

Well Name: ROJO 7811 22 FEDERAL COM	Well Location: T25S / R33E / SEC 22 / SESW / 32.10994 / -103.564368	County or Parish/State: LEA / NM
Well Number: 31H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM015091, NMNM15091	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002546093	Well Status: Approved Application for Permit to Drill	Operator: BTA OIL PRODUCERS LLC

Notice of Intent

Type of Submission: Notice of Intent	Type of Action Other
Date Sundry Submitted: 02/08/2021	Time Sundry Submitted: 12:13
Date proposed operation will begin: 02/07/2021	

Procedure Description: BTA Oil Producers LLC respectfully requests the following footage, casing, mud, cement, variance, and drill plan changes to the original APD as approved. Please see attachment documents for more details
OLD FIELD & POOL: BOBCAT DRAW / UPPER WOLFCAMP NEW FIELD & POOL: RED HILLS / LOWER AVALON
OLD FOOTAGES: SHL: 380' FSL & 1300'FWL (NO CHANGE) FTP: 100' FSL & 990'FWL LTP: 100' FNL & 990'FWL
BHL: 50' FNL & 990'FWL NEW FOOTAGES FTP: 100' FSL & 380' FWL LTP: 100' FNL & 380' FWL BHL: 50' FNL & 380' FWL

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

- Rojo_7811_22_Fed_Com_31H_APD_BLM_NEW_Drill_Plan_20210208121135.pdf
- Rojo_31H_directional_plan_NEW_20210208121047.pdf
- Rojo_31H_wall_plot_NEW_20210208121047.pdf
- Rojo_31H_Sundry_20210208121024.pdf
- Signed___Rojo_7811_22_Fed_31H_C102_20210208120935.pdf

Received by OCD: 2/19/2021 10:16:10 AM

Page 2 of 19

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Well Number: 31H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM015091, NMNM15091	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002546093	Well Status: Approved Application for Permit to Drill	Operator: BTA OIL PRODUCERS LLC

Conditions of Approval

Additional Reviews

Rojo_7811_22_Federal_Com_31H_Sundry_1340978_COA_OTA_20210212121438.pdf

Operator Certification

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: HAJAR

Signed on: FEB 08, 2021 12:12 PM

Name: BTA OIL PRODUCERS LLC

Title: Regulatory Analyst

Street Address: 104 SOUTH PECOS STREET

City: MIDLAND**State:** TX

Phone: (915) 682-3753

Email address: NOT ENTERED

Field Representative

Representative Name:

Street Address:

City:**State:****Zip:**

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234

BLM POC Email Address: cwalls@blm.gov

Disposition: Approved

Disposition Date: 02/12/2021

Signature: Chris Walls

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	BTA Oil Producers LLC
LEASE NO.:	NMNM015091
WELL NAME & NO.:	ROJO 7811 22 FEDERAL COM 31H
SURFACE HOLE FOOTAGE:	380'/S & 1300'/W
BOTTOM HOLE FOOTAGE:	50'/N & 380'/W
LOCATION:	Section 22, T.25 S., R.33 E., NMPM
COUNTY:	Lea County, New Mexico

COA

H2S	☒ Yes	☐ No	
Potash	☒ None	☐ Secretary	☐ R-111-P
Cave/Karst Potential	☒ Low	☐ Medium	☐ High
Variance	☐ None	☒ Flex Hose	☐ Other
Wellhead	☐ Conventional	☐ Multibowl	☒ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☒ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☒ COM	☐ Unit

All Previous COAs Still Apply.

A. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1160 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing, which shall be set at approximately **5,054** feet is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.
3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
 - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

B. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2.

Option 1:

- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **3000 (3M)** psi.

Option 2:

1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.

- a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
- b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- c. Manufacturer representative shall install the test plug for the initial BOP test.
- d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

C. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

OTA02122021

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) 476-3462State 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 30-025-46093	Pool Code 97900	Pool Name RED HILLS; UPPER BONE SPRING SHALE
Property Code 322775	Property Name ROJO 7811 22 FEDERAL	Well Number 31H
OGRID No. 260297	Operator Name BTA OIL PRODUCERS, LLC	Elevation 3447'

Surface Location

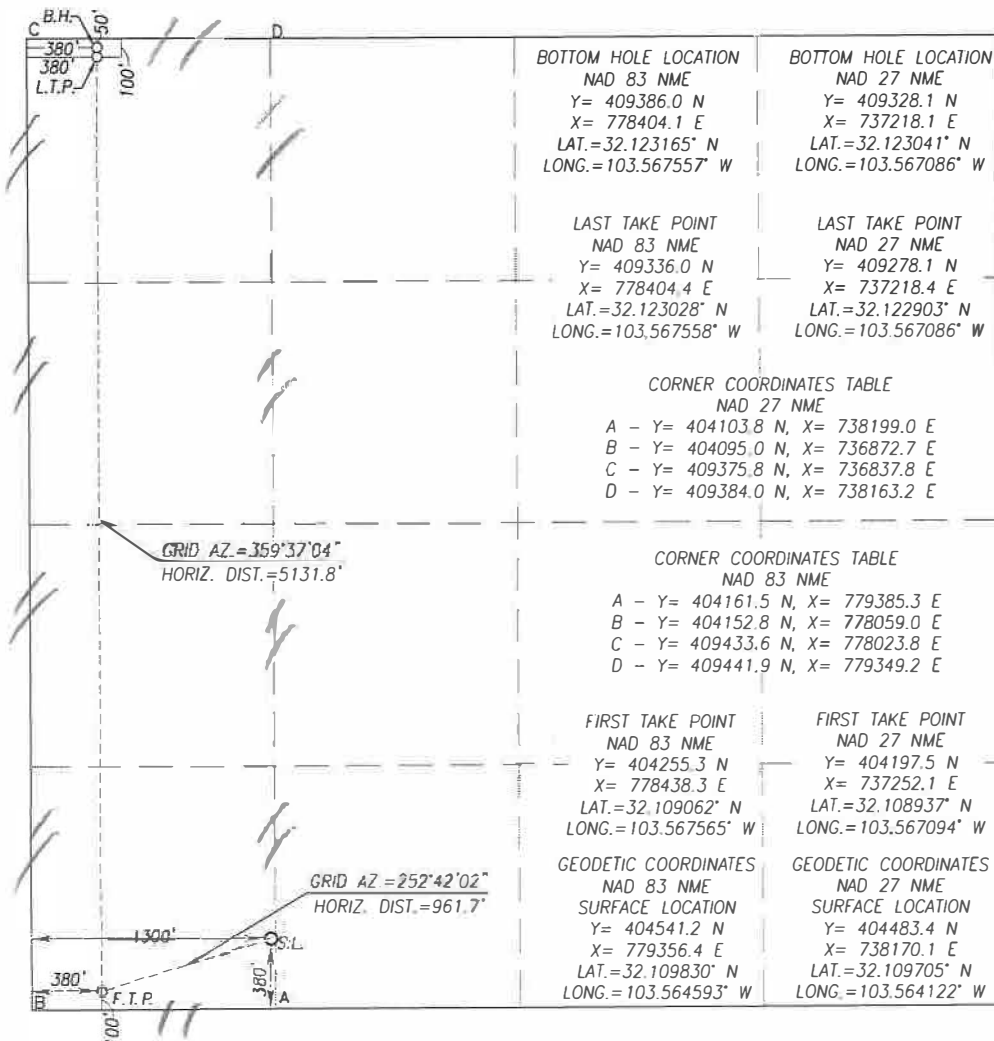
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	22	25-S	33-E		380	SOUTH	1300	WEST	LEA

