



Marathon Oil

RECEIVED

MAY 17 2019

DISTRICT II-ARTESIA O.C.D.

Marathon Oil

Eddy County, NM

Trebuchet Fee 23-28-19

WXY #3H

OH

Design: OH 175'-14180' PTB 14234'

Standard Survey Report

15 May, 2018



Company:	Marathon Oil	Local Co-ordinate Reference:	Well WXY #3H
Project:	Eddy County, NM	TVD Reference:	Well @ 3113.00usft (GL: 3088' + KB: 25' (Prec594))
Site:	Trebuchet Fee 23-28-19	MD Reference:	Well @ 3113.00usft (GL: 3088' + KB: 25' (Prec594))
Well:	WXY #3H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH 175'-14180' PTB 14234'	Database:	WellPlanner1

Project	Eddy 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		Trebuchet Fee 23-28-19			
Site Position:		Northing:	467,096.80 usft	Latitude:	32.284003
From:	Map	Easting:	562,703.28 usft	Longitude:	-104.130434
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.11 °

Well	WXY #3H					
Well Position	+N/-S	0.00 usft	Northing:	467,096.80 usft	Latitude:	32.284003
	+E/-W	0.00 usft	Easting:	562,643.28 usft	Longitude:	-104.130628
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,088.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	4/1/2018	7.30	60.05	48,014.70

Design		OH 175'-14180' PTB 14234'			
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	359.97	

Survey Program	Date	5/15/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
175.00	14,234.00	Survey #1 (OH)	MWD+IFR1	OWSG MWD + IFR1	

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
[TrebuchetWXY#3H]FTP									
175.00	0.30	156.00	175.00	-0.42	0.19	-0.42	0.17	0.17	0.00
237.00	0.50	158.80	237.00	-0.82	0.35	-0.82	0.32	0.32	4.52
328.00	0.40	168.30	327.99	-1.50	0.56	-1.50	0.14	-0.11	10.44
420.00	0.40	202.80	419.99	-2.11	0.50	-2.11	0.26	0.00	37.50
479.00	0.30	226.20	478.99	-2.41	0.31	-2.41	0.29	-0.17	39.66
602.00	0.40	34.80	601.99	-2.28	0.32	-2.28	0.57	0.08	137.07
692.00	0.60	39.50	691.99	-1.66	0.80	-1.66	0.23	0.22	5.22

Company:	Marathon Oil	Local Co-ordinate Reference:	Well WXY #3H
Project:	Eddy County, NM	TVD Reference:	Well @ 3113.00usft (GL: 3088' + KB: 25' (Prec594))
Site:	Trebuchet Fee 23-28-19	MD Reference:	Well @ 3113.00usft (GL: 3088' + KB: 25' (Prec594))
Well:	WXY #3H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH 175'-14180' PTB 14234'	Database:	WellPlanner1

