

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

Form C-101

August 1, 2011

Permit 293447

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

1. Operator Name and Address BTA OIL PRODUCERS, LLC 104 S Pecos Midland, TX 79701		2. OGRID Number 260297
		3. API Number 30-025-48546
4. Property Code 327076	5. Property Name SOUTH RIDGE 8030 2 11 STATE	6. Well No. 010H

7. Surface Location

UL - Lot A	Section 2	Township 23S	Range 34E	Lot Idn 1	Feet From 1210	N/S Line N	Feet From 1100	E/W Line E	County Lea
---------------	--------------	-----------------	--------------	--------------	-------------------	---------------	-------------------	---------------	---------------

8. Proposed Bottom Hole Location

UL - Lot O	Section 11	Township 23S	Range 34E	Lot Idn O	Feet From 50	N/S Line S	Feet From 1980	E/W Line E	County Lea
---------------	---------------	-----------------	--------------	--------------	-----------------	---------------	-------------------	---------------	---------------

9. Pool Information

OJO CHISO;BONE SPRING, SOUTH	97293
------------------------------	-------

Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3385
16. Multiple N	17. Proposed Depth 11385	18. Formation Bone Spring	19. Contractor	20. Spud Date 6/9/2021
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	1750	1480	0
Int1	12.25	9.625	40	5421	1635	0
Prod	8.75	5.5	17	20553	3070	4421

Casing/Cement Program: Additional Comments

--

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	Cameron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable. Signature:	OIL CONSERVATION DIVISION	
Printed Name: Electronically filed by Katy Reddell	Approved By: Paul F Kautz	
Title:	Title: Geologist	
Email Address: kreddell@btaoil.com	Approved Date: 3/11/2021	Expiration Date: 3/11/2023
Date: 3/11/2021	Phone: 432-682-3753	Conditions of Approval Attached

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

Form C-102

August 1, 2011

Permit 293447

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-025-48546	2. Pool Code 97293	3. Pool Name OJO CHISO;BONE SPRING, SOUTH
4. Property Code 327076	5. Property Name SOUTH RIDGE 8030 2 11 STATE	6. Well No. 010H
7. OGRID No. 260297	8. Operator Name BTA OIL PRODUCERS, LLC	9. Elevation 3385

10. Surface Location

UL - Lot A	Section 2	Township 23S	Range 34E	Lot Idn 1	Feet From 1210	N/S Line N	Feet From 1100	E/W Line E	County Lea
---------------	--------------	-----------------	--------------	--------------	-------------------	---------------	-------------------	---------------	---------------

11. Bottom Hole Location If Different From Surface

UL - Lot O	Section 11	Township 23S	Range 34E	Lot Idn O	Feet From 50	N/S Line S	Feet From 1980	E/W Line E	County Lea
12. Dedicated Acres 240.00			13. Joint or Infill		14. Consolidation Code			15. Order No.	

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>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(s) 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.</i> E-Signed By: Katy Reddell Title: Date: 3/11/2021
	SURVEYOR CERTIFICATION <i>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.</i> Surveyed By: Ronald Eidson Date of Survey: 11/3/2020 Certificate Number: 3239

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

GAS CAPTURE PLAN

Date: 3/11/2021

☒ Original

Operator & OGRID No.: [260297] BTA OIL PRODUCERS, LLC

☐ 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
SOUTH RIDGE 8030 2 11 STATE #010H	30-025-48546	A-2-23S-34E	1210N 1100E	2000	Flared	

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 TARGA MIDSTREAM SERVICES LLC and will be connected to TARGA MIDSTREAM SERVICES LLC Low Pressure gathering system located in Lea County, New Mexico. It will require 0' of pipeline to connect the facility to Low Pressure gathering system. BTA OIL PRODUCERS, LLC provides (periodically) to TARGA MIDSTREAM SERVICES LLC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, BTA OIL PRODUCERS, LLC and TARGA MIDSTREAM SERVICES LLC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at TARGA MIDSTREAM SERVICES LLC Processing Plant located in Sec. 03, Twn. 22S, Rng. 37E, Lea 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 TARGA MIDSTREAM SERVICES LLC system at that time. Based on current information, it is BTA OIL PRODUCERS, LLC'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

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

Form APD Comments

Permit 293447

PERMIT COMMENTS

Operator Name and Address: BTA OIL PRODUCERS, LLC [260297] 104 S Pecos Midland, TX 79701		API Number: 30-025-48546
		Well: SOUTH RIDGE 8030 2 11 STATE #010H
Created By	Comment	Comment Date

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

Form APD Conditions

Permit 293447

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: BTA OIL PRODUCERS, LLC [260297] 104 S Pecos Midland, TX 79701	API Number: 30-025-48546
	Well: SOUTH RIDGE 8030 2 11 STATE #010H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	1) SURFACE & INTERMEDIATE CASING - Cement must circulate to surface -- 2) PRODUCTION CASING - Cement must tie back into intermediate casing -- 3) Liner - Cement must tie back into production casing
pkautz	If cement does not circulate to surface, must run temperature survey or other log to determine top of cement
pkautz	Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water
pkautz	1)- The Operator is to notify NMOCB by sundry (Form C-103) within ten (10) days of the well being spud 2)- Drilling Sundries Form C-103 (Casing and Cement test are to be submitted within 10 days 3)- Completion Reports & Logs are to be submitted within 45 days 4)- Deviation / Directional Drill Survey are to be filed with or prior to C-104
pkautz	It is the operator's responsibility to monitor cancellation dates of approved APDs. APD's are good for 2 years and may be extended for one year. Only one 1 year extension will be granted if submitted by C-103 before expiration date. After expiration date or after a 1 year extension must submit new APD. If an APD expires and if site construction has occurred, site remediation is required.
pkautz	Stage Tool 1) Must notify OCD Hobbs Office prior to running Stage Tool at 5753703186 2) If using Stage Tool on Surface casing, Stage Tool must be set greater than 350' from surface and a minimum of 200 feet above surface shoe. 3) When using a Stage Tool on Intermediate or Production Casing Stage must be a minimum of 50 feet below previous casing shoe.