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
D	22	25-S	33-E		50	NORTH	380	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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



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 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Sammy Hajar 2/8/2021
Signature Date

Printed Name

SHAJAR@BTAOIL.COM

E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes or other surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

DATE 23, 2020
Date of Survey
Signature & Seal of Professional Surveyor

Gary G. Eidson 02/04/2021
Certificate Number Gary G. Eidson 12641
Ronald J. Eidson 3239

ACK Rel W/O 2011 0281 JWSC W/O 21 13 0053

BTA OIL PRODUCERS LLC RESPECTFULLY REQUEST THE FOLLOWING CHANGES TO THE ORIGINAL APD AS APPROVED.

Mud Program 31H:

Original Permit

- Intermediate – 10.0 – 10.2
- 2nd Intermediate – DBE 9.0 – 9.4 ppg
- Production – OBM 11.5 – 12.0 ppg

Proposed Change

- Intermediate – Brine 10.0 – 10.2 ppg
- Production – Cut Brine 8.7 – 9.4 ppg

Casing Programs

Casing Program 31H

Original APD

- Surface
13-3/8” 54.5# J-55 @ 1040’
- Intermediate
9-5/8” 40# J-55 @ 4925’ in a 12-1/4” hole
- 2nd Intermediate
7” 29# P-110 @ 12327’ in an 8-3/4” hole
- Liner
4-1/2” 11.6# P-110 liner from 12831’ – 17828’ in a 6-1/8” hole

Proposed Change

- Surface
13-3/8” 54.5# J-55 @ 1160’
- Intermediate
9-5/8” 40# J-55 @ 5054’ in a 12-1/4” hole
- Production
5-1/2” 17# P-110 BTC set at 15090’ (10022’ TVD) in an 8-3/4” hole

Cement Programs

Rojo #31H

Original

- Surface Cement
Lead 690 sx; 1.80 cfs; 13.5 ppg; 100% Class C; 100% excess
Tail 200 sx; 1.34 cfs; 14.8 ppg; 100% Class C; 100% excess
- Intermediate Cement
Lead 1410 sx; 2.18 cfs; 12.7 ppg 100% Class C; 100% excess
Tail 250 sx; 1.33 cfs; 14.8 ppg; 100% Class C; 25% excess
- 2nd Intermediate Cement
Lead 435 sx; 2.99 cfs; 10.5 ppg; 25% Poz, 75% Class C; 15% excess
Tail 200 sx; 1.19 cfs; 15.6 ppg; 100% Class H; 15% excess
- Liner Cement
Lead 280 sx; 1.86 cfs; 13.2 ppg; 100% Class H; 10% excess

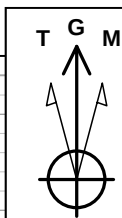
Proposed Change

- Surface Cement
 - Lead 665 sx; 1.73 cfs; 13.5 ppg; 100% Class C; 100% excess
 - Tail 340 sx; 1.35 cfs; 14.8 ppg; 100% Class C; 100% excess
- Intermediate Cement
 - Lead 1325 sx; 2.46 cfs; 12.8 ppg 100% Class C; 100% excess
 - Tail 200 sx; 1.34 cfs; 14.8 ppg; 100% Class C; 25% excess
- Production Cement
 - Lead 540 sx; 3.9 cfs; 10.5 ppg; 25% POZ 75% Class C; 60% excess
 - Tail 1385 sx; 1.25 cfs; 14.8 ppg; 100% Class H; 25% excess

Variances:

- Wave the centralizer requirements for the 5-1/2” in the 8-3/4” hole size. An expansion additive will be utilized in the cement slurry for the entire length of the 8-3/4” hole interval to maximize cement bond and zonal isolation.

BTA Oil Producers, LLC



Azimuths to Grid North
 True North: -0.41°
 Magnetic North: 7.33°
 Magnetic Field
 Strength: 48724.6nT
 Dip Angle: 60.14°
 Date: 12/31/2009
 Model: IGRF200510

WELL DETAILS: Rojo #31H

+N/-S	+E/-W	Ground Level Northing	Ground Level Easting	Ground Level: 3447.0 Latitude	Longitude
0.0	0.0	404541.20	779356.40	32° 6' 35.387 N	103° 33' 52.536 W

