

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

5. Lease Serial No.

NMNM82Z99

6. If Indian, Allottee or Tribe Name

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

Well Name and No.

GRAMA FED COM 8817, IV P 4H

9. API Well No.

30-025-43870

10. Field and Pool or Exploratory Area

WC-025 G-06 S223421L;BONE

11. County or Parish, State

LEA COUNTY, NM

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

BTA OIL PRODUCERS, LLC

Contact: KAYLA MCCONNELL

E-Mail: kmccconnell@btaoil.com

3a. Address

104 SOUTH PECOS
MIDLAND, TX 79701

3b. Phone No. (include area code)

Ph: 432-682-3753

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 16 T22S R34E 200FSL 1980FEL

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

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

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

BTA Oil Producers, LLC respectfully requests for the following changes to the original approved APD.

BHL
Original: 200 FNL 1980 FEL
Change to: 200 FNL 2590 FEL

5 1/2" Casing
Original: 20367' MD
Change to: 20532' MD

Attached:

-All previous COAs null. Additional COA is not required.

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

Electronic Submission #409464 verified by the BLM Well Information System
For BTA OIL PRODUCERS, LLC, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 04/09/2018 ()

Name (Printed/Typed) KAYLA MCCONNELL

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 03/27/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>Mustafa Hague</u>	Title <u>Engineer</u>	Date <u>4-17-2018</u>
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office <u>CFO</u>

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

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

Additional data for EC transaction #409464 that would not fit on the form

32. Additional remarks, continued

Amended C102

Amended Directional Drilling Plan

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 30-025-43870	Pool Code 97922	Pool Name WC-025 G-06 S223421L;BONE SPRING
Property Code 318083	Property Name GRAMA 8817 16-9 FEDERAL COM	Well Number 4H
OGRID No. 260297	Operator Name BTA OIL PRODUCERS, LLC	Elevation 3476'

Surface Location

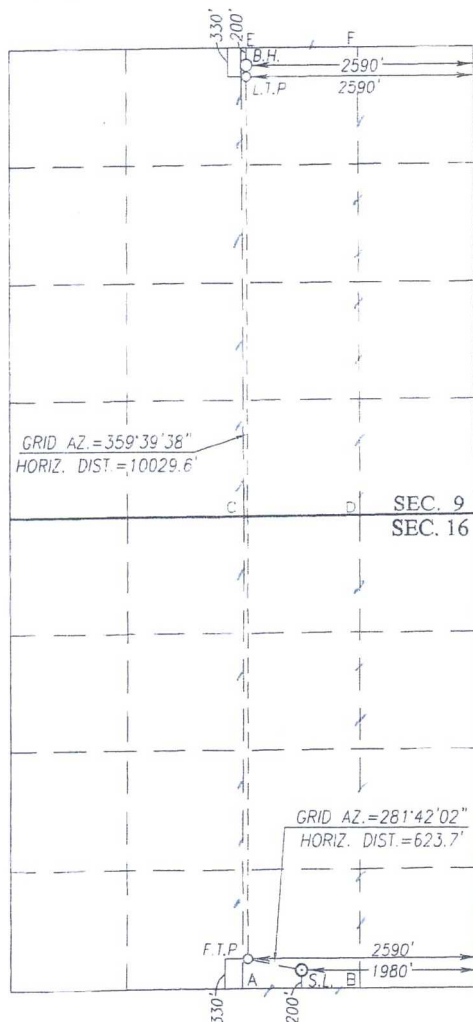
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	16	22-S	34-E		200	SOUTH	1980	EAST	LEA

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
B	9	22-S	34-E		200	NORTH	2590	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

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



SCALE: 1"=2000'

GEODEIC COORDINATES
NAD 27 NME
BOTTOM HOLE LOCATION
Y= 514958.8 N
X= 765116.8 E
LAT.=32.412807° N
LONG.=103.474246° W

LAST TAKE POINT
NAD 27 NME
Y= 514828.9 N
X= 765117.5 E
LAT.=32.412450° N
LONG.=103.474247° W

GEODEIC COORDINATES
NAD 83 NME
BOTTOM HOLE LOCATION
Y= 515019.7 N
X= 806299.6 E
LAT.=32.412931° N
LONG.=103.474728° W

LAST TAKE POINT
NAD 83 NME
Y= 514889.7 N
X= 806300.3 E
LAT.=32.412574° N
LONG.=103.474728° W

CORNER COORDINATES TABLE
NAD 27 NME

A - Y= 504601.2 N, X= 765116.2 E
B - Y= 504608.7 N, X= 766441.8 E
C - Y= 509873.8 N, X= 765101.1 E
D - Y= 509885.6 N, X= 766418.7 E
E - Y= 515158.4 N, X= 765058.0 E
F - Y= 515168.3 N, X= 766381.5 E

CORNER COORDINATES TABLE
NAD 83 NME

A - Y= 504661.7 N, X= 806299.2 E
B - Y= 504669.2 N, X= 807624.8 E
C - Y= 509934.5 N, X= 806284.0 E
D - Y= 509946.3 N, X= 807601.7 E
E - Y= 515219.2 N, X= 806240.8 E
F - Y= 515229.2 N, X= 807564.3 E

FIRST TAKE POINT

NAD 27 NME
Y= 504931.5 N
X= 765176.0 E
LAT.=32.385244° N
LONG.=103.474315° W

FIRST TAKE POINT

NAD 83 NME
Y= 504992.0 N
X= 806359.0 E
LAT.=32.385368° N
LONG.=103.474796° W

GEODEIC COORDINATES
NAD 27 NME
SURFACE LOCATION
Y= 504805.0 N
X= 765786.5 E
LAT.=32.384883° N
LONG.=103.472341° W

GEODEIC COORDINATES
NAD 83 NME
SURFACE LOCATION
Y= 504865.5 N
X= 806969.6 E
LAT.=32.385007° N
LONG.=103.472821° W

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.