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)
783.00	0.10	56.40	782.99	-1.24	1.17	-1.25	0.56	-0.55	18.57
875.00	0.60	36.60	874.98	-0.81	1.52	-0.81	0.55	0.54	-21.52
966.00	0.20	357.80	965.98	-0.27	1.80	-0.27	0.51	-0.44	-42.64
1,058.00	0.30	95.10	1,057.98	-0.13	2.03	-0.13	0.41	0.11	105.76
1,148.00	0.30	125.70	1,147.98	-0.29	2.46	-0.29	0.18	0.00	34.00
1,237.00	0.30	154.50	1,236.98	-0.64	2.75	-0.64	0.17	0.00	32.36
1,326.00	0.40	123.20	1,325.98	-1.02	3.11	-1.02	0.24	0.11	-35.17
1,415.00	0.30	222.50	1,414.98	-1.36	3.21	-1.36	0.60	-0.11	111.57
1,504.00	1.10	280.40	1,503.97	-1.38	2.21	-1.38	1.09	0.90	65.06
1,594.00	0.80	268.20	1,593.96	-1.24	0.74	-1.24	0.40	-0.33	-13.56
1,683.00	0.50	176.70	1,682.95	-1.65	0.14	-1.65	1.07	-0.34	-102.81
1,772.00	0.90	124.50	1,771.95	-2.43	0.74	-2.43	0.80	0.45	-58.65
1,861.00	1.20	124.90	1,860.93	-3.36	2.08	-3.36	0.34	0.34	0.45
1,951.00	1.40	125.70	1,950.91	-4.54	3.74	-4.54	0.22	0.22	0.89
2,040.00	2.30	110.80	2,039.86	-5.81	6.30	-5.81	1.14	1.01	-16.74
2,129.00	2.20	115.00	2,128.79	-7.17	9.51	-7.17	0.22	-0.11	4.72
2,218.00	1.50	157.70	2,217.75	-8.97	11.50	-8.97	1.68	-0.79	47.98
2,308.00	2.20	229.30	2,307.71	-11.18	10.64	-11.19	2.49	0.78	79.56
2,397.00	3.50	240.50	2,396.60	-13.64	6.98	-13.64	1.58	1.46	12.58
2,433.00	3.90	245.60	2,432.53	-14.68	4.91	-14.68	1.44	1.11	14.17
2,571.00	6.30	273.90	2,569.99	-16.11	-6.92	-16.10	2.47	1.74	20.51
2,660.00	8.20	278.20	2,658.28	-14.87	-18.08	-14.86	2.22	2.13	4.83
2,750.00	10.80	274.00	2,747.03	-13.36	-32.84	-13.35	2.99	2.89	-4.67
2,839.00	13.40	270.10	2,834.05	-12.77	-51.48	-12.74	3.06	2.92	-4.38
2,928.00	15.30	267.10	2,920.27	-13.34	-73.52	-13.30	2.29	2.13	-3.37
3,017.00	16.40	263.60	3,005.89	-15.34	-97.74	-15.28	1.64	1.24	-3.93
3,107.00	17.30	260.00	3,092.03	-19.08	-123.54	-19.01	1.53	1.00	-4.00
3,196.00	15.90	259.00	3,177.32	-23.70	-148.54	-23.62	1.61	-1.57	-1.12
3,285.00	15.60	257.90	3,262.97	-28.54	-172.21	-28.45	0.48	-0.34	-1.24
3,374.00	15.30	257.60	3,348.76	-33.57	-195.38	-33.46	0.35	-0.34	-0.34
3,464.00	15.50	257.10	3,435.53	-38.80	-218.70	-38.69	0.27	0.22	-0.56
3,553.00	15.40	256.10	3,521.31	-44.29	-241.76	-44.17	0.32	-0.11	-1.12
3,642.00	15.00	255.00	3,607.20	-50.11	-264.36	-49.97	0.55	-0.45	-1.24
3,731.00	14.80	255.00	3,693.20	-56.04	-286.46	-55.89	0.22	-0.22	0.00
3,820.00	15.20	258.60	3,779.17	-61.28	-308.88	-61.12	1.14	0.45	4.04
3,909.00	15.30	258.60	3,865.04	-65.91	-331.83	-65.74	0.11	0.11	0.00
3,999.00	15.20	258.20	3,951.87	-70.67	-355.02	-70.49	0.16	-0.11	-0.44
4,088.00	15.40	257.90	4,037.72	-75.53	-377.99	-75.34	0.24	0.22	-0.34
4,177.00	15.60	258.60	4,123.48	-80.38	-401.28	-80.17	0.31	0.22	0.79
4,266.00	15.60	258.30	4,209.20	-85.17	-424.73	-84.95	0.09	0.00	-0.34
4,355.00	15.60	257.90	4,294.92	-90.10	-448.15	-89.87	0.12	0.00	-0.45
4,444.00	14.70	257.10	4,380.83	-95.13	-470.86	-94.89	1.04	-1.01	-0.90

Company:	Marathon Oil	Local Co-ordinate Reference:	Well WXY #3H
Project:	Eddy County, NM	TVD Reference:	Well @ 3113.00usft (GL: 3088' + KB: 25' (Prec594))
Site:	Trebuchet Fee 23-28-19	MD Reference:	Well @ 3113.00usft (GL: 3088' + KB: 25' (Prec594))
Well:	WXY #3H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH 175'-14180' PTB 14234'	Database:	WellPlanner1