BTA Oil Producers, LLC

Lea County, NM (NAD 83)

South Ridge

South Ridge #10H

Wellbore #1

Plan: Design #1

Standard Planning Report - Geographic

09 March, 2021

Microsoft
Planning Report - Geographic

Database:	EDM16	Local Co-ordinate Reference:	Well South Ridge #10H
Company:	BTA Oil Producers, LLC	TVD Reference:	WELL @ 3385.0usft (Original Well Elev)
Project:	Lea County, NM (NAD 83)	MD Reference:	WELL @ 3385.0usft (Original Well Elev)
Site:	South Ridge	North Reference:	Grid
Well:	South Ridge #10H	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	South Ridge		
Site Position:		Northing:	486,511.00 usft
From:	Map	Easting:	815,469.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 20' 3.726 N
		Longitude:	103° 26' 44.820 W

Well	South Ridge #10H		
Well Position	+N/-S	0.0 usft	Northing: 487,706.10 usft
	+E/-W	0.0 usft	Easting: 818,518.90 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
Grid Convergence:	0.48 °	Ground Level:	3,385.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	7.70	60.37	48,877.58917595

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	184.90

Plan Survey Tool Program	Date	3/9/2021		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	20,553.1 Design #1 (Wellbore #1)		

Microsoft
Planning Report - Geographic

Database:	EDM16	Local Co-ordinate Reference:	Well South Ridge #10H
Company:	BTA Oil Producers, LLC	TVD Reference:	WELL @ 3385.0usft (Original Well Elev)
Project:	Lea County, NM (NAD 83)	MD Reference:	WELL @ 3385.0usft (Original Well Elev)
Site:	South Ridge	North Reference:	Grid
Well:	South Ridge #10H	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	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,400.0	8.00	270.00	2,398.7	0.0	-27.9	2.00	2.00	0.00	270.00	
8,322.4	8.00	270.00	8,263.5	0.0	-852.1	0.00	0.00	0.00	0.00	
8,722.4	0.00	0.00	8,662.2	0.0	-880.0	2.00	-2.00	0.00	180.00	
10,917.7	0.00	0.00	10,857.5	0.0	-880.0	0.00	0.00	0.00	0.00	
10,967.8	0.00	0.00	10,907.5	0.0	-880.0	0.00	0.00	0.00	0.00	
11,717.8	90.00	179.50	11,385.0	-477.4	-875.8	12.00	12.00	0.00	179.50	
20,553.1	90.00	179.50	11,385.0	-9,312.4	-798.6	0.00	0.00	0.00	0.00	South Ridge #10H B-