Kayla McConnell
3/5/2018

Signature

Date

KAYLA MCCONNELL

Printed Name

KMCCONNELL@BTAOIL.COM

E-mail Address

SURVEYOR CERTIFICATION

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

SEPTEMBER 28, 2016
PROFESSIONAL SURVEYOR

Date of Survey
Signature & Seal of Professional Surveyor:

Ronald J. Eidson 03/01/2018

Certificate Number Gary G. Eidson 12641
Ronald J. Eidson 3239

LSL REL W.O 16110856 JWSC W.O. 18.13.0251

BTA Oil Producers, LLC

Lea County, NM (NAD 83)

Grama

Grama #4H

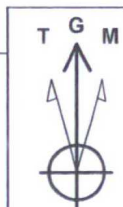
Wellbore #1

Plan: Design #1

Standard Planning Report - Geographic

06 March, 2018

BTA Oil Producers, LLC



Azimuths to Grid North
 True North: -0.46°
 Magnetic North: 7.25°
 Magnetic Field
 Strength: 48900.9snT
 Dip Angle: 60.41°
 Date: 12/31/2009
 Model: IGRF200510

WELL DETAILS: Grama #4H

+N/-S	+E/-W	Northing	Easting	Ground Level: 3476.0	Latitude	Longitude
0.0	0.0	504865.58	806969.52	32° 23' 6.026"	103° 28' 22.157 W	

SITE DETAILS: Grama

Site Centre Northing: 504968.06
 Easting: 804038.93

Positional Uncertainty: 0.0
 Convergence: 0.46
 Local North: Grid

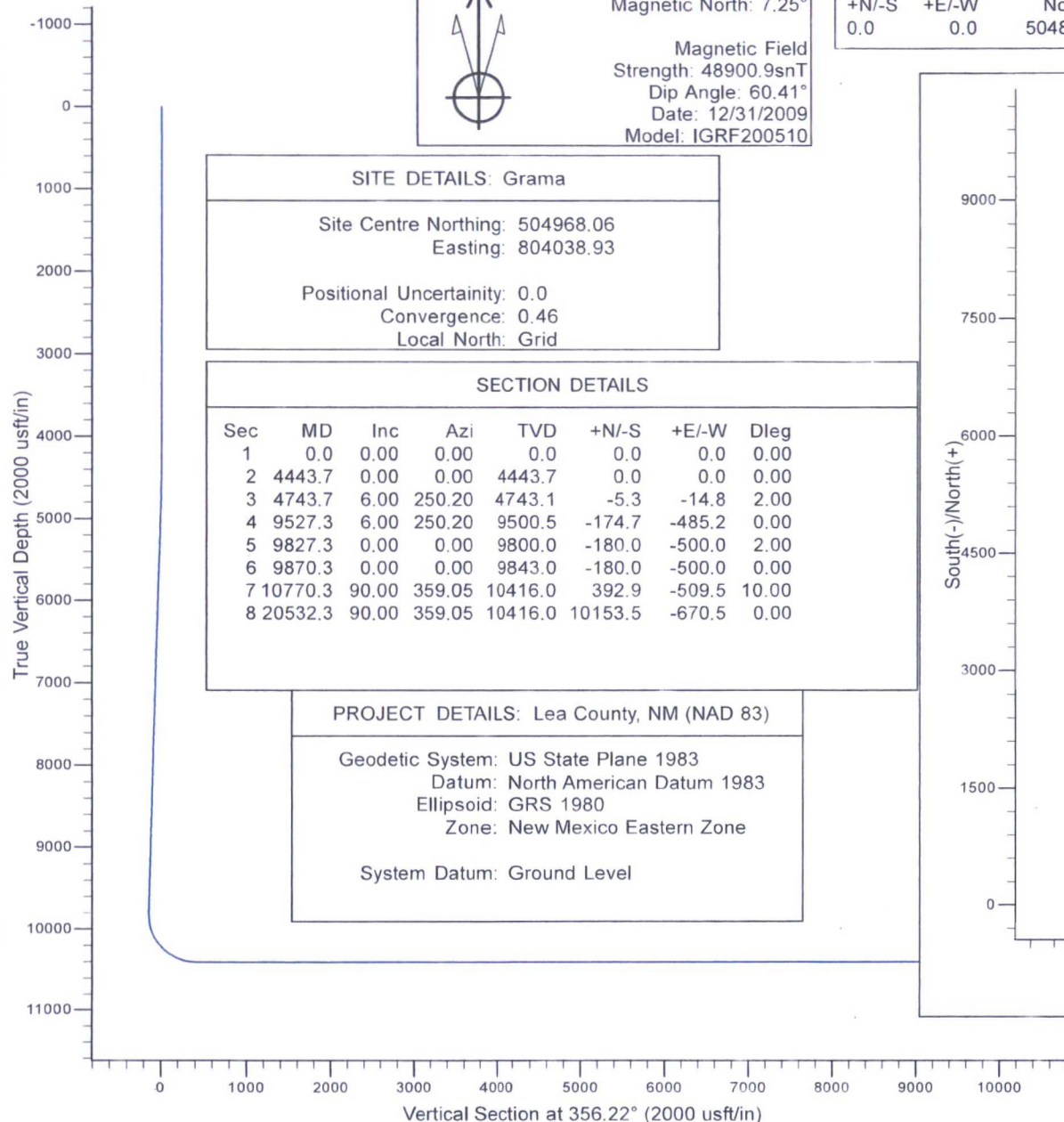
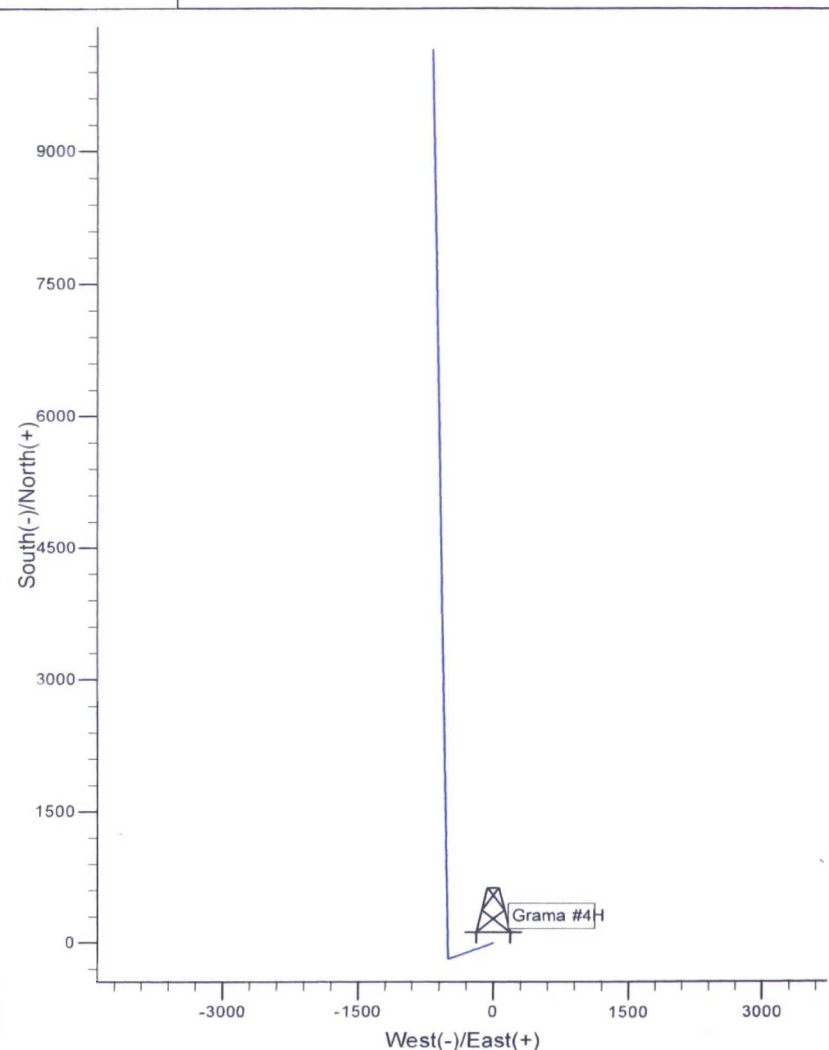
SECTION DETAILS

