

# Marathon Oil Permian, LLC

Eddy County, NM (NAD27)

Catapult Fee 23-26-1

WXY #3H

30-015-44692

OH

Plan: Plan #1

## Standard Planning Report

01 February, 2018

NM OIL CONSERVATION  
ARTESIA DISTRICT

FEB 15 2018

RECEIVED



Planning Report

<b>Database:</b>	Midland District	<b>Local Co-ordinate Reference:</b>	Well WXY #3H
<b>Company:</b>	Marathon Oil Permian, LLC	<b>TVD Reference:</b>	KB = 25' @ 3244.00usft (Precision 594)
<b>Project:</b>	Eddy County, NM (NAD27)	<b>MD Reference:</b>	KB = 25' @ 3244.00usft (Precision 594)
<b>Site:</b>	Catapult Fee 23-26-1	<b>North Reference:</b>	Grid
<b>Well:</b>	WXY #3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

<b>Project:</b>	Eddy County, NM (NAD27)		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico East 3001		Using geodetic scale factor

<b>Site:</b>	Catapult Fee 23-26-1				
<b>Site Position:</b>		<b>Northing:</b>	482,945.77 usft	<b>Latitude:</b>	32° 19' 39.724 N
<b>From:</b>	Map	<b>Easting:</b>	528,174.41 usft	<b>Longitude:</b>	104° 14' 31.635 W
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.05 °

<b>Well:</b>	WXY #3H					
<b>Well Position</b>	<b>+N-S</b>	0.00 usft	<b>Northing:</b>	482,945.77 usft	<b>Latitude:</b>	32° 19' 39.724 N
	<b>+E-W</b>	0.00 usft	<b>Easting:</b>	528,174.41 usft	<b>Longitude:</b>	104° 14' 31.635 W
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	0.00 usft	<b>Ground Level:</b>	3,219.00 usft

<b>Wellbore:</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>	<b>Dip Angle</b>	<b>Field Strength</b>
	HDGM	2/1/2018	(°) 7.38	(°) 60.07	(nT) 48,026

<b>Design:</b>	Plan #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b> 0.00	
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N-S</b>	<b>+E-W</b>	<b>Direction</b>
	(usft)	(usft)	(usft)	(bearing)
	0.00	0.00	0.00	0.00

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	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	0.00
2,500.00	10.00	245.00	2,497.47	-18.39	-39.44	2.00	2.00	0.00	245.00	0.00
7,230.00	10.00	245.00	7,155.61	-365.51	-783.85	0.00	0.00	0.00	0.00	0.00
7,730.00	0.00	0.00	7,653.07	-383.91	-823.29	2.00	-2.00	0.00	180.00	0.00
8,366.68	0.00	0.00	8,289.76	-383.91	-823.29	0.00	0.00	0.00	0.00	0.00
9,273.68	90.70	0.27	8,862.67	196.04	-820.51	10.00	10.00	0.00	0.27	0.00
13,584.92	90.70	0.27	8,810.00	4,506.91	-799.87	0.00	0.00	0.00	0.00	BHL[CF/WXY#3H]

