

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

NMOSD
HOBBS
NOV 21 2019
RECEIVED

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other			6. If Indian, Allottee or Tribe Name		
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr. Other _____			7. Unit or CA Agreement Name and No.		
2. Name of Operator BTA OIL PRODUCERS, LLC			8. Lease Name and Well No. ROJO 7811 22 FEDERAL COM 15H		
3. Address 104 S. PECOS MIDLAND, TX 79701			9. API Well No. 30-025-45333		
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface SESE 220FNL 1280FEL 32.109386 N Lat, 103.555794 W Lon At top prod interval reported below SESE 220FNL 1280FEL 32.109386 N Lat, 103.555794 W Lon At total depth 50FNL 990FEL 32.123158 N Lat, 103.554861 W Lon			10. Field and Pool, or Exploratory BOBCAT DRAW; UPPER WOLF		
14. Date Spudded 12/13/2018			15. Date T.D. Reached 01/25/2019		
16. Date Completed ☐ D & A ☒ Ready to Prod. 05/14/2019			17. Elevations (DF, KB, RT, GL)* 3345 GL		
18. Total Depth: MD 17315 TVD 12455		19. Plug Back T.D.: MD TVD		20. Depth Bridge Plug Set: MD TVD	
21. Type Electric & Other Mechanical Logs Run (Submit copy of each) MWD GR			22. Was well cored? ☒ No ☐ Yes (Submit analysis) Was DST run? ☒ No ☐ Yes (Submit analysis) Directional Survey? ☐ No ☒ Yes (Submit analysis)		

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 J-55	54.5		1065		895		0	
12.250	9.625 J-55	40.0		4925		1565		0	
8.750	7.000 P-110	29.0		12438		1100		726	
6.125	4.500 P-110	13.0	10941	16467		405		10941	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	10888	10898						

25. Producing Intervals

26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A)			12600 TO 16478		160	PERF AND FRAC
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
12600 TO 16478	228,547BBLs FLUID; 10,836,444#S SAND

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
05/14/2019	05/19/2019	24	→	420.0	747.0	1214.0	43.0		FLOWS FROM WELL
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
17/64	SI	2100.0	→	420	747	1214			

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
	SI		→						

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #469604 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED

POW
ACCEPTED FOR RECORD
NOV 12 2019
BUREAU OF LAND MANAGEMENT
ROSWELL FIELD OFFICE

Reclamation due: 11/14/2019

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	

29. Disposition of Gas(Sold, used for fuel, vented, etc.)
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
WOLFCAMP	12263	12527		RUSTLER TOP SALT BASE SALT DELAWARE BELL CANYON CHERRY CANYON BRUSHY CANYON BONE SPRING	2692 2849 4709 4985 5218 6393 7640 10095

32. Additional remarks (include plugging procedure):

FORMATION LOG MARKERS CONT.:
FIRST BONE SPRING: 9161
SECOND BONE SPRING: 10676
THIRD BONE SPRING CARBONATE: 11,234
WOLFCAMP: 12263

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.) 2. Geologic Report 3. DST Report 4. Directional Survey
5. Sundry Notice for plugging and cement verification 6. Core Analysis 7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #469604 Verified by the BLM Well Information System.
For BTA OIL PRODUCERS, LLC, sent to the Hobbs
Committed to AFMSS for processing by JENNIFER SANCHEZ on 11/12/2019 ()

Name (please print) KATY REDDELLTitle REGULATORY ANALYSTSignature (Electronic Submission)Date 06/18/2019

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.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

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, New Mexico 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 30-025-45333	Pool Code	Pool Name BOBSCAT DRAW; UPPER WOLF CAMP
Property Code	Property Name ROJO 7811 22 FEDERAL COM	Well Number 15H
OGRID No 2100297	Operator Name BTA OIL PRODUCERS, LLC	Elevation 3345'

Surface Location

UL or lot No	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	22	25-S	33-E		220	SOUTH	1280	EAST	LEA

AS-Drilled 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
A	22	25-S	33-E		18.9	NORTH	948.9	EAST	LEA