SITE DETAILS: Rojo

Site Centre Northing: 399077.50
 Easting: 783078.55

Positional Uncertainty: 0.0
 Convergence: 0.41
 Local North: Grid

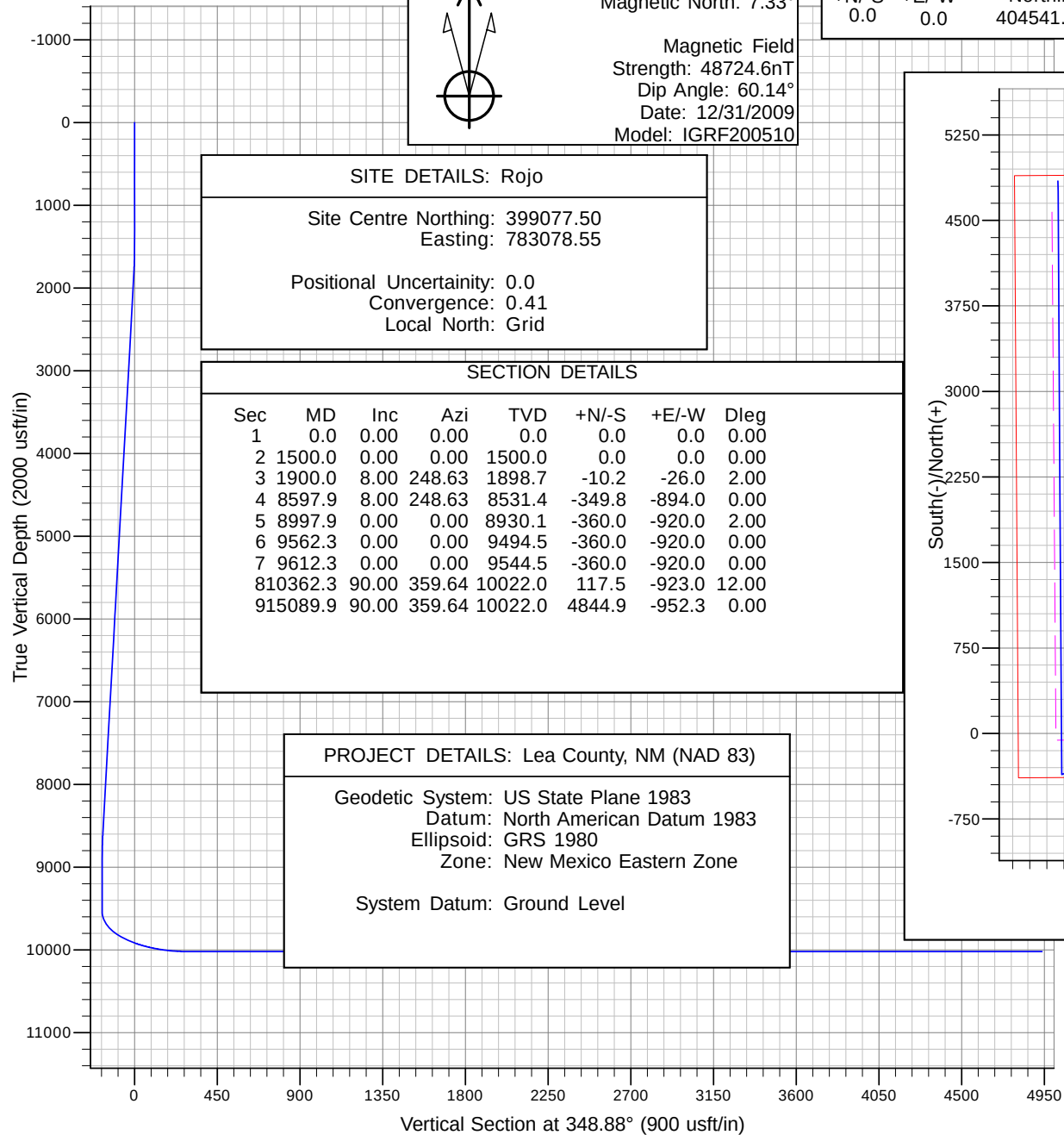
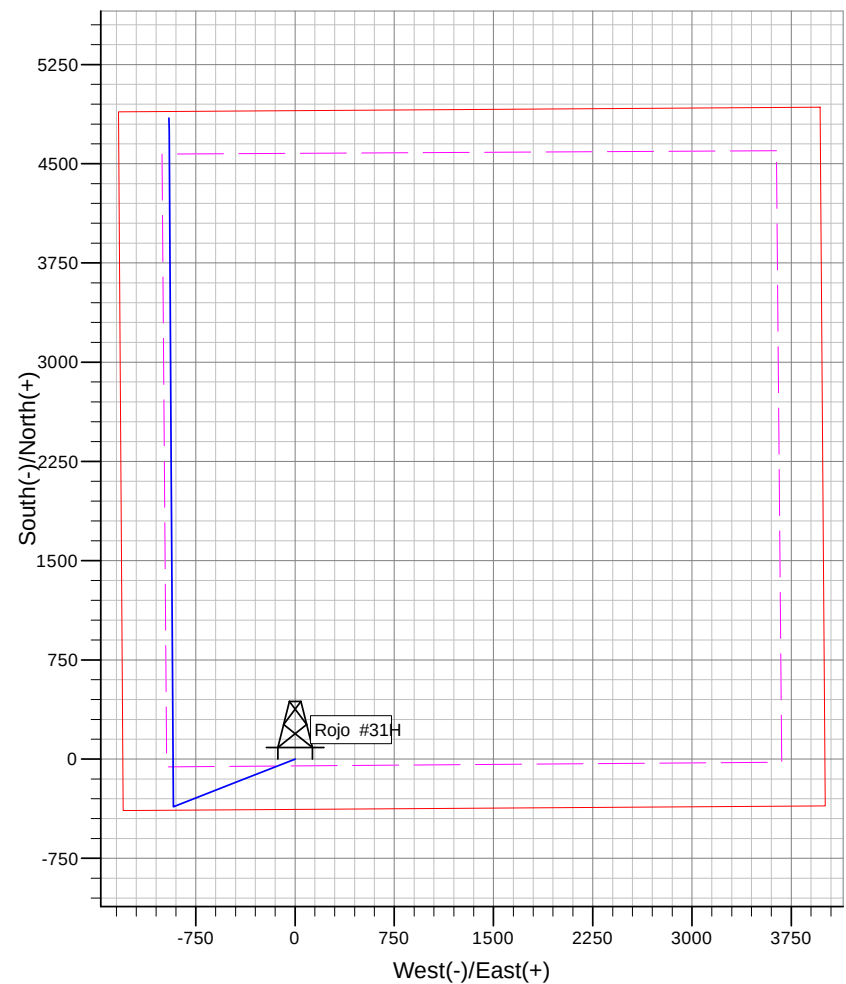
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00
2	1500.0	0.00	0.00	1500.0	0.0	0.0	0.00
3	1900.0	8.00	248.63	1898.7	-10.2	-26.0	2.00
4	8597.9	8.00	248.63	8531.4	-349.8	-894.0	0.00
5	8997.9	0.00	0.00	8930.1	-360.0	-920.0	2.00
6	9562.3	0.00	0.00	9494.5	-360.0	-920.0	0.00
7	9612.3	0.00	0.00	9544.5	-360.0	-920.0	0.00
8	10362.3	90.00	359.64	10022.0	117.5	-923.0	12.00
9	15089.9	90.00	359.64	10022.0	4844.9	-952.3	0.00

PROJECT DETAILS: Lea County, NM (NAD 83)

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

System Datum: Ground Level



BTA Oil Producers, LLC

Lea County, NM (NAD 83)

