

**NM OIL CONSERVATION
ARTESIA DISTRICT**

FEB 27 2018

RECEIVED

Marathon Oil Permian, LLC

**Eddy County, NM (NAD27)
Macho Grande State 23-29-32
TB #6H**

30-015-44787

OH

Plan: Plan #1

Standard Planning Report

20 February, 2018



www.scientificdrilling.com

Planning Report

Operator:	Midland District	Well TB #6H
Company:	Marathon Oil Permian, LLC	KB = 26.5' @ 3016.50usft (H&P # X)
County:	Eddy County, NM (NAD27)	KB = 26.5' @ 3016.50usft (H&P # X)
Site:	Macho Grande State 23-29-32	Grid
Well:	TB #6H	Minimum Curvature
Wellbore:	OH	
Design:	Plan #1	

Project:	Eddy County, NM (NAD27)		
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		Using geodetic scale factor

Site:		Macho Grande State 23-29-32			
Site Position:		Northing:	456,528.72 usft	Latitude:	32° 15' 16.828 N
From:	Map	Easting:	603,060.91 usft	Longitude:	103° 59' 59.817 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.18 °

Well:		TB #6H				
Well Position	+N/-S	0.00 usft	Northing:	456,528.72 usft	Latitude:	32° 15' 16.827 N
	+E/-W	30.00 usft	Easting:	603,090.91 usft	Longitude:	103° 59' 59.468 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	2,990.00 usft

Wellbore:	OH				
Method:	Horizontal	Vertical	Depth	Angle	Length
	HDGM	2/20/2018	7.15	60.05	48,048

Design:	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (ft)	0.00	0.00	0.00
	Direction (bearing)	0.00	0.00	0.00

Plan Section	Depth (ft)	Angle (deg)	Length (ft)	Depth (ft)	Angle (deg)	Length (ft)	Depth (ft)	Angle (deg)	Length (ft)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,200.00	4.00	250.00	4,199.84	-2.39	-6.56	2.00	2.00	0.00	250.00	
8,615.00	4.00	250.00	8,604.08	-107.72	-295.96	0.00	0.00	0.00	0.00	
8,815.00	0.00	0.00	8,803.92	-110.11	-302.52	2.00	-2.00	0.00	180.00	
9,311.85	0.00	0.00	9,300.77	-110.11	-302.52	0.00	0.00	0.00	0.00	
10,213.85	90.20	358.78	9,873.72	464.72	-314.72	10.00	10.00	0.00	358.78	
14,432.15	90.20	358.78	9,859.00	4,682.05	-404.25	0.00	0.00	0.00	0.00	BHL[MGS/TB#6H]
14,477.16	90.20	358.78	9,858.84	4,727.05	-405.21	0.00	0.00	0.00	0.00	

Planning Report

Database	Midland District	Well TB #6H
Company	Marathon Oil Permian, LLC	KB = 26.5' @ 3016.50usft (H&P # X)
Project	Eddy County, NM (NAD27)	KB = 26.5' @ 3016.50usft (H&P # X)
Well	Macho Grande State 23-29-32	Grid
WN	TB #6H	Minimum Curvature
WIDEN	OH	
Depth	Plan #1	

Measured Depth (USF)	Interval (USF)	Area (Square Feet)	Volume (USF)	Weight (USF)	Volume (USF)	Weight (USF)	Volume (USF)	Weight (USF)	Volume (USF)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
182.00	0.00	0.00	182.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
325.00	0.00	0.00	325.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado/Castile									
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,816.00	0.00	0.00	2,816.00	0.00	0.00	0.00	0.00	0.00	0.00
Base of Salt									
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,945.00	0.00	0.00	2,945.00	0.00	0.00	0.00	0.00	0.00	0.00
Lamar									
2,974.00	0.00	0.00	2,974.00	0.00	0.00	0.00	0.00	0.00	0.00
Bell Canyon									
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,056.00	0.00	0.00	3,056.00	0.00	0.00	0.00	0.00	0.00	0.00
Cherry Canyon									
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00