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

AS-DRILLED BOTTOM HOLE LOCATION NAD 27 NME Y= 409385.0 N X= 741189.6 E LAT.=32.123119° N LONG.=103.554257° W LAST TAKE POINT NAD 27 NME Y= 408528.6 N X= 741188.1 E LAT.=32.120765° N LONG.=103.554281° W CORNER COORDINATES TABLE NAD 27 NME A - Y= 409401.4 N, X= 740813.4 E B - Y= 409410.5 N, X= 742138.1 E C - Y= 404121.2 N, X= 740851.6 E D - Y= 404130.0 N, X= 742177.9 E CORNER COORDINATES TABLE NAD 83 NME A - Y= 409459.2 N, X= 781999.4 E B - Y= 409468.3 N, X= 783324.2 E C - Y= 404179.0 N, X= 782037.9 E D - Y= 404187.7 N, X= 783364.2 E FIRST TAKE POINT NAD 27 NME Y= 404682.6 N X= 741181.4 E LAT.=32.110193° N LONG.=103.554393° W GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y= 404341.5 N X= 740896.5 E LAT.=32.109261° N LONG.=103.555321° W	AS-DRILLED BOTTOM HOLE LOCATION NAD 83 NME Y= 409442.9 N X= 782375.6 E LAT.=32.123243° N LONG.=103.554728° W LAST TAKE POINT NAD 83 NME Y= 408586.5 N X= 782374.2 E LAT.=32.120889° N LONG.=103.554753° W CORNER COORDINATES TABLE NAD 83 NME A - Y= 409459.2 N, X= 781999.4 E B - Y= 409468.3 N, X= 783324.2 E C - Y= 404179.0 N, X= 782037.9 E D - Y= 404187.7 N, X= 783364.2 E FIRST TAKE POINT NAD 83 NME Y= 404740.3 N X= 782367.7 E LAT.=32.110318° N LONG.=103.554864° W GEODETIC COORDINATES NAD 83 NME SURFACE LOCATION Y= 404399.2 N X= 782082.8 E LAT.=32.109386° N LONG.=103.555792° W	The diagram shows a rectangular project area with dimensions 948.9' by 957'. A well path is shown running vertically through the center. Key points include the AS-Drilled Bottom Hole Location (NAD 27 NME) at the top, the Last Take Point (NAD 27 NME) below it, and the First Take Point (NAD 27 NME) at the bottom. The diagram also shows the well path and the producing area.	OPERATOR CERTIFICATION I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unless 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order herein (as entered by the division). Signature: <i>Kerry Redden</i> Date: <i>6/18/19</i> Printed Name: <i>Kerry Redden</i> E-mail Address: <i>Kredde1@btaoil.com</i> 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. DATE: JANUARY 20, 2017 Date of Survey: <i>12/18/16</i> Signature: <i>Ronald J. Eidson</i> Professional Surveyor: <i>Ronald J. Eidson</i> NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR 3239 Certificate Number: <i>3239</i> Signature: <i>Ronald J. Eidson</i> Date: <i>4/1/2019</i> Signature: <i>Gary A. Eidson</i> Date: <i>12/6/11</i> Signature: <i>Ronald J. Eidson</i> Date: <i>12/6/11</i> LSL Ref W O: 17.13 0494 JWSC W O: 19.13 0609
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Intent ☐ As Drilled ☒

API #
30-025-45446

Operator Name:
BTA OIL PRODUCERS, LLC

Property Name:
ROJO 7811 22 FEDERAL COM

Well Number
15H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
	22	25S	33E		220	S	1280	E	LEA
Latitude					Longitude			NAD	
32.109386					-103.555792			83	

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
	22	25S	33E		330	S	330	E	LEA
Latitude					Longitude			NAD	
32.110318					-103.554864			83	

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
	22	25S	33E		330	N	330	E	LEA
Latitude					Longitude			NAD	
32.120889					-103.554753			83	

Is this well the defining well for the Horizontal Spacing Unit?

☐ NO

Is this well an infill well?

☐ YES

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #
30-025-45446

Operator Name:
BTA OIL PRODUCERS, LLC

Property Name:
ROJO 7811 22 FEDERAL COM

Well Number
14Y

KZ 06/29/2018

District I
1625 N. French Dr., Hobbs, NM 88240
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811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Submit Original
to Appropriate
District Office

Date: 8/22/2018

GAS CAPTURE PLAN

☒ Original

Operator & OGRID No.: 260297

☐ Amended - Reason for Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
<u>Rjd 781122</u>						
<u>RED COM 15H</u>		<u>Sec. 22, 25S</u>	<u>220 FSL</u>	<u>100</u>	<u>FLARE</u>	<u>Battery Connected</u>
		<u>33E</u>				<u>to ETP system</u>

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Gas Transporter and will be connected to Gas Transporter **ETP** low/high pressure gathering system located in LEA County, New Mexico. It will require 0 ' of pipeline to connect the facility to low/high pressure gathering system. Operator provides (periodically) to Gas Transporter a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Operator and Gas Transporter have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Gas Transporter Processing Plant located in Sec. , Twn. Rng. County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Gas Transporter system at that time. Based on current information, it is Operator's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines



BTA Oil Producers, LLC

Lea County, NM (NAD 83)

Sec 22, T25-S, R33-E

Rojo 7811 22 Fed Com #15H

Wellbore #1

Design: Wellbore #1

Survey Report - Geographic

12 February, 2019





Survey Report - Geographic



Company: BTA Oil Producers, LLC
 Project: Lea County, NM (NAD 83)
 Site: Sec 22, T25-S, R33-E
 Well: Rojo 7811 22 Fed Com #15H
 Wellbore: Wellbore #1
 Design: Wellbore #1

Local Co-ordinate Reference: Well Rojo 7811 22 Fed Com #15H
 TVD Reference: WELL @ 3370.0usft (Patterson #566)
 MD Reference: WELL @ 3370.0usft (Patterson #566)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 Single User Db

Project Lea County, NM (NAD 83)

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

System Datum: Mean Sea Level

Site Sec 22, T25-S, R33-E

Site Position: Northing: 409,243.40 usft Latitude: 32° 7' 21.790 N
 From: Map Easting: 781,148.30 usft Longitude: 103° 33' 31.310 W
 Position Uncertainty: 0.0 usft Slot Radius: 13-3/16 " Grid Convergence: 0.41 °

Well Rojo 7811 22 Fed Com #15H

Well Position +N/-S 0.0 usft Northing: 404,399.19 usft Latitude: 32° 6' 33.788 N
 +E/-W 0.0 usft Easting: 782,082.80 usft Longitude: 103° 33' 20.850 W
 Position Uncertainty 0.0 usft Wellhead Elevation: usft Ground Level: 3,345.0 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2/4/2019	6.76	59.94	47,704.27120196

Design Wellbore #1

Audit Notes:

Version: 1.0 Phase: ACTUAL Tie On Depth: 0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	2.88