Planning Report

<b>Database:</b>	Midland District	<b>Local Co-ordinate Reference:</b>	Well WXY #3H
<b>Company:</b>	Marathon Oil Permian, LLC	<b>TVD Reference:</b>	KB = 25' @ 3244.00usft (Precision 594)
<b>Project:</b>	Eddy County, NM (NAD27)	<b>MO Reference:</b>	KB = 25' @ 3244.00usft (Precision 594)
<b>Site:</b>	Catapult Fee 23-26-1	<b>North Reference:</b>	Grid
<b>Well:</b>	WXY #3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
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	
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	
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	
<b>KOP - Build 2.0° / 100</b>										
2,100.00	2.00	245.00	2,099.98	-0.74	-1.58	-0.74	2.00	2.00	0.00	
2,200.00	4.00	245.00	2,199.84	-2.95	-6.32	-2.95	2.00	2.00	0.00	
2,300.00	6.00	245.00	2,299.45	-6.63	-14.22	-6.63	2.00	2.00	0.00	
2,400.00	8.00	245.00	2,398.70	-11.78	-25.27	-11.78	2.00	2.00	0.00	
2,500.00	10.00	245.00	2,497.47	-18.39	-39.44	-18.39	2.00	2.00	0.00	
<b>EOB - HOLD</b>										
2,600.00	10.00	245.00	2,595.95	-25.73	-55.18	-25.73	0.00	0.00	0.00	
2,700.00	10.00	245.00	2,694.43	-33.07	-70.92	-33.07	0.00	0.00	0.00	
2,800.00	10.00	245.00	2,792.91	-40.41	-86.66	-40.41	0.00	0.00	0.00	
2,900.00	10.00	245.00	2,891.39	-47.75	-102.40	-47.75	0.00	0.00	0.00	
3,000.00	10.00	245.00	2,989.87	-55.09	-118.13	-55.09	0.00	0.00	0.00	
3,100.00	10.00	245.00	3,088.35	-62.43	-133.87	-62.43	0.00	0.00	0.00	
3,200.00	10.00	245.00	3,186.83	-69.76	-149.61	-69.76	0.00	0.00	0.00	
3,300.00	10.00	245.00	3,285.31	-77.10	-165.35	-77.10	0.00	0.00	0.00	
3,400.00	10.00	245.00	3,383.79	-84.44	-181.09	-84.44	0.00	0.00	0.00	
3,500.00	10.00	245.00	3,482.27	-91.78	-196.82	-91.78	0.00	0.00	0.00	
3,600.00	10.00	245.00	3,580.75	-99.12	-212.56	-99.12	0.00	0.00	0.00	
3,700.00	10.00	245.00	3,679.23	-106.46	-228.30	-106.46	0.00	0.00	0.00	
3,800.00	10.00	245.00	3,777.72	-113.80	-244.04	-113.80	0.00	0.00	0.00	
3,900.00	10.00	245.00	3,876.20	-121.14	-259.78	-121.14	0.00	0.00	0.00	
4,000.00	10.00	245.00	3,974.68	-128.47	-275.51	-128.47	0.00	0.00	0.00	
4,100.00	10.00	245.00	4,073.16	-135.81	-291.25	-135.81	0.00	0.00	0.00	
4,200.00	10.00	245.00	4,171.64	-143.15	-306.99	-143.15	0.00	0.00	0.00	
4,300.00	10.00	245.00	4,270.12	-150.49	-322.73	-150.49	0.00	0.00	0.00	
4,400.00	10.00	245.00	4,368.60	-157.83	-338.46	-157.83	0.00	0.00	0.00	
4,500.00	10.00	245.00	4,467.08	-165.17	-354.20	-165.17	0.00	0.00	0.00	
4,600.00	10.00	245.00	4,565.56	-172.51	-369.94	-172.51	0.00	0.00	0.00	
4,700.00	10.00	245.00	4,664.04	-179.84	-385.68	-179.84	0.00	0.00	0.00	
4,800.00	10.00	245.00	4,762.52	-187.18	-401.42	-187.18	0.00	0.00	0.00	
4,900.00	10.00	245.00	4,861.00	-194.52	-417.15	-194.52	0.00	0.00	0.00	
5,000.00	10.00	245.00	4,959.48	-201.86	-432.89	-201.86	0.00	0.00	0.00	
5,100.00	10.00	245.00	5,057.97	-209.20	-448.63	-209.20	0.00	0.00	0.00	