Microsoft
Planning Report - Geographic

Database:	EDM16	Local Co-ordinate Reference:	Well South Ridge #10H
Company:	BTA Oil Producers, LLC	TVD Reference:	WELL @ 3385.0usft (Original Well Elev)
Project:	Lea County, NM (NAD 83)	MD Reference:	WELL @ 3385.0usft (Original Well Elev)
Site:	South Ridge	North Reference:	Grid
Well:	South Ridge #10H	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	487,706.10	818,518.90	32° 20' 15.300 N	103° 26' 9.158 W
100.0	0.00	0.00	100.0	0.0	0.0	487,706.10	818,518.90	32° 20' 15.300 N	103° 26' 9.158 W
200.0	0.00	0.00	200.0	0.0	0.0	487,706.10	818,518.90	32° 20' 15.300 N	103° 26' 9.158 W
300.0	0.00	0.00	300.0	0.0	0.0	487,706.10	818,518.90	32° 20' 15.300 N	103° 26' 9.158 W
400.0	0.00	0.00	400.0	0.0	0.0	487,706.10	818,518.90	32° 20' 15.300 N	103° 26' 9.158 W
500.0	0.00	0.00	500.0	0.0	0.0	487,706.10	818,518.90	32° 20' 15.300 N	103° 26' 9.158 W
600.0	0.00	0.00	600.0	0.0	0.0	487,706.10	818,518.90	32° 20' 15.300 N	103° 26' 9.158 W
700.0	0.00	0.00	700.0	0.0	0.0	487,706.10	818,518.90	32° 20' 15.300 N	103° 26' 9.158 W
800.0	0.00	0.00	800.0	0.0	0.0	487,706.10	818,518.90	32° 20' 15.300 N	103° 26' 9.158 W
900.0	0.00	0.00	900.0	0.0	0.0	487,706.10	818,518.90	32° 20' 15.300 N	103° 26' 9.158 W
1,000.0	0.00	0.00	1,000.0	0.0	0.0	487,706.10	818,518.90	32° 20' 15.300 N	103° 26' 9.158 W
1,100.0	0.00	0.00	1,100.0	0.0	0.0	487,706.10	818,518.90	32° 20' 15.300 N	103° 26' 9.158 W
1,200.0	0.00	0.00	1,200.0	0.0	0.0	487,706.10	818,518.90	32° 20' 15.300 N	103° 26' 9.158 W
1,300.0	0.00	0.00	1,300.0	0.0	0.0	487,706.10	818,518.90	32° 20' 15.300 N	103° 26' 9.158 W
1,400.0	0.00	0.00	1,400.0	0.0	0.0	487,706.10	818,518.90	32° 20' 15.300 N	103° 26' 9.158 W
1,500.0	0.00	0.00	1,500.0	0.0	0.0	487,706.10	818,518.90	32° 20' 15.300 N	103° 26' 9.158 W
1,600.0	0.00	0.00	1,600.0	0.0	0.0	487,706.10	818,518.90	32° 20' 15.300 N	103° 26' 9.158 W
1,700.0	0.00	0.00	1,700.0	0.0	0.0	487,706.10	818,518.90	32° 20' 15.300 N	103° 26' 9.158 W
1,800.0	0.00	0.00	1,800.0	0.0	0.0	487,706.10	818,518.90	32° 20' 15.300 N	103° 26' 9.158 W
1,900.0	0.00	0.00	1,900.0	0.0	0.0	487,706.10	818,518.90	32° 20' 15.300 N	103° 26' 9.158 W
2,000.0	0.00	0.00	2,000.0	0.0	0.0	487,706.10	818,518.90	32° 20' 15.300 N	103° 26' 9.158 W
2,100.0	2.00	270.00	2,100.0	0.0	-1.7	487,706.10	818,517.15	32° 20' 15.300 N	103° 26' 9.179 W
2,200.0	4.00	270.00	2,199.8	0.0	-7.0	487,706.10	818,511.92	32° 20' 15.301 N	103° 26' 9.240 W
2,300.0	6.00	270.00	2,299.5	0.0	-15.7	487,706.10	818,503.20	32° 20' 15.301 N	103° 26' 9.341 W
2,400.0	8.00	270.00	2,398.7	0.0	-27.9	487,706.10	818,491.02	32° 20' 15.302 N	103° 26' 9.483 W
2,500.0	8.00	270.00	2,497.7	0.0	-41.8	487,706.10	818,477.10	32° 20' 15.304 N	103° 26' 9.646 W
2,600.0	8.00	270.00	2,596.8	0.0	-55.7	487,706.10	818,463.18	32° 20' 15.305 N	103° 26' 9.808 W
2,700.0	8.00	270.00	2,695.8	0.0	-69.6	487,706.10	818,449.27	32° 20' 15.306 N	103° 26' 9.970 W
2,800.0	8.00	270.00	2,794.8	0.0	-83.5	487,706.10	818,435.35	32° 20' 15.307 N	103° 26' 10.132 W
2,900.0	8.00	270.00	2,893.8	0.0	-97.5	487,706.10	818,421.43	32° 20' 15.308 N	103° 26' 10.294 W
3,000.0	8.00	270.00	2,992.9	0.0	-111.4	487,706.10	818,407.51	32° 20' 15.309 N	103° 26' 10.457 W
3,100.0	8.00	270.00	3,091.9	0.0	-125.3	487,706.10	818,393.60	32° 20' 15.310 N	103° 26' 10.619 W
3,200.0	8.00	270.00	3,190.9	0.0	-139.2	487,706.10	818,379.68	32° 20' 15.312 N	103° 26' 10.781 W
3,300.0	8.00	270.00	3,289.9	0.0	-153.1	487,706.10	818,365.76	32° 20' 15.313 N	103° 26' 10.943 W
3,400.0	8.00	270.00	3,389.0	0.0	-167.1	487,706.10	818,351.85	32° 20' 15.314 N	103° 26' 11.105 W
3,500.0	8.00	270.00	3,488.0	0.0	-181.0	487,706.10	818,337.93	32° 20' 15.315 N	103° 26' 11.268 W
3,600.0	8.00	270.00	3,587.0	0.0	-194.9	487,706.10	818,324.01	32° 20' 15.316 N	103° 26' 11.430 W
3,700.0	8.00	270.00	3,686.0	0.0	-208.8	487,706.10	818,310.09	32° 20' 15.317 N	103° 26' 11.592 W
3,800.0	8.00	270.00	3,785.1	0.0	-222.7	487,706.10	818,296.18	32° 20' 15.319 N	103° 26' 11.754 W
3,900.0	8.00	270.00	3,884.1	0.0	-236.6	487,706.10	818,282.26	32° 20' 15.320 N	103° 26' 11.916 W
4,000.0	8.00	270.00	3,983.1	0.0	-250.6	487,706.10	818,268.34	32° 20' 15.321 N	103° 26' 12.079 W
4,100.0	8.00	270.00	4,082.2	0.0	-264.5	487,706.10	818,254.42	32° 20' 15.322 N	103° 26' 12.241 W
4,200.0	8.00	270.00	4,181.2	0.0	-278.4	487,706.10	818,240.51	32° 20' 15.323 N	103° 26' 12.403 W
4,300.0	8.00	270.00	4,280.2	0.0	-292.3	487,706.10	818,226.59	32° 20' 15.324 N	103° 26' 12.565 W
4,400.0	8.00	270.00	4,379.2	0.0	-306.2	487,706.10	818,212.67	32° 20' 15.325 N	103° 26' 12.727 W
4,500.0	8.00	270.00	4,478.3	0.0	-320.1	487,706.10	818,198.76	32° 20' 15.327 N	103° 26' 12.890 W
4,600.0	8.00	270.00	4,577.3	0.0	-334.1	487,706.10	818,184.84	32° 20' 15.328 N	103° 26' 13.052 W
4,700.0	8.00	270.00	4,676.3	0.0	-348.0	487,706.10	818,170.92	32° 20' 15.329 N	103° 26' 13.214 W
4,800.0	8.00	270.00	4,775.3	0.0	-361.9	487,706.10	818,157.00	32° 20' 15.330 N	103° 26' 13.376 W
4,900.0	8.00	270.00	4,874.4	0.0	-375.8	487,706.10	818,143.09	32° 20' 15.331 N	103° 26' 13.538 W
5,000.0	8.00	270.00	4,973.4	0.0	-389.7	487,706.10	818,129.17	32° 20' 15.332 N	103° 26' 13.701 W
5,100.0	8.00	270.00	5,072.4	0.0	-403.6	487,706.10	818,115.25	32° 20' 15.334 N	103° 26' 13.863 W
5,200.0	8.00	270.00	5,171.5	0.0	-417.6	487,706.10	818,101.33	32° 20' 15.335 N	103° 26' 14.025 W
5,300.0	8.00	270.00	5,270.5	0.0	-431.5	487,706.10	818,087.42	32° 20' 15.336 N	103° 26' 14.187 W
5,400.0	8.00	270.00	5,369.5	0.0	-445.4	487,706.10	818,073.50	32° 20' 15.337 N	103° 26' 14.349 W

