

30-025-84458

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BTA Oil Producers, LLC

Lea County, NM

Rojo

Rojo #10H

Wellbore #1

Plan: Design #1

Standard Planning Report - Geographic

10 March, 2017

BTA

Planning Report - Geographic

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Rojo #10H
Company:	BTA Oil Producers, LLC	TVD Reference:	GL @ 3344.0usft
Project:	Lea County, NM	MD Reference:	GL @ 3344.0usft
Site:	Rojo	North Reference:	Grid
Well:	Rojo #10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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			
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 #10H					
Well Position	+N/-S	0.0 usft	Northing:	403,901.70 usft	Latitude:	32° 6' 28.985 N
	+E/-W	0.0 usft	Easting:	740,929.70 usft	Longitude:	103° 33' 18.807 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	3,344.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	7.73	60.14	48,725

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	169.19

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,261.9	0.00	0.00	1,261.9	0.0	0.0	0.00	0.00	0.00	0.00	
1,511.9	5.00	77.47	1,511.5	2.4	10.6	2.00	2.00	0.00	77.47	
11,839.9	5.00	77.47	11,800.3	197.6	889.4	0.00	0.00	0.00	0.00	
12,089.9	0.00	0.00	12,050.0	200.0	900.0	2.00	-2.00	0.00	180.00	
12,147.5	0.00	0.00	12,107.5	200.0	900.0	0.00	0.00	0.00	0.00	
12,897.5	90.00	179.38	12,585.0	-277.4	905.1	12.00	12.00	0.00	179.38	
17,625.6	90.00	179.38	12,585.0	-5,005.3	955.9	0.00	0.00	0.00	0.00	Rojo #10H BHL