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<b>Well:</b>	WXY #3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,200.00	10.00	245.00	5,156.45	-216.54	-464.37	-216.54	0.00	0.00	0.00	
5,300.00	10.00	245.00	5,254.93	-223.88	-480.11	-223.88	0.00	0.00	0.00	
5,400.00	10.00	245.00	5,353.41	-231.22	-495.84	-231.22	0.00	0.00	0.00	
5,500.00	10.00	245.00	5,451.89	-238.55	-511.58	-238.55	0.00	0.00	0.00	
5,600.00	10.00	245.00	5,550.37	-245.89	-527.32	-245.89	0.00	0.00	0.00	
5,700.00	10.00	245.00	5,648.85	-253.23	-543.06	-253.23	0.00	0.00	0.00	
5,800.00	10.00	245.00	5,747.33	-260.57	-558.79	-260.57	0.00	0.00	0.00	
5,900.00	10.00	245.00	5,845.81	-267.91	-574.53	-267.91	0.00	0.00	0.00	
6,000.00	10.00	245.00	5,944.29	-275.25	-590.27	-275.25	0.00	0.00	0.00	
6,100.00	10.00	245.00	6,042.77	-282.59	-606.01	-282.59	0.00	0.00	0.00	
6,200.00	10.00	245.00	6,141.25	-289.92	-621.75	-289.92	0.00	0.00	0.00	
6,300.00	10.00	245.00	6,239.73	-297.26	-637.48	-297.26	0.00	0.00	0.00	
6,400.00	10.00	245.00	6,338.22	-304.60	-653.22	-304.60	0.00	0.00	0.00	
6,500.00	10.00	245.00	6,436.70	-311.94	-668.96	-311.94	0.00	0.00	0.00	
6,600.00	10.00	245.00	6,535.18	-319.28	-684.70	-319.28	0.00	0.00	0.00	
6,700.00	10.00	245.00	6,633.66	-326.62	-700.44	-326.62	0.00	0.00	0.00	
6,800.00	10.00	245.00	6,732.14	-333.96	-716.17	-333.96	0.00	0.00	0.00	
6,900.00	10.00	245.00	6,830.62	-341.30	-731.91	-341.30	0.00	0.00	0.00	
7,000.00	10.00	245.00	6,929.10	-348.63	-747.65	-348.63	0.00	0.00	0.00	
7,100.00	10.00	245.00	7,027.58	-355.97	-763.39	-355.97	0.00	0.00	0.00	
7,200.00	10.00	245.00	7,126.06	-363.31	-779.12	-363.31	0.00	0.00	0.00	
7,230.00	10.00	245.00	7,155.61	-365.51	-783.85	-365.51	0.00	0.00	0.00	
<b>DROP 2.0° / 100</b>										
7,300.00	8.60	245.00	7,224.68	-370.29	-794.10	-370.29	2.00	-2.00	0.00	
7,400.00	6.60	245.00	7,323.80	-375.88	-806.08	-375.88	2.00	-2.00	0.00	
7,500.00	4.60	245.00	7,423.32	-380.01	-814.93	-380.01	2.00	-2.00	0.00	
7,600.00	2.60	245.00	7,523.12	-382.66	-820.62	-382.66	2.00	-2.00	0.00	
7,700.00	0.60	245.00	7,623.07	-383.84	-823.15	-383.84	2.00	-2.00	0.00	
7,730.00	0.00	0.00	7,653.07	-383.91	-823.29	-383.91	2.00	-2.00	0.00	
<b>EOD - HOLD</b>										
7,800.00	0.00	0.00	7,723.07	-383.91	-823.29	-383.91	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,823.07	-383.91	-823.29	-383.91	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,923.07	-383.91	-823.29	-383.91	0.00	0.00	0.00	
8,100.00	0.00	0.00	8,023.07	-383.91	-823.29	-383.91	0.00	0.00	0.00	
8,200.00	0.00	0.00	8,123.07	-383.91	-823.29	-383.91	0.00	0.00	0.00	
8,300.00	0.00	0.00	8,223.07	-383.91	-823.29	-383.91	0.00	0.00	0.00	
8,366.68	0.00	0.00	8,289.75	-383.91	-823.29	-383.91	0.00	0.00	0.00	
<b>Curve KOP - Build 10.0° / 100</b>										
8,400.00	3.33	0.27	8,323.05	-382.94	-823.29	-382.94	10.00	10.00	0.00	
8,450.00	8.33	0.27	8,372.78	-377.86	-823.26	-377.86	10.00	10.00	0.00	
8,500.00	13.33	0.27	8,421.87	-368.47	-823.22	-368.47	10.00	10.00	0.00	
8,550.00	18.33	0.27	8,469.96	-354.83	-823.15	-354.83	10.00	10.00	0.00	
8,600.00	23.33	0.27	8,516.68	-337.06	-823.07	-337.06	10.00	10.00	0.00	
8,650.00	28.33	0.27	8,561.67	-315.28	-822.96	-315.28	10.00	10.00	0.00	
8,700.00	33.33	0.27	8,604.59	-289.66	-822.84	-289.66	10.00	10.00	0.00	
8,750.00	38.33	0.27	8,645.11	-260.40	-822.70	-260.40	10.00	10.00	0.00	
8,800.00	43.33	0.27	8,682.93	-227.72	-822.54	-227.72	10.00	10.00	0.00	
8,850.00	48.33	0.27	8,717.76	-191.86	-822.37	-191.86	10.00	10.00	0.00	
8,900.00	53.33	0.27	8,749.33	-153.11	-822.19	-153.11	10.00	10.00	0.00	
8,950.00	58.33	0.27	8,777.40	-111.76	-821.99	-111.76	10.00	10.00	0.00	
8,967.86	60.12	0.27	8,786.54	-96.41	-821.91	-96.41	10.00	10.00	0.00	
<b>FTP[CF/WXY#3H]</b>										
9,000.00	63.33	0.27	8,801.76	-68.11	-821.78	-68.11	10.00	10.00	0.00	