Microsoft
Planning Report - Geographic

Database:	EDM16	Local Co-ordinate Reference:	Well South Ridge #10H
Company:	BTA Oil Producers, LLC	TVD Reference:	WELL @ 3385.0usft (Original Well Elev)
Project:	Lea County, NM (NAD 83)	MD Reference:	WELL @ 3385.0usft (Original Well Elev)
Site:	South Ridge	North Reference:	Grid
Well:	South Ridge #10H	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	270.00	5,468.5	0.0	-459.3	487,706.10	818,059.58	32° 20' 15.338 N	103° 26' 14.512 W	
5,600.0	8.00	270.00	5,567.6	0.0	-473.2	487,706.10	818,045.67	32° 20' 15.339 N	103° 26' 14.674 W	
5,700.0	8.00	270.00	5,666.6	0.0	-487.2	487,706.10	818,031.75	32° 20' 15.340 N	103° 26' 14.836 W	
5,800.0	8.00	270.00	5,765.6	0.0	-501.1	487,706.10	818,017.83	32° 20' 15.342 N	103° 26' 14.998 W	
5,900.0	8.00	270.00	5,864.6	0.0	-515.0	487,706.10	818,003.91	32° 20' 15.343 N	103° 26' 15.160 W	
6,000.0	8.00	270.00	5,963.7	0.0	-528.9	487,706.10	817,990.00	32° 20' 15.344 N	103° 26' 15.323 W	
6,100.0	8.00	270.00	6,062.7	0.0	-542.8	487,706.10	817,976.08	32° 20' 15.345 N	103° 26' 15.485 W	
6,200.0	8.00	270.00	6,161.7	0.0	-556.7	487,706.10	817,962.16	32° 20' 15.346 N	103° 26' 15.647 W	
6,300.0	8.00	270.00	6,260.7	0.0	-570.7	487,706.10	817,948.24	32° 20' 15.347 N	103° 26' 15.809 W	
6,400.0	8.00	270.00	6,359.8	0.0	-584.6	487,706.10	817,934.33	32° 20' 15.348 N	103° 26' 15.971 W	
6,500.0	8.00	270.00	6,458.8	0.0	-598.5	487,706.10	817,920.41	32° 20' 15.350 N	103° 26' 16.134 W	
6,600.0	8.00	270.00	6,557.8	0.0	-612.4	487,706.10	817,906.49	32° 20' 15.351 N	103° 26' 16.296 W	
6,700.0	8.00	270.00	6,656.9	0.0	-626.3	487,706.10	817,892.58	32° 20' 15.352 N	103° 26' 16.458 W	
6,800.0	8.00	270.00	6,755.9	0.0	-640.2	487,706.10	817,878.66	32° 20' 15.353 N	103° 26' 16.620 W	
6,900.0	8.00	270.00	6,854.9	0.0	-654.2	487,706.10	817,864.74	32° 20' 15.354 N	103° 26' 16.782 W	
7,000.0	8.00	270.00	6,953.9	0.0	-668.1	487,706.10	817,850.82	32° 20' 15.355 N	103° 26' 16.945 W	
7,100.0	8.00	270.00	7,053.0	0.0	-682.0	487,706.10	817,836.91	32° 20' 15.357 N	103° 26' 17.107 W	
7,200.0	8.00	270.00	7,152.0	0.0	-695.9	487,706.10	817,822.99	32° 20' 15.358 N	103° 26' 17.269 W	
7,300.0	8.00	270.00	7,251.0	0.0	-709.8	487,706.10	817,809.07	32° 20' 15.359 N	103° 26' 17.431 W	
7,400.0	8.00	270.00	7,350.0	0.0	-723.7	487,706.10	817,795.15	32° 20' 15.360 N	103° 26' 17.594 W	
7,500.0	8.00	270.00	7,449.1	0.0	-737.7	487,706.10	817,781.24	32° 20' 15.361 N	103° 26' 17.756 W	
7,600.0	8.00	270.00	7,548.1	0.0	-751.6	487,706.10	817,767.32	32° 20' 15.362 N	103° 26' 17.918 W	
7,700.0	8.00	270.00	7,647.1	0.0	-765.5	487,706.10	817,753.40	32° 20' 15.363 N	103° 26' 18.080 W	
7,800.0	8.00	270.00	7,746.1	0.0	-779.4	487,706.10	817,739.49	32° 20' 15.365 N	103° 26' 18.242 W	
7,900.0	8.00	270.00	7,845.2	0.0	-793.3	487,706.10	817,725.57	32° 20' 15.366 N	103° 26' 18.405 W	
8,000.0	8.00	270.00	7,944.2	0.0	-807.2	487,706.10	817,711.65	32° 20' 15.367 N	103° 26' 18.567 W	
8,100.0	8.00	270.00	8,043.2	0.0	-821.2	487,706.10	817,697.73	32° 20' 15.368 N	103° 26' 18.729 W	
8,200.0	8.00	270.00	8,142.3	0.0	-835.1	487,706.10	817,683.82	32° 20' 15.369 N	103° 26' 18.891 W	
8,300.0	8.00	270.00	8,241.3	0.0	-849.0	487,706.10	817,669.90	32° 20' 15.370 N	103° 26' 19.053 W	
8,322.4	8.00	270.00	8,263.5	0.0	-852.1	487,706.10	817,666.78	32° 20' 15.371 N	103° 26' 19.090 W	
8,400.0	6.45	270.00	8,340.4	0.0	-861.9	487,706.10	817,657.02	32° 20' 15.371 N	103° 26' 19.203 W	
8,500.0	4.45	270.00	8,440.0	0.0	-871.4	487,706.10	817,647.53	32° 20' 15.372 N	103° 26' 19.314 W	
8,600.0	2.45	270.00	8,539.8	0.0	-877.4	487,706.10	817,641.52	32° 20' 15.373 N	103° 26' 19.384 W	
8,700.0	0.45	270.00	8,639.8	0.0	-879.9	487,706.10	817,638.99	32° 20' 15.373 N	103° 26' 19.414 W	
8,722.4	0.00	0.00	8,662.2	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
8,800.0	0.00	0.00	8,739.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
8,900.0	0.00	0.00	8,839.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
9,000.0	0.00	0.00	8,939.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
9,100.0	0.00	0.00	9,039.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
9,200.0	0.00	0.00	9,139.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
9,300.0	0.00	0.00	9,239.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
9,400.0	0.00	0.00	9,339.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
9,500.0	0.00	0.00	9,439.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
9,600.0	0.00	0.00	9,539.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
9,700.0	0.00	0.00	9,639.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
9,800.0	0.00	0.00	9,739.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
9,900.0	0.00	0.00	9,839.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
10,000.0	0.00	0.00	9,939.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
10,100.0	0.00	0.00	10,039.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
10,200.0	0.00	0.00	10,139.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
10,300.0	0.00	0.00	10,239.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
10,400.0	0.00	0.00	10,339.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
10,500.0	0.00	0.00	10,439.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
10,600.0	0.00	0.00	10,539.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
10,700.0	0.00	0.00	10,639.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	

