

BTA Oil Producers, LLC

Lea County, NM

Rojo Sec 27, T25S, R33E

Rojo AE 7811 JV-P Federal Com #1H

Wellbore #1

Plan: Design #1

Standard Planning Report

29 June, 2016

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BTA
Planning Report

Database: EDM 5000.1 Single User Db
Company: BTA Oil Producers, LLC
Project: Lea County, NM
Site: Rojo Sec 27, T25S, R33E
Well: Rojo AE 7811 JV-P Federal Com #1H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Rojo AE 7811 JV-P Federal Com #1H
TVD Reference: GL @ 3343.0usft
MD Reference: GL @ 3343.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Lea County, NM, Lea County, NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Ground Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		Using geodetic scale factor

Site	Rojo Sec 27, T25S, R33E				
Site Position:		Northing:	399,019.90 usft	Latitude:	32° 5' 40.608 N
From:	Map	Easting:	741,892.00 usft	Longitude:	103° 33' 8.030 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.42 °

Well	Rojo AE 7811 JV-P Federal Com #1H				
Well Position	+N/-S	4,892.7 usft	Northing:	403,912.50 usft	Latitude: 32° 6' 29.306 N
	+E/-W	-3,967.9 usft	Easting:	737,924.20 usft	Longitude: 103° 33' 53.747 W
Position Uncertainty	0.0 usft		Wellhead Elevation:	0.0 usft	Ground Level: 3,343.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF200510	12/31/2009	7.74	60.13	48,724

Design	Design #1				
Audit Notes:					
Version:	Phase:	PROTOTYPE		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.0	0.0	0.0	184.06	

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	
4,940.1	0.00	0.00	4,940.1	0.0	0.0	0.00	0.00	0.00	0.00	
5,060.1	3.00	326.31	5,060.0	2.6	-1.7	2.50	2.50	0.00	326.31	
8,384.7	3.00	326.31	8,380.1	147.4	-98.3	0.00	0.00	0.00	0.00	
8,504.7	0.00	0.00	8,500.0	150.0	-100.0	2.50	-2.50	0.00	180.00	
8,760.2	0.00	0.00	8,755.5	150.0	-100.0	0.00	0.00	0.00	0.00	
9,510.2	90.00	183.37	9,233.0	-326.6	-128.0	12.00	12.00	0.00	183.37	
18,200.2	90.00	183.37	9,233.0	-9,001.6	-638.4	0.00	0.00	0.00	0.00	Rojo AE #1H target B

BTA

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Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,033.0	0.00	0.00	1,033.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,493.0	0.00	0.00	1,493.0	0.0	0.0	0.0	0.00	0.00	0.00
Top of Salt									
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,678.0	0.00	0.00	4,678.0	0.0	0.0	0.0	0.00	0.00	0.00
Bottom of Salt									