BTA
Planning Report - Geographic

Database: EDM 5000.1 Single User Db
Company: BTA Oil Producers, LLC
Project: Lea County, NM
Site: Rojo
Well: Rojo #10H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Rojo #10H
TVD Reference: GL @ 3344.0usft
MD Reference: GL @ 3344.0usft
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	403,901.70	740,929.70	32° 6' 28.985 N	103° 33' 18.807 W	
100.0	0.00	0.00	100.0	0.0	0.0	403,901.70	740,929.70	32° 6' 28.985 N	103° 33' 18.807 W	
200.0	0.00	0.00	200.0	0.0	0.0	403,901.70	740,929.70	32° 6' 28.985 N	103° 33' 18.807 W	
300.0	0.00	0.00	300.0	0.0	0.0	403,901.70	740,929.70	32° 6' 28.985 N	103° 33' 18.807 W	
400.0	0.00	0.00	400.0	0.0	0.0	403,901.70	740,929.70	32° 6' 28.985 N	103° 33' 18.807 W	
500.0	0.00	0.00	500.0	0.0	0.0	403,901.70	740,929.70	32° 6' 28.985 N	103° 33' 18.807 W	
600.0	0.00	0.00	600.0	0.0	0.0	403,901.70	740,929.70	32° 6' 28.985 N	103° 33' 18.807 W	
700.0	0.00	0.00	700.0	0.0	0.0	403,901.70	740,929.70	32° 6' 28.985 N	103° 33' 18.807 W	
800.0	0.00	0.00	800.0	0.0	0.0	403,901.70	740,929.70	32° 6' 28.985 N	103° 33' 18.807 W	
900.0	0.00	0.00	900.0	0.0	0.0	403,901.70	740,929.70	32° 6' 28.985 N	103° 33' 18.807 W	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	403,901.70	740,929.70	32° 6' 28.985 N	103° 33' 18.807 W	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	403,901.70	740,929.70	32° 6' 28.985 N	103° 33' 18.807 W	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	403,901.70	740,929.70	32° 6' 28.985 N	103° 33' 18.807 W	
1,261.9	0.00	0.00	1,261.9	0.0	0.0	403,901.70	740,929.70	32° 6' 28.985 N	103° 33' 18.807 W	
1,300.0	0.76	77.47	1,300.0	0.1	0.2	403,901.75	740,929.94	32° 6' 28.986 N	103° 33' 18.804 W	
1,400.0	2.76	77.47	1,399.9	0.7	3.3	403,902.42	740,932.95	32° 6' 28.992 N	103° 33' 18.769 W	
1,500.0	4.76	77.47	1,499.7	2.1	9.7	403,903.85	740,939.35	32° 6' 29.006 N	103° 33' 18.694 W	
1,511.9	5.00	77.47	1,511.5	2.4	10.6	403,904.06	740,940.34	32° 6' 29.008 N	103° 33' 18.683 W	
1,600.0	5.00	77.47	1,599.3	4.0	18.1	403,905.73	740,947.84	32° 6' 29.024 N	103° 33' 18.595 W	
1,700.0	5.00	77.47	1,699.0	5.9	26.6	403,907.62	740,956.35	32° 6' 29.042 N	103° 33' 18.496 W	
1,800.0	5.00	77.47	1,798.6	7.8	35.2	403,909.51	740,964.85	32° 6' 29.060 N	103° 33' 18.397 W	
1,900.0	5.00	77.47	1,898.2	9.7	43.7	403,911.40	740,973.36	32° 6' 29.078 N	103° 33' 18.298 W	
2,000.0	5.00	77.47	1,997.8	11.6	52.2	403,913.29	740,981.87	32° 6' 29.096 N	103° 33' 18.199 W	
2,100.0	5.00	77.47	2,097.4	13.5	60.7	403,915.18	740,990.38	32° 6' 29.114 N	103° 33' 18.100 W	
2,200.0	5.00	77.47	2,197.1	15.4	69.2	403,917.07	740,998.88	32° 6' 29.133 N	103° 33' 18.001 W	
2,300.0	5.00	77.47	2,296.7	17.3	77.7	403,918.96	741,007.39	32° 6' 29.151 N	103° 33' 17.902 W	