Survey Program Date 2/12/2019

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
165.0	17,315.0	QES MWD Surveys (Wellbore #1)	OWSG (Rev2) MWD	OWSG MWD - Standard

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	404,399.19	782,082.80	32° 6' 33.788 N	103° 33' 20.850 W
165.0	0.30	153.70	165.0	-0.4	0.2	404,398.80	782,082.99	32° 6' 33.784 N	103° 33' 20.848 W
First MWD Survey @ 165.0' MD / 165.0' TVD									
259.0	0.40	93.40	259.0	-0.6	0.6	404,398.56	782,083.43	32° 6' 33.782 N	103° 33' 20.843 W
352.0	0.40	103.00	352.0	-0.7	1.3	404,398.47	782,084.07	32° 6' 33.781 N	103° 33' 20.835 W
445.0	0.40	79.80	445.0	-0.7	1.9	404,398.46	782,084.70	32° 6' 33.781 N	103° 33' 20.828 W
538.0	0.20	93.50	538.0	-0.7	2.4	404,398.50	782,085.18	32° 6' 33.781 N	103° 33' 20.822 W
631.0	0.40	85.50	631.0	-0.7	2.9	404,398.52	782,085.67	32° 6' 33.781 N	103° 33' 20.817 W
726.0	0.20	48.70	726.0	-0.5	3.3	404,398.66	782,086.12	32° 6' 33.783 N	103° 33' 20.811 W
821.0	0.20	68.60	821.0	-0.4	3.6	404,398.83	782,086.40	32° 6' 33.784 N	103° 33' 20.808 W
916.0	0.20	6.40	916.0	-0.1	3.8	404,399.05	782,086.58	32° 6' 33.787 N	103° 33' 20.806 W
1,011.0	0.30	215.40	1,011.0	-0.2	3.7	404,399.01	782,086.45	32° 6' 33.786 N	103° 33' 20.807 W