Rojo

Rojo #31H

Wellbore #1

Plan: Design #1

Standard Planning Report - Geographic

08 February, 2021

Microsoft
Planning Report - Geographic

Database:	EDM16	Local Co-ordinate Reference:	Well Rojo #31H
Company:	BTA Oil Producers, LLC	TVD Reference:	Dont Use @ 3350.0usft
Project:	Lea County, NM (NAD 83)	MD Reference:	Dont Use @ 3350.0usft
Site:	Rojo	North Reference:	Grid
Well:	Rojo #31H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Lea County, NM (NAD 83), Lea County, NM		
Map System:	US State Plane 1983	System Datum:	Ground Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		Using geodetic scale factor

Site	Rojo		
Site Position:		Northing:	399,077.50 usft
From:	Map	Easting:	783,078.55 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 5' 41.057 N
		Longitude:	103° 33' 9.721 W

Well	Rojo #31H					
Well Position	+N/-S	0.0 usft	Northing:	404,541.20 usft	Latitude:	32° 6' 35.387 N
	+E/-W	0.0 usft	Easting:	779,356.40 usft	Longitude:	103° 33' 52.536 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	3,447.0 usft
Grid Convergence:	0.41 °					

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	7.74	60.14	48,724.62421748

Design	Design #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	348.88

Plan Survey Tool Program	Date	2/8/2021		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	15,089.9 Design #1 (Wellbore #1)		

Microsoft
Planning Report - Geographic

Database:	EDM16	Local Co-ordinate Reference:	Well Rojo #31H
Company:	BTA Oil Producers, LLC	TVD Reference:	Dont Use @ 3350.0usft
Project:	Lea County, NM (NAD 83)	MD Reference:	Dont Use @ 3350.0usft
Site:	Rojo	North Reference:	Grid
Well:	Rojo #31H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,900.0	8.00	248.63	1,898.7	-10.2	-26.0	2.00	2.00	0.00	248.63	
8,597.9	8.00	248.63	8,531.4	-349.8	-894.0	0.00	0.00	0.00	0.00	
8,997.9	0.00	0.00	8,930.1	-360.0	-920.0	2.00	-2.00	0.00	180.00	
9,562.3	0.00	0.00	9,494.5	-360.0	-920.0	0.00	0.00	0.00	0.00	
9,612.3	0.00	0.00	9,544.5	-360.0	-920.0	0.00	0.00	0.00	0.00	
10,362.3	90.00	359.64	10,022.0	117.5	-923.0	12.00	12.00	0.00	359.64	
15,089.9	90.00	359.64	10,022.0	4,844.9	-952.3	0.00	0.00	0.00	0.00	Rojo #31H BHL

