

BTA Oil Producers, LLC

Lea County, NM

Sec 27, T25-S, R33-E

ROJO A 7811 JV-P Federal #5H

Wellbore #1

Plan: Design #1

DDC Well Planning Report

15 September, 2015

HOBBS OCD

NOV 22 2016

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HP Well Planning Report



Database: Compass
Company: BTA Oil Producers, LLC
Project: Lea County, NM
Site: Sec 27, T25-S, R33-E
Well: ROJO A 7811 JV-P Fed #5H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well ROJO A 7811 JV-P #5H
TVD Reference: WELL @ 3361.0usft (Scandrill Freedom)
MD Reference: WELL @ 3361.0usft (Scandrill Freedom)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Lea County, NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Sec 27, T25-S, R33-E				
Site Position:		Northing:	404,066.80 usft	Latitude:	32° 6' 30.671 N
From: Map		Easting:	740,198.50 usft	Longitude:	103° 33' 27.293 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.41 °

Well	ROJO A 7811 JV-P #5H					
Well Position	+N/-S	-4,960.3 usft	Northing:	399,106.50 usft	Latitude:	32° 5' 41.791 N
	+E/-W	-2,899.8 usft	Easting:	737,298.70 usft	Longitude:	103° 34' 1.416 W
Position Uncertainty	0.0 usft		Wellhead Elevation:	0.0 usft	Ground Level:	3,335.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/15/2015	7.13	59.97	48,043

Design	Design #1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	358.86	

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	
8,773.5	0.00	0.00	8,773.5	0.0	0.0	0.00	0.00	0.00	0.00	
9,522.1	89.84	358.86	9,251.0	476.0	-9.5	12.00	12.00	-0.15	358.86	
13,707.8	89.84	358.86	9,263.0	4,660.8	-93.0	0.00	0.00	0.00	0.00	PBHL ROJO A 781

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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)
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
1,100.0	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
1,500.0	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
4,700.0	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
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

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5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00
Build 12°/100'									
8,773.5	0.00	0.00	8,773.5	0.0	0.0	0.0	0.00	0.00	0.00
8,800.0	3.18	358.86	8,800.0	0.7	0.0	0.7	12.00	12.00	0.00
8,900.0	15.18	358.86	8,898.5	16.7	-0.3	16.7	12.00	12.00	0.00
9,000.0	27.18	358.86	8,991.6	52.7	-1.1	52.7	12.00	12.00	0.00
9,100.0	39.18	358.86	9,075.1	107.3	-2.1	107.4	12.00	12.00	0.00
9,200.0	51.18	358.86	9,145.5	178.1	-3.6	178.2	12.00	12.00	0.00
9,300.0	63.18	358.86	9,199.6	262.0	-5.2	262.0	12.00	12.00	0.00
9,400.0	75.18	358.86	9,235.1	355.3	-7.1	355.3	12.00	12.00	0.00
9,500.0	87.18	358.86	9,250.4	453.9	-9.1	454.0	12.00	12.00	0.00
EOB @ 89.84° Inc / 358.86° Azm / 9251' TVD									
9,522.1	89.84	358.86	9,251.0	476.0	-9.5	476.1	12.00	12.00	0.00
9,600.0	89.84	358.86	9,251.2	553.9	-11.1	554.0	0.00	0.00	0.00
9,700.0	89.84	358.86	9,251.5	653.8	-13.0	654.0	0.00	0.00	0.00
9,800.0	89.84	358.86	9,251.8	753.8	-15.0	754.0	0.00	0.00	0.00
9,900.0	89.84	358.86	9,252.0	853.8	-17.0	854.0	0.00	0.00	0.00
10,000.0	89.84	358.86	9,252.3	953.8	-19.0	954.0	0.00	0.00	0.00
10,100.0	89.84	358.86	9,252.6	1,053.8	-21.0	1,054.0	0.00	0.00	0.00
10,200.0	89.84	358.86	9,252.9	1,153.7	-23.0	1,154.0	0.00	0.00	0.00