Microsoft
Planning Report - Geographic

Database:	EDM16	Local Co-ordinate Reference:	Well South Ridge #10H
Company:	BTA Oil Producers, LLC	TVD Reference:	WELL @ 3385.0usft (Original Well Elev)
Project:	Lea County, NM (NAD 83)	MD Reference:	WELL @ 3385.0usft (Original Well Elev)
Site:	South Ridge	North Reference:	Grid
Well:	South Ridge #10H	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	
10,800.0	0.00	0.00	10,739.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
10,900.0	0.00	0.00	10,839.8	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
10,917.7	0.00	0.00	10,857.5	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
10,967.8	0.00	0.00	10,907.5	0.0	-880.0	487,706.10	817,638.90	32° 20' 15.373 N	103° 26' 19.415 W	
11,000.0	3.87	179.50	10,939.7	-1.1	-880.0	487,705.01	817,638.91	32° 20' 15.362 N	103° 26' 19.415 W	
11,100.0	15.87	179.50	11,038.1	-18.2	-879.8	487,687.91	817,639.06	32° 20' 15.193 N	103° 26' 19.415 W	
11,200.0	27.87	179.50	11,130.7	-55.4	-879.5	487,650.73	817,639.38	32° 20' 14.825 N	103° 26' 19.414 W	
11,300.0	39.87	179.50	11,213.6	-111.0	-879.0	487,595.11	817,639.87	32° 20' 14.275 N	103° 26' 19.414 W	
11,400.0	51.87	179.50	11,283.1	-182.6	-878.4	487,523.47	817,640.50	32° 20' 13.566 N	103° 26' 19.414 W	
11,500.0	63.87	179.50	11,336.2	-267.2	-877.7	487,438.94	817,641.24	32° 20' 12.729 N	103° 26' 19.413 W	
11,600.0	75.87	179.50	11,370.5	-360.9	-876.8	487,345.23	817,642.06	32° 20' 11.802 N	103° 26' 19.413 W	
11,700.0	87.87	179.50	11,384.7	-459.7	-876.0	487,246.42	817,642.92	32° 20' 10.824 N	103° 26' 19.413 W	
11,717.8	90.00	179.50	11,385.0	-477.4	-875.8	487,228.66	817,643.07	32° 20' 10.648 N	103° 26' 19.412 W	
11,800.0	90.00	179.50	11,385.0	-559.7	-875.1	487,146.43	817,643.79	32° 20' 9.835 N	103° 26' 19.412 W	
11,900.0	90.00	179.50	11,385.0	-659.7	-874.2	487,046.43	817,644.67	32° 20' 8.845 N	103° 26' 19.412 W	
12,000.0	90.00	179.50	11,385.0	-759.7	-873.4	486,946.44	817,645.54	32° 20' 7.856 N	103° 26' 19.411 W	
12,100.0	90.00	179.50	11,385.0	-859.7	-872.5	486,846.44	817,646.41	32° 20' 6.866 N	103° 26' 19.411 W	
12,200.0	90.00	179.50	11,385.0	-959.7	-871.6	486,746.44	817,647.29	32° 20' 5.877 N	103° 26' 19.410 W	
12,300.0	90.00	179.50	11,385.0	-1,059.7	-870.7	486,646.45	817,648.16	32° 20' 4.887 N	103° 26' 19.410 W	
12,400.0	90.00	179.50	11,385.0	-1,159.7	-869.9	486,546.45	817,649.04	32° 20' 3.898 N	103° 26' 19.409 W	
12,500.0	90.00	179.50	11,385.0	-1,259.6	-869.0	486,446.46	817,649.91	32° 20' 2.908 N	103° 26' 19.409 W	
12,600.0	90.00	179.50	11,385.0	-1,359.6	-868.1	486,346.46	817,650.79	32° 20' 1.919 N	103° 26' 19.408 W	
12,700.0	90.00	179.50	11,385.0	-1,459.6	-867.2	486,246.46	817,651.66	32° 20' 0.929 N	103° 26' 19.408 W	
12,800.0	90.00	179.50	11,385.0	-1,559.6	-866.4	486,146.47	817,652.53	32° 19' 59.940 N	103° 26' 19.408 W	
12,900.0	90.00	179.50	11,385.0	-1,659.6	-865.5	486,046.47	817,653.41	32° 19' 58.950 N	103° 26' 19.407 W	
13,000.0	90.00	179.50	11,385.0	-1,759.6	-864.6	485,946.48	817,654.28	32° 19' 57.961 N	103° 26' 19.407 W	