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	4443.7	0.00	0.00	4443.7	0.0	0.0	0.00
3	4743.7	6.00	250.20	4743.1	-5.3	-14.8	2.00
4	9527.3	6.00	250.20	9500.5	-174.7	-485.2	0.00
5	9827.3	0.00	0.00	9800.0	-180.0	-500.0	2.00
6	9870.3	0.00	0.00	9843.0	-180.0	-500.0	0.00
7	10770.3	90.00	359.05	10416.0	392.9	-509.5	10.00
8	20532.3	90.00	359.05	10416.0	10153.5	-670.5	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
Planning Report - Geographic

Database: EDM 5000.1 Single User Db
Company: BTA Oil Producers, LLC
Project: Lea County, NM (NAD 83)
Site: Grama
Well: Grama #4H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Grama #4H
TVD Reference: KB @ 3501.0usft
MD Reference: KB @ 3501.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project Lea County, NM (NAD 83), Lea County, NM

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: New Mexico Eastern Zone
System Datum: Ground Level
Using geodetic scale factor

Site Grama

Site Position: Northing: 504,968.06 usft Latitude: 32° 23' 7.272 N
From: Map Easting: 804,038.93 usft Longitude: 103° 28' 56.322 W
Position Uncertainty: 0.0 usft Slot Radius: 13-3/16" Grid Convergence: 0.46 °

Well Grama #4H

Well Position +N/-S 0.0 usft Northing: 504,865.58 usft Latitude: 32° 23' 6.026 N
+E/-W 0.0 usft Easting: 806,969.52 usft Longitude: 103° 28' 22.157 W
Position Uncertainty 0.0 usft Wellhead Elevation: 0.0 usft Ground Level: 3,476.0 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	7.72	60.41	48,901

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	356.22

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	
4,443.7	0.00	0.00	4,443.7	0.0	0.0	0.00	0.00	0.00	0.00	
4,743.7	6.00	250.20	4,743.1	-5.3	-14.8	2.00	2.00	0.00	250.20	
9,527.3	6.00	250.20	9,500.5	-174.7	-485.2	0.00	0.00	0.00	0.00	
9,827.3	0.00	0.00	9,800.0	-180.0	-500.0	2.00	-2.00	0.00	180.00	
9,870.3	0.00	0.00	9,843.0	-180.0	-500.0	0.00	0.00	0.00	0.00	
10,770.3	90.00	359.05	10,416.0	392.9	-509.5	10.00	10.00	0.00	359.05	
20,532.3	90.00	359.05	10,416.0	10,153.5	-670.5	0.00	0.00	0.00	0.00	Grama #4H BHL