Microsoft
Planning Report - Geographic

Database:	EDM16	Local Co-ordinate Reference:	Well Rojo #31H
Company:	BTA Oil Producers, LLC	TVD Reference:	Dont Use @ 3350.0usft
Project:	Lea County, NM (NAD 83)	MD Reference:	Dont Use @ 3350.0usft
Site:	Rojo	North Reference:	Grid
Well:	Rojo #31H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned 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	404,541.20	779,356.40	32° 6' 35.387 N	103° 33' 52.536 W
100.0	0.00	0.00	100.0	0.0	0.0	404,541.20	779,356.40	32° 6' 35.387 N	103° 33' 52.536 W
200.0	0.00	0.00	200.0	0.0	0.0	404,541.20	779,356.40	32° 6' 35.387 N	103° 33' 52.536 W
300.0	0.00	0.00	300.0	0.0	0.0	404,541.20	779,356.40	32° 6' 35.387 N	103° 33' 52.536 W
400.0	0.00	0.00	400.0	0.0	0.0	404,541.20	779,356.40	32° 6' 35.387 N	103° 33' 52.536 W
500.0	0.00	0.00	500.0	0.0	0.0	404,541.20	779,356.40	32° 6' 35.387 N	103° 33' 52.536 W
600.0	0.00	0.00	600.0	0.0	0.0	404,541.20	779,356.40	32° 6' 35.387 N	103° 33' 52.536 W
700.0	0.00	0.00	700.0	0.0	0.0	404,541.20	779,356.40	32° 6' 35.387 N	103° 33' 52.536 W
800.0	0.00	0.00	800.0	0.0	0.0	404,541.20	779,356.40	32° 6' 35.387 N	103° 33' 52.536 W
900.0	0.00	0.00	900.0	0.0	0.0	404,541.20	779,356.40	32° 6' 35.387 N	103° 33' 52.536 W
1,000.0	0.00	0.00	1,000.0	0.0	0.0	404,541.20	779,356.40	32° 6' 35.387 N	103° 33' 52.536 W
1,100.0	0.00	0.00	1,100.0	0.0	0.0	404,541.20	779,356.40	32° 6' 35.387 N	103° 33' 52.536 W
1,200.0	0.00	0.00	1,200.0	0.0	0.0	404,541.20	779,356.40	32° 6' 35.387 N	103° 33' 52.536 W
1,300.0	0.00	0.00	1,300.0	0.0	0.0	404,541.20	779,356.40	32° 6' 35.387 N	103° 33' 52.536 W
1,400.0	0.00	0.00	1,400.0	0.0	0.0	404,541.20	779,356.40	32° 6' 35.387 N	103° 33' 52.536 W
1,500.0	0.00	0.00	1,500.0	0.0	0.0	404,541.20	779,356.40	32° 6' 35.387 N	103° 33' 52.536 W
1,600.0	2.00	248.63	1,600.0	-0.6	-1.6	404,540.56	779,354.77	32° 6' 35.387 N	103° 33' 52.554 W
1,700.0	4.00	248.63	1,699.8	-2.5	-6.5	404,538.66	779,349.90	32° 6' 35.362 N	103° 33' 52.611 W
1,800.0	6.00	248.63	1,799.5	-5.7	-14.6	404,535.48	779,341.78	32° 6' 35.331 N	103° 33' 52.706 W
1,900.0	8.00	248.63	1,898.7	-10.2	-26.0	404,531.04	779,330.44	32° 6' 35.288 N	103° 33' 52.838 W
2,000.0	8.00	248.63	1,997.7	-15.2	-38.9	404,525.97	779,317.48	32° 6' 35.239 N	103° 33' 52.989 W
2,100.0	8.00	248.63	2,096.8	-20.3	-51.9	404,520.90	779,304.51	32° 6' 35.190 N	103° 33' 53.140 W
2,200.0	8.00	248.63	2,195.8	-25.4	-64.8	404,515.83	779,291.55	32° 6' 35.140 N	103° 33' 53.291 W
2,300.0	8.00	248.63	2,294.8	-30.4	-77.8	404,510.75	779,278.59	32° 6' 35.091 N	103° 33' 53.443 W
2,400.0	8.00	248.63	2,393.8	-35.5	-90.8	404,505.68	779,265.63	32° 6' 35.042 N	103° 33' 53.594 W
2,500.0	8.00	248.63	2,492.9	-40.6	-103.7	404,500.61	779,252.67	32° 6' 34.993 N	103° 33' 53.745 W
2,600.0	8.00	248.63	2,591.9	-45.7	-116.7	404,495.54	779,239.71	32° 6' 34.943 N	103° 33' 53.896 W
2,700.0	8.00	248.63	2,690.9	-50.7	-129.6	404,490.47	779,226.75	32° 6' 34.894 N	103° 33' 54.047 W
2,800.0	8.00	248.63	2,789.9	-55.8	-142.6	404,485.40	779,213.79	32° 6' 34.845 N	103° 33' 54.198 W
2,900.0	8.00	248.63	2,889.0	-60.9	-155.6	404,480.33	779,200.83	32° 6' 34.796 N	103° 33' 54.349 W
3,000.0	8.00	248.63	2,988.0	-65.9	-168.5	404,475.26	779,187.87	32° 6' 34.746 N	103° 33' 54.500 W
3,100.0	8.00	248.63	3,087.0	-71.0	-181.5	404,470.18	779,174.91	32° 6' 34.697 N	103° 33' 54.651 W
3,200.0	8.00	248.63	3,186.1	-76.1	-194.4	404,465.11	779,161.95	32° 6' 34.648 N	103° 33' 54.802 W
3,300.0	8.00	248.63	3,285.1	-81.2	-207.4	404,460.04	779,148.99	32° 6' 34.599 N	103° 33' 54.954 W
3,400.0	8.00	248.63	3,384.1	-86.2	-220.4	404,454.97	779,136.03	32° 6' 34.549 N	103° 33' 55.105 W
3,500.0	8.00	248.63	3,483.1	-91.3	-233.3	404,449.90	779,123.07	32° 6' 34.500 N	103° 33' 55.256 W
3,600.0	8.00	248.63	3,582.2	-96.4	-246.3	404,444.83	779,110.11	32° 6' 34.451 N	103° 33' 55.407 W
3,700.0	8.00	248.63	3,681.2	-101.4	-259.3	404,439.76	779,097.15	32° 6' 34.401 N	103° 33' 55.558 W
3,800.0	8.00	248.63	3,780.2	-106.5	-272.2	404,434.68	779,084.19	32° 6' 34.352 N	103° 33' 55.709 W
3,900.0	8.00	248.63	3,879.2	-111.6	-285.2	404,429.61	779,071.23	32° 6' 34.303 N	103° 33' 55.860 W
4,000.0	8.00	248.63	3,978.3	-116.7	-298.1	404,424.54	779,058.27	32° 6' 34.254 N	103° 33' 56.011 W
4,100.0	8.00	248.63	4,077.3	-121.7	-311.1	404,419.47	779,045.31	32° 6' 34.204 N	103° 33' 56.162 W
4,200.0	8.00	248.63	4,176.3	-126.8	-324.1	404,414.40	779,032.35	32° 6' 34.155 N	103° 33' 56.313 W
4,300.0	8.00	248.63	4,275.3	-131.9	-337.0	404,409.33	779,019.39	32° 6' 34.106 N	103° 33' 56.464 W
4,400.0	8.00	248.63	4,374.4	-136.9	-350.0	404,404.26	779,006.43	32° 6' 34.057 N	103° 33' 56.616 W
4,500.0	8.00	248.63	4,473.4	-142.0	-362.9	404,399.19	778,993.47	32° 6' 34.007 N	103° 33' 56.767 W
4,600.0	8.00	248.63	4,572.4	-147.1	-375.9	404,394.11	778,980.51	32° 6' 33.958 N	103° 33' 56.918 W
4,700.0	8.00	248.63	4,671.5	-152.2	-388.9	404,389.04	778,967.55	32° 6' 33.909 N	103° 33' 57.069 W
4,800.0	8.00	248.63	4,770.5	-157.2	-401.8	404,383.97	778,954.59	32° 6' 33.860 N	103° 33' 57.220 W
4,900.0	8.00	248.63	4,869.5	-162.3	-414.8	404,378.90	778,941.63	32° 6' 33.810 N	103° 33' 57.371 W
5,000.0	8.00	248.63	4,968.5	-167.4	-427.7	404,373.83	778,928.67	32° 6' 33.761 N	103° 33' 57.522 W
5,100.0	8.00	248.63	5,067.6	-172.4	-440.7	404,368.76	778,915.71	32° 6' 33.712 N	103° 33' 57.673 W
5,200.0	8.00	248.63	5,166.6	-177.5	-453.7	404,363.69	778,902.75	32° 6' 33.662 N	103° 33' 57.824 W
5,300.0	8.00	248.63	5,265.6	-182.6	-466.6	404,358.61	778,889.79	32° 6' 33.613 N	103° 33' 57.975 W
5,400.0	8.00	248.63	5,364.6	-187.7	-479.6	404,353.54	778,876.83	32° 6' 33.564 N	103° 33' 58.127 W