Planning Report

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<b>Company:</b>	Marathon Oil Permian, LLC	<b>TVD Reference:</b>	KB = 25' @ 3244.00usft (Precision 594)
<b>Project:</b>	Eddy County, NM (NAD27)	<b>MD Reference:</b>	KB = 25' @ 3244.00usft (Precision 594)
<b>Site:</b>	Catapult Fee 23-26-1	<b>North Reference:</b>	Grid
<b>Well:</b>	WXY #3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
9,050.00	68.33	0.27	8,822.23	-22.51	-821.56	-22.51	10.00	10.00	0.00	
9,100.00	73.33	0.27	8,838.64	24.70	-821.33	24.70	10.00	10.00	0.00	
9,150.00	78.33	0.27	8,850.87	73.17	-821.10	73.17	10.00	10.00	0.00	
9,200.00	83.33	0.27	8,858.84	122.51	-820.87	122.51	10.00	10.00	0.00	
9,250.00	88.33	0.27	8,862.47	172.36	-820.63	172.36	10.00	10.00	0.00	
9,273.68	90.70	0.27	8,862.67	196.04	-820.51	196.04	10.00	10.00	0.00	
<b>EOC - HOLD</b>										
9,300.00	90.70	0.27	8,862.35	222.36	-820.39	222.36	0.00	0.00	0.00	
9,400.00	90.70	0.27	8,861.13	322.35	-819.91	322.35	0.00	0.00	0.00	
9,500.00	90.70	0.27	8,859.91	422.34	-819.43	422.34	0.00	0.00	0.00	
9,600.00	90.70	0.27	8,858.68	522.33	-818.95	522.33	0.00	0.00	0.00	
9,700.00	90.70	0.27	8,857.46	622.32	-818.47	622.32	0.00	0.00	0.00	
9,800.00	90.70	0.27	8,856.24	722.31	-817.99	722.31	0.00	0.00	0.00	
9,900.00	90.70	0.27	8,855.02	822.31	-817.52	822.31	0.00	0.00	0.00	
10,000.00	90.70	0.27	8,853.80	922.30	-817.04	922.30	0.00	0.00	0.00	
10,100.00	90.70	0.27	8,852.58	1,022.29	-816.56	1,022.29	0.00	0.00	0.00	
10,200.00	90.70	0.27	8,851.35	1,122.28	-816.08	1,122.28	0.00	0.00	0.00	
10,300.00	90.70	0.27	8,850.13	1,222.27	-815.60	1,222.27	0.00	0.00	0.00	
10,400.00	90.70	0.27	8,848.91	1,322.26	-815.12	1,322.26	0.00	0.00	0.00	
10,500.00	90.70	0.27	8,847.69	1,422.25	-814.64	1,422.25	0.00	0.00	0.00	
10,600.00	90.70	0.27	8,846.47	1,522.25	-814.16	1,522.25	0.00	0.00	0.00	
10,700.00	90.70	0.27	8,845.25	1,622.24	-813.68	1,622.24	0.00	0.00	0.00	
10,800.00	90.70	0.27	8,844.02	1,722.23	-813.21	1,722.23	0.00	0.00	0.00	
10,900.00	90.70	0.27	8,842.80	1,822.22	-812.73	1,822.22	0.00	0.00	0.00	
11,000.00	90.70	0.27	8,841.58	1,922.21	-812.25	1,922.21	0.00	0.00	0.00	
11,100.00	90.70	0.27	8,840.36	2,022.20	-811.77	2,022.20	0.00	0.00	0.00	
11,200.00	90.70	0.27	8,839.14	2,122.19	-811.29	2,122.19	0.00	0.00	0.00	
11,300.00	90.70	0.27	8,837.92	2,222.19	-810.81	2,222.19	0.00	0.00	0.00	
11,400.00	90.70	0.27	8,836.69	2,322.18	-810.33	2,322.18	0.00	0.00	0.00	
11,500.00	90.70	0.27	8,835.47	2,422.17	-809.85	2,422.17	0.00	0.00	0.00	
11,600.00	90.70	0.27	8,834.25	2,522.16	-809.38	2,522.16	0.00	0.00	0.00	
11,700.00	90.70	0.27	8,833.03	2,622.15	-808.90	2,622.15	0.00	0.00	0.00	
11,800.00	90.70	0.27	8,831.81	2,722.14	-808.42	2,722.14	0.00	0.00	0.00	
11,900.00	90.70	0.27	8,830.58	2,822.13	-807.94	2,822.13	0.00	0.00	0.00	
12,000.00	90.70	0.27	8,829.36	2,922.13	-807.46	2,922.13	0.00	0.00	0.00	
12,100.00	90.70	0.27	8,828.14	3,022.12	-806.98	3,022.12	0.00	0.00	0.00	
12,200.00	90.70	0.27	8,826.92	3,122.11	-806.50	3,122.11	0.00	0.00	0.00	
12,300.00	90.70	0.27	8,825.70	3,222.10	-806.02	3,222.10	0.00	0.00	0.00	
12,400.00	90.70	0.27	8,824.48	3,322.09	-805.55	3,322.09	0.00	0.00	0.00	
12,500.00	90.70	0.27	8,823.25	3,422.08	-805.07	3,422.08	0.00	0.00	0.00	
12,600.00	90.70	0.27	8,822.03	3,522.07	-804.59	3,522.07	0.00	0.00	0.00	
12,700.00	90.70	0.27	8,820.81	3,622.07	-804.11	3,622.07	0.00	0.00	0.00	
12,800.00	90.70	0.27	8,819.59	3,722.06	-803.63	3,722.06	0.00	0.00	0.00	
12,900.00	90.70	0.27	8,818.37	3,822.05	-803.15	3,822.05	0.00	0.00	0.00	
13,000.00	90.70	0.27	8,817.15	3,922.04	-802.67	3,922.04	0.00	0.00	0.00	
13,100.00	90.70	0.27	8,815.92	4,022.03	-802.19	4,022.03	0.00	0.00	0.00	
13,200.00	90.70	0.27	8,814.70	4,122.02	-801.71	4,122.02	0.00	0.00	0.00	
13,300.00	90.70	0.27	8,813.48	4,222.01	-801.24	4,222.01	0.00	0.00	0.00	
13,400.00	90.70	0.27	8,812.26	4,322.01	-800.76	4,322.01	0.00	0.00	0.00	
13,500.00	90.70	0.27	8,811.04	4,422.00	-800.28	4,422.00	0.00	0.00	0.00	
13,584.92	90.70	0.27	8,810.00	4,506.91	-799.87	4,506.91	0.00	0.00	0.00	