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)	
4,533.00	13.90	256.70	4,467.07	-100.11	-492.27	-99.86	0.91	-0.90	-0.45	
4,622.00	13.60	256.50	4,553.52	-105.02	-512.85	-104.75	0.34	-0.34	-0.22	
4,711.00	13.40	263.00	4,640.06	-108.72	-533.26	-108.44	1.72	-0.22	7.30	
4,801.00	12.40	263.80	4,727.79	-111.03	-553.22	-110.74	1.13	-1.11	0.89	
4,890.00	13.50	263.20	4,814.53	-113.29	-573.03	-112.99	1.25	1.24	-0.67	
4,980.00	15.60	260.60	4,901.64	-116.51	-595.40	-116.20	2.44	2.33	-2.89	
5,069.00	15.40	259.30	4,987.40	-120.66	-618.82	-120.34	0.45	-0.22	-1.46	
5,158.00	14.70	259.50	5,073.35	-124.91	-641.54	-124.58	0.79	-0.79	0.22	
5,247.00	14.10	258.90	5,159.55	-129.06	-663.28	-128.71	0.69	-0.67	-0.67	
5,337.00	14.40	261.50	5,246.78	-132.82	-685.11	-132.47	0.79	0.33	2.89	
5,426.00	14.10	263.00	5,333.04	-135.78	-706.81	-135.41	0.53	-0.34	1.69	
5,516.00	13.40	261.50	5,420.46	-138.66	-728.01	-138.28	0.87	-0.78	-1.67	
5,605.00	12.60	260.90	5,507.18	-141.72	-747.79	-141.33	0.91	-0.90	-0.67	
5,694.00	11.70	260.20	5,594.19	-144.79	-766.27	-144.39	1.02	-1.01	-0.79	
5,784.00	11.10	259.10	5,682.41	-147.98	-783.77	-147.57	0.71	-0.67	-1.22	
5,873.00	10.40	259.10	5,769.85	-151.12	-800.07	-150.70	0.79	-0.79	0.00	
5,962.00	9.70	273.90	5,857.50	-152.13	-815.44	-151.70	3.00	-0.79	16.63	
6,051.00	9.00	255.00	5,945.34	-153.42	-829.65	-152.99	3.52	-0.79	-21.24	
6,140.00	8.80	254.50	6,033.26	-157.04	-842.93	-156.60	0.24	-0.22	-0.56	
6,230.00	7.50	251.20	6,122.35	-160.78	-855.13	-160.33	1.53	-1.44	-3.67	
6,319.00	6.10	251.70	6,210.73	-164.13	-865.12	-163.68	1.57	-1.57	0.56	
6,408.00	5.30	253.40	6,299.29	-166.79	-873.55	-166.33	0.92	-0.90	1.91	
6,497.00	5.40	259.20	6,387.90	-168.75	-881.60	-168.29	0.62	0.11	6.52	
6,586.00	4.20	259.70	6,476.58	-170.12	-888.92	-169.65	1.35	-1.35	0.56	
6,675.00	4.00	250.10	6,565.36	-171.76	-895.05	-171.29	0.80	-0.22	-10.79	
6,765.00	3.80	246.50	6,655.15	-174.01	-900.73	-173.54	0.35	-0.22	-4.00	
6,855.00	3.60	243.20	6,744.96	-176.48	-905.99	-176.00	0.32	-0.22	-3.67	
6,943.00	3.90	238.50	6,832.77	-179.29	-911.01	-178.81	0.49	0.34	-5.34	
7,033.00	4.30	225.60	6,922.54	-183.25	-916.03	-182.77	1.11	0.44	-14.33	
7,122.00	4.40	226.50	7,011.29	-187.93	-920.89	-187.45	0.14	0.11	1.01	
7,212.00	4.00	220.90	7,101.05	-192.68	-925.45	-192.20	0.64	-0.44	-6.22	
7,301.00	2.50	221.70	7,189.90	-196.48	-928.77	-195.99	1.69	-1.69	0.90	
7,390.00	2.30	234.80	7,278.82	-198.96	-931.52	-198.47	0.65	-0.22	14.72	
7,479.00	2.90	217.20	7,367.73	-201.78	-934.34	-201.29	1.11	0.67	-19.78	
7,568.00	2.80	204.40	7,456.62	-205.55	-936.60	-205.06	0.72	-0.11	-14.38	
7,657.00	1.70	212.10	7,545.55	-208.65	-938.20	-208.16	1.28	-1.24	8.65	
7,746.00	1.60	298.50	7,634.53	-209.17	-939.99	-208.68	2.54	-0.11	97.08	
7,836.00	3.00	332.60	7,724.46	-206.48	-942.18	-205.99	2.11	1.56	37.89	
7,925.00	2.40	320.70	7,813.36	-202.97	-944.43	-202.48	0.92	-0.67	-13.37	
8,014.00	1.70	308.70	7,902.30	-200.71	-946.65	-200.21	0.92	-0.79	-13.48	
8,104.00	1.20	290.90	7,992.27	-199.54	-948.57	-199.04	0.74	-0.56	-19.78	
8,193.00	1.20	273.90	8,081.25	-199.14	-950.37	-198.64	0.40	0.00	-19.10	