2,400.0	5.00	77.47	2,396.3	19.2	86.2	403,920.86	741,015.90	32° 6' 29.169 N	103° 33' 17.803 W	
2,500.0	5.00	77.47	2,495.9	21.0	94.7	403,922.75	741,024.41	32° 6' 29.187 N	103° 33' 17.704 W	
2,600.0	5.00	77.47	2,595.5	22.9	103.2	403,924.64	741,032.92	32° 6' 29.205 N	103° 33' 17.605 W	
2,700.0	5.00	77.47	2,695.2	24.8	111.7	403,926.53	741,041.42	32° 6' 29.223 N	103° 33' 17.506 W	
2,800.0	5.00	77.47	2,794.8	26.7	120.2	403,928.42	741,049.93	32° 6' 29.241 N	103° 33' 17.406 W	
2,900.0	5.00	77.47	2,894.4	28.6	128.7	403,930.31	741,058.44	32° 6' 29.259 N	103° 33' 17.307 W	
3,000.0	5.00	77.47	2,994.0	30.5	137.3	403,932.20	741,066.95	32° 6' 29.277 N	103° 33' 17.208 W	
3,100.0	5.00	77.47	3,093.6	32.4	145.8	403,934.09	741,075.45	32° 6' 29.295 N	103° 33' 17.109 W	
3,200.0	5.00	77.47	3,193.3	34.3	154.3	403,935.98	741,083.96	32° 6' 29.314 N	103° 33' 17.010 W	
3,300.0	5.00	77.47	3,292.9	36.2	162.8	403,937.87	741,092.47	32° 6' 29.332 N	103° 33' 16.911 W	
3,400.0	5.00	77.47	3,392.5	38.1	171.3	403,939.76	741,100.98	32° 6' 29.350 N	103° 33' 16.812 W	
3,500.0	5.00	77.47	3,492.1	40.0	179.8	403,941.65	741,109.49	32° 6' 29.368 N	103° 33' 16.713 W	
3,600.0	5.00	77.47	3,591.7	41.8	188.3	403,943.54	741,117.99	32° 6' 29.386 N	103° 33' 16.614 W	
3,700.0	5.00	77.47	3,691.4	43.7	196.8	403,945.43	741,126.50	32° 6' 29.404 N	103° 33' 16.515 W	
3,800.0	5.00	77.47	3,791.0	45.6	205.3	403,947.32	741,135.01	32° 6' 29.422 N	103° 33' 16.416 W	
3,900.0	5.00	77.47	3,890.6	47.5	213.8	403,949.21	741,143.52	32° 6' 29.440 N	103° 33' 16.317 W	
4,000.0	5.00	77.47	3,990.2	49.4	222.3	403,951.11	741,152.03	32° 6' 29.458 N	103° 33' 16.218 W	
4,100.0	5.00	77.47	4,089.8	51.3	230.8	403,953.00	741,160.53	32° 6' 29.476 N	103° 33' 16.119 W	
4,200.0	5.00	77.47	4,189.5	53.2	239.4	403,954.89	741,169.04	32° 6' 29.495 N	103° 33' 16.020 W	
4,300.0	5.00	77.47	4,289.1	55.1	247.9	403,956.78	741,177.55	32° 6' 29.513 N	103° 33' 15.920 W	
4,400.0	5.00	77.47	4,388.7	57.0	256.4	403,958.67	741,186.06	32° 6' 29.531 N	103° 33' 15.821 W	
4,500.0	5.00	77.47	4,488.3	58.9	264.9	403,960.56	741,194.56	32° 6' 29.549 N	103° 33' 15.722 W	
4,600.0	5.00	77.47	4,587.9	60.8	273.4	403,962.45	741,203.07	32° 6' 29.567 N	103° 33' 15.623 W	
4,700.0	5.00	77.47	4,687.6	62.6	281.9	403,964.34	741,211.58	32° 6' 29.585 N	103° 33' 15.524 W	
4,800.0	5.00	77.47	4,787.2	64.5	290.4	403,966.23	741,220.09	32° 6' 29.603 N	103° 33' 15.425 W	
4,900.0	5.00	77.47	4,886.8	66.4	298.9	403,968.12	741,228.60	32° 6' 29.621 N	103° 33' 15.326 W	
5,000.0	5.00	77.47	4,986.4	68.3	307.4	403,970.01	741,237.10	32° 6' 29.639 N	103° 33' 15.227 W	
5,100.0	5.00	77.47	5,086.0	70.2	315.9	403,971.90	741,245.61	32° 6' 29.657 N	103° 33' 15.128 W	
5,200.0	5.00	77.47	5,185.6	72.1	324.4	403,973.79	741,254.12	32° 6' 29.676 N	103° 33' 15.029 W	