13,100.0	90.00	179.50	11,385.0	-1,859.6	-863.7	485,846.48	817,655.16	32° 19' 56.971 N	103° 26' 19.406 W	
13,200.0	90.00	179.50	11,385.0	-1,959.6	-862.9	485,746.49	817,656.03	32° 19' 55.982 N	103° 26' 19.406 W	
13,300.0	90.00	179.50	11,385.0	-2,059.6	-862.0	485,646.49	817,656.90	32° 19' 54.992 N	103° 26' 19.405 W	
13,400.0	90.00	179.50	11,385.0	-2,159.6	-861.1	485,546.49	817,657.78	32° 19' 54.003 N	103° 26' 19.405 W	
13,500.0	90.00	179.50	11,385.0	-2,259.6	-860.2	485,446.50	817,658.65	32° 19' 53.013 N	103° 26' 19.404 W	
13,600.0	90.00	179.50	11,385.0	-2,359.6	-859.4	485,346.50	817,659.53	32° 19' 52.024 N	103° 26' 19.404 W	
13,700.0	90.00	179.50	11,385.0	-2,459.6	-858.5	485,246.51	817,660.40	32° 19' 51.034 N	103° 26' 19.403 W	
13,800.0	90.00	179.50	11,385.0	-2,559.6	-857.6	485,146.51	817,661.27	32° 19' 50.045 N	103° 26' 19.403 W	
13,900.0	90.00	179.50	11,385.0	-2,659.6	-856.8	485,046.51	817,662.15	32° 19' 49.055 N	103° 26' 19.403 W	
14,000.0	90.00	179.50	11,385.0	-2,759.6	-855.9	484,946.52	817,663.02	32° 19' 48.066 N	103° 26' 19.402 W	
14,100.0	90.00	179.50	11,385.0	-2,859.6	-855.0	484,846.52	817,663.90	32° 19' 47.076 N	103° 26' 19.402 W	
14,200.0	90.00	179.50	11,385.0	-2,959.6	-854.1	484,746.53	817,664.77	32° 19' 46.087 N	103° 26' 19.401 W	
14,300.0	90.00	179.50	11,385.0	-3,059.6	-853.3	484,646.53	817,665.64	32° 19' 45.097 N	103° 26' 19.401 W	
14,400.0	90.00	179.50	11,385.0	-3,159.6	-852.4	484,546.53	817,666.52	32° 19' 44.108 N	103° 26' 19.400 W	
14,500.0	90.00	179.50	11,385.0	-3,259.6	-851.5	484,446.54	817,667.39	32° 19' 43.118 N	103° 26' 19.400 W	
14,600.0	90.00	179.50	11,385.0	-3,359.6	-850.6	484,346.54	817,668.27	32° 19' 42.129 N	103° 26' 19.399 W	
14,700.0	90.00	179.50	11,385.0	-3,459.6	-849.8	484,246.55	817,669.14	32° 19' 41.139 N	103° 26' 19.399 W	
14,800.0	90.00	179.50	11,385.0	-3,559.6	-848.9	484,146.55	817,670.01	32° 19' 40.150 N	103° 26' 19.398 W	
14,900.0	90.00	179.50	11,385.0	-3,659.6	-848.0	484,046.55	817,670.89	32° 19' 39.160 N	103° 26' 19.398 W	
15,000.0	90.00	179.50	11,385.0	-3,759.6	-847.1	483,946.56	817,671.76	32° 19' 38.171 N	103° 26' 19.398 W	
15,100.0	90.00	179.50	11,385.0	-3,859.5	-846.3	483,846.56	817,672.64	32° 19' 37.181 N	103° 26' 19.397 W	
15,200.0	90.00	179.50	11,385.0	-3,959.5	-845.4	483,746.57	817,673.51	32° 19' 36.192 N	103° 26' 19.397 W	
15,300.0	90.00	179.50	11,385.0	-4,059.5	-844.5	483,646.57	817,674.38	32° 19' 35.202 N	103° 26' 19.396 W	
15,400.0	90.00	179.50	11,385.0	-4,159.5	-843.6	483,546.58	817,675.26	32° 19' 34.213 N	103° 26' 19.396 W	
15,500.0	90.00	179.50	11,385.0	-4,259.5	-842.8	483,446.58	817,676.13	32° 19' 33.223 N	103° 26' 19.395 W	
15,600.0	90.00	179.50	11,385.0	-4,359.5	-841.9	483,346.58	817,677.01	32° 19' 32.234 N	103° 26' 19.395 W	
15,700.0	90.00	179.50	11,385.0	-4,459.5	-841.0	483,246.59	817,677.88	32° 19' 31.244 N	103° 26' 19.394 W	
15,800.0	90.00	179.50	11,385.0	-4,559.5	-840.1	483,146.59	817,678.75	32° 19' 30.255 N	103° 26' 19.394 W	
15,900.0	90.00	179.50	11,385.0	-4,659.5	-839.3	483,046.60	817,679.63	32° 19' 29.265 N	103° 26' 19.393 W	