Survey Report - Geographic



Company: BTA Oil Producers, LLC
Project: Lea County, NM (NAD 83)
Site: Sec 22, T25-S, R33-E
Well: Rojo 7811 22 Fed Com #15H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Rojo 7811 22 Fed Com #15H
TVD Reference: WELL @ 3370.0usft (Patterson #566)
MD Reference: WELL @ 3370.0usft (Patterson #566)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,034.0	0.20	215.40	1,034.0	-0.3	3.6	404,398.93	782,086.39	32° 6' 33.785 N	103° 33' 20.808 W
1,104.0	0.40	227.50	1,104.0	-0.5	3.3	404,398.67	782,086.14	32° 6' 33.783 N	103° 33' 20.811 W
1,200.0	1.60	141.70	1,200.0	-1.8	3.9	404,397.39	782,086.72	32° 6' 33.770 N	103° 33' 20.804 W
1,295.0	3.00	127.80	1,294.9	-4.4	6.7	404,394.82	782,089.51	32° 6' 33.745 N	103° 33' 20.772 W
1,390.0	3.80	122.20	1,389.7	-7.6	11.3	404,391.62	782,094.14	32° 6' 33.713 N	103° 33' 20.719 W
1,485.0	4.00	124.50	1,484.5	-11.1	16.7	404,388.07	782,099.53	32° 6' 33.677 N	103° 33' 20.656 W
1,581.0	4.30	123.80	1,580.3	-15.0	22.5	404,384.17	782,105.28	32° 6' 33.638 N	103° 33' 20.590 W
1,676.0	4.10	129.80	1,675.0	-19.2	28.1	404,380.01	782,110.85	32° 6' 33.596 N	103° 33' 20.525 W
1,771.0	3.20	134.30	1,769.8	-23.2	32.6	404,375.99	782,115.36	32° 6' 33.556 N	103° 33' 20.473 W
1,866.0	2.20	131.30	1,864.7	-26.3	35.8	404,372.93	782,118.63	32° 6' 33.526 N	103° 33' 20.435 W
1,961.0	1.50	126.90	1,959.7	-28.2	38.2	404,370.98	782,120.99	32° 6' 33.506 N	103° 33' 20.408 W
2,055.0	1.20	130.30	2,053.6	-29.6	39.9	404,369.61	782,122.73	32° 6' 33.493 N	103° 33' 20.388 W
2,151.0	1.20	132.70	2,149.6	-30.9	41.4	404,368.28	782,124.23	32° 6' 33.479 N	103° 33' 20.371 W
2,247.0	1.20	136.30	2,245.6	-32.3	42.9	404,366.87	782,125.66	32° 6' 33.465 N	103° 33' 20.354 W
2,342.0	1.30	135.00	2,340.6	-33.8	44.3	404,365.39	782,127.11	32° 6' 33.451 N	103° 33' 20.337 W
2,439.0	1.30	132.20	2,437.5	-35.3	45.9	404,363.87	782,128.71	32° 6' 33.435 N	103° 33' 20.319 W
2,534.0	0.80	135.70	2,532.5	-36.5	47.2	404,362.67	782,129.97	32° 6' 33.424 N	103° 33' 20.304 W
2,629.0	0.60	120.10	2,627.5	-37.2	48.1	404,361.95	782,130.86	32° 6' 33.416 N	103° 33' 20.294 W
2,724.0	0.80	110.90	2,722.5	-37.7	49.1	404,361.46	782,131.91	32° 6' 33.411 N	103° 33' 20.282 W
2,818.0	1.10	114.10	2,816.5	-38.3	50.6	404,360.86	782,133.35	32° 6' 33.405 N	103° 33' 20.265 W
2,914.0	1.20	108.30	2,912.5	-39.0	52.3	404,360.17	782,135.14	32° 6' 33.398 N	103° 33' 20.245 W
3,010.0	1.80	102.20	3,008.4	-39.7	54.8	404,359.53	782,137.57	32° 6' 33.392 N	103° 33' 20.216 W
3,104.0	2.30	97.10	3,102.4	-40.2	58.1	404,358.99	782,140.89	32° 6' 33.386 N	103° 33' 20.178 W
3,199.0	1.20	106.40	3,197.3	-40.7	60.9	404,358.47	782,143.73	32° 6' 33.381 N	103° 33' 20.145 W
3,294.0	0.80	247.90	3,292.3	-41.3	61.3	404,357.94	782,144.07	32° 6' 33.376 N	103° 33' 20.141 W
3,389.0	1.80	271.40	3,387.3	-41.5	59.2	404,357.73	782,141.97	32° 6' 33.374 N	103° 33' 20.165 W
3,483.0	1.20	275.00	3,481.3	-41.3	56.7	404,357.85	782,139.51	32° 6' 33.375 N	103° 33' 20.194 W
3,578.0	1.20	257.70	3,576.2	-41.5	54.8	404,357.72	782,137.55	32° 6' 33.374 N	103° 33' 20.217 W
3,674.0	1.50	250.70	3,672.2	-42.1	52.6	404,357.09	782,135.38	32° 6' 33.368 N	103° 33' 20.242 W
3,769.0	1.70	248.20	3,767.2	-43.0	50.1	404,356.16	782,132.90	32° 6' 33.359 N	103° 33' 20.271 W
3,865.0	0.80	263.40	3,863.2	-43.6	48.1	404,355.55	782,130.91	32° 6' 33.353 N	103° 33' 20.294 W
3,959.0	1.40	34.30	3,957.2	-42.8	48.1	404,356.43	782,130.91	32° 6' 33.362 N	103° 33' 20.294 W
4,054.0	1.80	47.50	4,052.1	-40.8	49.9	404,358.39	782,132.66	32° 6' 33.381 N	103° 33' 20.274 W
4,150.0	1.50	50.80	4,148.1	-39.0	51.9	404,360.21	782,134.74	32° 6' 33.399 N	103° 33' 20.249 W
4,245.0	1.40	44.50	4,243.0	-37.4	53.7	404,361.82	782,136.52	32° 6' 33.415 N	103° 33' 20.228 W
4,340.0	1.30	59.80	4,338.0	-36.0	55.5	404,363.19	782,138.27	32° 6' 33.428 N	103° 33' 20.208 W
4,436.0	2.10	76.50	4,434.0	-35.0	58.1	404,364.15	782,140.92	32° 6' 33.437 N	103° 33' 20.177 W
4,531.0	3.20	91.30	4,528.9	-34.7	62.5	404,364.49	782,145.26	32° 6' 33.440 N	103° 33' 20.127 W
4,626.0	4.50	99.30	4,623.7	-35.4	68.8	404,363.83	782,151.59	32° 6' 33.433 N	103° 33' 20.053 W
4,722.0	5.40	106.20	4,719.3	-37.2	76.8	404,361.96	782,159.64	32° 6' 33.414 N	103° 33' 19.960 W
4,817.0	5.60	107.60	4,813.9	-39.9	85.6	404,359.31	782,168.36	32° 6' 33.388 N	103° 33' 19.858 W
4,912.0	5.60	106.00	4,908.4	-42.6	94.4	404,356.63	782,177.23	32° 6' 33.360 N	103° 33' 19.756 W
4,933.0	5.50	106.70	4,929.3	-43.1	96.4	404,356.06	782,179.18	32° 6' 33.355 N	103° 33' 19.733 W
5,075.0	5.40	105.30	5,070.7	-46.8	109.3	404,352.34	782,192.14	32° 6' 33.317 N	103° 33' 19.583 W
5,169.0	4.80	121.70	5,164.3	-50.1	117.0	404,349.11	782,199.75	32° 6' 33.284 N	103° 33' 19.494 W
5,264.0	4.40	151.90	5,259.0	-55.4	122.1	404,343.81	782,204.85	32° 6' 33.231 N	103° 33' 19.435 W
5,359.0	4.20	149.10	5,353.7	-61.6	125.6	404,337.61	782,208.36	32° 6' 33.170 N	103° 33' 19.395 W
5,453.0	4.10	173.00	5,447.5	-67.9	127.7	404,331.32	782,210.53	32° 6' 33.108 N	103° 33' 19.370 W
5,549.0	4.60	182.80	5,543.2	-75.1	128.0	404,324.07	782,210.76	32° 6' 33.036 N	103° 33' 19.368 W
5,644.0	3.40	204.60	5,638.0	-81.5	126.6	404,317.70	782,209.40	32° 6' 32.973 N	103° 33' 19.385 W
5,738.0	2.90	215.70	5,731.9	-86.0	124.1	404,313.23	782,206.86	32° 6' 32.929 N	103° 33' 19.415 W
5,833.0	2.90	214.50	5,826.7	-89.9	121.3	404,309.30	782,204.09	32° 6' 32.890 N	103° 33' 19.447 W
5,928.0	2.90	214.00	5,921.6	-93.9	118.6	404,305.33	782,201.39	32° 6' 32.851 N	103° 33' 19.479 W
6,024.0	2.90	214.70	6,017.5	-97.9	115.9	404,301.32	782,198.65	32° 6' 32.812 N	103° 33' 19.511 W
6,120.0	1.70	212.20	6,113.4	-101.1	113.7	404,298.12	782,196.51	32° 6' 32.780 N	103° 33' 19.536 W