TD at 13584.92 - BHL[CF/WXY#3H]

Planning Report

<b>Database:</b>	Midland District	<b>Local Co-ordinate Reference:</b>	Well WXY #3H
<b>Company:</b>	Marathon Oil Permian, LLC	<b>TVD Reference:</b>	KB = 25' @ 3244.00usft (Precision 594)
<b>Project:</b>	Eddy County, NM (NAD27)	<b>MD Reference:</b>	KB = 25' @ 3244.00usft (Precision 594)
<b>Site:</b>	Catapult Fee 23-26-1	<b>North Reference:</b>	Grid
<b>Well:</b>	WXY #3H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

Design Targets									
Target Name hit/miss target Shape	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N-S (usft)	+E-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BHL[CF/WXY#3H] - plan hits target center - Point	0.00	0.00	8,810.00	4,506.91	-799.87	487,452.27	527,374.61	32° 20' 24.327 N	104° 14' 40.913 W
FTP[CF/WXY#3H] - plan misses target center by 86.42usft at 8967.86usft MD (8786.54 TVD, -96.41 N, -821.91 E) - Point	0.00	0.00	8,862.00	-138.53	-821.48	482,807.25	527,353.00	32° 19' 38.360 N	104° 14' 41.209 W

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
2,000.00	2,000.00	0.00	0.00	KOP - Build 2.0° / 100
2,500.00	2,497.47	-18.39	-39.44	EOB - HOLD
7,230.00	7,155.61	-365.51	-783.85	DROP 2.0° / 100
7,730.00	7,653.07	-383.91	-823.29	EOD - HOLD
8,366.68	8,289.75	-383.91	-823.29	Curve KOP - Build 10.0° / 100
9,273.68	8,862.67	196.04	-820.51	EOC - HOLD
13,584.92	8,810.00	4,506.91	-799.87	TD at 13584.92