Microsoft
Planning Report - Geographic

Database:	EDM16	Local Co-ordinate Reference:	Well Rojo #31H
Company:	BTA Oil Producers, LLC	TVD Reference:	Dont Use @ 3350.0usft
Project:	Lea County, NM (NAD 83)	MD Reference:	Dont Use @ 3350.0usft
Site:	Rojo	North Reference:	Grid
Well:	Rojo #31H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
5,500.0	8.00	248.63	5,463.7	-192.7	-492.5	404,348.47	778,863.87	32° 6' 33.515 N	103° 33' 58.278 W	
5,600.0	8.00	248.63	5,562.7	-197.8	-505.5	404,343.40	778,850.91	32° 6' 33.465 N	103° 33' 58.429 W	
5,700.0	8.00	248.63	5,661.7	-202.9	-518.5	404,338.33	778,837.95	32° 6' 33.416 N	103° 33' 58.580 W	
5,800.0	8.00	248.63	5,760.7	-207.9	-531.4	404,333.26	778,824.99	32° 6' 33.367 N	103° 33' 58.731 W	
5,900.0	8.00	248.63	5,859.8	-213.0	-544.4	404,328.19	778,812.03	32° 6' 33.318 N	103° 33' 58.882 W	
6,000.0	8.00	248.63	5,958.8	-218.1	-557.3	404,323.12	778,799.07	32° 6' 33.268 N	103° 33' 59.033 W	
6,100.0	8.00	248.63	6,057.8	-223.2	-570.3	404,318.04	778,786.11	32° 6' 33.219 N	103° 33' 59.184 W	
6,200.0	8.00	248.63	6,156.9	-228.2	-583.3	404,312.97	778,773.15	32° 6' 33.170 N	103° 33' 59.335 W	
6,300.0	8.00	248.63	6,255.9	-233.3	-596.2	404,307.90	778,760.19	32° 6' 33.120 N	103° 33' 59.486 W	
6,400.0	8.00	248.63	6,354.9	-238.4	-609.2	404,302.83	778,747.23	32° 6' 33.071 N	103° 33' 59.637 W	
6,500.0	8.00	248.63	6,453.9	-243.4	-622.1	404,297.76	778,734.27	32° 6' 33.022 N	103° 33' 59.789 W	
6,600.0	8.00	248.63	6,553.0	-248.5	-635.1	404,292.69	778,721.31	32° 6' 32.973 N	103° 33' 59.940 W	
6,700.0	8.00	248.63	6,652.0	-253.6	-648.1	404,287.62	778,708.35	32° 6' 32.923 N	103° 34' 0.091 W	
6,800.0	8.00	248.63	6,751.0	-258.7	-661.0	404,282.54	778,695.39	32° 6' 32.874 N	103° 34' 0.242 W	
6,900.0	8.00	248.63	6,850.0	-263.7	-674.0	404,277.47	778,682.43	32° 6' 32.825 N	103° 34' 0.393 W	
7,000.0	8.00	248.63	6,949.1	-268.8	-686.9	404,272.40	778,669.47	32° 6' 32.776 N	103° 34' 0.544 W	
7,100.0	8.00	248.63	7,048.1	-273.9	-699.9	404,267.33	778,656.51	32° 6' 32.726 N	103° 34' 0.695 W	
7,200.0	8.00	248.63	7,147.1	-278.9	-712.9	404,262.26	778,643.55	32° 6' 32.677 N	103° 34' 0.846 W	
7,300.0	8.00	248.63	7,246.1	-284.0	-725.8	404,257.19	778,630.59	32° 6' 32.628 N	103° 34' 0.997 W	
7,400.0	8.00	248.63	7,345.2	-289.1	-738.8	404,252.12	778,617.63	32° 6' 32.578 N	103° 34' 1.148 W	
7,500.0	8.00	248.63	7,444.2	-294.2	-751.7	404,247.05	778,604.67	32° 6' 32.529 N	103° 34' 1.300 W	
7,600.0	8.00	248.63	7,543.2	-299.2	-764.7	404,241.97	778,591.71	32° 6' 32.480 N	103° 34' 1.451 W	
7,700.0	8.00	248.63	7,642.3	-304.3	-777.7	404,236.90	778,578.75	32° 6' 32.431 N	103° 34' 1.602 W	
7,800.0	8.00	248.63	7,741.3	-309.4	-790.6	404,231.83	778,565.79	32° 6' 32.381 N	103° 34' 1.753 W	
7,900.0	8.00	248.63	7,840.3	-314.4	-803.6	404,226.76	778,552.83	32° 6' 32.332 N	103° 34' 1.904 W	
8,000.0	8.00	248.63	7,939.3	-319.5	-816.5	404,221.69	778,539.87	32° 6' 32.283 N	103° 34' 2.055 W	
8,100.0	8.00	248.63	8,038.4	-324.6	-829.5	404,216.62	778,526.91	32° 6' 32.234 N	103° 34' 2.206 W	
8,200.0	8.00	248.63	8,137.4	-329.7	-842.5	404,211.55	778,513.95	32° 6' 32.184 N	103° 34' 2.357 W	
8,300.0	8.00	248.63	8,236.4	-334.7	-855.4	404,206.47	778,500.99	32° 6' 32.135 N	103° 34' 2.508 W	
8,400.0	8.00	248.63	8,335.4	-339.8	-868.4	404,201.40	778,488.03	32° 6' 32.086 N	103° 34' 2.659 W	
8,500.0	8.00	248.63	8,434.5	-344.9	-881.3	404,196.33	778,475.07	32° 6' 32.036 N	103° 34' 2.810 W	
8,597.9	8.00	248.63	8,531.4	-349.8	-894.0	404,191.37	778,462.38	32° 6' 31.988 N	103° 34' 2.958 W	
8,600.0	7.96	248.63	8,533.5	-349.9	-894.3	404,191.26	778,462.11	32° 6' 31.987 N	103° 34' 2.962 W	
8,700.0	5.96	248.63	8,632.8	-354.4	-905.6	404,186.85	778,450.83	32° 6' 31.944 N	103° 34' 3.093 W	
8,800.0	3.96	248.63	8,732.4	-357.5	-913.6	404,183.70	778,442.78	32° 6' 31.914 N	103° 34' 3.187 W	
8,900.0	1.96	248.63	8,832.2	-359.4	-918.4	404,181.82	778,437.98	32° 6' 31.895 N	103° 34' 3.243 W	
8,997.9	0.00	0.00	8,930.1	-360.0	-920.0	404,181.21	778,436.42	32° 6' 31.890 N	103° 34' 3.261 W	
9,000.0	0.00	0.00	8,932.2	-360.0	-920.0	404,181.21	778,436.42	32° 6' 31.890 N	103° 34' 3.261 W	
9,100.0	0.00	0.00	9,032.2	-360.0	-920.0	404,181.21	778,436.42	32° 6' 31.890 N	103° 34' 3.261 W	
9,200.0	0.00	0.00	9,132.2	-360.0	-920.0	404,181.21	778,436.42	32° 6' 31.890 N	103° 34' 3.261 W	
9,300.0	0.00	0.00	9,232.2	-360.0	-920.0	404,181.21	778,436.42	32° 6' 31.890 N	103° 34' 3.261 W	
9,400.0	0.00	0.00	9,332.2	-360.0	-920.0	404,181.21	778,436.42	32° 6' 31.890 N	103° 34' 3.261 W	
9,500.0	0.00	0.00	9,432.2	-360.0	-920.0	404,181.21	778,436.42	32° 6' 31.890 N	103° 34' 3.261 W	
9,562.3	0.00	0.00	9,494.5	-360.0	-920.0	404,181.21	778,436.42	32° 6' 31.890 N	103° 34' 3.261 W	
9,600.0	0.00	0.00	9,532.2	-360.0	-920.0	404,181.21	778,436.42	32° 6' 31.890 N	103° 34' 3.261 W	
9,612.3	0.00	0.00	9,544.5	-360.0	-920.0	404,181.21	778,436.42	32° 6' 31.890 N	103° 34' 3.261 W	
9,700.0	10.52	359.64	9,631.7	-352.0	-920.0	404,189.24	778,436.37	32° 6' 31.969 N	103° 34' 3.261 W	
9,800.0	22.52	359.64	9,727.4	-323.6	-920.2	404,217.62	778,436.20	32° 6' 32.250 N	103° 34' 3.261 W	
9,900.0	34.52	359.64	9,815.1	-275.9	-920.5	404,265.28	778,435.90	32° 6' 32.722 N	103° 34' 3.260 W	
10,000.0	46.52	359.64	9,891.0	-211.1	-920.9	404,330.14	778,435.50	32° 6' 33.363 N	103° 34' 3.260 W	
10,100.0	58.52	359.64	9,951.7	-131.9	-921.4	404,409.35	778,435.00	32° 6' 34.147 N	103° 34' 3.259 W	
10,200.0	70.52	359.64	9,994.7	-41.7	-922.0	404,499.45	778,434.44	32° 6' 35.039 N	103° 34' 3.258 W	
10,300.0	82.52	359.64	10,017.9	55.3	-922.6	404,596.52	778,433.84	32° 6' 35.999 N	103° 34' 3.257 W	
10,362.3	90.00	359.64	10,022.0	117.5	-923.0	404,658.65	778,433.46	32° 6' 36.614 N	103° 34' 3.256 W	
10,400.0	90.00	359.64	10,022.0	155.1	-923.2	404,696.33	778,433.22	32° 6' 36.987 N	103° 34' 3.256 W	