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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	5.00	77.47	5,285.3	74.0	332.9	403,975.68	741,262.63	32° 6' 29.694 N	103° 33' 14.930 W
5,400.0	5.00	77.47	5,384.9	75.9	341.4	403,977.57	741,271.13	32° 6' 29.712 N	103° 33' 14.831 W
5,500.0	5.00	77.47	5,484.5	77.8	350.0	403,979.46	741,279.64	32° 6' 29.730 N	103° 33' 14.732 W
5,600.0	5.00	77.47	5,584.1	79.7	358.5	403,981.36	741,288.15	32° 6' 29.748 N	103° 33' 14.633 W
5,700.0	5.00	77.47	5,683.7	81.5	367.0	403,983.25	741,296.66	32° 6' 29.766 N	103° 33' 14.534 W
5,800.0	5.00	77.47	5,783.4	83.4	375.5	403,985.14	741,305.17	32° 6' 29.784 N	103° 33' 14.434 W
5,900.0	5.00	77.47	5,883.0	85.3	384.0	403,987.03	741,313.67	32° 6' 29.802 N	103° 33' 14.335 W
6,000.0	5.00	77.47	5,982.6	87.2	392.5	403,988.92	741,322.18	32° 6' 29.820 N	103° 33' 14.236 W
6,100.0	5.00	77.47	6,082.2	89.1	401.0	403,990.81	741,330.69	32° 6' 29.838 N	103° 33' 14.137 W
6,200.0	5.00	77.47	6,181.8	91.0	409.5	403,992.70	741,339.20	32° 6' 29.857 N	103° 33' 14.038 W
6,300.0	5.00	77.47	6,281.5	92.9	418.0	403,994.59	741,347.71	32° 6' 29.875 N	103° 33' 13.939 W
6,400.0	5.00	77.47	6,381.1	94.8	426.5	403,996.48	741,356.21	32° 6' 29.893 N	103° 33' 13.840 W
6,500.0	5.00	77.47	6,480.7	96.7	435.0	403,998.37	741,364.72	32° 6' 29.911 N	103° 33' 13.741 W
6,600.0	5.00	77.47	6,580.3	98.6	443.5	404,000.26	741,373.23	32° 6' 29.929 N	103° 33' 13.642 W
6,700.0	5.00	77.47	6,679.9	100.5	452.1	404,002.15	741,381.74	32° 6' 29.947 N	103° 33' 13.543 W
6,800.0	5.00	77.47	6,779.6	102.3	460.6	404,004.04	741,390.24	32° 6' 29.965 N	103° 33' 13.444 W
6,900.0	5.00	77.47	6,879.2	104.2	469.1	404,005.93	741,398.75	32° 6' 29.983 N	103° 33' 13.345 W
7,000.0	5.00	77.47	6,978.8	106.1	477.6	404,007.82	741,407.26	32° 6' 30.001 N	103° 33' 13.246 W
7,100.0	5.00	77.47	7,078.4	108.0	486.1	404,009.71	741,415.77	32° 6' 30.019 N	103° 33' 13.147 W
7,200.0	5.00	77.47	7,178.0	109.9	494.6	404,011.61	741,424.28	32° 6' 30.038 N	103° 33' 13.047 W
7,300.0	5.00	77.47	7,277.7	111.8	503.1	404,013.50	741,432.78	32° 6' 30.056 N	103° 33' 12.948 W
7,400.0	5.00	77.47	7,377.3	113.7	511.6	404,015.39	741,441.29	32° 6' 30.074 N	103° 33' 12.849 W
7,500.0	5.00	77.47	7,476.9	115.6	520.1	404,017.28	741,449.80	32° 6' 30.092 N	103° 33' 12.750 W
7,600.0	5.00	77.47	7,576.5	117.5	528.6	404,019.17	741,458.31	32° 6' 30.110 N	103° 33' 12.651 W
7,700.0	5.00	77.47	7,676.1	119.4	537.1	404,021.06	741,466.81	32° 6' 30.128 N	103° 33' 12.552 W
7,800.0	5.00	77.47	7,775.8	121.3	545.6	404,022.95	741,475.32	32° 6' 30.146 N	103° 33' 12.453 W
7,900.0	5.00	77.47	7,875.4	123.1	554.1	404,024.84	741,483.83	32° 6' 30.164 N	103° 33' 12.354 W