Planning Report

Station	Interval	Depth	True	Apparent	True	Apparent	True	Apparent	True	Apparent
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
Midland District Marathon Oil Permian, LLC Eddy County, NM (NAD27) Macho Grande State 23-29-32 TB #6H OH Plan #1 Well TB #6H KB = 26.5' @ 3016.50usft (H&P # X) KB = 26.5' @ 3016.50usft (H&P # X) Grid Minimum Curvature										
KOP - Build 2.0° / 100 4,100.00 2.00 250.00 4,099.98 -0.60 -1.64 -0.60 2.00 2.00 0.00 4,200.00 4.00 250.00 4,199.84 -2.39 -6.56 -2.39 2.00 2.00 0.00 EOB - HOLD 4,300.00 4.00 250.00 4,299.59 -4.77 -13.11 -4.77 0.00 0.00 0.00 4,400.00 4.00 250.00 4,399.35 -7.16 -19.67 -7.16 0.00 0.00 0.00 4,500.00 4.00 250.00 4,499.11 -9.54 -26.22 -9.54 0.00 0.00 0.00 4,600.00 4.00 250.00 4,598.86 -11.93 -32.78 -11.93 0.00 0.00 0.00 4,700.00 4.00 250.00 4,698.62 -14.32 -39.33 -14.32 0.00 0.00 0.00 4,800.00 4.00 250.00 4,798.38 -16.70 -45.89 -16.70 0.00 0.00 0.00 4,900.00 4.00 250.00 4,898.13 -19.09 -52.44 -19.09 0.00 0.00 0.00 4,987.08 4.00 250.00 4,985.00 -21.17 -58.15 -21.17 0.00 0.00 0.00										
Brushy Canyon 5,000.00 4.00 250.00 4,997.89 -21.47 -59.00 -21.47 0.00 0.00 0.00 5,100.00 4.00 250.00 5,097.65 -23.86 -65.55 -23.86 0.00 0.00 0.00 5,200.00 4.00 250.00 5,197.40 -26.24 -72.11 -26.24 0.00 0.00 0.00 5,300.00 4.00 250.00 5,297.16 -28.63 -78.66 -28.63 0.00 0.00 0.00 5,400.00 4.00 250.00 5,396.91 -31.02 -85.22 -31.02 0.00 0.00 0.00 5,500.00 4.00 250.00 5,496.67 -33.40 -91.77 -33.40 0.00 0.00 0.00 5,600.00 4.00 250.00 5,596.43 -35.79 -98.33 -35.79 0.00 0.00 0.00 5,700.00 4.00 250.00 5,696.18 -38.17 -104.88 -38.17 0.00 0.00 0.00 5,800.00 4.00 250.00 5,795.94 -40.56 -111.44 -40.56 0.00 0.00 0.00 5,900.00 4.00 250.00 5,895.70 -42.95 -117.99 -42.95 0.00 0.00 0.00 6,000.00 4.00 250.00 5,995.45 -45.33 -124.55 -45.33 0.00 0.00 0.00 6,100.00 4.00 250.00 6,095.21 -47.72 -131.10 -47.72 0.00 0.00 0.00 6,200.00 4.00 250.00 6,194.97 -50.10 -137.66 -50.10 0.00 0.00 0.00 6,300.00 4.00 250.00 6,294.72 -52.49 -144.21 -52.49 0.00 0.00 0.00 6,400.00 4.00 250.00 6,394.48 -54.87 -150.77 -54.87 0.00 0.00 0.00 6,500.00 4.00 250.00 6,494.24 -57.26 -157.32 -57.26 0.00 0.00 0.00 6,600.00 4.00 250.00 6,593.99 -59.65 -163.88 -59.65 0.00 0.00 0.00 6,628.08 4.00 250.00 6,622.00 -60.32 -165.72 -60.32 0.00 0.00 0.00 Bone Spring 6,700.00 4.00 250.00 6,693.75 -62.03 -170.43 -62.03 0.00 0.00 0.00 6,800.00 4.00 250.00 6,793.50 -64.42 -176.99 -64.42 0.00 0.00 0.00 6,900.00 4.00 250.00 6,893.26 -66.80 -183.54 -66.80 0.00 0.00 0.00 7,000.00 4.00 250.00 6,993.02 -69.19 -190.10 -69.19 0.00 0.00 0.00 7,100.00 4.00 250.00 7,092.77 -71.58 -196.65 -71.58 0.00 0.00 0.00 7,200.00 4.00 250.00 7,192.53 -73.96 -203.21 -73.96 0.00 0.00 0.00 7,300.00 4.00 250.00 7,292.29 -76.35 -209.76 -76.35 0.00 0.00 0.00 7,400.00 4.00 250.00 7,392.04 -78.73 -216.32 -78.73 0.00 0.00 0.00 7,500.00 4.00 250.00 7,491.80 -81.12 -222.87 -81.12 0.00 0.00 0.00 7,600.00 4.00 250.00 7,591.56 -83.50 -229.43 -83.50 0.00 0.00 0.00 7,632.52 4.00 250.00 7,624.00 -84.28 -231.56 -84.28 0.00 0.00 0.00										
1st Bone Spring Sand 7,700.00 4.00 250.00 7,691.31 -85.89 -235.98 -85.89 0.00 0.00 0.00 7,800.00 4.00 250.00 7,791.07 -88.28 -242.54 -88.28 0.00 0.00 0.00 7,900.00 4.00 250.00 7,890.82 -90.66 -249.09 -90.66 0.00 0.00 0.00 8,000.00 4.00 250.00 7,990.58 -93.05 -255.65 -93.05 0.00 0.00 0.00 8,100.00 4.00 250.00 8,090.34 -95.43 -262.20 -95.43 0.00 0.00 0.00 8,200.00 4.00 250.00 8,190.09 -97.82 -268.76 -97.82 0.00 0.00 0.00 8,300.00 4.00 250.00 8,289.85 -100.21 -275.31 -100.21 0.00 0.00 0.00 8,400.00 4.00 250.00 8,389.61 -102.59 -281.87 -102.59 0.00 0.00 0.00 8,405.41 4.00 250.00 8,395.00 -102.72 -282.22 -102.72 0.00 0.00 0.00										