Microsoft
Planning Report - Geographic

Database:	EDM16	Local Co-ordinate Reference:	Well South Ridge #10H
Company:	BTA Oil Producers, LLC	TVD Reference:	WELL @ 3385.0usft (Original Well Elev)
Project:	Lea County, NM (NAD 83)	MD Reference:	WELL @ 3385.0usft (Original Well Elev)
Site:	South Ridge	North Reference:	Grid
Well:	South Ridge #10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

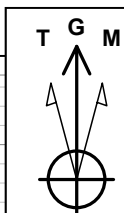
Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
16,000.0	90.00	179.50	11,385.0	-4,759.5	-838.4	482,946.60	817,680.50	32° 19' 28.276 N	103° 26' 19.393 W	
16,100.0	90.00	179.50	11,385.0	-4,859.5	-837.5	482,846.60	817,681.38	32° 19' 27.286 N	103° 26' 19.393 W	
16,200.0	90.00	179.50	11,385.0	-4,959.5	-836.7	482,746.61	817,682.25	32° 19' 26.297 N	103° 26' 19.392 W	
16,300.0	90.00	179.50	11,385.0	-5,059.5	-835.8	482,646.61	817,683.12	32° 19' 25.307 N	103° 26' 19.392 W	
16,400.0	90.00	179.50	11,385.0	-5,159.5	-834.9	482,546.62	817,684.00	32° 19' 24.318 N	103° 26' 19.391 W	
16,500.0	90.00	179.50	11,385.0	-5,259.5	-834.0	482,446.62	817,684.87	32° 19' 23.328 N	103° 26' 19.391 W	
16,600.0	90.00	179.50	11,385.0	-5,359.5	-833.2	482,346.62	817,685.75	32° 19' 22.339 N	103° 26' 19.390 W	
16,700.0	90.00	179.50	11,385.0	-5,459.5	-832.3	482,246.63	817,686.62	32° 19' 21.349 N	103° 26' 19.390 W	
16,800.0	90.00	179.50	11,385.0	-5,559.5	-831.4	482,146.63	817,687.49	32° 19' 20.360 N	103° 26' 19.389 W	
16,900.0	90.00	179.50	11,385.0	-5,659.5	-830.5	482,046.64	817,688.37	32° 19' 19.370 N	103° 26' 19.389 W	
17,000.0	90.00	179.50	11,385.0	-5,759.5	-829.7	481,946.64	817,689.24	32° 19' 18.381 N	103° 26' 19.388 W	
17,100.0	90.00	179.50	11,385.0	-5,859.5	-828.8	481,846.65	817,690.12	32° 19' 17.391 N	103° 26' 19.388 W	
17,200.0	90.00	179.50	11,385.0	-5,959.5	-827.9	481,746.65	817,690.99	32° 19' 16.402 N	103° 26' 19.388 W	
17,300.0	90.00	179.50	11,385.0	-6,059.5	-827.0	481,646.65	817,691.87	32° 19' 15.412 N	103° 26' 19.387 W	
17,400.0	90.00	179.50	11,385.0	-6,159.5	-826.2	481,546.66	817,692.74	32° 19' 14.423 N	103° 26' 19.387 W	
17,500.0	90.00	179.50	11,385.0	-6,259.5	-825.3	481,446.66	817,693.61	32° 19' 13.433 N	103° 26' 19.386 W	
17,600.0	90.00	179.50	11,385.0	-6,359.5	-824.4	481,346.67	817,694.49	32° 19' 12.444 N	103° 26' 19.386 W	
17,700.0	90.00	179.50	11,385.0	-6,459.4	-823.5	481,246.67	817,695.36	32° 19' 11.454 N	103° 26' 19.385 W	
17,800.0	90.00	179.50	11,385.0	-6,559.4	-822.7	481,146.67	817,696.24	32° 19' 10.465 N	103° 26' 19.385 W	
17,900.0	90.00	179.50	11,385.0	-6,659.4	-821.8	481,046.68	817,697.11	32° 19' 9.475 N	103° 26' 19.384 W	
18,000.0	90.00	179.50	11,385.0	-6,759.4	-820.9	480,946.68	817,697.98	32° 19' 8.486 N	103° 26' 19.384 W	
18,100.0	90.00	179.50	11,385.0	-6,859.4	-820.0	480,846.69	817,698.86	32° 19' 7.496 N	103° 26' 19.383 W	
18,200.0	90.00	179.50	11,385.0	-6,959.4	-819.2	480,746.69	817,699.73	32° 19' 6.507 N	103° 26' 19.383 W	
18,300.0	90.00	179.50	11,385.0	-7,059.4	-818.3	480,646.69	817,700.61	32° 19' 5.517 N	103° 26' 19.383 W	
18,400.0	90.00	179.50	11,385.0	-7,159.4	-817.4	480,546.70	817,701.48	32° 19' 4.528 N	103° 26' 19.382 W	
18,500.0	90.00	179.50	11,385.0	-7,259.4	-816.5	480,446.70	817,702.35	32° 19' 3.538 N	103° 26' 19.382 W	
18,600.0	90.00	179.50	11,385.0	-7,359.4	-815.7	480,346.71	817,703.23	32° 19' 2.549 N	103° 26' 19.381 W	
18,700.0	90.00	179.50	11,385.0	-7,459.4	-814.8	480,246.71	817,704.10	32° 19' 1.559 N	103° 26' 19.381 W	
18,800.0	90.00	179.50	11,385.0	-7,559.4	-813.9	480,146.72	817,704.98	32° 19' 0.570 N	103° 26' 19.380 W	
18,900.0	90.00	179.50	11,385.0	-7,659.4	-813.1	480,046.72	817,705.85	32° 18' 59.580 N	103° 26' 19.380 W	
19,000.0	90.00	179.50	11,385.0	-7,759.4	-812.2	479,946.72	817,706.72	32° 18' 58.591 N	103° 26' 19.379 W	
19,100.0	90.00	179.50	11,385.0	-7,859.4	-811.3	479,846.73	817,707.60	32° 18' 57.601 N	103° 26' 19.379 W	
19,200.0	90.00	179.50	11,385.0	-7,959.4	-810.4	479,746.73	817,708.47	32° 18' 56.612 N	103° 26' 19.378 W	
19,300.0	90.00	179.50	11,385.0	-8,059.4	-809.6	479,646.74	817,709.35	32° 18' 55.622 N	103° 26' 19.378 W	
19,400.0	90.00	179.50	11,385.0	-8,159.4	-808.7	479,546.74	817,710.22	32° 18' 54.633 N	103° 26' 19.377 W	
19,500.0	90.00	179.50	11,385.0	-8,259.4	-807.8	479,446.74	817,711.09	32° 18' 53.643 N	103° 26' 19.377 W	
19,600.0	90.00	179.50	11,385.0	-8,359.4	-806.9	479,346.75	817,711.97	32° 18' 52.654 N	103° 26' 19.377 W	
19,700.0	90.00	179.50	11,385.0	-8,459.4	-806.1	479,246.75	817,712.84	32° 18' 51.664 N	103° 26' 19.376 W	
19,800.0	90.00	179.50	11,385.0	-8,559.4	-805.2	479,146.76	817,713.72	32° 18' 50.675 N	103° 26' 19.376 W	
19,900.0	90.00	179.50	11,385.0	-8,659.4	-804.3	479,046.76	817,714.59	32° 18' 49.685 N	103° 26' 19.375 W	
20,000.0	90.00	179.50	11,385.0	-8,759.4	-803.4	478,946.76	817,715.46	32° 18' 48.696 N	103° 26' 19.375 W	
20,100.0	90.00	179.50	11,385.0	-8,859.4	-802.6	478,846.77	817,716.34	32° 18' 47.706 N	103° 26' 19.374 W	
20,200.0	90.00	179.50	11,385.0	-8,959.4	-801.7	478,746.77	817,717.21	32° 18' 46.717 N	103° 26' 19.374 W	
20,300.0	90.00	179.50	11,385.0	-9,059.4	-800.8	478,646.78	817,718.09	32° 18' 45.727 N	103° 26' 19.373 W	
20,400.0	90.00	179.50	11,385.0	-9,159.3	-799.9	478,546.78	817,718.96	32° 18' 44.738 N	103° 26' 19.373 W	
20,500.0	90.00	179.50	11,385.0	-9,259.3	-799.1	478,446.79	817,719.83	32° 18' 43.748 N	103° 26' 19.372 W	
20,553.1	90.00	179.50	11,385.0	-9,312.4	-798.6	478,393.70	817,720.30	32° 18' 43.223 N	103° 26' 19.372 W	