Company:	Marathon Oil	Local Co-ordinate Reference:	Well WXY #3H
Project:	Eddy County, NM	TVD Reference:	Well @ 3113.00usft (GL: 3088' + KB: 25' (Prec594))
Site:	Trebuchet Fee 23-28-19	MD Reference:	Well @ 3113.00usft (GL: 3088' + KB: 25' (Prec594))
Well:	WXY #3H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH 175'-14180' PTB 14234'	Database:	WellPlanner1

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)	
8,282.00	1.70	253.60	8,170.23	-199.45	-952.56	-198.95	0.80	0.56	-22.81	
8,371.00	1.80	318.20	8,259.19	-198.78	-954.76	-198.28	2.10	0.11	72.58	
8,461.00	1.40	340.30	8,349.16	-196.69	-956.08	-196.19	0.81	-0.44	24.56	
8,550.00	1.50	294.10	8,438.13	-195.19	-957.51	-194.69	1.28	0.11	-51.91	
8,639.00	0.90	287.80	8,527.11	-194.50	-959.23	-194.00	0.69	-0.67	-7.08	
8,729.00	1.20	299.80	8,617.10	-193.82	-960.72	-193.32	0.41	0.33	13.33	
8,818.00	1.10	303.40	8,706.08	-192.88	-962.25	-192.38	0.14	-0.11	4.04	
8,907.00	1.00	305.80	8,795.06	-191.96	-963.59	-191.46	0.12	-0.11	2.70	
8,997.00	4.30	341.90	8,884.96	-188.29	-965.28	-187.79	3.93	3.67	40.11	
9,042.00	9.90	357.30	8,929.60	-182.82	-965.98	-182.31	13.03	12.44	34.22	
9,086.00	14.70	6.60	8,972.58	-173.49	-965.52	-172.98	11.77	10.91	21.14	
9,176.00	20.00	356.80	9,058.47	-146.75	-965.06	-146.25	6.71	5.89	-10.89	
9,221.00	24.30	355.80	9,100.14	-129.83	-966.17	-129.32	9.59	9.56	-2.22	
9,266.00	28.90	358.30	9,140.37	-109.71	-967.17	-109.21	10.52	10.22	5.56	
9,310.00	33.40	357.10	9,178.02	-86.98	-968.10	-86.47	10.32	10.23	-2.73	
9,355.00	38.80	355.10	9,214.37	-60.54	-969.94	-60.03	12.28	12.00	-4.44	
9,399.00	45.50	354.40	9,246.97	-31.16	-972.65	-30.65	15.26	15.23	-1.59	
9,444.00	51.50	355.90	9,276.77	2.41	-975.47	2.92	13.56	13.33	3.33	
9,489.00	54.30	357.80	9,303.92	38.24	-977.44	38.75	7.07	6.22	4.22	
9,519.00	55.50	359.40	9,321.17	62.78	-978.03	63.29	5.92	4.00	5.33	
9,533.00	56.50	0.30	9,329.00	74.38	-978.06	74.89	8.91	7.14	6.43	
9,578.00	63.70	1.70	9,351.41	113.36	-977.37	113.87	16.23	16.00	3.11	
9,608.00	69.50	2.20	9,363.32	140.86	-976.43	141.38	19.39	19.33	1.67	
9,638.00	75.80	2.60	9,372.27	169.46	-975.23	169.97	21.04	21.00	1.33	
9,751.00	84.70	3.40	9,391.38	280.56	-969.39	281.07	7.91	7.88	0.71	
9,845.00	87.30	2.10	9,397.94	374.21	-964.90	374.72	3.09	2.77	-1.38	
9,939.00	93.40	1.70	9,397.37	468.12	-961.78	468.62	6.50	6.49	-0.43	
10,033.00	90.80	0.30	9,393.92	562.03	-960.14	562.53	3.14	-2.77	-1.49	
10,127.00	88.80	359.80	9,394.25	656.02	-960.06	656.53	2.19	-2.13	-0.53	
10,221.00	89.80	0.30	9,395.40	750.01	-959.98	750.52	1.19	1.06	0.53	
10,315.00	92.90	1.00	9,393.18	843.97	-958.91	844.47	3.38	3.30	0.74	
10,409.00	93.10	0.60	9,388.26	937.83	-957.60	938.33	0.48	0.21	-0.43	
10,503.00	94.10	1.00	9,382.36	1,031.64	-956.29	1,032.14	1.15	1.06	0.43	
10,598.00	93.10	1.90	9,376.40	1,126.42	-953.89	1,126.92	1.41	-1.05	0.95	
10,691.00	90.80	2.50	9,373.23	1,219.29	-950.32	1,219.78	2.56	-2.47	0.65	
10,786.00	91.80	2.10	9,371.08	1,314.18	-946.51	1,314.68	1.13	1.05	-0.42	
10,881.00	89.00	1.00	9,370.41	1,409.14	-943.94	1,409.63	3.17	-2.95	-1.16	
10,975.00	88.60	0.70	9,372.38	1,503.11	-942.55	1,503.60	0.53	-0.43	-0.32	
11,069.00	91.60	1.60	9,372.22	1,597.07	-940.66	1,597.57	3.33	3.19	0.96	
11,163.00	90.60	1.80	9,370.41	1,691.01	-937.88	1,691.51	1.08	-1.06	0.21	
11,258.00	90.30	2.40	9,369.67	1,785.95	-934.39	1,786.44	0.71	-0.32	0.63	
11,352.00	90.40	2.20	9,369.09	1,879.87	-930.62	1,880.36	0.24	0.11	-0.21	

Company:	Marathon Oil	Local Co-ordinate Reference:	Well WXY #3H
Project:	Eddy County, NM	TVD Reference:	Well @ 3113.00usft (GL: 3088' + KB: 25' (Prec594))
Site:	Trebuchet Fee 23-28-19	MD Reference:	Well @ 3113.00usft (GL: 3088' + KB: 25' (Prec594))
Well:	WXY #3H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH 175'-14180' PTB 14234'	Database:	WellPlanner1