BTA
Planning Report - Geographic

Database: EDM 5000.1 Single User Db
Company: BTA Oil Producers, LLC
Project: Lea County, NM (NAD 83)
Site: Grama
Well: Grama #4H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Grama #4H
TVD Reference: KB @ 3501.0usft
MD Reference: KB @ 3501.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
100.0	0.00	0.00	100.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
200.0	0.00	0.00	200.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
300.0	0.00	0.00	300.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
400.0	0.00	0.00	400.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
500.0	0.00	0.00	500.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
600.0	0.00	0.00	600.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
700.0	0.00	0.00	700.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
800.0	0.00	0.00	800.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
900.0	0.00	0.00	900.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
1,600.0	0.00	0.00	1,600.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
1,700.0	0.00	0.00	1,700.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
1,800.0	0.00	0.00	1,800.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
1,900.0	0.00	0.00	1,900.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
2,100.0	0.00	0.00	2,100.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
2,200.0	0.00	0.00	2,200.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
2,300.0	0.00	0.00	2,300.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
2,400.0	0.00	0.00	2,400.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
2,500.0	0.00	0.00	2,500.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
2,600.0	0.00	0.00	2,600.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
2,700.0	0.00	0.00	2,700.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
2,800.0	0.00	0.00	2,800.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
2,900.0	0.00	0.00	2,900.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
3,100.0	0.00	0.00	3,100.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
3,200.0	0.00	0.00	3,200.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
3,300.0	0.00	0.00	3,300.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
3,400.0	0.00	0.00	3,400.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
3,500.0	0.00	0.00	3,500.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
3,600.0	0.00	0.00	3,600.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
3,700.0	0.00	0.00	3,700.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
3,800.0	0.00	0.00	3,800.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
3,900.0	0.00	0.00	3,900.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
4,000.0	0.00	0.00	4,000.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
4,100.0	0.00	0.00	4,100.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
4,200.0	0.00	0.00	4,200.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
4,300.0	0.00	0.00	4,300.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
4,400.0	0.00	0.00	4,400.0	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
4,443.7	0.00	0.00	4,443.7	0.0	0.0	504,865.58	806,969.52	32° 23' 6.026 N	103° 28' 22.157 W	
4,500.0	1.13	250.20	4,500.0	-0.2	-0.5	504,865.39	806,968.99	32° 23' 6.024 N	103° 28' 22.164 W	
4,600.0	3.13	250.20	4,599.9	-1.4	-4.0	504,864.13	806,965.50	32° 23' 6.012 N	103° 28' 22.204 W	
4,700.0	5.13	250.20	4,699.7	-3.9	-10.8	504,861.70	806,958.73	32° 23' 5.989 N	103° 28' 22.284 W	
4,743.7	6.00	250.20	4,743.1	-5.3	-14.8	504,860.26	806,954.75	32° 23' 5.975 N	103° 28' 22.330 W	
4,800.0	6.00	250.20	4,799.1	-7.3	-20.3	504,858.27	806,949.21	32° 23' 5.955 N	103° 28' 22.395 W	
4,900.0	6.00	250.20	4,898.6	-10.9	-30.1	504,854.73	806,939.37	32° 23' 5.921 N	103° 28' 22.510 W	
5,000.0	6.00	250.20	4,998.0	-14.4	-40.0	504,851.19	806,929.54	32° 23' 5.887 N	103° 28' 22.625 W	
5,100.0	6.00	250.20	5,097.5	-17.9	-49.8	504,847.65	806,919.70	32° 23' 5.853 N	103° 28' 22.740 W	
5,200.0	6.00	250.20	5,197.0	-21.5	-59.6	504,844.10	806,909.87	32° 23' 5.818 N	103° 28' 22.855 W	