Microsoft
Planning Report - Geographic

Database:	EDM16	Local Co-ordinate Reference:	Well South Ridge #10H
Company:	BTA Oil Producers, LLC	TVD Reference:	WELL @ 3385.0usft (Original Well Elev)
Project:	Lea County, NM (NAD 83)	MD Reference:	WELL @ 3385.0usft (Original Well Elev)
Site:	South Ridge	North Reference:	Grid
Well:	South Ridge #10H	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)		
South Ridge #10H BHL	0.00	0.00	11,385.0	-9,312.4	-798.6	478,393.70	817,720.30	32° 18' 43.223 N	103° 26' 19.372 W
- plan hits target center									
- Point									

BTA Oil Producers, LLC



Azimuths to Grid North
 True North: -0.48°
 Magnetic North: 7.22°
 Magnetic Field
 Strength: 48877.6nT
 Dip Angle: 60.37°
 Date: 12/31/2009
 Model: IGRF200510

WELL DETAILS: South Ridge #10H

+N/-S	+E/-W	Northing	Ground Level Easting	3385.0 Latitude	Longitude
0.0	0.0	487706.10	818518.90	32° 20' 15.300 N	103° 26' 9.158 W

SITE DETAILS: South Ridge

Site Centre Northing: 486511.00
 Easting: 815469.00

Positional Uncertainty: 0.0
 Convergence: 0.47
 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	2000.0	0.00	0.00	2000.0	0.0	0.0	0.00
3	2400.0	8.00	270.00	2398.7	0.0	-27.9	2.00
4	8322.4	8.00	270.00	8263.5	0.0	-852.1	0.00
5	8722.4	0.00	0.00	8662.2	0.0	-880.0	2.00
6	10917.7	0.00	0.00	10857.5	0.0	-880.0	0.00
7	10967.8	0.00	0.00	10907.5	0.0	-880.0	0.00
8	11717.8	90.00	179.50	11385.0	-477.4	-875.8	12.00
9	20553.1	90.00	179.50	11385.0	-9312.4	-798.6	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