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4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,933.0	0.00	0.00	4,933.0	0.0	0.0	0.0	0.00	0.00	0.00
Delaware									
4,940.1	0.00	0.00	4,940.1	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	1.50	326.31	5,000.0	0.7	-0.4	-0.6	2.50	2.50	0.00
5,060.1	3.00	326.31	5,060.0	2.6	-1.7	-2.5	2.50	2.50	0.00
5,100.0	3.00	326.31	5,099.9	4.4	-2.9	-4.1	0.00	0.00	0.00
5,200.0	3.00	326.31	5,199.8	8.7	-5.8	-8.3	0.00	0.00	0.00
5,300.0	3.00	326.31	5,299.6	13.1	-8.7	-12.4	0.00	0.00	0.00
5,400.0	3.00	326.31	5,399.5	17.4	-11.6	-16.6	0.00	0.00	0.00
5,500.0	3.00	326.31	5,499.3	21.8	-14.5	-20.7	0.00	0.00	0.00
5,600.0	3.00	326.31	5,599.2	26.1	-17.4	-24.8	0.00	0.00	0.00
5,700.0	3.00	326.31	5,699.1	30.5	-20.3	-29.0	0.00	0.00	0.00
5,800.0	3.00	326.31	5,798.9	34.8	-23.2	-33.1	0.00	0.00	0.00
5,900.0	3.00	326.31	5,898.8	39.2	-26.1	-37.2	0.00	0.00	0.00
6,000.0	3.00	326.31	5,998.7	43.5	-29.0	-41.4	0.00	0.00	0.00
6,100.0	3.00	326.31	6,098.5	47.9	-31.9	-45.5	0.00	0.00	0.00
6,200.0	3.00	326.31	6,198.4	52.3	-34.8	-49.7	0.00	0.00	0.00
6,284.7	3.00	326.31	6,283.0	55.9	-37.3	-53.2	0.00	0.00	0.00
Cherry Canyon									
6,300.0	3.00	326.31	6,298.2	56.6	-37.7	-53.8	0.00	0.00	0.00
6,400.0	3.00	326.31	6,398.1	61.0	-40.6	-57.9	0.00	0.00	0.00
6,500.0	3.00	326.31	6,498.0	65.3	-43.5	-62.1	0.00	0.00	0.00
6,600.0	3.00	326.31	6,597.8	69.7	-46.4	-66.2	0.00	0.00	0.00
6,700.0	3.00	326.31	6,697.7	74.0	-49.4	-70.3	0.00	0.00	0.00
6,800.0	3.00	326.31	6,797.6	78.4	-52.3	-74.5	0.00	0.00	0.00
6,900.0	3.00	326.31	6,897.4	82.7	-55.2	-78.6	0.00	0.00	0.00
7,000.0	3.00	326.31	6,997.3	87.1	-58.1	-82.8	0.00	0.00	0.00
7,100.0	3.00	326.31	7,097.1	91.4	-61.0	-86.9	0.00	0.00	0.00
7,200.0	3.00	326.31	7,197.0	95.8	-63.9	-91.0	0.00	0.00	0.00
7,300.0	3.00	326.31	7,296.9	100.2	-66.8	-95.2	0.00	0.00	0.00
7,400.0	3.00	326.31	7,396.7	104.5	-69.7	-99.3	0.00	0.00	0.00
7,500.0	3.00	326.31	7,496.6	108.9	-72.6	-103.5	0.00	0.00	0.00
7,600.0	3.00	326.31	7,596.5	113.2	-75.5	-107.6	0.00	0.00	0.00
7,646.6	3.00	326.31	7,643.0	115.2	-76.8	-109.5	0.00	0.00	0.00
Brushy Canyon									
7,700.0	3.00	326.31	7,696.3	117.6	-78.4	-111.7	0.00	0.00	0.00
7,800.0	3.00	326.31	7,796.2	121.9	-81.3	-115.9	0.00	0.00	0.00
7,900.0	3.00	326.31	7,896.1	126.3	-84.2	-120.0	0.00	0.00	0.00
8,000.0	3.00	326.31	7,995.9	130.6	-87.1	-124.1	0.00	0.00	0.00
8,100.0	3.00	326.31	8,095.8	135.0	-90.0	-128.3	0.00	0.00	0.00
8,200.0	3.00	326.31	8,195.6	139.3	-92.9	-132.4	0.00	0.00	0.00
8,300.0	3.00	326.31	8,295.5	143.7	-95.8	-136.6	0.00	0.00	0.00
8,384.7	3.00	326.31	8,380.1	147.4	-98.3	-140.1	0.00	0.00	0.00
8,400.0	2.62	326.31	8,395.4	148.0	-98.7	-140.7	2.50	-2.50	0.00
8,500.0	0.12	326.31	8,495.3	150.0	-100.0	-142.5	2.50	-2.50	0.00
8,504.7	0.00	0.00	8,500.0	150.0	-100.0	-142.5	2.50	-2.50	0.00
8,600.0	0.00	0.00	8,595.3	150.0	-100.0	-142.5	0.00	0.00	0.00
8,700.0	0.00	0.00	8,695.3	150.0	-100.0	-142.5	0.00	0.00	0.00
8,760.2	0.00	0.00	8,755.5	150.0	-100.0	-142.5	0.00	0.00	0.00
8,800.0	4.78	183.37	8,795.3	148.3	-100.1	-140.9	12.00	12.00	0.00