8,000.0	5.00	77.47	7,975.0	125.0	562.7	404,026.73	741,492.34	32° 6' 30.182 N	103° 33' 12.255 W
8,100.0	5.00	77.47	8,074.6	126.9	571.2	404,028.62	741,500.85	32° 6' 30.200 N	103° 33' 12.156 W
8,200.0	5.00	77.47	8,174.2	128.8	579.7	404,030.51	741,509.35	32° 6' 30.219 N	103° 33' 12.057 W
8,300.0	5.00	77.47	8,273.9	130.7	588.2	404,032.40	741,517.86	32° 6' 30.237 N	103° 33' 11.958 W
8,400.0	5.00	77.47	8,373.5	132.6	596.7	404,034.29	741,526.37	32° 6' 30.255 N	103° 33' 11.859 W
8,500.0	5.00	77.47	8,473.1	134.5	605.2	404,036.18	741,534.88	32° 6' 30.273 N	103° 33' 11.760 W
8,600.0	5.00	77.47	8,572.7	136.4	613.7	404,038.07	741,543.39	32° 6' 30.291 N	103° 33' 11.661 W
8,700.0	5.00	77.47	8,672.3	138.3	622.2	404,039.96	741,551.89	32° 6' 30.309 N	103° 33' 11.561 W
8,800.0	5.00	77.47	8,771.9	140.2	630.7	404,041.86	741,560.40	32° 6' 30.327 N	103° 33' 11.462 W
8,900.0	5.00	77.47	8,871.6	142.1	639.2	404,043.75	741,568.91	32° 6' 30.345 N	103° 33' 11.363 W
9,000.0	5.00	77.47	8,971.2	143.9	647.7	404,045.64	741,577.42	32° 6' 30.363 N	103° 33' 11.264 W
9,100.0	5.00	77.47	9,070.8	145.8	656.2	404,047.53	741,585.92	32° 6' 30.381 N	103° 33' 11.165 W
9,200.0	5.00	77.47	9,170.4	147.7	664.8	404,049.42	741,594.43	32° 6' 30.400 N	103° 33' 11.066 W
9,300.0	5.00	77.47	9,270.0	149.6	673.3	404,051.31	741,602.94	32° 6' 30.418 N	103° 33' 10.967 W
9,400.0	5.00	77.47	9,369.7	151.5	681.8	404,053.20	741,611.45	32° 6' 30.436 N	103° 33' 10.868 W
9,500.0	5.00	77.47	9,469.3	153.4	690.3	404,055.09	741,619.96	32° 6' 30.454 N	103° 33' 10.769 W
9,600.0	5.00	77.47	9,568.9	155.3	698.8	404,056.98	741,628.46	32° 6' 30.472 N	103° 33' 10.670 W
9,700.0	5.00	77.47	9,668.5	157.2	707.3	404,058.87	741,636.97	32° 6' 30.490 N	103° 33' 10.571 W
9,800.0	5.00	77.47	9,768.1	159.1	715.8	404,060.76	741,645.48	32° 6' 30.508 N	103° 33' 10.472 W
9,900.0	5.00	77.47	9,867.8	161.0	724.3	404,062.65	741,653.99	32° 6' 30.526 N	103° 33' 10.373 W
10,000.0	5.00	77.47	9,967.4	162.8	732.8	404,064.54	741,662.49	32° 6' 30.544 N	103° 33' 10.274 W
10,100.0	5.00	77.47	10,067.0	164.7	741.3	404,066.43	741,671.00	32° 6' 30.562 N	103° 33' 10.174 W
10,200.0	5.00	77.47	10,166.6	166.6	749.8	404,068.32	741,679.51	32° 6' 30.581 N	103° 33' 10.075 W
10,300.0	5.00	77.47	10,266.2	168.5	758.3	404,070.21	741,688.02	32° 6' 30.599 N	103° 33' 9.976 W
10,400.0	5.00	77.47	10,365.9	170.4	766.8	404,072.11	741,696.53	32° 6' 30.617 N	103° 33' 9.877 W
10,500.0	5.00	77.47	10,465.5	172.3	775.4	404,074.00	741,705.03	32° 6' 30.635 N	103° 33' 9.778 W
10,600.0	5.00	77.47	10,565.1	174.2	783.9	404,075.89	741,713.54	32° 6' 30.653 N	103° 33' 9.679 W
10,700.0	5.00	77.47	10,664.7	176.1	792.4	404,077.78	741,722.05	32° 6' 30.671 N	103° 33' 9.580 W