BTA
Planning Report - Geographic

Database: EDM 5000.1 Single User Db
Company: BTA Oil Producers, LLC
Project: Lea County, NM (NAD 83)
Site: Grama
Well: Grama #4H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Grama #4H
TVD Reference: KB @ 3501.0usft
MD Reference: KB @ 3501.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,300.0	6.00	250.20	5,296.4	-25.0	-69.5	504,840.56	806,900.04	32° 23' 5.784 N	103° 28' 22.970 W
5,400.0	6.00	250.20	5,395.9	-28.6	-79.3	504,837.02	806,890.20	32° 23' 5.750 N	103° 28' 23.085 W
5,500.0	6.00	250.20	5,495.3	-32.1	-89.2	504,833.48	806,880.37	32° 23' 5.716 N	103° 28' 23.200 W
5,600.0	6.00	250.20	5,594.8	-35.6	-99.0	504,829.94	806,870.53	32° 23' 5.681 N	103° 28' 23.315 W
5,700.0	6.00	250.20	5,694.2	-39.2	-108.8	504,826.40	806,860.70	32° 23' 5.647 N	103° 28' 23.430 W
5,800.0	6.00	250.20	5,793.7	-42.7	-118.7	504,822.86	806,850.86	32° 23' 5.613 N	103° 28' 23.545 W
5,900.0	6.00	250.20	5,893.1	-46.3	-128.5	504,819.32	806,841.03	32° 23' 5.579 N	103° 28' 23.660 W
6,000.0	6.00	250.20	5,992.6	-49.8	-138.3	504,815.78	806,831.19	32° 23' 5.544 N	103° 28' 23.775 W
6,100.0	6.00	250.20	6,092.0	-53.3	-148.2	504,812.24	806,821.36	32° 23' 5.510 N	103° 28' 23.890 W
6,200.0	6.00	250.20	6,191.5	-56.9	-158.0	504,808.70	806,811.52	32° 23' 5.476 N	103° 28' 24.005 W
6,300.0	6.00	250.20	6,290.9	-60.4	-167.8	504,805.16	806,801.69	32° 23' 5.442 N	103° 28' 24.120 W
6,400.0	6.00	250.20	6,390.4	-64.0	-177.7	504,801.62	806,791.85	32° 23' 5.407 N	103° 28' 24.235 W
6,500.0	6.00	250.20	6,489.8	-67.5	-187.5	504,798.08	806,782.02	32° 23' 5.373 N	103° 28' 24.350 W
6,600.0	6.00	250.20	6,589.3	-71.0	-197.3	504,794.54	806,772.18	32° 23' 5.339 N	103° 28' 24.465 W
6,700.0	6.00	250.20	6,688.7	-74.6	-207.2	504,791.00	806,762.35	32° 23' 5.305 N	103° 28' 24.580 W
6,800.0	6.00	250.20	6,788.2	-78.1	-217.0	504,787.46	806,752.51	32° 23' 5.270 N	103° 28' 24.695 W
6,900.0	6.00	250.20	6,887.6	-81.7	-226.8	504,783.92	806,742.68	32° 23' 5.236 N	103° 28' 24.810 W
7,000.0	6.00	250.20	6,987.1	-85.2	-236.7	504,780.37	806,732.84	32° 23' 5.202 N	103° 28' 24.925 W
7,100.0	6.00	250.20	7,086.5	-88.7	-246.5	504,776.83	806,723.01	32° 23' 5.168 N	103° 28' 25.040 W
7,200.0	6.00	250.20	7,186.0	-92.3	-256.3	504,773.29	806,713.17	32° 23' 5.133 N	103° 28' 25.155 W
7,300.0	6.00	250.20	7,285.4	-95.8	-266.2	504,769.75	806,703.34	32° 23' 5.099 N	103° 28' 25.270 W
7,400.0	6.00	250.20	7,384.9	-99.4	-276.0	504,766.21	806,693.50	32° 23' 5.065 N	103° 28' 25.385 W
7,500.0	6.00	250.20	7,484.4	-102.9	-285.8	504,762.67	806,683.67	32° 23' 5.031 N	103° 28' 25.500 W
7,600.0	6.00	250.20	7,583.8	-106.4	-295.7	504,759.13	806,673.83	32° 23' 4.996 N	103° 28' 25.615 W
7,700.0	6.00	250.20	7,683.3	-110.0	-305.5	504,755.59	806,664.00	32° 23' 4.962 N	103° 28' 25.730 W
7,800.0	6.00	250.20	7,782.7	-113.5	-315.4	504,752.05	806,654.16	32° 23' 4.928 N	103° 28' 25.845 W
7,900.0	6.00	250.20	7,882.2	-117.1	-325.2	504,748.51	806,644.33	32° 23' 4.894 N	103° 28' 25.960 W
8,000.0	6.00	250.20	7,981.6	-120.6	-335.0	504,744.97	806,634.49	32° 23' 4.859 N	103° 28' 26.075 W
8,100.0	6.00	250.20	8,081.1	-124.1	-344.9	504,741.43	806,624.66	32° 23' 4.825 N	103° 28' 26.190 W
8,200.0	6.00	250.20	8,180.5	-127.7	-354.7	504,737.89	806,614.82	32° 23' 4.791 N	103° 28' 26.305 W
8,300.0	6.00	250.20	8,280.0	-131.2	-364.5	504,734.35	806,604.99	32° 23' 4.757 N	103° 28' 26.421 W
8,400.0	6.00	250.20	8,379.4	-134.8	-374.4	504,730.81	806,595.15	32° 23' 4.722 N	103° 28' 26.536 W
8,500.0	6.00	250.20	8,478.9	-138.3	-384.2	504,727.27	806,585.32	32° 23' 4.688 N	103° 28' 26.651 W
8,600.0	6.00	250.20	8,578.3	-141.9	-394.0	504,723.73	806,575.49	32° 23' 4.654 N	103° 28' 26.766 W
8,700.0	6.00	250.20	8,677.8	-145.4	-403.9	504,720.19	806,565.65	32° 23' 4.620 N	103° 28' 26.881 W
8,800.0	6.00	250.20	8,777.2	-148.9	-413.7	504,716.65	806,555.82	32° 23' 4.585 N	103° 28' 26.996 W
8,900.0	6.00	250.20	8,876.7	-152.5	-423.5	504,713.10	806,545.98	32° 23' 4.551 N	103° 28' 27.111 W
9,000.0	6.00	250.20	8,976.1	-156.0	-433.4	504,709.56	806,536.15	32° 23' 4.517 N	103° 28' 27.226 W
9,100.0	6.00	250.20	9,075.6	-159.6	-443.2	504,706.02	806,526.31	32° 23' 4.483 N	103° 28' 27.341 W
9,200.0	6.00	250.20	9,175.0	-163.1	-453.0	504,702.48	806,516.48	32° 23' 4.448 N	103° 28' 27.456 W
9,300.0	6.00	250.20	9,274.5	-166.6	-462.9	504,698.94	806,506.64	32° 23' 4.414 N	103° 28' 27.571 W
9,400.0	6.00	250.20	9,373.9	-170.2	-472.7	504,695.40	806,496.81	32° 23' 4.380 N	103° 28' 27.686 W
9,500.0	6.00	250.20	9,473.4	-173.7	-482.5	504,691.86	806,486.97	32° 23' 4.346 N	103° 28' 27.801 W
9,527.3	6.00	250.20	9,500.5	-174.7	-485.2	504,690.89	806,484.29	32° 23' 4.336 N	103° 28' 27.832 W
9,600.0	4.55	250.20	9,572.9	-176.9	-491.5	504,688.63	806,478.00	32° 23' 4.314 N	103° 28' 27.906 W
9,700.0	2.55	250.20	9,672.7	-179.0	-497.3	504,686.54	806,472.18	32° 23' 4.294 N	103° 28' 27.974 W
9,800.0	0.55	250.20	9,772.7	-180.0	-499.9	504,685.62	806,469.64	32° 23' 4.285 N	103° 28' 28.003 W
9,827.3	0.00	0.00	9,800.0	-180.0	-500.0	504,685.58	806,469.52	32° 23' 4.285 N	103° 28' 28.005 W
9,870.3	0.00	0.00	9,843.0	-180.0	-500.0	504,685.58	806,469.52	32° 23' 4.285 N	103° 28' 28.005 W
9,900.0	2.97	359.05	9,872.7	-179.2	-500.0	504,686.35	806,469.51	32° 23' 4.292 N	103° 28' 28.005 W
10,000.0	12.97	359.05	9,971.6	-165.4	-500.2	504,700.18	806,469.28	32° 23' 4.429 N	103° 28' 28.006 W
10,100.0	22.97	359.05	10,066.6	-134.6	-500.7	504,730.99	806,468.77	32° 23' 4.734 N	103° 28' 28.009 W
10,200.0	32.97	359.05	10,154.8	-87.8	-501.5	504,777.81	806,468.00	32° 23' 5.198 N	103° 28' 28.014 W
10,300.0	42.97	359.05	10,233.5	-26.3	-502.5	504,839.25	806,466.98	32° 23' 5.805 N	103° 28' 28.020 W
10,400.0	52.97	359.05	10,300.4	47.8	-503.8	504,913.41	806,465.76	32° 23' 6.539 N	103° 28' 28.027 W