Survey Report - Geographic



Company: BTA Oil Producers, LLC
 Project: Lea County, NM (NAD 83)
 Site: Sec 22, T25-S, R33-E
 Well: Rojo 7811 22 Fed Com #15H
 Wellbore: Wellbore #1
 Design: Wellbore #1

Local Co-ordinate Reference: Well Rojo 7811 22 Fed Com #15H
 TVD Reference: WELL @ 3370.0usft (Patterson #566)
 MD Reference: WELL @ 3370.0usft (Patterson #566)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,215.0	2.20	158.80	6,208.4	-104.0	113.6	404,295.22	782,196.42	32° 6' 32.751 N	103° 33' 19.538 W
6,309.0	2.60	156.10	6,302.3	-107.6	115.1	404,291.59	782,197.93	32° 6' 32.715 N	103° 33' 19.520 W
6,405.0	2.70	102.30	6,398.2	-110.1	118.2	404,289.12	782,201.02	32° 6' 32.691 N	103° 33' 19.485 W
6,500.0	3.00	95.80	6,493.1	-110.8	122.9	404,288.39	782,205.68	32° 6' 32.683 N	103° 33' 19.430 W
6,594.0	3.10	95.50	6,586.9	-111.3	127.9	404,287.90	782,210.66	32° 6' 32.678 N	103° 33' 19.373 W
6,690.0	3.10	96.20	6,682.8	-111.8	133.0	404,287.37	782,215.82	32° 6' 32.672 N	103° 33' 19.313 W
6,784.0	3.20	96.20	6,776.7	-112.4	138.2	404,286.81	782,220.96	32° 6' 32.666 N	103° 33' 19.253 W
6,880.0	3.10	93.90	6,872.5	-112.8	143.4	404,286.35	782,226.21	32° 6' 32.661 N	103° 33' 19.192 W
6,975.0	3.20	95.80	6,967.4	-113.3	148.6	404,285.90	782,231.41	32° 6' 32.657 N	103° 33' 19.132 W
7,070.0	2.00	137.30	7,062.3	-114.8	152.4	404,284.42	782,235.18	32° 6' 32.642 N	103° 33' 19.088 W
7,165.0	2.20	139.80	7,157.2	-117.4	154.7	404,281.81	782,237.48	32° 6' 32.616 N	103° 33' 19.061 W
7,260.0	2.30	139.30	7,252.1	-120.2	157.1	404,278.97	782,239.90	32° 6' 32.587 N	103° 33' 19.033 W
7,354.0	1.50	103.60	7,346.1	-121.9	159.5	404,277.25	782,242.32	32° 6' 32.570 N	103° 33' 19.005 W
7,450.0	1.50	87.40	7,442.1	-122.2	162.0	404,277.01	782,244.80	32° 6' 32.568 N	103° 33' 18.977 W
7,545.0	1.50	86.30	7,537.0	-122.0	164.5	404,277.15	782,247.28	32° 6' 32.569 N	103° 33' 18.948 W
7,639.0	1.50	91.30	7,631.0	-122.0	166.9	404,277.20	782,249.74	32° 6' 32.569 N	103° 33' 18.919 W
7,733.0	1.50	92.10	7,725.0	-122.1	169.4	404,277.13	782,252.20	32° 6' 32.568 N	103° 33' 18.891 W
7,828.0	1.50	90.40	7,819.9	-122.1	171.9	404,277.07	782,254.69	32° 6' 32.568 N	103° 33' 18.862 W
7,923.0	1.60	93.50	7,914.9	-122.2	174.5	404,276.98	782,257.25	32° 6' 32.567 N	103° 33' 18.832 W
8,018.0	1.90	118.90	8,009.9	-123.1	177.2	404,276.14	782,259.96	32° 6' 32.558 N	103° 33' 18.801 W
8,113.0	2.10	127.10	8,104.8	-124.9	179.9	404,274.33	782,262.72	32° 6' 32.540 N	103° 33' 18.768 W
8,207.0	2.00	126.80	8,198.7	-126.9	182.6	404,272.31	782,265.41	32° 6' 32.520 N	103° 33' 18.737 W
8,302.0	1.90	126.10	8,293.7	-128.8	185.2	404,270.39	782,268.01	32° 6' 32.500 N	103° 33' 18.707 W
8,397.0	1.60	96.40	8,388.6	-129.9	187.8	404,269.31	782,270.60	32° 6' 32.490 N	103° 33' 18.677 W
8,491.0	1.50	100.40	8,482.6	-130.2	190.3	404,268.94	782,273.11	32° 6' 32.486 N	103° 33' 18.648 W
8,586.0	1.50	105.90	8,577.6	-130.8	192.7	404,268.38	782,275.53	32° 6' 32.480 N	103° 33' 18.620 W