BTA
Planning Report - Geographic

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Rojo #10H
Company:	BTA Oil Producers, LLC	TVD Reference:	GL @ 3344.0usft
Project:	Lea County, NM	MD Reference:	GL @ 3344.0usft
Site:	Rojo	North Reference:	Grid
Well:	Rojo #10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

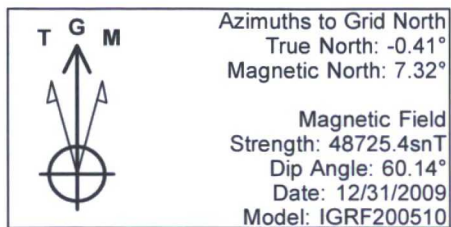
Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
10,800.0	5.00	77.47	10,764.3	178.0	800.9	404,079.67	741,730.56	32° 6' 30.689 N	103° 33' 9.481 W	
10,900.0	5.00	77.47	10,864.0	179.9	809.4	404,081.56	741,739.06	32° 6' 30.707 N	103° 33' 9.382 W	
11,000.0	5.00	77.47	10,963.6	181.8	817.9	404,083.45	741,747.57	32° 6' 30.725 N	103° 33' 9.283 W	
11,100.0	5.00	77.47	11,063.2	183.6	826.4	404,085.34	741,756.08	32° 6' 30.743 N	103° 33' 9.184 W	
11,200.0	5.00	77.47	11,162.8	185.5	834.9	404,087.23	741,764.59	32° 6' 30.762 N	103° 33' 9.085 W	
11,300.0	5.00	77.47	11,262.4	187.4	843.4	404,089.12	741,773.10	32° 6' 30.780 N	103° 33' 8.986 W	
11,400.0	5.00	77.47	11,362.1	189.3	851.9	404,091.01	741,781.60	32° 6' 30.798 N	103° 33' 8.887 W	
11,500.0	5.00	77.47	11,461.7	191.2	860.4	404,092.90	741,790.11	32° 6' 30.816 N	103° 33' 8.788 W	
11,600.0	5.00	77.47	11,561.3	193.1	868.9	404,094.79	741,798.62	32° 6' 30.834 N	103° 33' 8.688 W	
11,700.0	5.00	77.47	11,660.9	195.0	877.5	404,096.68	741,807.13	32° 6' 30.852 N	103° 33' 8.589 W	
11,800.0	5.00	77.47	11,760.5	196.9	886.0	404,098.57	741,815.64	32° 6' 30.870 N	103° 33' 8.490 W	
11,839.9	5.00	77.47	11,800.3	197.6	889.4	404,099.33	741,819.03	32° 6' 30.877 N	103° 33' 8.451 W	
11,900.0	3.80	77.47	11,860.2	198.6	893.9	404,100.33	741,823.53	32° 6' 30.887 N	103° 33' 8.398 W	
12,000.0	1.80	77.47	11,960.1	199.7	898.6	404,101.39	741,828.30	32° 6' 30.897 N	103° 33' 8.343 W	
12,089.9	0.00	0.00	12,050.0	200.0	900.0	404,101.69	741,829.67	32° 6' 30.900 N	103° 33' 8.327 W	
12,100.0	0.00	0.00	12,060.1	200.0	900.0	404,101.69	741,829.67	32° 6' 30.900 N	103° 33' 8.327 W	
12,147.5	0.00	0.00	12,107.5	200.0	900.0	404,101.69	741,829.67	32° 6' 30.900 N	103° 33' 8.327 W	
12,200.0	6.30	179.38	12,160.0	197.1	900.0	404,098.81	741,829.71	32° 6' 30.871 N	103° 33' 8.327 W	
12,300.0	18.30	179.38	12,257.5	175.8	900.3	404,077.54	741,829.93	32° 6' 30.661 N	103° 33' 8.326 W	
12,400.0	30.30	179.38	12,348.5	134.8	900.7	404,036.46	741,830.38	32° 6' 30.254 N	103° 33' 8.324 W	
12,500.0	42.30	179.38	12,428.9	75.7	901.3	403,977.37	741,831.01	32° 6' 29.670 N	103° 33' 8.322 W	
12,600.0	54.30	179.38	12,495.3	1.1	902.1	403,902.84	741,831.81	32° 6' 28.932 N	103° 33' 8.319 W	
12,700.0	66.30	179.38	12,544.7	-85.6	903.1	403,816.14	741,832.74	32° 6' 28.074 N	103° 33' 8.315 W	
12,800.0	78.30	179.38	12,575.1	-180.6	904.1	403,721.06	741,833.76	32° 6' 27.133 N	103° 33' 8.311 W	
12,897.5	90.00	179.38	12,585.0	-277.4	905.1	403,624.27	741,834.80	32° 6' 26.175 N	103° 33' 8.307 W	
12,900.0	90.00	179.38	12,585.0	-280.0	905.2	403,621.74	741,834.83	32° 6' 26.150 N	103° 33' 8.307 W	