EDDY COUNTY, NM (NAD27)  
 CATAPULT FEE 23-26-1  
 WXY #3H  
 PLAN #1  
 PRECISION 594

30-015-44692

WELL DETAILS:

W/S	+E/-W	NORTHING	EASTING	GROUND LEVEL	3219.00	LATITUDE	LONGITUDE
0.00	0.00	482945.77	528172.41	32° 19' 39.724 N	101° 31.635 W		

SECTION DETAILS

MD	INE	AL	T/D	W/S	+E/-W	DLEG	T/E/A/E	V/S/E/T	TARGET
0.00	0.00	0.00	2.02	0.00	0.00	3.00	0.00	0.20	
2000.00	0.00	0.00	252.99	-0.35	0.00	2.16	243.00	8.50	
2450.00	10.00	245.71	155.51	-0.00	0.00	2.00	0.00	-3.05	
-750.00	0.00	0.00	683.67	-3.83	0.00	4.11	680.00	-1.91	
3995.00	02.00	0.00	8842.71	-33.91	0.00	0.27	1974.74		
4759.92	30.70	0.27	8943.00	-5345.91	-799.87	0.00	0.00	-5006.91	

DESIGN TARGET DETAILS

Name	W/S	+E/-W	NORTHING	EASTING
FT[C/WX#3H]	8802.00	-138.53	482807.25	527553.00

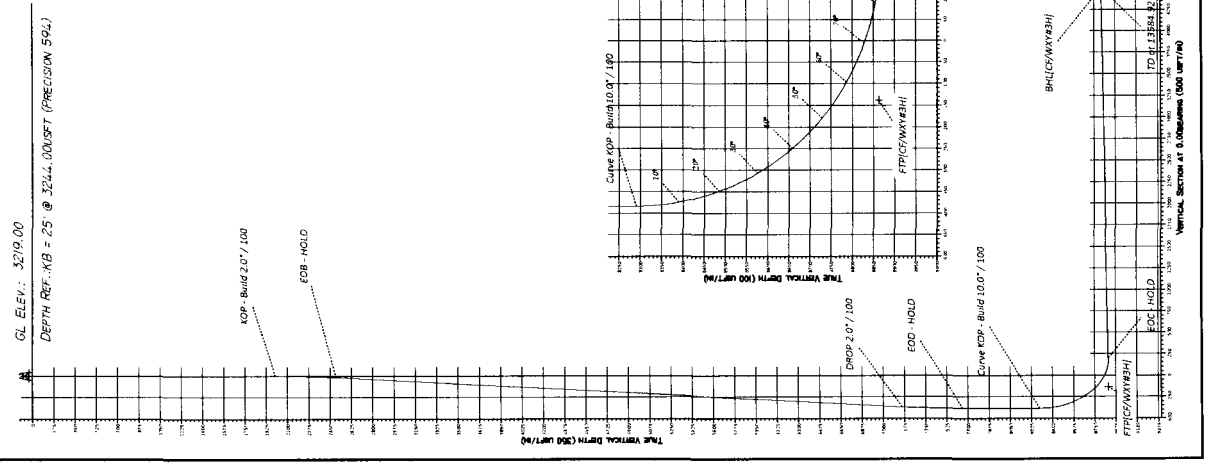
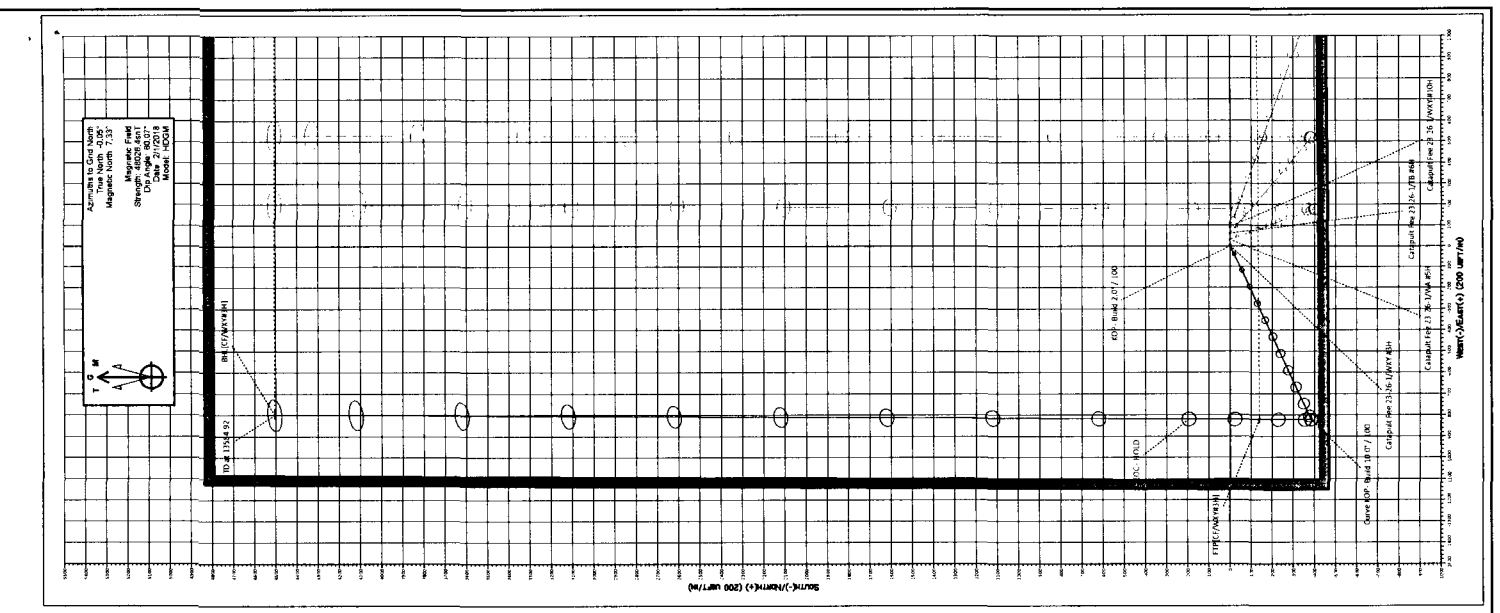
DRILLING TARGET: 5945' @ 0.75' / 90.7° UIC.  
 TARGET WINDOW: 5' UP 7.15 DOWN