8,681.0	1.40	111.10	8,672.5	-131.6	195.0	404,267.62	782,277.81	32° 6' 32.472 N	103° 33' 18.594 W
8,776.0	1.50	116.40	8,767.5	-132.5	197.2	404,266.65	782,280.01	32° 6' 32.463 N	103° 33' 18.568 W
8,872.0	1.20	119.20	8,863.5	-133.6	199.2	404,265.60	782,282.01	32° 6' 32.452 N	103° 33' 18.545 W
8,967.0	0.90	127.60	8,958.5	-134.5	200.7	404,264.66	782,283.47	32° 6' 32.443 N	103° 33' 18.528 W
9,063.0	2.10	119.40	9,054.4	-135.9	202.8	404,263.34	782,285.60	32° 6' 32.429 N	103° 33' 18.503 W
9,158.0	1.80	124.30	9,149.4	-137.6	205.6	404,261.64	782,288.35	32° 6' 32.412 N	103° 33' 18.472 W
9,254.0	1.10	141.90	9,245.3	-139.1	207.4	404,260.07	782,290.16	32° 6' 32.397 N	103° 33' 18.451 W
9,349.0	0.80	165.80	9,340.3	-140.5	208.1	404,258.71	782,290.89	32° 6' 32.383 N	103° 33' 18.442 W
9,445.0	2.00	123.10	9,436.3	-142.1	209.7	404,257.14	782,292.46	32° 6' 32.368 N	103° 33' 18.424 W
9,540.0	1.90	153.10	9,531.3	-144.4	211.8	404,254.83	782,294.56	32° 6' 32.345 N	103° 33' 18.400 W
9,636.0	2.40	115.50	9,627.2	-146.6	214.3	404,252.55	782,297.09	32° 6' 32.322 N	103° 33' 18.371 W
9,731.0	3.00	112.40	9,722.1	-148.4	218.4	404,250.74	782,301.19	32° 6' 32.304 N	103° 33' 18.323 W
9,827.0	2.80	114.80	9,818.0	-150.4	222.8	404,248.80	782,305.64	32° 6' 32.284 N	103° 33' 18.272 W
9,922.0	1.80	122.40	9,912.9	-152.2	226.2	404,247.03	782,309.00	32° 6' 32.266 N	103° 33' 18.233 W
10,017.0	1.60	144.70	10,007.8	-154.0	228.2	404,245.15	782,311.03	32° 6' 32.248 N	103° 33' 18.209 W
10,113.0	1.80	116.40	10,103.8	-155.8	230.4	404,243.38	782,313.15	32° 6' 32.230 N	103° 33' 18.185 W
10,208.0	1.50	109.50	10,198.8	-156.9	232.9	404,242.30	782,315.66	32° 6' 32.219 N	103° 33' 18.156 W
10,303.0	1.10	111.10	10,293.7	-157.6	234.9	404,241.56	782,317.69	32° 6' 32.212 N	103° 33' 18.132 W
10,398.0	1.10	133.80	10,388.7	-158.6	236.4	404,240.60	782,319.19	32° 6' 32.202 N	103° 33' 18.115 W
10,494.0	1.10	104.40	10,484.7	-159.5	238.0	404,239.73	782,320.75	32° 6' 32.193 N	103° 33' 18.097 W
10,590.0	0.90	92.80	10,580.7	-159.7	239.6	404,239.47	782,322.40	32° 6' 32.191 N	103° 33' 18.078 W
10,686.0	1.70	89.20	10,676.7	-159.7	241.8	404,239.45	782,324.58	32° 6' 32.190 N	103° 33' 18.052 W
10,781.0	1.90	84.10	10,771.6	-159.6	244.8	404,239.63	782,327.55	32° 6' 32.192 N	103° 33' 18.018 W
10,875.0	2.00	87.70	10,865.6	-159.3	247.9	404,239.86	782,330.74	32° 6' 32.194 N	103° 33' 17.981 W
10,971.0	1.20	96.00	10,961.5	-159.4	250.6	404,239.82	782,333.41	32° 6' 32.193 N	103° 33' 17.950 W
11,066.0	2.10	98.30	11,056.5	-159.7	253.3	404,239.47	782,336.12	32° 6' 32.190 N	103° 33' 17.918 W
11,162.0	2.60	101.80	11,152.4	-160.4	257.2	404,238.77	782,340.00	32° 6' 32.182 N	103° 33' 17.873 W
11,257.0	1.80	98.50	11,247.3	-161.1	260.8	404,238.11	782,343.58	32° 6' 32.176 N	103° 33' 17.831 W
11,352.0	2.20	106.90	11,342.3	-161.8	264.0	404,237.36	782,346.80	32° 6' 32.168 N	103° 33' 17.794 W