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Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,900.0	16.78	183.37	8,893.3	129.7	-101.2	-122.2	12.00	12.00	0.00
9,000.0	28.78	183.37	8,985.4	91.1	-103.5	-83.6	12.00	12.00	0.00
9,100.0	40.78	183.37	9,067.4	34.3	-106.8	-26.7	12.00	12.00	0.00
9,107.5	41.67	183.37	9,073.0	29.4	-107.1	-21.7	12.00	12.00	0.00
Bone Spring									
9,164.2	48.48	183.37	9,113.0	-10.7	-109.5	18.4	12.00	12.00	0.00
Upr Avalon Shale									
9,200.0	52.78	183.37	9,135.7	-38.3	-111.1	46.1	12.00	12.00	0.00
9,300.0	64.78	183.37	9,187.5	-123.5	-116.1	131.4	12.00	12.00	0.00
9,400.0	76.78	183.37	9,220.3	-217.6	-121.6	225.7	12.00	12.00	0.00
9,500.0	88.78	183.37	9,232.9	-316.5	-127.4	324.7	12.00	12.00	0.00
9,510.2	90.00	183.37	9,233.0	-326.6	-128.0	334.9	12.00	12.00	0.00
9,600.0	90.00	183.37	9,233.0	-416.3	-133.3	424.7	0.00	0.00	0.00
9,700.0	90.00	183.37	9,233.0	-516.1	-139.2	524.7	0.00	0.00	0.00
9,800.0	90.00	183.37	9,233.0	-615.9	-145.1	624.7	0.00	0.00	0.00
9,900.0	90.00	183.37	9,233.0	-715.8	-150.9	724.7	0.00	0.00	0.00
10,000.0	90.00	183.37	9,233.0	-815.6	-156.8	824.6	0.00	0.00	0.00
10,100.0	90.00	183.37	9,233.0	-915.4	-162.7	924.6	0.00	0.00	0.00
10,200.0	90.00	183.37	9,233.0	-1,015.2	-168.6	1,024.6	0.00	0.00	0.00
10,300.0	90.00	183.37	9,233.0	-1,115.1	-174.4	1,124.6	0.00	0.00	0.00
10,400.0	90.00	183.37	9,233.0	-1,214.9	-180.3	1,224.6	0.00	0.00	0.00
10,500.0	90.00	183.37	9,233.0	-1,314.7	-186.2	1,324.6	0.00	0.00	0.00
10,600.0	90.00	183.37	9,233.0	-1,414.6	-192.0	1,424.6	0.00	0.00	0.00
10,700.0	90.00	183.37	9,233.0	-1,514.4	-197.9	1,524.6	0.00	0.00	0.00
10,800.0	90.00	183.37	9,233.0	-1,614.2	-203.8	1,624.6	0.00	0.00	0.00
10,900.0	90.00	183.37	9,233.0	-1,714.0	-209.7	1,724.6	0.00	0.00	0.00
11,000.0	90.00	183.37	9,233.0	-1,813.9	-215.5	1,824.6	0.00	0.00	0.00
