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Directional Survey**

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DISTRICT II-ARTESIA O.C.D.

Marathon Oil Permian, LLC

Eddy County, NM (NAD27)

Fiddle Fee 24-28-23

WA #6H 30-015-44541

OH

Survey: SDI Survey #1

Standard Survey Report

16 March, 2018



www.scientificdrilling.com

Survey Report

Company:	Marathon Oil Permian, LLC	Local Co-ordinate Reference:	Well WA #6H
Project:	Eddy County, NM (NAD27)	TVD Reference:	KB = 26.5 @ 3023.50usft (H&P 498)
Site:	Fiddle Fee 24-28-23	MD Reference:	KB = 26.5 @ 3023.50usft (H&P 498)
Well:	WA #6H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

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

Site	Fiddle Fee 24-28-23				
Site Position:		Northing:	439,935.99 usft	Latitude:	32° 12' 33.182 N
From:	Map	Easting:	582,860.46 usft	Longitude:	104° 3' 55.538 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.14 °

Well	WA #6H					
Well Position	+N/-S	0.00 usft	Northing:	439,935.99 usft	Latitude:	32° 12' 33.182 N
	+E/-W	0.00 usft	Easting:	582,860.46 usft	Longitude:	104° 3' 55.538 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	2,997.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	12/13/2017	7.23	60.00	48,049

Design	OH				
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 (bearing)	
	0.00	0.00	0.00	90.79	

Survey Program	Date	3/15/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
126.50	515.50	Gyro Survey (OH)	Keeper	Keeper Standard Rate Gyro
126.50	14,636.00	SDI Survey #1 (OH)	MWD+HDGM	OWSG MWD + HDGM

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)
515.50	0.93	92.30	515.48	2.49	2.98	2.94	0.00	0.00	0.00
685.00	1.79	100.48	684.93	1.96	6.96	6.93	0.52	0.51	4.83
777.00	1.64	108.90	776.89	1.27	9.61	9.60	0.32	-0.16	9.15
869.00	1.24	114.90	868.86	0.42	11.76	11.76	0.46	-0.43	6.52
961.00	0.91	114.21	960.84	-0.29	13.33	13.33	0.36	-0.36	-0.75
1,052.00	1.02	129.12	1,051.83	-1.10	14.62	14.63	0.30	0.12	16.38
1,147.00	1.11	128.89	1,146.81	-2.21	15.99	16.02	0.09	0.09	-0.24
1,242.00	1.12	133.06	1,241.80	-3.42	17.39	17.43	0.09	0.01	4.39
1,336.00	1.21	123.40	1,335.78	-4.60	18.89	18.95	0.23	0.10	-10.28
1,431.00	1.07	121.36	1,430.76	-5.61	20.48	20.56	0.15	-0.15	-2.15

Survey Report

Company: Marathon Oil Permian, LLC
Project: Eddy County, NM (NAD27)
Site: Fiddle Fee 24-28-23
Well: WA #6H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well WA #6H
TVD Reference: KB = 26.5 @ 3023.50usft (H&P 498)
MD Reference: KB = 26.5 @ 3023.50usft (H&P 498)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland District