Survey Report - Geographic



Company: BTA Oil Producers, LLC
 Project: Lea County, NM (NAD 83)
 Site: Sec 22, T25-S, R33-E
 Well: Rojo 7811 22 Fed Com #15H
 Wellbore: Wellbore #1
 Design: Wellbore #1

Local Co-ordinate Reference: Well Rojo 7811 22 Fed Com #15H
 TVD Reference: WELL @ 3370.0usft (Patterson #566)
 MD Reference: WELL @ 3370.0usft (Patterson #566)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
11,448.0	1.60	129.80	11,438.2	-163.2	266.8	404,235.96	782,349.59	32° 6' 32.154 N	103° 33' 17.762 W
11,543.0	1.70	138.40	11,533.2	-165.1	268.8	404,234.06	782,351.55	32° 6' 32.135 N	103° 33' 17.739 W
11,639.0	1.60	145.90	11,629.1	-167.3	270.4	404,231.88	782,353.25	32° 6' 32.113 N	103° 33' 17.720 W
11,734.0	1.80	154.20	11,724.1	-169.7	271.8	404,229.44	782,354.64	32° 6' 32.089 N	103° 33' 17.704 W
11,838.0	7.50	1.50	11,827.9	-164.4	272.7	404,234.77	782,355.53	32° 6' 32.142 N	103° 33' 17.693 W
11,933.0	25.10	358.90	11,918.7	-137.9	272.5	404,261.32	782,355.30	32° 6' 32.405 N	103° 33' 17.693 W
12,024.0	28.80	2.60	11,999.8	-96.7	273.1	404,302.53	782,355.93	32° 6' 32.812 N	103° 33' 17.683 W
12,119.0	34.60	0.80	12,080.6	-46.8	274.5	404,352.41	782,357.34	32° 6' 33.306 N	103° 33' 17.662 W
12,218.0	49.00	1.70	12,154.2	19.0	276.1	404,418.20	782,358.85	32° 6' 33.957 N	103° 33' 17.639 W
12,313.0	54.00	2.90	12,213.3	93.3	279.1	404,492.46	782,361.86	32° 6' 34.691 N	103° 33' 17.598 W
12,336.0	54.62	3.01	12,226.7	111.9	280.0	404,511.12	782,362.82	32° 6' 34.876 N	103° 33' 17.585 W
Cross 330' HL@ 12336.0' MD / 12226.7' TVD									
12,402.0	56.40	3.30	12,264.1	166.2	283.0	404,565.43	782,365.82	32° 6' 35.413 N	103° 33' 17.545 W
12,539.0	64.10	359.40	12,332.1	285.0	285.7	404,684.22	782,368.46	32° 6' 36.588 N	103° 33' 17.505 W
12,633.0	70.00	359.20	12,368.7	371.5	284.6	404,770.74	782,367.40	32° 6' 37.444 N	103° 33' 17.510 W
12,726.0	77.60	357.10	12,394.6	460.7	281.7	404,859.93	782,364.49	32° 6' 38.327 N	103° 33' 17.536 W
12,820.0	91.00	355.20	12,403.9	553.8	275.4	404,953.03	782,358.20	32° 6' 39.249 N	103° 33' 17.601 W
12,914.0	92.10	354.60	12,401.4	647.4	267.1	405,046.62	782,349.85	32° 6' 40.176 N	103° 33' 17.691 W
13,009.0	91.00	357.80	12,398.8	742.2	260.8	405,141.37	782,343.56	32° 6' 41.114 N	103° 33' 17.756 W
13,102.0	89.90	359.70	12,398.1	835.1	258.7	405,234.34	782,341.53	32° 6' 42.034 N	103° 33' 17.772 W
13,197.0	89.80	359.60	12,398.3	930.1	258.2	405,329.33	782,340.95	32° 6' 42.974 N	103° 33' 17.770 W
13,291.0	89.60	359.20	12,398.8	1,024.1	257.2	405,423.33	782,339.97	32° 6' 43.904 N	103° 33' 17.774 W
13,384.0	90.30	359.60	12,398.9	1,117.1	256.2	405,516.32	782,338.99	32° 6' 44.824 N	103° 33' 17.777 W
13,479.0	90.00	359.00	12,398.7	1,212.1	255.0	405,611.31	782,337.83	32° 6' 45.764 N	103° 33' 17.783 W
13,573.0	89.20	358.50	12,399.3	1,306.1	253.0	405,705.29	782,335.78	32° 6' 46.694 N	103° 33' 17.799 W
13,666.0	88.60	1.00	12,401.1	1,399.1	252.6	405,798.26	782,335.38	32° 6' 47.614 N	103° 33' 17.796 W
13,760.0	88.70	1.30	12,403.3	1,493.0	254.5	405,892.22	782,337.26	32° 6' 48.544 N	103° 33' 17.766 W
13,854.0	88.70	1.50	12,405.5	1,587.0	256.8	405,986.16	782,339.56	32° 6' 49.474 N	103° 33' 17.731 W
13,948.0	88.10	359.90	12,408.1	1,680.9	257.9	406,080.12	782,340.71	32° 6' 50.403 N	103° 33' 17.710 W
14,042.0	87.70	359.90	12,411.5	1,774.9	257.7	406,174.05	782,340.54	32° 6' 51.333 N	103° 33' 17.704 W
14,136.0	87.90	359.90	12,415.1	1,868.8	257.6	406,267.98	782,340.38	32° 6' 52.262 N	103° 33' 17.698 W
14,230.0	88.90	359.90	12,417.8	1,962.8	257.4	406,361.95	782,340.21	32° 6' 53.192 N	103° 33' 17.692 W
14,324.0	90.70	1.00	12,418.1	2,056.7	258.2	406,455.94	782,340.95	32° 6' 54.122 N	103° 33' 17.676 W
14,417.0	91.10	0.60	12,416.6	2,149.7	259.5	406,548.92	782,342.25	32° 6' 55.042 N	103° 33' 17.653 W
14,511.0	89.90	2.20	12,415.8	2,243.7	261.7	406,642.88	782,344.55	32° 6' 55.972 N	103° 33' 17.618 W
14,605.0	87.60	1.80	12,417.9	2,337.6	265.0	406,736.79	782,347.83	32° 6' 56.901 N	103° 33' 17.572 W
14,698.0	87.90	2.60	12,421.5	2,430.5	268.6	406,829.65	782,351.39	32° 6' 57.819 N	103° 33' 17.523 W
14,792.0	87.70	2.40	12,425.1	2,524.3	272.7	406,923.49	782,355.49	32° 6' 58.748 N	103° 33' 17.467 W
14,886.0	87.50	2.20	12,429.0	2,618.1	276.5	407,017.34	782,359.26	32° 6' 59.676 N	103° 33' 17.416 W
14,980.0	88.60	3.10	12,432.2	2,712.0	280.8	407,111.18	782,363.60	32° 7' 0.604 N	103° 33' 17.357 W
15,074.0	88.90	3.10	12,434.3	2,805.8	285.9	407,205.02	782,368.69	32° 7' 1.532 N	103° 33' 17.290 W
15,168.0	89.00	3.30	12,436.0	2,899.7	291.1	407,298.86	782,373.93	32° 7' 2.461 N	103° 33' 17.222 W
15,262.0	91.20	0.60	12,435.9	2,993.6	294.3	407,392.79	782,377.13	32° 7' 3.390 N	103° 33' 17.176 W
15,356.0	93.00	0.10	12,432.4	3,087.5	294.9	407,486.72	782,377.70	32° 7' 4.319 N	103° 33' 17.162 W
15,449.0	89.40	359.60	12,430.5	3,180.5	294.7	407,579.68	782,377.46	32° 7' 5.239 N	103° 33' 17.157 W
15,542.0	91.60	0.80	12,429.7	3,273.5	295.0	407,672.67	782,377.79	32° 7' 6.159 N	103° 33' 17.145 W
15,636.0	89.60	0.10	12,428.7	3,367.5	295.7	407,766.66	782,378.52	32° 7' 7.089 N	103° 33' 17.129 W
15,731.0	86.60	358.30	12,431.8	3,462.4	294.4	407,861.58	782,377.20	32° 7' 8.029 N	103° 33' 17.136 W
15,826.0	86.80	358.00	12,437.3	3,557.2	291.3	407,956.37	782,374.14	32° 7' 8.967 N	103° 33' 17.164 W
15,919.0	87.10	358.30	12,442.2	3,650.0	288.3	408,049.19	782,371.14	32° 7' 9.886 N	103° 33' 17.191 W
16,013.0	86.60	358.70	12,447.4	3,743.8	285.9	408,143.02	782,368.68	32° 7' 10.814 N	103° 33' 17.212 W
16,107.0	85.70	358.50	12,453.7	3,837.6	283.6	408,236.78	782,366.39	32° 7' 11.742 N	103° 33' 17.230 W
16,201.0	88.50	358.70	12,458.5	3,931.4	281.3	408,330.62	782,364.10	32° 7' 12.671 N	103° 33' 17.249 W
16,295.0	92.50	1.50	12,457.6	4,025.4	281.5	408,424.59	782,364.26	32° 7' 13.601 N	103° 33' 17.239 W
16,389.0	91.00	4.50	12,454.8	4,119.2	286.4	408,518.40	782,369.18	32° 7' 14.529 N	103° 33' 17.174 W