11,100.0	90.00	183.37	9,233.0	-1,913.7	-221.4	1,924.6	0.00	0.00	0.00
11,200.0	90.00	183.37	9,233.0	-2,013.5	-227.3	2,024.6	0.00	0.00	0.00
11,300.0	90.00	183.37	9,233.0	-2,113.4	-233.2	2,124.5	0.00	0.00	0.00
11,400.0	90.00	183.37	9,233.0	-2,213.2	-239.0	2,224.5	0.00	0.00	0.00
11,500.0	90.00	183.37	9,233.0	-2,313.0	-244.9	2,324.5	0.00	0.00	0.00
11,600.0	90.00	183.37	9,233.0	-2,412.8	-250.8	2,424.5	0.00	0.00	0.00
11,700.0	90.00	183.37	9,233.0	-2,512.7	-256.7	2,524.5	0.00	0.00	0.00
11,800.0	90.00	183.37	9,233.0	-2,612.5	-262.5	2,624.5	0.00	0.00	0.00
11,900.0	90.00	183.37	9,233.0	-2,712.3	-268.4	2,724.5	0.00	0.00	0.00
12,000.0	90.00	183.37	9,233.0	-2,812.1	-274.3	2,824.5	0.00	0.00	0.00
12,100.0	90.00	183.37	9,233.0	-2,912.0	-280.1	2,924.5	0.00	0.00	0.00
12,200.0	90.00	183.37	9,233.0	-3,011.8	-286.0	3,024.5	0.00	0.00	0.00
12,300.0	90.00	183.37	9,233.0	-3,111.6	-291.9	3,124.5	0.00	0.00	0.00
12,400.0	90.00	183.37	9,233.0	-3,211.5	-297.8	3,224.5	0.00	0.00	0.00
12,500.0	90.00	183.37	9,233.0	-3,311.3	-303.6	3,324.5	0.00	0.00	0.00
12,600.0	90.00	183.37	9,233.0	-3,411.1	-309.5	3,424.5	0.00	0.00	0.00
12,700.0	90.00	183.37	9,233.0	-3,510.9	-315.4	3,524.4	0.00	0.00	0.00
12,800.0	90.00	183.37	9,233.0	-3,610.8	-321.3	3,624.4	0.00	0.00	0.00
12,900.0	90.00	183.37	9,233.0	-3,710.6	-327.1	3,724.4	0.00	0.00	0.00
13,000.0	90.00	183.37	9,233.0	-3,810.4	-333.0	3,824.4	0.00	0.00	0.00
13,100.0	90.00	183.37	9,233.0	-3,910.2	-338.9	3,924.4	0.00	0.00	0.00
13,200.0	90.00	183.37	9,233.0	-4,010.1	-344.7	4,024.4	0.00	0.00	0.00
13,300.0	90.00	183.37	9,233.0	-4,109.9	-350.6	4,124.4	0.00	0.00	0.00
13,400.0	90.00	183.37	9,233.0	-4,209.7	-356.5	4,224.4	0.00	0.00	0.00
13,500.0	90.00	183.37	9,233.0	-4,309.6	-362.4	4,324.4	0.00	0.00	0.00
13,600.0	90.00	183.37	9,233.0	-4,409.4	-368.2	4,424.4	0.00	0.00	0.00
13,700.0	90.00	183.37	9,233.0	-4,509.2	-374.1	4,524.4	0.00	0.00	0.00