Planning Report

Midland District Marathon Oil Permian, LLC Eddy County, NM (NAD27) Macho Grande State 23-29-32 TB #6H OH Plan #1			Well TB #6H KB = 26.5' @ 3016.50usft (H&P # X) KB = 26.5' @ 3016.50usft (H&P # X) Grid Minimum Curvature						
Planned Survey									
Proposed Elevation (ft)	Interval (ft)	Vertical Correction (ft)	Proposed Elevation (ft)	Interval (ft)	Vertical Correction (ft)	Proposed Elevation (ft)	Proposed Interval (ft)	Build Interval (ft)	Interval RT (ft)
2nd Bone Spring Sand									
8,500.00	4.00	250.00	8,489.36	-104.98	-288.42	-104.98	0.00	0.00	0.00
8,600.00	4.00	250.00	8,589.12	-107.36	-294.98	-107.36	0.00	0.00	0.00
8,615.00	4.00	250.00	8,604.08	-107.72	-295.96	-107.72	0.00	0.00	0.00
DROP 2.0° / 100									
8,700.00	2.30	250.00	8,688.95	-109.32	-300.35	-109.32	2.00	-2.00	0.00
8,800.00	0.30	250.00	8,788.92	-110.09	-302.48	-110.09	2.00	-2.00	0.00
8,815.00	0.00	0.00	8,803.92	-110.11	-302.52	-110.11	2.00	-2.00	0.00
EOD - HOLD									
8,900.00	0.00	0.00	8,888.92	-110.11	-302.52	-110.11	0.00	0.00	0.00
9,000.00	0.00	0.00	8,988.92	-110.11	-302.52	-110.11	0.00	0.00	0.00
9,100.00	0.00	0.00	9,088.92	-110.11	-302.52	-110.11	0.00	0.00	0.00
9,200.00	0.00	0.00	9,188.92	-110.11	-302.52	-110.11	0.00	0.00	0.00
9,300.00	0.00	0.00	9,288.92	-110.11	-302.52	-110.11	0.00	0.00	0.00
9,311.85	0.00	0.00	9,300.77	-110.11	-302.52	-110.11	0.00	0.00	0.00
Curve KOP - Build 10.0° / 100									
9,350.00	3.82	358.78	9,338.89	-108.84	-302.54	-108.84	10.00	10.00	0.00
9,400.00	8.82	358.78	9,388.57	-103.34	-302.66	-103.34	10.00	10.00	0.00
9,450.00	13.82	358.78	9,437.59	-93.54	-302.87	-93.54	10.00	10.00	0.00
9,500.00	18.82	358.78	9,485.56	-79.50	-303.17	-79.50	10.00	10.00	0.00
9,550.00	23.82	358.78	9,532.12	-61.33	-303.55	-61.33	10.00	10.00	0.00
9,566.37	25.45	358.78	9,547.00	-54.51	-303.70	-54.51	10.00	10.00	0.00
3rd Bone Spring Sand									
9,600.00	28.82	358.78	9,576.93	-39.18	-304.02	-39.18	10.00	10.00	0.00
9,650.00	33.82	358.78	9,619.63	-13.21	-304.57	-13.21	10.00	10.00	0.00
9,700.00	38.82	358.78	9,659.91	16.39	-305.20	16.39	10.00	10.00	0.00
9,750.00	43.82	358.78	9,697.45	49.38	-305.90	49.38	10.00	10.00	0.00
9,800.00	48.82	358.78	9,731.97	85.52	-306.67	85.52	10.00	10.00	0.00
9,850.00	53.82	358.78	9,763.21	124.53	-307.50	124.53	10.00	10.00	0.00
9,858.06	54.62	358.78	9,767.93	131.07	-307.64	131.07	10.00	10.00	0.00
FTP[MGS/TB#6H]									
9,900.00	58.82	358.78	9,790.94	166.11	-308.38	166.11	10.00	10.00	0.00
9,950.00	63.82	358.78	9,814.93	209.95	-309.31	209.95	10.00	10.00	0.00
10,000.00	68.82	358.78	9,835.01	255.71	-310.28	255.71	10.00	10.00	0.00
10,050.00	73.82	358.78	9,851.02	303.05	-311.29	303.05	10.00	10.00	0.00
10,100.00	78.82	358.78	9,862.85	351.61	-312.32	351.61	10.00	10.00	0.00
10,150.00	83.82	358.78	9,870.39	401.01	-313.37	401.01	10.00	10.00	0.00
10,200.00	88.82	358.78	9,873.61	450.88	-314.43	450.88	10.00	10.00	0.00
10,213.85	90.20	358.78	9,873.72	464.72	-314.72	464.72	10.00	10.00	0.00
EOC - HOLD									
10,300.00	90.20	358.78	9,873.42	550.85	-316.55	550.85	0.00	0.00	0.00
10,400.00	90.20	358.78	9,873.08	650.83	-318.67	650.83	0.00	0.00	0.00
10,500.00	90.20	358.78	9,872.73	750.81	-320.79	750.81	0.00	0.00	0.00
10,600.00	90.20	358.78	9,872.38	850.78	-322.92	850.78	0.00	0.00	0.00
10,700.00	90.20	358.78	9,872.03	950.76	-325.04	950.76	0.00	0.00	0.00
10,800.00	90.20	358.78	9,871.68	1,050.74	-327.16	1,050.74	0.00	0.00	0.00
10,900.00	90.20	358.78	9,871.33	1,150.71	-329.28	1,150.71	0.00	0.00	0.00
11,000.00	90.20	358.78	9,870.98	1,250.69	-331.41	1,250.69	0.00	0.00	0.00
11,100.00	90.20	358.78	9,870.63	1,350.67	-333.53	1,350.67	0.00	0.00	0.00
11,200.00	90.20	358.78	9,870.28	1,450.64	-335.65	1,450.64	0.00	0.00	0.00
11,300.00	90.20	358.78	9,869.93	1,550.62	-337.77	1,550.62	0.00	0.00	0.00
11,400.00	90.20	358.78	9,869.58	1,650.60	-339.90	1,650.60	0.00	0.00	0.00
11,500.00	90.20	358.78	9,869.24	1,750.57	-342.02	1,750.57	0.00	0.00	0.00