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)	
11,446.00	91.30	2.60	9,367.70	1,973.78	-926.69	1,974.26	1.05	0.96	0.43	
11,540.00	89.00	0.80	9,367.45	2,067.72	-923.90	2,068.21	3.11	-2.45	-1.91	
11,634.00	87.60	0.30	9,370.24	2,161.68	-923.00	2,162.16	1.58	-1.49	-0.53	
11,727.00	87.70	0.50	9,374.05	2,254.60	-922.35	2,255.08	0.24	0.11	0.22	
11,821.00	88.00	0.50	9,377.58	2,348.53	-921.53	2,349.01	0.32	0.32	0.00	
11,916.00	87.70	358.90	9,381.15	2,443.45	-922.02	2,443.94	1.71	-0.32	-1.68	
12,011.00	89.00	358.50	9,383.88	2,538.39	-924.18	2,538.87	1.43	1.37	-0.42	
12,105.00	92.50	358.00	9,382.65	2,632.32	-927.05	2,632.81	3.76	3.72	-0.53	
12,199.00	92.10	357.20	9,378.88	2,726.16	-930.98	2,726.65	0.95	-0.43	-0.85	
12,294.00	91.30	357.00	9,376.06	2,821.00	-935.79	2,821.49	0.87	-0.84	-0.21	
12,388.00	90.70	356.60	9,374.42	2,914.84	-941.03	2,915.33	0.77	-0.64	-0.43	
12,482.00	90.00	355.90	9,373.85	3,008.63	-947.18	3,009.13	1.05	-0.74	-0.74	
12,576.00	89.30	357.40	9,374.42	3,102.47	-952.67	3,102.97	1.76	-0.74	1.60	
12,670.00	89.40	357.40	9,375.49	3,196.36	-956.94	3,196.86	0.11	0.11	0.00	
12,765.00	89.50	357.80	9,376.40	3,291.28	-960.91	3,291.78	0.43	0.11	0.42	
12,859.00	91.00	359.10	9,375.99	3,385.24	-963.46	3,385.74	2.11	1.60	1.38	
12,953.00	90.60	359.00	9,374.67	3,479.21	-965.02	3,479.72	0.44	-0.43	-0.11	
13,048.00	89.90	358.20	9,374.26	3,574.18	-967.34	3,574.69	1.12	-0.74	-0.84	
13,142.00	89.30	357.40	9,374.92	3,668.11	-970.95	3,668.62	1.06	-0.64	-0.85	
13,237.00	89.10	358.00	9,376.24	3,763.02	-974.76	3,763.53	0.67	-0.21	0.63	
13,331.00	92.20	1.10	9,375.18	3,856.99	-975.50	3,857.50	4.66	3.30	3.30	
13,424.00	90.60	2.00	9,372.90	3,949.93	-972.98	3,950.44	1.97	-1.72	0.97	
13,518.00	90.40	1.40	9,372.08	4,043.88	-970.19	4,044.39	0.67	-0.21	-0.64	
13,613.00	89.60	0.50	9,372.08	4,138.87	-968.62	4,139.37	1.27	-0.84	-0.95	
13,707.00	91.10	1.60	9,371.51	4,232.84	-966.90	4,233.35	1.98	1.60	1.17	
13,801.00	90.90	1.40	9,369.87	4,326.80	-964.43	4,327.30	0.30	-0.21	-0.21	
13,895.00	88.80	1.80	9,370.12	4,420.76	-961.81	4,421.26	2.27	-2.23	0.43	
13,990.00	89.90	2.70	9,371.19	4,515.67	-958.08	4,516.17	1.50	1.16	0.95	
14,085.00	89.40	2.50	9,371.77	4,610.57	-953.77	4,611.07	0.57	-0.53	-0.21	
14,180.00	89.10	2.10	9,373.02	4,705.49	-949.96	4,705.99	0.53	-0.32	-0.42	
Last Survey: 14180' MD, 9373' TVD - [TrebuchetWXY#3H]LTP/BHL										
14,234.00	89.10	2.10	9,373.87	4,759.45	-947.98	4,759.94	0.00	0.00	0.00	
PTB: 14234' MD, 9374' TVD										

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
14,180.00	9,373.02	4,705.49	-949.96	Last Survey: 14180' MD, 9373' TVD	
14,234.00	9,373.87	4,759.45	-947.98	PTB: 14234' MD, 9374' TVD	

Company:	Marathon Oil	Local Co-ordinate Reference:	Well WXY #3H
Project:	Eddy County, NM	TVD Reference:	Well @ 3113.00usft (GL: 3088' + KB: 25' (Prec594))
Site:	Trebuchet Fee 23-28-19	MD Reference:	Well @ 3113.00usft (GL: 3088' + KB: 25' (Prec594))
Well:	WXY #3H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH 175'-14180' PTB 14234'	Database:	WellPlanner1