13,000.0	90.00	179.38	12,585.0	-380.0	906.2	403,521.75	741,835.91	32° 6' 25.161 N	103° 33' 8.303 W	
13,100.0	90.00	179.38	12,585.0	-480.0	907.3	403,421.76	741,836.98	32° 6' 24.171 N	103° 33' 8.299 W	
13,200.0	90.00	179.38	12,585.0	-579.9	908.4	403,321.76	741,838.05	32° 6' 23.182 N	103° 33' 8.295 W	
13,300.0	90.00	179.38	12,585.0	-679.9	909.5	403,221.77	741,839.13	32° 6' 22.192 N	103° 33' 8.291 W	
13,400.0	90.00	179.38	12,585.0	-779.9	910.5	403,121.78	741,840.20	32° 6' 21.202 N	103° 33' 8.287 W	
13,500.0	90.00	179.38	12,585.0	-879.9	911.6	403,021.79	741,841.28	32° 6' 20.213 N	103° 33' 8.283 W	
13,600.0	90.00	179.38	12,585.0	-979.9	912.7	402,921.80	741,842.35	32° 6' 19.223 N	103° 33' 8.279 W	
13,700.0	90.00	179.38	12,585.0	-1,079.9	913.8	402,821.81	741,843.43	32° 6' 18.234 N	103° 33' 8.275 W	
13,800.0	90.00	179.38	12,585.0	-1,179.9	914.8	402,721.81	741,844.50	32° 6' 17.244 N	103° 33' 8.271 W	
13,900.0	90.00	179.38	12,585.0	-1,279.9	915.9	402,621.82	741,845.57	32° 6' 16.255 N	103° 33' 8.267 W	
14,000.0	90.00	179.38	12,585.0	-1,379.9	917.0	402,521.83	741,846.65	32° 6' 15.265 N	103° 33' 8.263 W	
14,100.0	90.00	179.38	12,585.0	-1,479.9	918.0	402,421.84	741,847.72	32° 6' 14.275 N	103° 33' 8.259 W	
14,200.0	90.00	179.38	12,585.0	-1,579.9	919.1	402,321.85	741,848.80	32° 6' 13.286 N	103° 33' 8.254 W	
14,300.0	90.00	179.38	12,585.0	-1,679.9	920.2	402,221.85	741,849.87	32° 6' 12.296 N	103° 33' 8.250 W	
14,400.0	90.00	179.38	12,585.0	-1,779.9	921.3	402,121.86	741,850.94	32° 6' 11.307 N	103° 33' 8.246 W	
14,500.0	90.00	179.38	12,585.0	-1,879.9	922.3	402,021.87	741,852.02	32° 6' 10.317 N	103° 33' 8.242 W	
14,600.0	90.00	179.38	12,585.0	-1,979.9	923.4	401,921.88	741,853.09	32° 6' 9.328 N	103° 33' 8.238 W	
14,700.0	90.00	179.38	12,585.0	-2,079.9	924.5	401,821.89	741,854.17	32° 6' 8.338 N	103° 33' 8.234 W	
14,800.0	90.00	179.38	12,585.0	-2,179.9	925.6	401,721.90	741,855.24	32° 6' 7.349 N	103° 33' 8.230 W	
14,900.0	90.00	179.38	12,585.0	-2,279.9	926.6	401,621.90	741,856.32	32° 6' 6.359 N	103° 33' 8.226 W	
15,000.0	90.00	179.38	12,585.0	-2,379.8	927.7	401,521.91	741,857.39	32° 6' 5.369 N	103° 33' 8.222 W	
15,100.0	90.00	179.38	12,585.0	-2,479.8	928.8	401,421.92	741,858.46	32° 6' 4.380 N	103° 33' 8.218 W	
15,200.0	90.00	179.38	12,585.0	-2,579.8	929.9	401,321.93	741,859.54	32° 6' 3.390 N	103° 33' 8.214 W	
15,300.0	90.00	179.38	12,585.0	-2,679.8	930.9	401,221.94	741,860.61	32° 6' 2.401 N	103° 33' 8.210 W	
15,400.0	90.00	179.38	12,585.0	-2,779.8	932.0	401,121.95	741,861.69	32° 6' 1.411 N	103° 33' 8.206 W	
15,500.0	90.00	179.38	12,585.0	-2,879.8	933.1	401,021.95	741,862.76	32° 6' 0.422 N	103° 33' 8.202 W	
15,600.0	90.00	179.38	12,585.0	-2,979.8	934.2	400,921.96	741,863.84	32° 5' 59.432 N	103° 33' 8.198 W	
15,700.0	90.00	179.38	12,585.0	-3,079.8	935.2	400,821.97	741,864.91	32° 5' 58.442 N	103° 33' 8.193 W	
15,800.0	90.00	179.38	12,585.0	-3,179.8	936.3	400,721.98	741,865.98	32° 5' 57.453 N	103° 33' 8.189 W	