Planning Report

Client:	Midland District	Local Coordinates:	Well TB #6H
Company:	Marathon Oil Permian, LLC	TVD Reference:	KB = 26.5' @ 3016.50usft (H&P # X)
Project:	Eddy County, NM (NAD27)	MD Reference:	KB = 26.5' @ 3016.50usft (H&P # X)
Site:	Macho Grande State 23-29-32	North Arrow:	Grid
Well:	TB #6H	Survey Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planning									
Station	Interval	Depth	True	MD	True	MD	Depth	Rate	Rate
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft/100usft)	(ft/100usft)
11,600.00	90.20	358.78	9,868.89	1,850.55	-344.14	1,850.55	0.00	0.00	0.00
11,700.00	90.20	358.78	9,868.54	1,950.53	-346.26	1,950.53	0.00	0.00	0.00
11,800.00	90.20	358.78	9,868.19	2,050.50	-348.39	2,050.50	0.00	0.00	0.00
11,900.00	90.20	358.78	9,867.84	2,150.48	-350.51	2,150.48	0.00	0.00	0.00
12,000.00	90.20	358.78	9,867.49	2,250.46	-352.63	2,250.46	0.00	0.00	0.00
12,100.00	90.20	358.78	9,867.14	2,350.43	-354.75	2,350.43	0.00	0.00	0.00
12,200.00	90.20	358.78	9,866.79	2,450.41	-356.88	2,450.41	0.00	0.00	0.00
12,300.00	90.20	358.78	9,866.44	2,550.39	-359.00	2,550.39	0.00	0.00	0.00
12,400.00	90.20	358.78	9,866.09	2,650.37	-361.12	2,650.37	0.00	0.00	0.00
12,500.00	90.20	358.78	9,865.74	2,750.34	-363.24	2,750.34	0.00	0.00	0.00
12,600.00	90.20	358.78	9,865.40	2,850.32	-365.37	2,850.32	0.00	0.00	0.00
12,700.00	90.20	358.78	9,865.05	2,950.30	-367.49	2,950.30	0.00	0.00	0.00
12,800.00	90.20	358.78	9,864.70	3,050.27	-369.61	3,050.27	0.00	0.00	0.00
12,900.00	90.20	358.78	9,864.35	3,150.25	-371.73	3,150.25	0.00	0.00	0.00
13,000.00	90.20	358.78	9,864.00	3,250.23	-373.86	3,250.23	0.00	0.00	0.00
13,100.00	90.20	358.78	9,863.65	3,350.20	-375.98	3,350.20	0.00	0.00	0.00
13,200.00	90.20	358.78	9,863.30	3,450.18	-378.10	3,450.18	0.00	0.00	0.00
13,300.00	90.20	358.78	9,862.95	3,550.16	-380.22	3,550.16	0.00	0.00	0.00
13,400.00	90.20	358.78	9,862.60	3,650.13	-382.34	3,650.13	0.00	0.00	0.00
13,500.00	90.20	358.78	9,862.25	3,750.11	-384.47	3,750.11	0.00	0.00	0.00
13,600.00	90.20	358.78	9,861.90	3,850.09	-386.59	3,850.09	0.00	0.00	0.00
13,700.00	90.20	358.78	9,861.56	3,950.06	-388.71	3,950.06	0.00	0.00	0.00
13,800.00	90.20	358.78	9,861.21	4,050.04	-390.83	4,050.04	0.00	0.00	0.00
13,900.00	90.20	358.78	9,860.86	4,150.02	-392.96	4,150.02	0.00	0.00	0.00
14,000.00	90.20	358.78	9,860.51	4,250.00	-395.08	4,250.00	0.00	0.00	0.00
14,100.00	90.20	358.78	9,860.16	4,349.97	-397.20	4,349.97	0.00	0.00	0.00
14,200.00	90.20	358.78	9,859.81	4,449.95	-399.32	4,449.95	0.00	0.00	0.00
14,300.00	90.20	358.78	9,859.46	4,549.93	-401.45	4,549.93	0.00	0.00	0.00
14,400.00	90.20	358.78	9,859.11	4,649.90	-403.57	4,649.90	0.00	0.00	0.00
14,432.15	90.20	358.78	9,859.00	4,682.05	-404.25	4,682.05	0.00	0.00	0.00
TD at 14432.15 - BHL[MGS/TB#6H]									
14,477.16	90.20	358.78	9,858.84	4,727.05	-405.21	4,727.05	0.00	0.00	0.00
TD + 45' VS									

Design									
Name	Interval	Depth	True	MD	True	MD	Depth	Rate	Rate
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft/100usft)	(ft/100usft)
BHL[MGS/TB#6H]	0.00	0.00	9,859.00	4,682.05	-404.25	461,210.40	602,686.69	32° 16' 3.170 N	104° 0' 4.006 W
- plan hits target center									
- Point									
FTP[MGS/TB#6H]	0.00	0.00	9,874.00	60.37	-306.61	456,589.09	602,784.32	32° 15' 17.434 N	104° 0' 3.036 W
- plan misses target center by 127.47usft at 9858.06usft MD (9767.93 TVD, 131.07 N, -307.64 E)									
- Point									

Planning Report

District	Midland District	Well TB #6H
Company	Marathon Oil Permian, LLC	KB = 26.5' @ 3016.50usft (H&P # X)
Product	Eddy County, NM (NAD27)	KB = 26.5' @ 3016.50usft (H&P # X)
State	Macho Grande State 23-29-32	Grid
Well	TB #6H	Minimum Curvature
Wellborn	OH	
Design	Plan #1	

Formation	Minimum Depth (ft)	Vertical Depth (ft)	Unit	Geology	Drift	Stratigraphic Position (GSI#)
	182.00	182.00	Rustler			
	325.00	325.00	Salado/Castile			
	2,816.00	2,816.00	Base of Salt			
	2,945.00	2,945.00	Lamar			
	2,974.00	2,974.00	Bell Canyon			
	3,056.00	3,056.00	Cherry Canyon			
	4,987.08	4,985.00	Brushy Canyon			
	6,628.08	6,622.00	Bone Spring			
	7,632.52	7,624.00	1st Bone Spring Sand			
	8,405.41	8,395.00	2nd Bone Spring Sand			
	9,566.37	9,547.00	3rd Bone Spring Sand			

Plan Annotations				
Stationing	Offset	Width	Depth	Notes
(+/-)	(+/-)	(+/-)	(+/-)	
4,000.00	4,000.00	0.00	0.00	KOP - Build 2.0° / 100
4,200.00	4,199.84	-2.39	-6.56	EOB - HOLD
8,615.00	8,604.08	-107.72	-295.96	DROP 2.0° / 100
8,815.00	8,803.92	-110.11	-302.52	EOD - HOLD
9,311.85	9,300.77	-110.11	-302.52	Curve KOP - Build 10.0° / 100
10,213.85	9,873.72	464.72	-314.72	EOC - HOLD
14,432.15	9,859.00	4,682.05	-404.25	TD at 14432.15
14,477.16	9,858.84	4,727.05	-405.21	TD + 45' VS



EDDY COUNTY, NM (NAD27)
MACHO GRADE STATE 23-29-32

TB #6H
OH
PLAN #1
HSP # X

CL Elev.: 2990.00
DEPTH REF.: KB = 26.5' @ 300.50087 (HSP # X)

WELL DETAILS:

+N/-S +E/-W Ground Level: 2990.00 Latitude Longitude
0.00 0.00 456528.72 603090.91 32° 15' 16.827" N 103° 59' 55.468" W