Microsoft
Planning Report - Geographic

Database:	EDM16	Local Co-ordinate Reference:	Well Rojo #31H
Company:	BTA Oil Producers, LLC	TVD Reference:	Dont Use @ 3350.0usft
Project:	Lea County, NM (NAD 83)	MD Reference:	Dont Use @ 3350.0usft
Site:	Rojo	North Reference:	Grid
Well:	Rojo #31H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
10,500.0	90.00	359.64	10,022.0	255.1	-923.8	404,796.33	778,432.60	32° 6' 37.977 N	103° 34' 3.255 W	
10,600.0	90.00	359.64	10,022.0	355.1	-924.4	404,896.33	778,431.98	32° 6' 38.966 N	103° 34' 3.254 W	
10,700.0	90.00	359.64	10,022.0	455.1	-925.1	404,996.32	778,431.36	32° 6' 39.956 N	103° 34' 3.253 W	
10,800.0	90.00	359.64	10,022.0	555.1	-925.7	405,096.32	778,430.74	32° 6' 40.945 N	103° 34' 3.252 W	
10,900.0	90.00	359.64	10,022.0	655.1	-926.3	405,196.31	778,430.12	32° 6' 41.935 N	103° 34' 3.251 W	
11,000.0	90.00	359.64	10,022.0	755.1	-926.9	405,296.31	778,429.50	32° 6' 42.924 N	103° 34' 3.249 W	
11,100.0	90.00	359.64	10,022.0	855.1	-927.5	405,396.30	778,428.88	32° 6' 43.914 N	103° 34' 3.248 W	
11,200.0	90.00	359.64	10,022.0	955.1	-928.2	405,496.30	778,428.25	32° 6' 44.903 N	103° 34' 3.247 W	
11,300.0	90.00	359.64	10,022.0	1,055.1	-928.8	405,596.29	778,427.63	32° 6' 45.893 N	103° 34' 3.246 W	
11,400.0	90.00	359.64	10,022.0	1,155.1	-929.4	405,696.29	778,427.01	32° 6' 46.882 N	103° 34' 3.245 W	
11,500.0	90.00	359.64	10,022.0	1,255.1	-930.0	405,796.28	778,426.39	32° 6' 47.872 N	103° 34' 3.244 W	
11,600.0	90.00	359.64	10,022.0	1,355.1	-930.7	405,896.28	778,425.77	32° 6' 48.862 N	103° 34' 3.243 W	
11,700.0	90.00	359.64	10,022.0	1,455.1	-931.3	405,996.28	778,425.15	32° 6' 49.851 N	103° 34' 3.242 W	
11,800.0	90.00	359.64	10,022.0	1,555.1	-931.9	406,096.27	778,424.53	32° 6' 50.841 N	103° 34' 3.241 W	
11,900.0	90.00	359.64	10,022.0	1,655.1	-932.5	406,196.27	778,423.91	32° 6' 51.830 N	103° 34' 3.240 W	
12,000.0	90.00	359.64	10,022.0	1,755.1	-933.1	406,296.26	778,423.29	32° 6' 52.820 N	103° 34' 3.239 W	
12,100.0	90.00	359.64	10,022.0	1,855.1	-933.8	406,396.26	778,422.66	32° 6' 53.809 N	103° 34' 3.238 W	
12,200.0	90.00	359.64	10,022.0	1,955.1	-934.4	406,496.25	778,422.04	32° 6' 54.799 N	103° 34' 3.237 W	
12,300.0	90.00	359.64	10,022.0	2,055.1	-935.0	406,596.25	778,421.42	32° 6' 55.788 N	103° 34' 3.236 W	
12,400.0	90.00	359.64	10,022.0	2,155.1	-935.6	406,696.24	778,420.80	32° 6' 56.778 N	103° 34' 3.235 W	
12,500.0	90.00	359.64	10,022.0	2,255.1	-936.2	406,796.24	778,420.18	32° 6' 57.767 N	103° 34' 3.234 W	
12,600.0	90.00	359.64	10,022.0	2,355.1	-936.9	406,896.23	778,419.56	32° 6' 58.757 N	103° 34' 3.233 W	
12,700.0	90.00	359.64	10,022.0	2,455.1	-937.5	406,996.23	778,418.94	32° 6' 59.746 N	103° 34' 3.232 W	
12,800.0	90.00	359.64	10,022.0	2,555.1	-938.1	407,096.23	778,418.32	32° 7' 0.736 N	103° 34' 3.231 W	
12,900.0	90.00	359.64	10,022.0	2,655.1	-938.7	407,196.22	778,417.70	32° 7' 1.725 N	103° 34' 3.230 W	
13,000.0	90.00	359.64	10,022.0	2,755.1	-939.3	407,296.22	778,417.08	32° 7' 2.715 N	103° 34' 3.229 W	
13,100.0	90.00	359.64	10,022.0	2,855.1	-940.0	407,396.21	778,416.45	32° 7' 3.705 N	103° 34' 3.228 W	
13,200.0	90.00	359.64	10,022.0	2,955.1	-940.6	407,496.21	778,415.83	32° 7' 4.694 N	103° 34' 3.227 W	
13,300.0	90.00	359.64	10,022.0	3,055.1	-941.2	407,596.20	778,415.21	32° 7' 5.684 N	103° 34' 3.226 W	
13,400.0	90.00	359.64	10,022.0	3,155.1	-941.8	407,696.20	778,414.59	32° 7' 6.673 N	103° 34' 3.224 W	
13,500.0	90.00	359.64	10,022.0	3,255.1	-942.5	407,796.19	778,413.97	32° 7' 7.663 N	103° 34' 3.223 W	
13,600.0	90.00	359.64	10,022.0	3,355.1	-943.1	407,896.19	778,413.35	32° 7' 8.652 N	103° 34' 3.222 W	
13,700.0	90.00	359.64	10,022.0	3,455.1	-943.7	407,996.18	778,412.73	32° 7' 9.642 N	103° 34' 3.221 W	
13,800.0	90.00	359.64	10,022.0	3,555.1	-944.3	408,096.18	778,412.11	32° 7' 10.631 N	103° 34' 3.220 W	
13,900.0	90.00	359.64	10,022.0	3,655.1	-944.9	408,196.18	778,411.49	32° 7' 11.621 N	103° 34' 3.219 W	
14,000.0	90.00	359.64	10,022.0	3,755.1	-945.6	408,296.17	778,410.87	32° 7' 12.610 N	103° 34' 3.218 W	
14,100.0	90.00	359.64	10,022.0	3,855.1	-946.2	408,396.17	778,410.24	32° 7' 13.600 N	103° 34' 3.217 W	
14,200.0	90.00	359.64	10,022.0	3,955.1	-946.8	408,496.16	778,409.62	32° 7' 14.589 N	103° 34' 3.216 W	
14,300.0	90.00	359.64	10,022.0	4,055.1	-947.4	408,596.16	778,409.00	32° 7' 15.579 N	103° 34' 3.215 W	
14,400.0	90.00	359.64	10,022.0	4,155.1	-948.0	408,696.15	778,408.38	32° 7' 16.568 N	103° 34' 3.214 W	
14,500.0	90.00	359.64	10,022.0	4,255.1	-948.7	408,796.15	778,407.76	32° 7' 17.558 N	103° 34' 3.213 W	
14,600.0	90.00	359.64	10,022.0	4,355.1	-949.3	408,896.14	778,407.14	32° 7' 18.548 N	103° 34' 3.212 W	
14,700.0	90.00	359.64	10,022.0	4,455.1	-949.9	408,996.14	778,406.52	32° 7' 19.537 N	103° 34' 3.211 W	
14,800.0	90.00	359.64	10,022.0	4,555.1	-950.5	409,096.14	778,405.90	32° 7' 20.527 N	103° 34' 3.210 W	
14,900.0	90.00	359.64	10,022.0	4,655.1	-951.1	409,196.13	778,405.28	32° 7' 21.516 N	103° 34' 3.209 W	
15,000.0	90.00	359.64	10,022.0	4,755.1	-951.8	409,296.13	778,404.66	32° 7' 22.506 N	103° 34' 3.208 W	
15,089.9	90.00	359.64	10,022.0	4,844.9	-952.3	409,386.00	778,404.10	32° 7' 23.395 N	103° 34' 3.207 W	