BTA
Planning Report - Geographic

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Rojo #10H
Company:	BTA Oil Producers, LLC	TVD Reference:	GL @ 3344.0usft
Project:	Lea County, NM	MD Reference:	GL @ 3344.0usft
Site:	Rojo	North Reference:	Grid
Well:	Rojo #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
15,900.0	90.00	179.38	12,585.0	-3,279.8	937.4	400,621.99	741,867.06	32° 5' 56.463 N	103° 33' 8.185 W
16,000.0	90.00	179.38	12,585.0	-3,379.8	938.5	400,521.99	741,868.13	32° 5' 55.474 N	103° 33' 8.181 W
16,100.0	90.00	179.38	12,585.0	-3,479.8	939.5	400,422.00	741,869.21	32° 5' 54.484 N	103° 33' 8.177 W
16,200.0	90.00	179.38	12,585.0	-3,579.8	940.6	400,322.01	741,870.28	32° 5' 53.495 N	103° 33' 8.173 W
16,300.0	90.00	179.38	12,585.0	-3,679.8	941.7	400,222.02	741,871.36	32° 5' 52.505 N	103° 33' 8.169 W
16,400.0	90.00	179.38	12,585.0	-3,779.8	942.8	400,122.03	741,872.43	32° 5' 51.516 N	103° 33' 8.165 W
16,500.0	90.00	179.38	12,585.0	-3,879.8	943.8	400,022.04	741,873.50	32° 5' 50.526 N	103° 33' 8.161 W
16,600.0	90.00	179.38	12,585.0	-3,979.8	944.9	399,922.04	741,874.58	32° 5' 49.536 N	103° 33' 8.157 W
16,700.0	90.00	179.38	12,585.0	-4,079.7	946.0	399,822.05	741,875.65	32° 5' 48.547 N	103° 33' 8.153 W
16,800.0	90.00	179.38	12,585.0	-4,179.7	947.1	399,722.06	741,876.73	32° 5' 47.557 N	103° 33' 8.149 W
16,900.0	90.00	179.38	12,585.0	-4,279.7	948.1	399,622.07	741,877.80	32° 5' 46.568 N	103° 33' 8.145 W
17,000.0	90.00	179.38	12,585.0	-4,379.7	949.2	399,522.08	741,878.88	32° 5' 45.578 N	103° 33' 8.141 W
17,100.0	90.00	179.38	12,585.0	-4,479.7	950.3	399,422.08	741,879.95	32° 5' 44.589 N	103° 33' 8.137 W
17,200.0	90.00	179.38	12,585.0	-4,579.7	951.4	399,322.09	741,881.02	32° 5' 43.599 N	103° 33' 8.132 W
17,300.0	90.00	179.38	12,585.0	-4,679.7	952.4	399,222.10	741,882.10	32° 5' 42.610 N	103° 33' 8.128 W
17,400.0	90.00	179.38	12,585.0	-4,779.7	953.5	399,122.11	741,883.17	32° 5' 41.620 N	103° 33' 8.124 W
17,500.0	90.00	179.38	12,585.0	-4,879.7	954.6	399,022.12	741,884.25	32° 5' 40.630 N	103° 33' 8.120 W
17,600.0	90.00	179.38	12,585.0	-4,979.7	955.6	398,922.13	741,885.32	32° 5' 39.641 N	103° 33' 8.116 W
17,625.6	90.00	179.38	12,585.0	-5,005.3	955.9	398,896.50	741,885.60	32° 5' 39.387 N	103° 33' 8.115 W

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Rojo #10H BHL	0.00	0.00	12,585.0	-5,005.3	955.9	398,896.50	741,885.60	32° 5' 39.387 N	103° 33' 8.115 W
- plan hits target center									
- Point									



WELL DETAILS: Rojo #10H					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	403901.70	740929.70	32° 6' 28.985 N	103° 33' 18.807 W
Ground Level:		3344.0			

SITE DETAILS: Rojo	
Site Centre Northing:	399019.90
Easting:	741892.00
Positional Uncertainty:	0.0
Convergence:	0.42
Local North:	Grid

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