Marathon Oil
Eddy County, NM
Trebuchet Fee 23-28-19
WXY #3H
Plan #2 - FINAL PVA
GL: 3088' + KB: 25' (Prec594)

US State Plane 1927 (Exact solution)
NAD 1927 (NADCON CONUS)
Clarke 1866
New Mexico East 3001
Mean Sea Level

RKB Elevation: Well @ 3113.00usft (GL: 3088' + KB: 25' (Prec594))

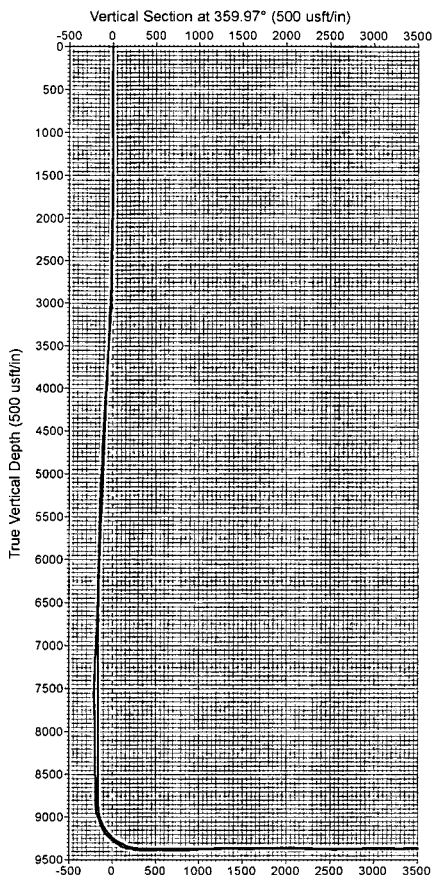
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	467096.80	562643.28	32.284003	-104.130628	