Microsoft
Planning Report - Geographic

Database:	EDM16	Local Co-ordinate Reference:	Well Rojo #31H
Company:	BTA Oil Producers, LLC	TVD Reference:	Dont Use @ 3350.0usft
Project:	Lea County, NM (NAD 83)	MD Reference:	Dont Use @ 3350.0usft
Site:	Rojo	North Reference:	Grid
Well:	Rojo #31H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
Rojo #31H BHL	0.00	0.00	10,022.0	4,844.9	-952.3	409,386.00	778,404.10	32° 7' 23.395 N	103° 34' 3.207 W
- plan hits target center									
- Point									



BTA Oil Producers, LLC
104 S Pecos
Midland, TX 79701

WELL: Rojo 7811 22 #31H
TVD: 10022
MD: 15090

DRILLING PLAN

Casing Program

Hole Size	Csg.Size	From (MD)	To (MD)	From (TVD)	To (TVD)	Tapered String	Weight (lbs)	Grade	Conn.	Collapse	Burst	Body Tension	Joint Tension	Dry/Buoyant	Mud Weight (ppg)
17 1/2	13 3/8	0	1160	0	1160	No	54.5	J-55	STC	2.3	5.5	13.5	8.1	Dry	8.3
12 1/4	9 5/8	0	5054	0	5022	No	40	J-55	LTC	1.9	1.6	3.1	2.6	Dry	9.4
8 3/4	5.5	0	15090	0	10022	No	17	P110	Buttress	1.5	2.2	2.1	2.2	Dry	9.4

Cementing Program

Csg. Size		Stage Tool Depth	Top MD of Segment	Bottom MD of Segment	Cement Type	Quantity (sk)	Yield (cu. Ft./sk)	Density (lbs. gal)	Volume (cu.ft.)	% Excess	Additives
13 3/8	Lead		0	825	Class C	665	1.73	13.5	1150.45	100%	2% CaCl2
	Tail		825	1160	Class C	340	1.35	14.8	459	100%	2% CaCl2
9 5/8	Lead		0	4495	Class C	1325	2.46	12.8	3259.5	100%	0.5% CaCl2
	Tail		4495	5054	Class C	200	1.34	14.8	268	25%	1% CaCl2
5 1/2	Lead		4054	9610	25% Poz 75% Class C	540	3.9	10.5	2106	60%	0.4% Fluid Loss
	Tail		9610	15090	Class H	1385	1.25	14.4	1731.25	25%	0.2% LT Retarder

BOP/CHOKE

Pressure Rating: 5M

Rating Depth:14000

Requesting Variance?Choke Hose
Multi Bowl Wellhead

Pressure

Anticipated Bottom Hole Pressure:4,899 psi

Anticipated Bottom Hole Temperature:160 °F

Anticipated abnormal pressures, temperatures, or potential geologic hazards?None

Anticipated Surface Hole Pressure:2693.9136

Hydrogen sulfide drilling operations plan required?Yes

Circulating Medium Table			
Depth (TVD)		Type	Weight (ppg)
From	To		
0	1160	FW Spud	8.3 - 8.4
1160	5022	FW Gel	9.0 - 9.4
5022	10022	Cut Brine	8.7 - 9.3

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 18337

CONDITIONS OF APPROVAL

Operator:			OGRID:	Action Number:	Action Type:
BTA OIL PRODUCERS, LLC	104 S Pecos	Midland, TX79701	260297	18337	C-103X
OCD Reviewer			Condition		
pkautz			None		