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10,300.0	89.84	358.86	9,253.2	1,253.7	-25.0	1,254.0	0.00	0.00	0.00
10,400.0	89.84	358.86	9,253.5	1,353.7	-27.0	1,354.0	0.00	0.00	0.00
10,500.0	89.84	358.86	9,253.8	1,453.7	-29.0	1,454.0	0.00	0.00	0.00
10,600.0	89.84	358.86	9,254.1	1,553.7	-31.0	1,554.0	0.00	0.00	0.00
10,700.0	89.84	358.86	9,254.4	1,653.6	-33.0	1,654.0	0.00	0.00	0.00
10,800.0	89.84	358.86	9,254.6	1,753.6	-35.0	1,754.0	0.00	0.00	0.00
10,900.0	89.84	358.86	9,254.9	1,853.6	-37.0	1,854.0	0.00	0.00	0.00
11,000.0	89.84	358.86	9,255.2	1,953.6	-39.0	1,954.0	0.00	0.00	0.00
11,100.0	89.84	358.86	9,255.5	2,053.5	-41.0	2,054.0	0.00	0.00	0.00
11,200.0	89.84	358.86	9,255.8	2,153.5	-43.0	2,154.0	0.00	0.00	0.00
11,300.0	89.84	358.86	9,256.1	2,253.5	-45.0	2,254.0	0.00	0.00	0.00
11,400.0	89.84	358.86	9,256.4	2,353.5	-47.0	2,354.0	0.00	0.00	0.00
11,500.0	89.84	358.86	9,256.7	2,453.5	-49.0	2,454.0	0.00	0.00	0.00
11,600.0	89.84	358.86	9,256.9	2,553.4	-51.0	2,554.0	0.00	0.00	0.00
11,700.0	89.84	358.86	9,257.2	2,653.4	-52.9	2,654.0	0.00	0.00	0.00
11,800.0	89.84	358.86	9,257.5	2,753.4	-54.9	2,754.0	0.00	0.00	0.00
11,900.0	89.84	358.86	9,257.8	2,853.4	-56.9	2,854.0	0.00	0.00	0.00
12,000.0	89.84	358.86	9,258.1	2,953.4	-58.9	2,954.0	0.00	0.00	0.00
12,100.0	89.84	358.86	9,258.4	3,053.3	-60.9	3,054.0	0.00	0.00	0.00
12,200.0	89.84	358.86	9,258.7	3,153.3	-62.9	3,154.0	0.00	0.00	0.00
12,300.0	89.84	358.86	9,259.0	3,253.3	-64.9	3,254.0	0.00	0.00	0.00
12,400.0	89.84	358.86	9,259.2	3,353.3	-66.9	3,354.0	0.00	0.00	0.00
12,500.0	89.84	358.86	9,259.5	3,453.3	-68.9	3,454.0	0.00	0.00	0.00
12,600.0	89.84	358.86	9,259.8	3,553.2	-70.9	3,554.0	0.00	0.00	0.00
12,700.0	89.84	358.86	9,260.1	3,653.2	-72.9	3,654.0	0.00	0.00	0.00
12,800.0	89.84	358.86	9,260.4	3,753.2	-74.9	3,754.0	0.00	0.00	0.00
12,900.0	89.84	358.86	9,260.7	3,853.2	-76.9	3,854.0	0.00	0.00	0.00
13,000.0	89.84	358.86	9,261.0	3,953.2	-78.9	3,954.0	0.00	0.00	0.00
13,100.0	89.84	358.86	9,261.3	4,053.1	-80.9	4,053.9	0.00	0.00	0.00
13,200.0	89.84	358.86	9,261.5	4,153.1	-82.9	4,153.9	0.00	0.00	0.00
13,300.0	89.84	358.86	9,261.8	4,253.1	-84.9	4,253.9	0.00	0.00	0.00
13,400.0	89.84	358.86	9,262.1	4,353.1	-86.9	4,353.9	0.00	0.00	0.00
13,500.0	89.84	358.86	9,262.4	4,453.1	-88.9	4,453.9	0.00	0.00	0.00
13,600.0	89.84	358.86	9,262.7	4,553.0	-90.8	4,553.9	0.00	0.00	0.00
13,700.0	89.84	358.86	9,263.0	4,653.0	-92.8	4,653.9	0.00	0.00	0.00
TD @ 13708' MD / 9263' TVD									
13,707.8	89.84	358.86	9,263.0	4,660.8	-93.0	4,661.7	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL ROJO A 7811 - plan hits target center - Point	0.00	0.00	9,263.0	4,660.8	-93.0	403,767.30	737,205.70	32° 6' 27.919 N	103° 34' 2.112 W

HP
Well Planning Report



Database: Compass
Company: BTA Oil Producers, LLC
Project: Lea County, NM
Site: Sec 27, T25-S, R33-E
Well: ROJO A 7811 JV-P Fed #5H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well ROJO A 7811 JV-P #5H
TVD Reference: WELL @ 3361.0usft (Scandrell Freedom)
MD Reference: WELL @ 3361.0usft (Scandrell Freedom)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,773.5	8,773.5	0.0	0.0	Build 12°/100'
9,522.1	9,251.0	476.0	-9.5	EOB @ 89.84° Inc / 358.86° Azm / 9251' TVD
13,707.8	9,263.0	4,660.8	-93.0	TD @ 13708' MD / 9263' TVD

Lea County, NM
ROJO A 7811 JV-P Federal #5H
Design #1