SECTION DETAILS

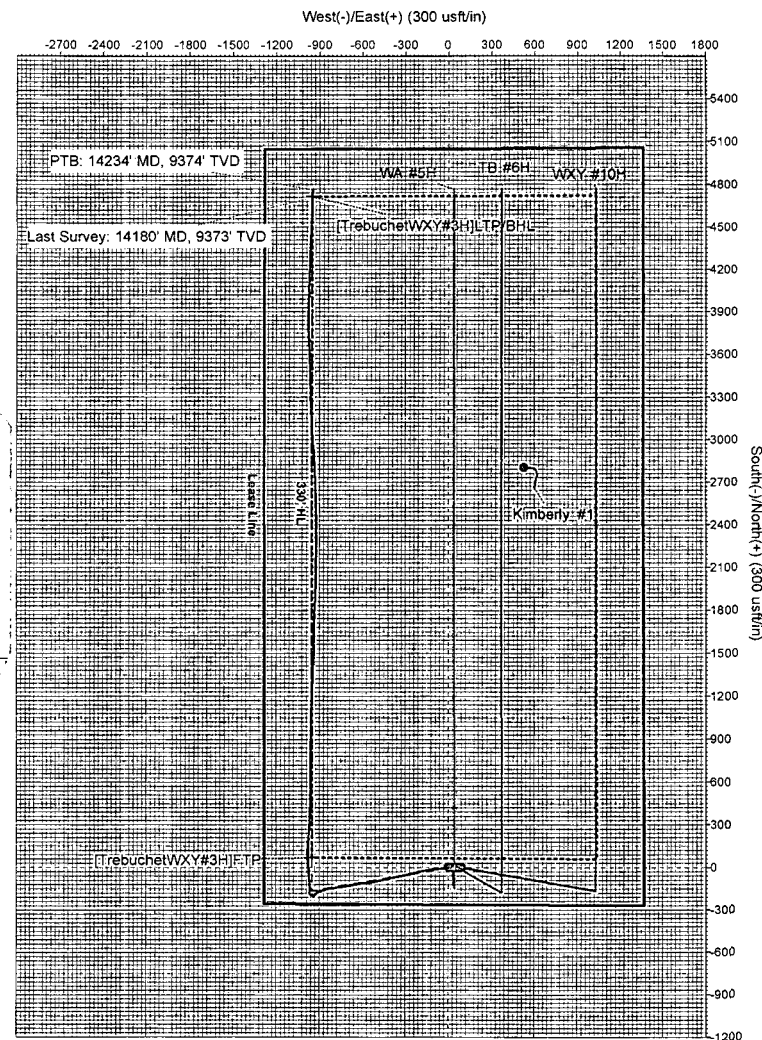
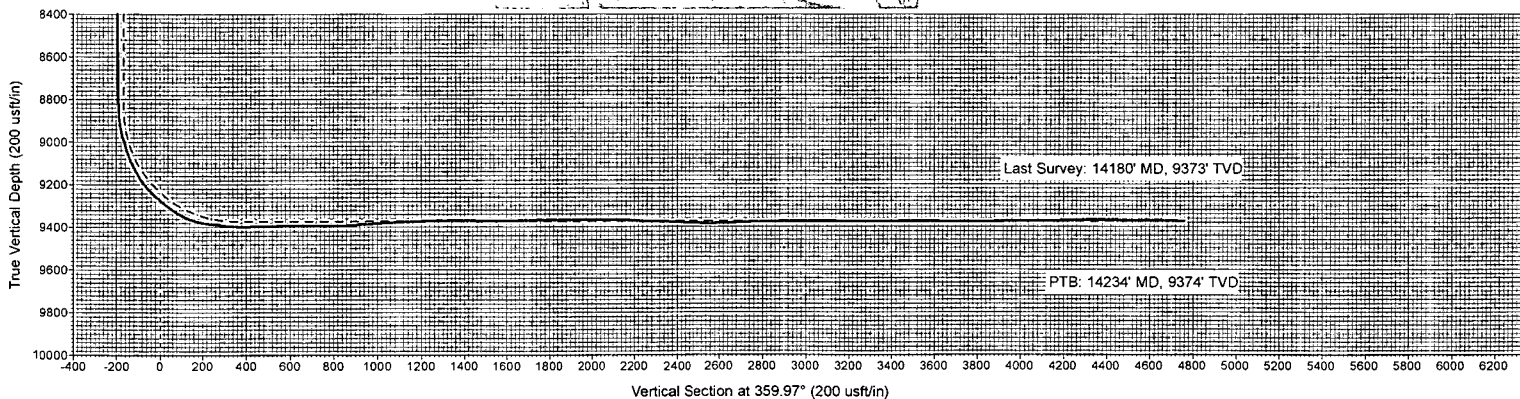
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00
3	2650.00	13.00	260.00	2644.44	-12.75	-72.31	-2.00	-12.71
4	6290.13	13.00	260.00	6191.28	-154.94	-878.72	0.00	-154.48
5	6940.13	0.00	0.00	6835.71	-167.69	-951.03	2.00	-167.19
6	8957.42	0.00	0.00	8853.00	-167.69	-951.03	0.00	-167.19
7	9775.59	90.00	359.97	9373.87	353.17	-951.27	11.00	353.66
8	14136.12	90.00	359.97	9374.00	4713.70	-953.27	0.00	4714.20
9	14181.12	90.00	359.97	9374.00	4758.70	-953.29	0.00	4759.20

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
[TrebuchetWXY#3H]FTP	0.00	68.21	-951.13	467165.01	561692.15
[TrebuchetWXY#3H]LTP/BHL	9374.00	4713.70	-953.27	471810.50	561690.01



Target Line: 9374' TVD @ 0° VS: 90° INC



Azimuths to Grid North
True North: -0.11°
Magnetic North: 7.19°

Magnetic Field
Strength: 48014.7nT
Dip Angle: 60.05°
Date: 4/1/2018
Model: HDGM

Azimuth Corrections

Total Magnetic Corr. (M to G): 7.19°

Declination (M to T): 7.30° East