469,047.11	695,899.14
10,100.00	89.47	95.54	7,694.39	-254.05	2,618.08	0.00	2,630.37	469,037.45	695,998.67
10,200.00	89.47	95.54	7,695.32	-263.71	2,717.60	0.00	2,730.37	469,027.79	696,098.20
10,300.00	89.47	95.54	7,696.24	-273.37	2,817.13	0.00	2,830.36	469,018.13	696,197.73

Standard_Report

Company: Strata Production Company
Project: Eddy County, New Mexico NAD83 NM E
Site: Section 24-T23S-R30E
Well: Sandy Federal #4
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference: Well Sandy Federal #4
TVD Reference: RKB=3265+15 @ 3280.00ft
MD Reference: RKB=3265+15 @ 3280.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: DB_Jul2216dt_v14

Planned Survey

MD (ft)	Inc (°)	Azi (azimuth) (°)		TVD (ft)	N/S (ft)	E/W (ft)	DLeg (°/100ft)	V. Sec (ft)	Northing (usft)	Easting (usft)
10,400.00	89.47	95.54		7,697.16	-283.03	2,916.66	0.00	2,930.36	469,008.47	696,297.25
10,500.00	89.47	95.54		7,698.09	-292.69	3,016.19	0.00	3,030.36	468,998.82	696,396.78
10,600.00	89.47	95.54		7,699.01	-302.34	3,115.72	0.00	3,130.35	468,989.16	696,496.31
10,700.00	89.47	95.54		7,699.94	-312.00	3,215.24	0.00	3,230.35	468,979.50	696,595.84
10,800.00	89.47	95.54		7,700.86	-321.66	3,314.77	0.00	3,330.34	468,969.84	696,695.37
10,900.00	89.47	95.54		7,701.79	-331.32	3,414.30	0.00	3,430.34	468,960.18	696,794.89
11,000.00	89.47	95.54		7,702.71	-340.98	3,513.83	0.00	3,530.33	468,950.52	696,894.42
11,100.00	89.47	95.54		7,703.64	-350.63	3,613.36	0.00	3,630.33	468,940.87	696,993.95
11,200.00	89.47	95.54		7,704.56	-360.29	3,712.89	0.00	3,730.33	468,931.21	697,093.48
11,300.00	89.47	95.54		7,705.49	-369.95	3,812.41	0.00	3,830.32	468,921.55	697,193.01
11,400.00	89.47	95.54		7,706.41	-379.61	3,911.94	0.00	3,930.32	468,911.89	697,292.53
11,500.00	89.47	95.54		7,707.33	-389.27	4,011.47	0.00	4,030.31	468,902.23	697,392.06
11,600.00	89.47	95.54		7,708.26	-398.92	4,111.00	0.00	4,130.31	468,892.58	697,491.59
11,700.00	89.47	95.54		7,709.18	-408.58	4,210.53	0.00	4,230.30	468,882.92	697,591.12
11,800.00	89.47	95.54		7,710.11	-418.24	4,310.05	0.00	4,330.30	468,873.26	697,690.65
11,900.00	89.47	95.54		7,711.03	-427.90	4,409.58	0.00	4,430.30	468,863.60	697,790.17
12,000.00	89.47	95.54		7,711.96	-437.56	4,509.11	0.00	4,530.29	468,853.94	697,889.70
12,100.00	89.47	95.54		7,712.88	-447.21	4,608.64	0.00	4,630.29	468,844.29	697,989.23
12,200.00	89.47	95.54		7,713.81	-456.87	4,708.17	0.00	4,730.28	468,834.63	698,088.76
12,300.00	89.47	95.54		7,714.73	-466.53	4,807.70	0.00	4,830.28	468,824.97	698,188.29
12,400.00	89.47	95.54		7,715.66	-476.19	4,907.22	0.00	4,930.27	468,815.31	698,287.81
12,500.00	89.47	95.54		7,716.58	-485.85	5,006.75	0.00	5,030.27	468,805.65	698,387.34
12,600.00	89.47	95.54		7,717.50	-495.50	5,106.28	0.00	5,130.27	468,796.00	698,486.87
12,700.00	89.47	95.54		7,718.43	-505.16	5,205.81	0.00	5,230.26	468,786.34	698,586.40
12,800.00	89.47	95.54		7,719.35	-514.82	5,305.34	0.00	5,330.26	468,776.68	698,685.93
12,900.00	89.47	95.54		7,720.28	-524.48	5,404.87	0.00	5,430.25	468,767.02	698,785.45
13,000.00	89.47	95.54		7,721.20	-534.14	5,504.39	0.00	5,530.25	468,757.36	698,884.98