SECTION DETAILS

	NO	INC	AT	TVD	N/-S	E/-W	DEPT	FACE	USECT	TARGET
	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	4.206	0.33	0.00	4.206	-2.39	-8.56	2.00	253.00	-2.39	
	8.412	0.33	0.00	8.412	-10.72	-295.96	2.00	180.00	-10.72	
	12.618	0.33	0.00	12.618	-10.72	-295.96	2.00	180.00	-10.72	
	16.824	0.33	0.00	16.824	-10.72	-295.96	2.00	180.00	-10.72	
	21.030	0.33	0.00	21.030	-10.72	-295.96	2.00	180.00	-10.72	
	25.236	0.33	0.00	25.236	-10.72	-295.96	2.00	180.00	-10.72	
	29.442	0.33	0.00	29.442	-10.72	-295.96	2.00	180.00	-10.72	
	33.648	0.33	0.00	33.648	-10.72	-295.96	2.00	180.00	-10.72	
	37.854	0.33	0.00	37.854	-10.72	-295.96	2.00	180.00	-10.72	
	42.060	0.33	0.00	42.060	-10.72	-295.96	2.00	180.00	-10.72	
	46.266	0.33	0.00	46.266	-10.72	-295.96	2.00	180.00	-10.72	
	50.472	0.33	0.00	50.472	-10.72	-295.96	2.00	180.00	-10.72	
	54.678	0.33	0.00	54.678	-10.72	-295.96	2.00	180.00	-10.72	
	58.884	0.33	0.00	58.884	-10.72	-295.96	2.00	180.00	-10.72	
	63.090	0.33	0.00	63.090	-10.72	-295.96	2.00	180.00	-10.72	
	67.296	0.33	0.00	67.296	-10.72	-295.96	2.00	180.00	-10.72	
	71.502	0.33	0.00	71.502	-10.72	-295.96	2.00	180.00	-10.72	
	75.708	0.33	0.00	75.708	-10.72	-295.96	2.00	180.00	-10.72	
	79.914	0.33	0.00	79.914	-10.72	-295.96	2.00	180.00	-10.72	
	84.120	0.33	0.00	84.120	-10.72	-295.96	2.00	180.00	-10.72	
	88.326	0.33	0.00	88.326	-10.72	-295.96	2.00	180.00	-10.72	
	92.532	0.33	0.00	92.532	-10.72	-295.96	2.00	180.00	-10.72	
	96.738	0.33	0.00	96.738	-10.72	-295.96	2.00	180.00	-10.72	
	100.944	0.33	0.00	100.944	-10.72	-295.96	2.00	180.00	-10.72	
	105.150	0.33	0.00	105.150	-10.72	-295.96	2.00	180.00	-10.72	
	109.356	0.33	0.00	109.356	-10.72	-295.96	2.00	180.00	-10.72	
	113.562	0.33	0.00	113.562	-10.72	-295.96	2.00	180.00	-10.72	
	117.768	0.33	0.00	117.768	-10.72	-295.96	2.00	180.00	-10.72	
	121.974	0.33	0.00	121.974	-10.72	-295.96	2.00	180.00	-10.72	
	126.180	0.33	0.00	126.180	-10.72	-295.96	2.00	180.00	-10.72	
	130.386	0.33	0.00	130.386	-10.72	-295.96	2.00	180.00	-10.72	
	134.592	0.33	0.00	134.592	-10.72	-295.96	2.00	180.00	-10.72	
	138.798	0.33	0.00	138.798	-10.72	-295.96	2.00	180.00	-10.72	
	143.004	0.33	0.00	143.004	-10.72	-295.96	2.00	180.00	-10.72	
	147.210	0.33	0.00	147.210	-10.72	-295.96	2.00	180.00	-10.72	
	151.416	0.33	0.00	151.416	-10.72	-295.96	2.00	180.00	-10.72	
	155.622	0.33	0.00	155.622	-10.72	-295.96	2.00	180.00	-10.72	
	159.828	0.33	0.00	159.828	-10.72	-295.96	2.00	180.00	-10.72	
	164.034	0.33	0.00	164.034	-10.72	-295.96	2.00	180.00	-10.72	
	168.240	0.33	0.00	168.240	-10.72	-295.96	2.00	180.00	-10.72	
	172.446	0.33	0.00	172.446	-10.72	-295.96	2.00	180.00	-10.72	
	176.652	0.33	0.00	176.652	-10.72	-295.96	2.00	180.00	-10.72	
	180.858	0.33	0.00	180.858	-10.72	-295.96	2.00	180.00	-10.72	
	185.064	0.33	0.00	185.064	-10.72	-295.96	2.00	180.00	-10.72	
	189.270	0.33	0.00	189.270	-10.72	-295.96	2.00	180.00	-10.72	
	193.476	0.33	0.00	193.476	-10.72	-295.96	2.00	180.00	-10.72	
	197.682	0.33	0.00	197.682	-10.72	-295.96	2.00	180.00	-10.72	
	201.888	0.33	0.00	201.888	-10.72	-295.96	2.00	180.00	-10.72	
	206.094	0.33	0.00	206.094	-10.72	-295.96	2.00	180.00	-10.72	
	210.300	0.33	0.00	210.300	-10.72	-295.96	2.00	180.00	-10.72	
	214.506	0.33	0.00	214.506	-10.72	-295.96	2.00	180.00	-10.72	
	218.712	0.33	0.00	218.712	-10.72	-295.96	2.00	180.00	-10.72	
	222.918	0.33	0.00	222.918	-10.72	-295.96	2.00	180.00	-10.72	
	227.124	0.33	0.00	227.124	-10.72	-295.96	2.00	180.00	-10.72	
	231.330	0.33	0.00	231.330	-10.72	-295.96	2.00	180.00	-10.72	
	235.536	0.33	0.00	235.536	-10.72	-295.96	2.00	180.00	-10.72	
	239.742	0.33	0.00	239.742	-10.72	-295.96	2.00	180.00	-10.72	
	243.948	0.33	0.00	243.948	-10.72	-295.96	2.00	180.00	-10.72	