BTA
Planning Report - Geographic

Database: EDM 5000.1 Single User Db
Company: BTA Oil Producers, LLC
Project: Lea County, NM (NAD 83)
Site: Grama
Well: Grama #4H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Grama #4H
TVD Reference: KB @ 3501.0usft
MD Reference: KB @ 3501.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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	62.97	359.05	10,353.4	132.5	-505.2	504,998.07	806,464.36	32° 23' 7.377 N	103° 28' 28.036 W	
10,600.0	72.97	359.05	10,390.9	225.1	-506.7	505,090.63	806,462.84	32° 23' 8.293 N	103° 28' 28.045 W	
10,700.0	82.97	359.05	10,411.7	322.7	-508.3	505,188.30	806,461.22	32° 23' 9.260 N	103° 28' 28.054 W	
10,770.3	90.00	359.05	10,416.0	392.9	-509.5	505,258.45	806,460.07	32° 23' 9.954 N	103° 28' 28.061 W	
10,800.0	90.00	359.05	10,416.0	422.5	-509.9	505,288.11	806,459.58	32° 23' 10.247 N	103° 28' 28.064 W	
10,900.0	90.00	359.05	10,416.0	522.5	-511.6	505,388.09	806,457.93	32° 23' 11.237 N	103° 28' 28.074 W	
11,000.0	90.00	359.05	10,416.0	622.5	-513.2	505,488.08	806,456.28	32° 23' 12.226 N	103° 28' 28.084 W	
11,100.0	90.00	359.05	10,416.0	722.5	-514.9	505,588.06	806,454.63	32° 23' 13.216 N	103° 28' 28.094 W	
11,200.0	90.00	359.05	10,416.0	822.5	-516.5	505,688.05	806,452.98	32° 23' 14.205 N	103° 28' 28.104 W	
11,300.0	90.00	359.05	10,416.0	922.5	-518.2	505,788.03	806,451.33	32° 23' 15.195 N	103° 28' 28.114 W	
11,400.0	90.00	359.05	10,416.0	1,022.5	-519.8	505,888.02	806,449.68	32° 23' 16.184 N	103° 28' 28.124 W	
11,500.0	90.00	359.05	10,416.0	1,122.4	-521.5	505,988.00	806,448.03	32° 23' 17.174 N	103° 28' 28.133 W	
11,600.0	90.00	359.05	10,416.0	1,222.4	-523.1	506,087.99	806,446.38	32° 23' 18.163 N	103° 28' 28.143 W	
11,700.0	90.00	359.05	10,416.0	1,322.4	-524.8	506,187.97	806,444.73	32° 23' 19.153 N	103° 28' 28.153 W	
11,800.0	90.00	359.05	10,416.0	1,422.4	-526.4	506,287.96	806,443.08	32° 23' 20.142 N	103° 28' 28.163 W	
11,900.0	90.00	359.05	10,416.0	1,522.4	-528.1	506,387.94	806,441.43	32° 23' 21.131 N	103° 28' 28.173 W	
12,000.0	90.00	359.05	10,416.0	1,622.4	-529.7	506,487.93	806,439.78	32° 23' 22.121 N	103° 28' 28.183 W	
12,100.0	90.00	359.05	10,416.0	1,722.4	-531.4	506,587.92	806,438.13	32° 23' 23.110 N	103° 28' 28.193 W	
12,200.0	90.00	359.05	10,416.0	1,822.3	-533.0	506,687.90	806,436.48	32° 23' 24.100 N	103° 28' 28.203 W	
12,300.0	90.00	359.05	10,416.0	1,922.3	-534.7	506,787.89	806,434.83	32° 23' 25.089 N	103° 28' 28.212 W	
12,400.0	90.00	359.05	10,416.0	2,022.3	-536.3	506,887.87	806,433.18	32° 23' 26.079 N	103° 28' 28.222 W	
12,500.0	90.00	359.05	10,416.0	2,122.3	-538.0	506,987.86	806,431.53	32° 23' 27.068 N	103° 28' 28.232 W	
12,600.0	90.00	359.05	10,416.0	2,222.3	-539.6	507,087.84	806,429.88	32° 23' 28.058 N	103° 28' 28.242 W	
12,700.0	90.00	359.05	10,416.0	2,322.3	-541.3	507,187.83	806,428.23	32° 23' 29.047 N	103° 28' 28.252 W	
12,800.0	90.00	359.05	10,416.0	2,422.3	-542.9	507,287.81	806,426.58	32° 23' 30.037 N	103° 28' 28.262 W	
12,900.0	90.00	359.05	10,416.0	2,522.2	-544.6	507,387.80	806,424.93	32° 23' 31.026 N	103° 28' 28.272 W	