Standard_Report

Company: Strata Production Company
Project: Eddy County, New Mexico NAD83 NM E
Site: Section 24-T23S-R30E
Well: Sandy Federal #4
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference: Well Sandy Federal #4
TVD Reference: RKB=3265+15 @ 3280.00ft
MD Reference: RKB=3265+15 @ 3280.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: DB_Jul2216dt_v14

Planned Survey

MD (ft)	Inc (°)	Azi (azimuth) (°)	TVD (ft)	N/S (ft)	E/W (ft)	DLeg (°/100ft)	V. Sec (ft)	Northing (usft)	Easting (usft)
13,100.00	89.47	95.54	7,722.13	-543.79	5,603.92	0.00	5,630.24	468,747.71	698,984.51
13,200.00	89.47	95.54	7,723.05	-553.45	5,703.45	0.00	5,730.24	468,738.05	699,084.04
13,300.00	89.47	95.54	7,723.98	-563.11	5,802.98	0.00	5,830.24	468,728.39	699,183.57
13,400.00	89.47	95.54	7,724.90	-572.77	5,902.51	0.00	5,930.23	468,718.73	699,283.09
13,500.00	89.47	95.54	7,725.83	-582.43	6,002.03	0.00	6,030.23	468,709.07	699,382.62
13,600.00	89.47	95.54	7,726.75	-592.08	6,101.56	0.00	6,130.22	468,699.42	699,482.15
13,700.00	89.47	95.54	7,727.67	-601.74	6,201.09	0.00	6,230.22	468,689.76	699,581.68
13,800.00	89.47	95.54	7,728.60	-611.40	6,300.62	0.00	6,330.21	468,680.10	699,681.21
13,900.00	89.47	95.54	7,729.52	-621.06	6,400.15	0.00	6,430.21	468,670.44	699,780.73
14,000.00	89.47	95.54	7,730.45	-630.72	6,499.68	0.00	6,530.21	468,660.78	699,880.26
14,100.00	89.47	95.54	7,731.37	-640.37	6,599.20	0.00	6,630.20	468,651.13	699,979.79
14,200.00	89.47	95.54	7,732.30	-650.03	6,698.73	0.00	6,730.20	468,641.47	700,079.32
14,300.00	89.47	95.54	7,733.22	-659.69	6,798.26	0.00	6,830.19	468,631.81	700,178.85
14,400.00	89.47	95.54	7,734.15	-669.35	6,897.79	0.00	6,930.19	468,622.15	700,278.37
14,500.00	89.47	95.54	7,735.07	-679.01	6,997.32	0.00	7,030.18	468,612.49	700,377.90
14,600.00	89.47	95.54	7,736.00	-688.67	7,096.85	0.00	7,130.18	468,602.84	700,477.43
14,700.00	89.47	95.54	7,736.92	-698.32	7,196.37	0.00	7,230.18	468,593.18	700,576.96
14,800.00	89.47	95.54	7,737.84	-707.98	7,295.90	0.00	7,330.17	468,583.52	700,676.49
14,900.00	89.47	95.54	7,738.77	-717.64	7,395.43	0.00	7,430.17	468,573.86	700,776.02
15,000.00	89.47	95.54	7,739.69	-727.30	7,494.96	0.00	7,530.16	468,564.20	700,875.54
15,100.00	89.47	95.54	7,740.62	-736.96	7,594.49	0.00	7,630.16	468,554.55	700,975.07
15,200.00	89.47	95.54	7,741.54	-746.61	7,694.01	0.00	7,730.15	468,544.89	701,074.60
15,300.00	89.47	95.54	7,742.47	-756.27	7,793.54	0.00	7,830.15	468,535.23	701,174.13
15,400.00	89.47	95.54	7,743.39	-765.93	7,893.07	0.00	7,930.15	468,525.57	701,273.66
15,500.00	89.47	95.54	7,744.32	-775.59	7,992.60	0.00	8,030.14	468,515.91	701,373.18
15,600.00	89.47	95.54	7,745.24	-785.25	8,092.13	0.00	8,130.14	468,506.26	701,472.71
15,700.00	89.47	95.54	7,746.17	-794.90	8,191.66	0.00	8,230.13	468,496.60	701,572.24