	248.154	0.33	0.00	248.154	-10.72	-295.96	2.00	180.00	-10.72	
	252.360	0.33	0.00	252.360	-10.72	-295.96	2.00	180.00	-10.72	
	256.566	0.33	0.00	256.566	-10.72	-295.96	2.00	180.00	-10.72	
	260.772	0.33	0.00	260.772	-10.72	-295.96	2.00	180.00	-10.72	
	264.978	0.33	0.00	264.978	-10.72	-295.96	2.00	180.00	-10.72	
	269.184	0.33	0.00	269.184	-10.72	-295.96	2.00	180.00	-10.72	
	273.390	0.33	0.00	273.390	-10.72	-295.96	2.00	180.00	-10.72	
	277.596	0.33	0.00	277.596	-10.72	-295.96	2.00	180.00	-10.72	
	281.802	0.33	0.00	281.802	-10.72	-295.96	2.00	180.00	-10.72	
	286.008	0.33	0.00	286.008	-10.72	-295.96	2.00	180.00	-10.72	
	290.214	0.33	0.00	290.214	-10.72	-295.96	2.00	180.00	-10.72	
	294.420	0.33	0.00	294.420	-10.72	-295.96	2.00	180.00	-10.72	
	298.626	0.33	0.00	298.626	-10.72	-295.96	2.00	180.00	-10.72	
	302.832	0.33	0.00	302.832	-10.72	-295.96	2.00	180.00	-10.72	
	307.038	0.33	0.00	307.038	-10.72	-295.96	2.00	180.00	-10.72	
	311.244	0.33	0.00	311.244	-10.72	-295.96	2.00	180.00	-10.72	
	315.450	0.33	0.00	315.450	-10.72	-295.96	2.00	180.00	-10.72	
	319.656	0.33	0.00	319.656	-10.72	-295.96	2.00	180.00	-10.72	
	323.862	0.33	0.00	323.862	-10.72	-295.96	2.00	180.00	-10.72	
	328.068	0.33	0.00	328.068	-10.72	-295.96	2.00	180.00	-10.72	
	332.274	0.33	0.00	332.274	-10.72	-295.96	2.00	180.00	-10.72	
	336.480	0.33	0.00	336.480	-10.72	-295.96	2.00	180.00	-10.72	
	340.686	0.33	0.00	340.686	-10.72	-295.96	2.00	180.00	-10.72	
	344.892	0.33	0.00	344.892	-10.72	-295.96	2.00	180.00	-10.72	
	349.098	0.33	0.00	349.098	-10.72	-295.96	2.00	180.00	-10.72	
	353.304	0.33	0.00	353.304	-10.72	-295.96	2.00	180.00	-10.72	
	357.510	0.33	0.00	357.510	-10.72	-295.96	2.00	180.00	-10.72	
	361.716	0.33	0.00	361.716	-10.72	-295.96	2.00	180.00	-10.72	
	365.922	0.33	0.00	365.922	-10.72	-295.96	2.00	180.00	-10.72	
	370.128	0.33	0.00	370.128	-10.72	-295.96	2.00	180.00	-10.72	
	374.334	0.33	0.00	374.334	-10.72	-295.96	2.00	180.00	-10.72	
	378.540	0.33	0.00	378.540	-10.72	-295.96	2.00	180.00	-10.72	
	382.746	0.33	0.00	382.746	-10.72	-295.96	2.00	180.00	-10.72	
	386.952	0.33	0.00	386.952	-10.72	-295.96	2.00	180.00	-10.72	
	391.158	0.33	0.00	391.158	-10.72	-295.96	2.00	180.00	-10.72	
	395.364	0.33	0.00	395.364	-10.72	-295.96	2.00	180.00	-10.72	
	399.570	0.33	0.00	399.570	-10.72	-295.96	2.00	180.00	-10.72	
	403.776	0.33	0.00	403.776	-10.72	-295.96	2.00	180.00	-10.72	
	407.982	0.33	0.00	407.982	-10.72	-295.96	2.00	180.00	-10.72	
	412.188	0.33	0.00	412.188	-10.72	-295.96	2.00	180.00	-10.72	
	416.394	0.33	0.00	416.394	-10.72	-295.96	2.00	180.00	-10.72	
	420.600	0.33	0.00	420.600	-10.72	-295.96	2.00	180.00	-10.72	
	424.806	0.33	0.00	424.806	-10.72	-295.96	2.00	180.00	-10.72	
	429.012	0.33	0.00	429.012	-10.72	-295.96	2.00	180.00	-10.72	
	433.218	0.33	0.00	433.218	-10.72	-295.96	2.00	180.00	-10.72	
	437.424	0.33	0.00	437.424	-10.72	-295.96	2.00	180.00	-10.72	
	441.630	0.33	0.00	441.630	-10.72	-295.96	2.00	180.00	-10.72	
	445.836	0.33	0.00	445.836	-10.72	-295.96	2.00	180.00	-10.72	
	450.042	0.33	0.00	450.042	-10.72	-295.96	2.00	180.00	-10.72	
	454.248	0.33	0.00	454.248	-10.72	-295.96	2.00	180.00	-10.72	
	458.454	0.33	0.00	458.454	-10.72	-295.96	2.00	180.00	-10.72	
	462.660	0.33	0.00	462.660	-10.72	-295.96	2.00	180.00	-10.72	
	466.866	0.33	0.00	466.866	-10.72	-295.96	2.00	180.00	-10.72	
	471.072	0.33	0.00	471.072	-10.72	-295.96	2.00	180.00	-10.72	
	475.278	0.33	0.00	475.278	-10.72	-295.96	2.00	180.00	-10.72	
	479.484	0.33	0.00	479.484	-10.72	-295.96	2.00	180.00	-10.72	
	483.690	0.33	0.00	483.690	-10.72	-295.96	2.00	180.00	-10.72	
	487.896	0.33	0.00	487.896	-10.72	-295.96	2.00	180.00	-10.72	
	492.102	0.33	0.00	492.102	-10.72	-295.96	2.00	180.00	-	