13,000.0	90.00	359.05	10,416.0	2,622.2	-546.2	507,487.78	806,423.28	32° 23' 32.015 N	103° 28' 28.282 W	
13,100.0	90.00	359.05	10,416.0	2,722.2	-547.9	507,587.77	806,421.63	32° 23' 33.005 N	103° 28' 28.292 W	
13,200.0	90.00	359.05	10,416.0	2,822.2	-549.5	507,687.75	806,419.98	32° 23' 33.994 N	103° 28' 28.301 W	
13,300.0	90.00	359.05	10,416.0	2,922.2	-551.2	507,787.74	806,418.33	32° 23' 34.984 N	103° 28' 28.311 W	
13,400.0	90.00	359.05	10,416.0	3,022.2	-552.8	507,887.73	806,416.68	32° 23' 35.973 N	103° 28' 28.321 W	
13,500.0	90.00	359.05	10,416.0	3,122.2	-554.5	507,987.71	806,415.03	32° 23' 36.963 N	103° 28' 28.331 W	
13,600.0	90.00	359.05	10,416.0	3,222.2	-556.1	508,087.70	806,413.38	32° 23' 37.952 N	103° 28' 28.341 W	
13,700.0	90.00	359.05	10,416.0	3,322.1	-557.8	508,187.68	806,411.73	32° 23' 38.942 N	103° 28' 28.351 W	
13,800.0	90.00	359.05	10,416.0	3,422.1	-559.4	508,287.67	806,410.08	32° 23' 39.931 N	103° 28' 28.361 W	
13,900.0	90.00	359.05	10,416.0	3,522.1	-561.1	508,387.65	806,408.43	32° 23' 40.921 N	103° 28' 28.371 W	
14,000.0	90.00	359.05	10,416.0	3,622.1	-562.7	508,487.64	806,406.78	32° 23' 41.910 N	103° 28' 28.380 W	
14,100.0	90.00	359.05	10,416.0	3,722.1	-564.4	508,587.62	806,405.13	32° 23' 42.899 N	103° 28' 28.390 W	
14,200.0	90.00	359.05	10,416.0	3,822.1	-566.0	508,687.61	806,403.48	32° 23' 43.889 N	103° 28' 28.400 W	
14,300.0	90.00	359.05	10,416.0	3,922.1	-567.7	508,787.59	806,401.83	32° 23' 44.878 N	103° 28' 28.410 W	
14,400.0	90.00	359.05	10,416.0	4,022.0	-569.3	508,887.58	806,400.18	32° 23' 45.868 N	103° 28' 28.420 W	
14,500.0	90.00	359.05	10,416.0	4,122.0	-571.0	508,987.56	806,398.53	32° 23' 46.857 N	103° 28' 28.430 W	
14,600.0	90.00	359.05	10,416.0	4,222.0	-572.6	509,087.55	806,396.88	32° 23' 47.847 N	103° 28' 28.440 W	
14,700.0	90.00	359.05	10,416.0	4,322.0	-574.3	509,187.54	806,395.23	32° 23' 48.836 N	103° 28' 28.450 W	
14,800.0	90.00	359.05	10,416.0	4,422.0	-575.9	509,287.52	806,393.58	32° 23' 49.826 N	103° 28' 28.459 W	
14,900.0	90.00	359.05	10,416.0	4,522.0	-577.6	509,387.51	806,391.93	32° 23' 50.815 N	103° 28' 28.469 W	
15,000.0	90.00	359.05	10,416.0	4,622.0	-579.2	509,487.49	806,390.28	32° 23' 51.805 N	103° 28' 28.479 W	
15,100.0	90.00	359.05	10,416.0	4,721.9	-580.9	509,587.48	806,388.63	32° 23' 52.794 N	103° 28' 28.489 W	
15,200.0	90.00	359.05	10,416.0	4,821.9	-582.5	509,687.46	806,386.98	32° 23' 53.783 N	103° 28' 28.499 W	
15,300.0	90.00	359.05	10,416.0	4,921.9	-584.2	509,787.45	806,385.33	32° 23' 54.773 N	103° 28' 28.509 W	
15,400.0	90.00	359.05	10,416.0	5,021.9	-585.8	509,887.43	806,383.68	32° 23' 55.762 N	103° 28' 28.519 W	
15,500.0	90.00	359.05	10,416.0	5,121.9	-587.5	509,987.42	806,382.03	32° 23' 56.752 N	103° 28' 28.529 W	
15,600.0	90.00	359.05	10,416.0	5,221.9	-589.1	510,087.40	806,380.38	32° 23' 57.741 N	103° 28' 28.538 W	
15,700.0	90.00	359.05	10,416.0	5,321.9	-590.8	510,187.39	806,378.73	32° 23' 58.731 N	103° 28' 28.548 W	
15,800.0	90.00	359.05	10,416.0	5,421.9	-592.4	510,287.37	806,377.08	32° 23' 59.720 N	103° 28' 28.558 W	