Standard_Report

Company: Strata Production Company
Project: Eddy County, New Mexico NAD83 NM E
Site: Section 24-T23S-R30E
Well: Sandy Federal #4
Wellbore: Original Hole
Design: rev1

Local Co-ordinate Reference: Well Sandy Federal #4
TVD Reference: RKB=3265+15 @ 3280.00ft
MD Reference: RKB=3265+15 @ 3280.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: DB_Jul2216dt_v14

Planned Survey

MD (ft)	Inc (°)	Azi (azimuth) (°)	TVD (ft)	N/S (ft)	E/W (ft)	DLeg (°/100ft)	V. Sec (ft)	Northing (usft)	Easting (usft)
15,800.00	89.47	95.54	7,747.09	-804.56	8,291.18	0.00	8,330.13	468,486.94	701,671.77
15,900.00	89.47	95.54	7,748.01	-814.22	8,390.71	0.00	8,430.12	468,477.28	701,771.30
16,000.00	89.47	95.54	7,748.94	-823.88	8,490.24	0.00	8,530.12	468,467.62	701,870.82
16,100.00	89.47	95.54	7,749.86	-833.54	8,589.77	0.00	8,630.12	468,457.97	701,970.35
16,200.00	89.47	95.54	7,750.79	-843.19	8,689.30	0.00	8,730.11	468,448.31	702,069.88
16,300.00	89.47	95.54	7,751.71	-852.85	8,788.83	0.00	8,830.11	468,438.65	702,169.41
16,400.00	89.47	95.54	7,752.64	-862.51	8,888.35	0.00	8,930.10	468,428.99	702,268.94
16,500.00	89.47	95.54	7,753.56	-872.17	8,987.88	0.00	9,030.10	468,419.33	702,368.46
16,600.00	89.47	95.54	7,754.49	-881.83	9,087.41	0.00	9,130.09	468,409.68	702,467.99
16,700.00	89.47	95.54	7,755.41	-891.48	9,186.94	0.00	9,230.09	468,400.02	702,567.52
16,800.00	89.47	95.54	7,756.34	-901.14	9,286.47	0.00	9,330.09	468,390.36	702,667.05
16,900.00	89.47	95.54	7,757.26	-910.80	9,385.99	0.00	9,430.08	468,380.70	702,766.58
17,000.00	89.47	95.54	7,758.18	-920.46	9,485.52	0.00	9,530.08	468,371.04	702,866.10
17,100.00	89.47	95.54	7,759.11	-930.12	9,585.05	0.00	9,630.07	468,361.39	702,965.63
17,200.00	89.47	95.54	7,760.03	-939.77	9,684.58	0.00	9,730.07	468,351.73	703,065.16
17,300.00	89.47	95.54	7,760.96	-949.43	9,784.11	0.00	9,830.06	468,342.07	703,164.69
17,317.49	89.47	95.54	7,761.12	-951.12	9,801.52	0.00	9,847.56	468,340.38	703,182.10

PBHL/TD 17317.49 MD/7761.12 TVD

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,197.00	7,197.00	0.00	0.00	KOP Begin 12"/100' build
7,942.59	7,674.44	-45.69	470.84	Begin 89.47° lateral
17,317.49	7,761.12	-951.12	9,801.52	PBHL/TD 17317.49 MD/7761.12 TVD