Marathon Oil Permian, LLC
TB #6H - Plan #1

Eddy County, NM (NAD27)
Macho Grande State 23-29-32
Your Ref:

2/20/2018

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Grid X	Grid Y
0	0	0	0	0	0	0	0	603090.9	456528.7
4000	0	0	4000	0	0	0	0	603090.9	456528.7
4100	2	250	4099.98	-0.6	-1.64	-0.6	2	603089.3	456528.1
4200	4	250	4199.84	-2.39	-6.56	-2.39	2	603084.4	456526.3
4300	4	250	4299.59	-4.77	-13.11	-4.77	0	603077.8	456524
4400	4	250	4399.35	-7.16	-19.67	-7.16	0	603071.2	456521.6
4500	4	250	4499.11	-9.54	-26.22	-9.54	0	603064.7	456519.2
4600	4	250	4598.86	-11.93	-32.78	-11.93	0	603058.1	456516.8
4700	4	250	4698.62	-14.32	-39.33	-14.32	0	603051.6	456514.4
4800	4	250	4798.38	-16.7	-45.89	-16.7	0	603045	456512
4900	4	250	4898.13	-19.09	-52.44	-19.09	0	603038.5	456509.6
5000	4	250	4997.89	-21.47	-59	-21.47	0	603031.9	456507.3
5100	4	250	5097.65	-23.86	-65.55	-23.86	0	603025.4	456504.9
5200	4	250	5197.4	-26.24	-72.11	-26.24	0	603018.8	456502.5
5300	4	250	5297.16	-28.63	-78.66	-28.63	0	603012.3	456500.1
5400	4	250	5396.91	-31.02	-85.22	-31.02	0	603005.7	456497.7
5500	4	250	5496.67	-33.4	-91.77	-33.4	0	602999.2	456495.3

5600	4	250	5596.43	-35.79	-98.33	-35.79	0	602992.6	456492.9
5700	4	250	5696.18	-38.17	-104.88	-38.17	0	602986	456490.6
5800	4	250	5795.94	-40.56	-111.44	-40.56	0	602979.5	456488.2
5900	4	250	5895.7	-42.95	-117.99	-42.95	0	602972.9	456485.8
6000	4	250	5995.45	-45.33	-124.55	-45.33	0	602966.4	456483.4
6100	4	250	6095.21	-47.72	-131.1	-47.72	0	602959.8	456481
6200	4	250	6194.97	-50.1	-137.66	-50.1	0	602953.3	456478.6
6300	4	250	6294.72	-52.49	-144.21	-52.49	0	602946.7	456476.2
6400	4	250	6394.48	-54.87	-150.77	-54.87	0	602940.2	456473.9
6500	4	250	6494.23	-57.26	-157.32	-57.26	0	602933.6	456471.5
6600	4	250	6593.99	-59.65	-163.88	-59.65	0	602927.1	456469.1
6700	4	250	6693.75	-62.03	-170.43	-62.03	0	602920.5	456466.7
6800	4	250	6793.5	-64.42	-176.99	-64.42	0	602913.9	456464.3
6900	4	250	6893.26	-66.8	-183.54	-66.8	0	602907.4	456461.9
7000	4	250	6993.02	-69.19	-190.1	-69.19	0	602900.8	456459.5
7100	4	250	7092.77	-71.58	-196.65	-71.58	0	602894.3	456457.2
7200	4	250	7192.53	-73.96	-203.21	-73.96	0	602887.7	456454.8
7300	4	250	7292.29	-76.35	-209.76	-76.35	0	602881.2	456452.4
7400	4	250	7392.04	-78.73	-216.32	-78.73	0	602874.6	456450
7500	4	250	7491.8	-81.12	-222.87	-81.12	0	602868.1	456447.6
7600	4	250	7591.56	-83.5	-229.43	-83.5	0	602861.5	456445.2
7700	4	250	7691.31	-85.89	-235.98	-85.89	0	602855	456442.8
7800	4	250	7791.07	-88.28	-242.54	-88.28	0	602848.4	456440.5
7900	4	250	7890.82	-90.66	-249.09	-90.66	0	602841.8	456438.1
8000	4	250	7990.58	-93.05	-255.65	-93.05	0	602835.3	456435.7
8100	4	250	8090.34	-95.43	-262.2	-95.43	0	602828.7	456433.3
8200	4	250	8190.09	-97.82	-268.76	-97.82	0	602822.2	456430.9
8300	4	250	8289.85	-100.21	-275.31	-100.21	0	602815.6	456428.5
8400	4	250	8389.61	-102.59	-281.87	-102.59	0	602809.1	456426.1
8500	4	250	8489.36	-104.98	-288.42	-104.98	0	602802.5	456423.8
8600	4	250	8589.12	-107.36	-294.98	-107.36	0	602796	456421.4
8615	4	250	8604.08	-107.72	-295.96	-107.72	0	602795	456421
8700	2.3	250	8688.95	-109.32	-300.35	-109.32	2	602790.6	456419.4
8800	0.3	250	8788.92	-110.09	-302.48	-110.09	2	602788.5	456418.6