BTA

Planning Report

Database: EDM 5000.1 Single User Db
Company: BTA Oil Producers, LLC
Project: Lea County, NM
Site: Rojo Sec 27, T25S, R33E
Well: Rojo AE 7811 JV-P Federal Com #1H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Rojo AE 7811 JV-P Federal Com #1H
TVD Reference: GL @ 3343.0usft
MD Reference: GL @ 3343.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,800.0	90.00	183.37	9,233.0	-4,609.0	-380.0	4,624.4	0.00	0.00	0.00
13,900.0	90.00	183.37	9,233.0	-4,708.9	-385.9	4,724.4	0.00	0.00	0.00
14,000.0	90.00	183.37	9,233.0	-4,808.7	-391.7	4,824.4	0.00	0.00	0.00
14,100.0	90.00	183.37	9,233.0	-4,908.5	-397.6	4,924.3	0.00	0.00	0.00
14,200.0	90.00	183.37	9,233.0	-5,008.3	-403.5	5,024.3	0.00	0.00	0.00
14,300.0	90.00	183.37	9,233.0	-5,108.2	-409.4	5,124.3	0.00	0.00	0.00
14,400.0	90.00	183.37	9,233.0	-5,208.0	-415.2	5,224.3	0.00	0.00	0.00
14,500.0	90.00	183.37	9,233.0	-5,307.8	-421.1	5,324.3	0.00	0.00	0.00
14,600.0	90.00	183.37	9,233.0	-5,407.7	-427.0	5,424.3	0.00	0.00	0.00
14,700.0	90.00	183.37	9,233.0	-5,507.5	-432.8	5,524.3	0.00	0.00	0.00
14,800.0	90.00	183.37	9,233.0	-5,607.3	-438.7	5,624.3	0.00	0.00	0.00
14,900.0	90.00	183.37	9,233.0	-5,707.1	-444.6	5,724.3	0.00	0.00	0.00
15,000.0	90.00	183.37	9,233.0	-5,807.0	-450.5	5,824.3	0.00	0.00	0.00
15,100.0	90.00	183.37	9,233.0	-5,906.8	-456.3	5,924.3	0.00	0.00	0.00
15,200.0	90.00	183.37	9,233.0	-6,006.6	-462.2	6,024.3	0.00	0.00	0.00
15,300.0	90.00	183.37	9,233.0	-6,106.4	-468.1	6,124.3	0.00	0.00	0.00
15,400.0	90.00	183.37	9,233.0	-6,206.3	-474.0	6,224.3	0.00	0.00	0.00
15,500.0	90.00	183.37	9,233.0	-6,306.1	-479.8	6,324.2	0.00	0.00	0.00
15,600.0	90.00	183.37	9,233.0	-6,405.9	-485.7	6,424.2	0.00	0.00	0.00
15,700.0	90.00	183.37	9,233.0	-6,505.8	-491.6	6,524.2	0.00	0.00	0.00
15,800.0	90.00	183.37	9,233.0	-6,605.6	-497.5	6,624.2	0.00	0.00	0.00
15,900.0	90.00	183.37	9,233.0	-6,705.4	-503.3	6,724.2	0.00	0.00	0.00
16,000.0	90.00	183.37	9,233.0	-6,805.2	-509.2	6,824.2	0.00	0.00	0.00
16,100.0	90.00	183.37	9,233.0	-6,905.1	-515.1	6,924.2	0.00	0.00	0.00
16,200.0	90.00	183.37	9,233.0	-7,004.9	-520.9	7,024.2	0.00	0.00	0.00
16,300.0	90.00	183.37	9,233.0	-7,104.7	-526.8	7,124.2	0.00	0.00	0.00
16,400.0	90.00	183.37	9,233.0	-7,204.5	-532.7	7,224.2	0.00	0.00	0.00
16,500.0	90.00	183.37	9,233.0	-7,304.4	-538.6	7,324.2	0.00	0.00	0.00
16,600.0	90.00	183.37	9,233.0	-7,404.2	-544.4	7,424.2	0.00	0.00	0.00
16,700.0	90.00	183.37	9,233.0	-7,504.0	-550.3	7,524.2	0.00	0.00	0.00
16,800.0	90.00	183.37	9,233.0	-7,603.9	-556.2	7,624.2	0.00	0.00	0.00
16,900.0	90.00	183.37	9,233.0	-7,703.7	-562.1	7,724.1	0.00	0.00	0.00
17,000.0	90.00	183.37	9,233.0	-7,803.5	-567.9	7,824.1	0.00	0.00	0.00
17,100.0	90.00	183.37	9,233.0	-7,903.3	-573.8	7,924.1	0.00	0.00	0.00
17,200.0	90.00	183.37	9,233.0	-8,003.2	-579.7	8,024.1	0.00	0.00	0.00
17,300.0	90.00	183.37	9,233.0	-8,103.0	-585.5	8,124.1	0.00	0.00	0.00
17,400.0	90.00	183.37	9,233.0	-8,202.8	-591.4	8,224.1	0.00	0.00	0.00
17,500.0	90.00	183.37	9,233.0	-8,302.6	-597.3	8,324.1	0.00	0.00	0.00
17,600.0	90.00	183.37	9,233.0	-8,402.5	-603.2	8,424.1	0.00	0.00	0.00
17,700.0	90.00	183.37	9,233.0	-8,502.3	-609.0	8,524.1	0.00	0.00	0.00
17,800.0	90.00	183.37	9,233.0	-8,602.1	-614.9	8,624.1	0.00	0.00	0.00
17,900.0	90.00	183.37	9,233.0	-8,702.0	-620.8	8,724.1	0.00	0.00	0.00
18,000.0	90.00	183.37	9,233.0	-8,801.8	-626.7	8,824.1	0.00	0.00	0.00
18,100.0	90.00	183.37	9,233.0	-8,901.6	-632.5	8,924.1	0.00	0.00	0.00
18,200.0	90.00	183.37	9,233.0	-9,001.4	-638.4	9,024.0	0.00	0.00	0.00
18,200.2	90.00	183.37	9,233.0	-9,001.6	-638.4	9,024.2	0.00	0.00	0.00