BTA
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15,900.0	90.00	359.05	10,416.0	5,521.8	-594.1	510,387.36	806,375.43	32° 24' 0.710 N	103° 28' 28.568 W
16,000.0	90.00	359.05	10,416.0	5,621.8	-595.7	510,487.34	806,373.78	32° 24' 1.699 N	103° 28' 28.578 W
16,100.0	90.00	359.05	10,416.0	5,721.8	-597.4	510,587.33	806,372.13	32° 24' 2.689 N	103° 28' 28.588 W
16,200.0	90.00	359.05	10,416.0	5,821.8	-599.0	510,687.32	806,370.48	32° 24' 3.678 N	103° 28' 28.598 W
16,300.0	90.00	359.05	10,416.0	5,921.8	-600.7	510,787.30	806,368.83	32° 24' 4.667 N	103° 28' 28.608 W
16,400.0	90.00	359.05	10,416.0	6,021.8	-602.3	510,887.29	806,367.18	32° 24' 5.657 N	103° 28' 28.617 W
16,500.0	90.00	359.05	10,416.0	6,121.8	-604.0	510,987.27	806,365.53	32° 24' 6.646 N	103° 28' 28.627 W
16,600.0	90.00	359.05	10,416.0	6,221.7	-605.6	511,087.26	806,363.88	32° 24' 7.636 N	103° 28' 28.637 W
16,700.0	90.00	359.05	10,416.0	6,321.7	-607.3	511,187.24	806,362.23	32° 24' 8.625 N	103° 28' 28.647 W
16,800.0	90.00	359.05	10,416.0	6,421.7	-608.9	511,287.23	806,360.58	32° 24' 9.615 N	103° 28' 28.657 W
16,900.0	90.00	359.05	10,416.0	6,521.7	-610.6	511,387.21	806,358.93	32° 24' 10.604 N	103° 28' 28.667 W
17,000.0	90.00	359.05	10,416.0	6,621.7	-612.2	511,487.20	806,357.28	32° 24' 11.594 N	103° 28' 28.677 W
17,100.0	90.00	359.05	10,416.0	6,721.7	-613.9	511,587.18	806,355.63	32° 24' 12.583 N	103° 28' 28.687 W
17,200.0	90.00	359.05	10,416.0	6,821.7	-615.5	511,687.17	806,353.98	32° 24' 13.573 N	103° 28' 28.696 W
17,300.0	90.00	359.05	10,416.0	6,921.6	-617.2	511,787.15	806,352.33	32° 24' 14.562 N	103° 28' 28.706 W
17,400.0	90.00	359.05	10,416.0	7,021.6	-618.8	511,887.14	806,350.68	32° 24' 15.551 N	103° 28' 28.716 W
17,500.0	90.00	359.05	10,416.0	7,121.6	-620.5	511,987.13	806,349.03	32° 24' 16.541 N	103° 28' 28.726 W
17,600.0	90.00	359.05	10,416.0	7,221.6	-622.1	512,087.11	806,347.38	32° 24' 17.530 N	103° 28' 28.736 W
17,700.0	90.00	359.05	10,416.0	7,321.6	-623.8	512,187.10	806,345.73	32° 24' 18.520 N	103° 28' 28.746 W
17,800.0	90.00	359.05	10,416.0	7,421.6	-625.4	512,287.08	806,344.08	32° 24' 19.509 N	103° 28' 28.756 W
17,900.0	90.00	359.05	10,416.0	7,521.6	-627.1	512,387.07	806,342.43	32° 24' 20.499 N	103° 28' 28.766 W
18,000.0	90.00	359.05	10,416.0	7,621.6	-628.7	512,487.05	806,340.78	32° 24' 21.488 N	103° 28' 28.776 W
18,100.0	90.00	359.05	10,416.0	7,721.5	-630.4	512,587.04	806,339.13	32° 24' 22.478 N	103° 28' 28.785 W
18,200.0	90.00	359.05	10,416.0	7,821.5	-632.0	512,687.02	806,337.48	32° 24' 23.467 N	103° 28' 28.795 W
18,300.0	90.00	359.05	10,416.0	7,921.5	-633.7	512,787.01	806,335.83	32° 24' 24.456 N	103° 28' 28.805 W
18,400.0	90.00	359.05	10,416.0	8,021.5	-635.3	512,886.99	806,334.18	32° 24' 25.446 N	103° 28' 28.815 W
18,500.0	90.00	359.05	10,416.0	8,121.5	-637.0	512,986.98	806,332.53	32° 24' 26.435 N	103° 28' 28.825 W
18,600.0	90.00	359.05	10,416.0	8,221.5	-638.6	513,086.96	806,330.88	32° 24' 27.425 N	103° 28' 28.835 W
18,700.0	90.00	359.05	10,416.0	8,321.5	-640.3	513,186.95	806,329.23	32° 24' 28.414 N	103° 28' 28.845 W
18,800.0	90.00	359.05	10,416.0	8,421.4	-641.9	513,286.94	806,327.58	32° 24' 29.404 N	103° 28' 28.855 W
18,900.0	90.00	359.05	10,416.0	8,521.4	-643.6	513,386.92	806,325.93	32° 24' 30.393 N	103° 28' 28.864 W
19,000.0	90.00	359.05	10,416.0	8,621.4	-645.2	513,486.91	806,324.28	32° 24' 31.383 N	103° 28' 28.874 W
19,100.0	90.00	359.05	10,416.0	8,721.4	-646.9	513,586.89	806,322.63	32° 24' 32.372 N	103° 28' 28.884 W
19,200.0	90.00	359.05	10,416.0	8,821.4	-648.5	513,686.88	806,320.98	32° 24' 33.362 N	103° 28' 28.894 W
19,300.0	90.00	359.05	10,416.0	8,921.4	-650.2	513,786.86	806,319.33	32° 24' 34.351 N	103° 28' 28.904 W
19,400.0	90.00	359.05	10,416.0	9,021.4	-651.8	513,886.85	806,317.68	32° 24' 35.340 N	103° 28' 28.914 W
19,500.0	90.00	359.05	10,416.0	9,121.3	-653.5	513,986.83	806,316.03	32° 24' 36.330 N	103° 28' 28.924 W
19,600.0	90.00	359.05	10,416.0	9,221.3	-655.1	514,086.82	806,314.38	32° 24' 37.319 N	103° 28' 28.934 W
19,700.0	90.00	359.05	10,416.0	9,321.3	-656.8	514,186.80	806,312.73	32° 24' 38.309 N	103° 28' 28.943 W
19,800.0	90.00	359.05	10,416.0	9,421.3	-658.4	514,286.79	806,311.08	32° 24' 39.298 N	103° 28' 28.953 W
19,900.0	90.00	359.05	10,416.0	9,521.3	-660.1	514,386.77	806,309.43	32° 24' 40.288 N	103° 28' 28.963 W
20,000.0	90.00	359.05	10,416.0	9,621.3	-661.7	514,486.76	806,307.78	32° 24' 41.277 N	103° 28' 28.973 W
20,100.0	90.00	359.05	10,416.0	9,721.3	-663.4	514,586.75	806,306.13	32° 24' 42.267 N	103° 28' 28.983 W
20,200.0	90.00	359.05	10,416.0	9,821.3	-665.0	514,686.73	806,304.48	32° 24' 43.256 N	103° 28' 28.993 W
20,300.0	90.00	359.05	10,416.0	9,921.2	-666.7	514,786.72	806,302.83	32° 24' 44.246 N	103° 28' 29.003 W
20,400.0	90.00	359.05	10,416.0	10,021.2	-668.3	514,886.70	806,301.18	32° 24' 45.235 N	103° 28' 29.013 W
20,500.0	90.00	359.05	10,416.0	10,121.2	-670.0	514,986.69	806,299.53	32° 24' 46.224 N	103° 28' 29.022 W
20,532.3	90.00	359.05	10,416.0	10,153.5	-670.5	515,019.00	806,299.00	32° 24' 46.544 N	103° 28' 29.026 W

BTA

Planning Report - Geographic

Database: EDM 5000.1 Single User Db
Company: BTA Oil Producers, LLC
Project: Lea County, NM (NAD 83)
Site: Grama
Well: Grama #4H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Grama #4H
TVD Reference: KB @ 3501.0usft
MD Reference: KB @ 3501.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Design Targets

Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
Grama #4H BHL	0.00	0.07	10,416.0	10,153.5	-670.5	515,019.00	806,299.00	32° 24' 46.544 N	103° 28' 29.026 W
- plan hits target center									
- Point									