8815	0	0	8803.92	-110.11	-302.52	-110.11	2	602788.4	456418.6
8900	0	0	8888.92	-110.11	-302.52	-110.11	0	602788.4	456418.6
9000	0	0	8988.92	-110.11	-302.52	-110.11	0	602788.4	456418.6
9100	0	0	9088.92	-110.11	-302.52	-110.11	0	602788.4	456418.6
9200	0	0	9188.92	-110.11	-302.52	-110.11	0	602788.4	456418.6
9300	0	0	9288.92	-110.11	-302.52	-110.11	0	602788.4	456418.6
9311.85	0	0	9300.77	-110.11	-302.52	-110.11	0	602788.4	456418.6
9350	3.815	358.784	9338.89	-108.84	-302.54	-108.84	10	602788.4	456419.9
9400	8.815	358.784	9388.57	-103.34	-302.66	-103.34	10	602788.3	456425.4
9450	13.815	358.784	9437.59	-93.54	-302.87	-93.54	10	602788.1	456435.2
9500	18.815	358.784	9485.56	-79.5	-303.17	-79.5	10	602787.8	456449.2
9550	23.815	358.784	9532.12	-61.33	-303.55	-61.33	10	602787.4	456467.4
9600	28.815	358.784	9576.93	-39.18	-304.02	-39.18	10	602786.9	456489.5
9650	33.815	358.784	9619.63	-13.21	-304.57	-13.21	10	602786.4	456515.5
9700	38.815	358.784	9659.9	16.39	-305.2	16.39	10	602785.7	456545.1
9750	43.815	358.784	9697.45	49.38	-305.9	49.38	10	602785	456578.1
9800	48.815	358.784	9731.97	85.52	-306.67	85.52	10	602784.3	456614.2
9850	53.815	358.784	9763.21	124.53	-307.5	124.53	10	602783.4	456653.2
9900	58.815	358.784	9790.94	166.11	-308.38	166.11	10	602782.6	456694.8
9950	63.815	358.784	9814.93	209.95	-309.31	209.95	10	602781.6	456738.7
10000	68.815	358.784	9835.01	255.71	-310.28	255.71	10	602780.7	456784.4
10050	73.815	358.784	9851.02	303.05	-311.29	303.05	10	602779.7	456831.8
10100	78.815	358.784	9862.85	351.61	-312.32	351.61	10	602778.6	456880.3
10150	83.815	358.784	9870.39	401.01	-313.37	401.01	10	602777.6	456929.7
10200	88.815	358.784	9873.61	450.88	-314.43	450.88	10	602776.5	456979.6
10213.85	90.2	358.784	9873.72	464.72	-314.72	464.72	10	602776.2	456993.4
10300	90.2	358.784	9873.42	550.85	-316.55	550.85	0	602774.4	457079.5
10400	90.2	358.784	9873.07	650.83	-318.67	650.83	0	602772.3	457179.5
10500	90.2	358.784	9872.73	750.81	-320.79	750.81	0	602770.1	457279.5
10600	90.2	358.784	9872.38	850.78	-322.92	850.78	0	602768	457379.4
10700	90.2	358.784	9872.03	950.76	-325.04	950.76	0	602765.9	457479.4
10800	90.2	358.784	9871.68	1050.74	-327.16	1050.74	0	602763.8	457579.4
10900	90.2	358.784	9871.33	1150.71	-329.28	1150.71	0	602761.7	457679.3
11000	90.2	358.784	9870.98	1250.69	-331.41	1250.69	0	602759.5	457779.3

11100	90.2	358.784	9870.63	1350.67	-333.53	1350.67	0	602757.4	457879.3
11200	90.2	358.784	9870.28	1450.64	-335.65	1450.64	0	602755.3	457979.3
11300	90.2	358.784	9869.93	1550.62	-337.77	1550.62	0	602753.2	458079.2
11400	90.2	358.784	9869.58	1650.6	-339.9	1650.6	0	602751	458179.2
11500	90.2	358.784	9869.24	1750.57	-342.02	1750.57	0	602748.9	458279.2
11600	90.2	358.784	9868.89	1850.55	-344.14	1850.55	0	602746.8	458379.1
11700	90.2	358.784	9868.54	1950.53	-346.26	1950.53	0	602744.7	458479.1
11800	90.2	358.784	9868.19	2050.5	-348.39	2050.5	0	602742.6	458579.1
11900	90.2	358.784	9867.84	2150.48	-350.51	2150.48	0	602740.4	458679
12000	90.2	358.784	9867.49	2250.46	-352.63	2250.46	0	602738.3	458779
12100	90.2	358.784	9867.14	2350.43	-354.75	2350.43	0	602736.2	458879
12200	90.2	358.784	9866.79	2450.41	-356.88	2450.41	0	602734.1	458978.9
12300	90.2	358.784	9866.44	2550.39	-359	2550.39	0	602731.9	459078.9
12400	90.2	358.784	9866.09	2650.37	-361.12	2650.37	0	602729.8	459178.9
12500	90.2	358.784	9865.74	2750.34	-363.24	2750.34	0	602727.7	459278.9
12600	90.2	358.784	9865.4	2850.32	-365.37	2850.32	0	602725.6	459378.8
12700	90.2	358.784	9865.05	2950.3	-367.49	2950.3	0	602723.5	459478.8
12800	90.2	358.784	9864.7	3050.27	-369.61	3050.27	0	602721.3	459578.8
12900	90.2	358.784	9864.35	3150.25	-371.73	3150.25	0	602719.2	459678.7
13000	90.2	358.784	9864	3250.23	-373.86	3250.23	0	602717.1	459778.7
13100	90.2	358.784	9863.65	3350.2	-375.98	3350.2	0	602715	459878.7
13200	90.2	358.784	9863.3	3450.18	-378.1	3450.18	0	602712.8	459978.6
13300	90.2	358.784	9862.95	3550.16	-380.22	3550.16	0	602710.7	460078.6
13400	90.2	358.784	9862.6	3650.13	-382.34	3650.13	0	602708.6	460178.6
13500	90.2	358.784	9862.25	3750.11	-384.47	3750.11	0	602706.5	460278.5
13600	90.2	358.784	9861.9	3850.09	-386.59	3850.09	0	602704.4	460378.5
13700	90.2	358.784	9861.56	3950.06	-388.71	3950.06	0	602702.2	460478.5
13800	90.2	358.784	9861.21	4050.04	-390.83	4050.04	0	602700.1	460578.4
13900	90.2	358.784	9860.86	4150.02	-392.96	4150.02	0	602698	460678.4
14000	90.2	358.784	9860.51	4250	-395.08	4250	0	602695.9	460778.4
14100	90.2	358.784	9860.16	4349.97	-397.2	4349.97	0	602693.7	460878.4
14200	90.2	358.784	9859.81	4449.95	-399.32	4449.95	0	602691.6	460978.3
14300	90.2	358.784	9859.46	4549.93	-401.45	4549.93	0	602689.5	461078.3
14400	90.2	358.784	9859.11	4649.9	-403.57	4649.9	0	602687.4	461178.3

14432.15	90.2	358.784	9859	4682.05	-404.25	4682.05	0	602686.7	461210.4
14477.16	90.2	358.784	9858.84	4727.05	-405.21	4727.05	0	602685.7	461255.4

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.

Vertical depths are relative to KB = 26.5'. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100 feet.

Vertical Section is from Slot and calculated along an Azimuth of 0.000° (Grid).

Coordinate System is NAD 1927 (NADCON CONUS) US State Plane 1927 (Exact solution), New Mexico East 3001.

Central meridian is -104.333°.

Grid Convergence at Surface is 0.178°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 14477.16ft., the Bottom Hole Displacement is 4744.38ft., in the Direction of 0.000° (Grid).