Rojo AE #1H target BHL

BTA

Planning Report

Database: EDM 5000.1 Single User Db
Company: BTA Oil Producers, LLC
Project: Lea County, NM
Site: Rojo Sec 27, T25S, R33E
Well: Rojo AE 7811 JV-P Federal Com #1H
Wellbore: Wellbore #1
Design: Design #1

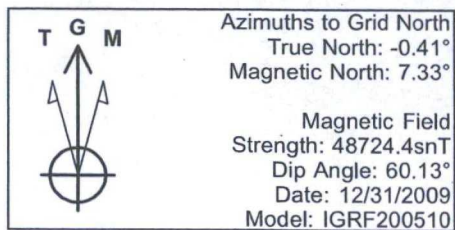
Local Co-ordinate Reference: Well Rojo AE 7811 JV-P Federal Com #1H
TVD Reference: GL @ 3343.0usft
MD Reference: GL @ 3343.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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									
Rojo AE #1H target BHL	0.00	0.00	9,233.0	-9,001.6	-638.4	394,911.10	737,285.80	32° 5' 0.275 N	103° 34' 1.912 W
- plan hits target center									
- Point									

Formations

Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(usft)	(usft)			(°)	(°)
1,033.0	1,033.0	Rustler		0.00	
1,493.0	1,493.0	Top of Salt		0.00	
4,678.0	4,678.0	Bottom of Salt		0.00	
4,933.0	4,933.0	Delaware		0.00	
6,284.7	6,283.0	Cherry Canyon		0.00	
7,646.6	7,643.0	Brushy Canyon		0.00	
9,107.5	9,073.0	Bone Spring		0.00	
9,164.2	9,113.0	Upr Avalon Shale		0.00	



WELL DETAILS: Rojo AE 7811 JV-P Federal Com #1H					
			Ground Level: 3343.0		
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	403912.50	737924.20	32° 6' 29.306 N	103° 33' 53.747 W

SITE DETAILS: Rojo Sec 27, T25S, R33E
Site Centre Northing: 399019.90 Easting: 741892.00
Positional Uncertainty: 0.0 Convergence: 0.42 Local North: Grid

CASING DETAILS

BTA Oil Producers, LLC

PROJECT DETAILS: Lea County, NM
Geodetic System: US State Plane 1927 (Exact solution) Datum: NAD 1927 (NADCON CONUS) Ellipsoid: Clarke 1866 Zone: New Mexico East 3001
System Datum: Ground Level