SITE DETAILS: CATAPULT FEE 23-26-1  
 SITE CENTRE POINT: 5947  
 EASTING: 528172.41  
 POSITIONAL UNCERTAINTY: 0.00  
 CONVERGENCE: 0.05  
 LOCAL NORTH: GRID

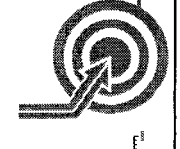
PROJECT DETAILS: EDDY COUNTY, NM (NAD27)  
 GEOMETRIC DATUM: NAD 1927 (NADCON CONUS)  
 DATUM: NAD 1927 (NADCON CONUS)  
 ELLIPSOID: CLARKE 1866  
 ZONE: NEW MEXICO EAST 3001  
 SYSTEM DATUM: MEAN SEA LEVEL

FORMATION TOP DETAILS  
 NO FORMATION DATA IS AVAILABLE

MAP SYSTEM: US STATE PLANE, 1927 (STATE PLANE 3001)  
 DATUM: NAD 1927 (NADCON CONUS)  
 ZONE NAME: NEW MEXICO EAST 3001  
 LOCAL ORIGIN: N, 14 X 134, 718 NORTH  
 LATITUDE: 36° 09' 57.726 N  
 LONGITUDE: 104° 14' 21.925 W  
 GRID EAST: 482945.77  
 GRID NORTH: 527553.00  
 SCALE FACTOR: 0.9999977  
 GEOMETRIC POINT: 482945.77  
 SAMPLE DATE: 01/20/18  
 OPERATOR: MARIAN, J  
 PROJECT: 30-015-44692  
 INSTRUMENT: TSI 5300, 7-2017  
 MAGNETIC FIELD STRENGTH: 4.8260  
 TO CONVERT MAGNETIC NORTH TO GRID, ADD 7.15°  
 TO CONVERT MAGNETIC DEPTH TO TRUE, SUB 7.15° EAST  
 TO CONVERT TRUE NORTH TO GRID, SUBTRACT 0.25°



ANIL OIL CONSERVATION  
 ARTESIA DISTRICT  
 FEB 15 2018  
 RECEIVED



Scientific Drilling