Survey Report - Geographic



Company: BTA Oil Producers, LLC
 Project: Lea County, NM (NAD 83)
 Site: Sec 22, T25-S, R33-E
 Well: Rojo 7811 22 Fed Com #15H
 Wellbore: Wellbore #1
 Design: Wellbore #1

Local Co-ordinate Reference: Well Rojo 7811 22 Fed Com #15H
 TVD Reference: WELL @ 3370.0usft (Patterson #566)
 MD Reference: WELL @ 3370.0usft (Patterson #566)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
16,483.0	88.80	4.00	12,454.9	4,212.9	293.3	408,612.14	782,376.14	32° 7' 15.456 N	103° 33' 17.085 W
16,576.0	90.60	1.10	12,455.4	4,305.8	297.5	408,705.03	782,380.28	32° 7' 16.375 N	103° 33' 17.030 W
16,669.0	90.80	358.20	12,454.3	4,398.8	296.9	408,798.01	782,379.71	32° 7' 17.295 N	103° 33' 17.028 W
16,763.0	90.40	0.10	12,453.3	4,492.8	295.5	408,891.99	782,378.32	32° 7' 18.225 N	103° 33' 17.037 W
16,856.0	88.50	357.50	12,454.2	4,585.8	293.6	408,984.95	782,376.37	32° 7' 19.145 N	103° 33' 17.052 W
16,951.0	87.90	0.80	12,457.2	4,680.7	292.2	409,079.88	782,374.96	32° 7' 20.084 N	103° 33' 17.060 W
17,002.9	89.56	0.03	12,458.3	4,732.6	292.5	409,131.77	782,375.34	32° 7' 20.598 N	103° 33' 17.051 W
Cross 330' HL@ 17002.9' MD / 12458.3' TVD									
17,045.0	90.90	359.40	12,458.2	4,774.7	292.3	409,173.86	782,375.13	32° 7' 21.014 N	103° 33' 17.050 W
17,139.0	89.90	359.00	12,457.5	4,868.7	291.0	409,267.85	782,373.81	32° 7' 21.944 N	103° 33' 17.057 W
17,233.0	90.80	0.30	12,456.9	4,962.7	290.4	409,361.84	782,373.24	32° 7' 22.875 N	103° 33' 17.056 W
17,260.0	91.60	2.00	12,456.4	4,989.6	291.0	409,388.83	782,373.78	32° 7' 23.142 N	103° 33' 17.048 W
17,315.0	91.60	2.00	12,454.8	5,044.6	292.9	409,443.78	782,375.70	32° 7' 23.685 N	103° 33' 17.021 W
TD @ 17315.0' MD / 12454.8' TVD									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
165.0	165.0	-0.4	0.2	First MWD Survey @ 165.0' MD / 165.0' TVD
12,336.0	12,226.7	111.9	280.0	Cross 330' HL@ 12336.0' MD / 12226.7' TVD
17,002.9	12,458.3	4,732.6	292.5	Cross 330' HL@ 17002.9' MD / 12458.3' TVD
17,315.0	12,454.8	5,044.6	292.9	TD @ 17315.0' MD / 12454.8' TVD