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)
1,526.00	0.88	146.93	1,525.74	-6.69	21.64	21.73	0.49	-0.20	26.92
1,620.00	1.04	144.92	1,619.73	-7.99	22.52	22.63	0.17	0.17	-2.14
1,715.00	0.91	150.06	1,714.72	-9.35	23.39	23.52	0.16	-0.14	5.41
1,809.00	0.95	162.89	1,808.70	-10.74	23.99	24.14	0.23	0.04	13.65
1,904.00	1.80	138.13	1,903.68	-12.60	25.22	25.39	1.07	0.89	-26.06
1,998.00	2.65	133.48	1,997.61	-15.20	27.78	27.99	0.92	0.90	-4.95
2,093.00	1.82	135.49	2,092.53	-17.78	30.44	30.68	0.88	-0.87	2.12
2,188.00	0.65	120.19	2,187.51	-19.13	31.96	32.22	1.27	-1.23	-16.11
2,283.00	0.60	47.63	2,282.50	-19.07	32.79	33.05	0.78	-0.05	-76.38
2,377.00	0.50	138.32	2,376.50	-19.04	33.43	33.69	0.84	-0.11	96.48
2,472.00	0.54	258.27	2,471.50	-19.44	33.27	33.53	0.95	0.04	126.26
2,551.00	0.58	248.05	2,550.50	-19.67	32.53	32.80	0.14	0.05	-12.94
2,674.00	0.63	294.31	2,673.49	-19.62	31.34	31.60	0.39	0.04	37.61
2,768.00	2.23	258.25	2,767.46	-19.78	29.07	29.34	1.87	1.70	-38.36
2,863.00	6.25	252.75	2,862.18	-21.69	22.32	22.62	4.25	4.23	-5.79
2,957.00	7.07	256.81	2,955.54	-24.53	11.80	12.14	1.01	0.87	4.32
3,052.00	7.15	255.42	3,049.81	-27.35	0.39	0.77	0.20	0.08	-1.46
3,147.00	7.21	254.57	3,144.07	-30.43	-11.08	-10.66	0.13	0.06	-0.89
3,242.00	7.77	254.64	3,238.26	-33.71	-23.02	-22.55	0.59	0.59	0.07
3,337.00	7.90	253.74	3,332.37	-37.24	-35.48	-34.96	0.19	0.14	-0.95
3,431.00	7.31	251.38	3,425.54	-40.96	-47.35	-46.78	0.71	-0.63	-2.51
3,526.00	5.58	247.47	3,519.94	-44.66	-57.34	-56.72	1.88	-1.82	-4.12
3,715.00	5.82	246.28	3,708.01	-52.04	-74.60	-73.88	0.14	0.13	-0.63
3,810.00	6.03	246.93	3,802.50	-55.93	-83.60	-82.82	0.23	0.22	0.68
3,905.00	6.18	247.97	3,896.96	-59.80	-92.93	-92.10	0.20	0.16	1.09
3,999.00	6.05	248.13	3,990.43	-63.55	-102.22	-101.33	0.14	-0.14	0.17
4,094.00	6.17	249.74	4,084.89	-67.18	-111.65	-110.72	0.22	0.13	1.69
4,188.00	5.17	252.29	4,178.42	-70.22	-120.43	-119.45	1.10	-1.06	2.71
4,283.00	5.29	251.25	4,273.03	-72.93	-128.65	-127.64	0.16	0.13	-1.09
4,378.00	5.49	250.47	4,367.61	-75.85	-137.08	-136.02	0.22	0.21	-0.82
4,472.00	5.77	251.61	4,461.16	-78.85	-145.80	-144.70	0.32	0.30	1.21
4,567.00	6.09	250.62	4,555.65	-82.03	-155.09	-153.94	0.35	0.34	-1.04
4,661.00	4.57	237.74	4,649.24	-85.68	-162.96	-161.76	2.05	-1.62	-13.70
4,756.00	4.36	235.58	4,743.95	-89.74	-169.14	-167.89	0.28	-0.22	-2.27
4,851.00	4.55	235.17	4,838.67	-93.93	-175.21	-173.90	0.20	0.20	-0.43
4,945.00	4.20	233.97	4,932.39	-98.09	-181.06	-179.69	0.38	-0.37	-1.28
5,040.00	4.13	235.72	5,027.14	-102.06	-186.70	-185.27	0.15	-0.07	1.84
5,134.00	3.90	235.78	5,120.91	-105.77	-192.14	-190.66	0.24	-0.24	0.06
5,228.00	3.94	236.55	5,214.69	-109.34	-197.47	-195.95	0.07	0.04	0.82
5,323.00	5.78	242.83	5,309.35	-113.33	-204.45	-202.87	2.01	1.94	6.61
5,417.00	5.68	241.66	5,402.88	-117.70	-212.76	-211.12	0.16	-0.11	-1.24
5,512.00	5.44	243.94	5,497.43	-121.91	-220.94	-219.24	0.34	-0.25	2.40
5,607.00	5.18	241.45	5,592.02	-125.93	-228.76	-227.00	0.37	-0.27	-2.62

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5,701.00	4.90	240.72	5,685.66	-129.93	-235.98	-234.17	0.31	-0.30	-0.78
5,796.00	4.72	239.13	5,780.32	-133.92	-242.88	-241.01	0.24	-0.19	-1.67
5,890.00	4.61	239.17	5,874.01	-137.84	-249.44	-247.52	0.12	-0.12	0.04
5,985.00	4.54	239.22	5,968.71	-141.72	-255.95	-253.97	0.07	-0.07	0.05
6,079.00	4.51	238.88	6,062.42	-145.53	-262.31	-260.28	0.04	-0.03	-0.36
6,174.00	3.05	250.09	6,157.21	-148.32	-267.88	-265.81	1.72	-1.54	11.80
6,268.00	2.99	247.58	6,251.08	-150.11	-272.50	-270.41	0.15	-0.06	-2.67
6,363.00	3.13	249.70	6,345.94	-151.95	-277.22	-275.10	0.19	0.15	2.23
6,457.00	2.74	262.04	6,439.82	-153.15	-281.86	-279.72	0.79	-0.41	13.13
6,552.00	2.77	258.84	6,534.71	-153.91	-286.36	-284.21	0.16	0.03	-3.37
6,646.00	2.96	259.64	6,628.59	-154.79	-290.97	-288.81	0.21	0.20	0.85
6,741.00	3.20	256.97	6,723.46	-155.83	-295.97	-293.79	0.29	0.25	-2.81
6,835.00	3.94	249.17	6,817.27	-157.57	-301.54	-299.34	0.94	0.79	-8.30
6,930.00	3.82	270.48	6,912.06	-158.70	-307.76	-305.54	1.51	-0.13	22.43
7,024.00	3.68	280.04	7,005.86	-158.15	-313.86	-311.65	0.68	-0.15	10.17
7,119.00	1.61	311.86	7,100.76	-156.73	-317.86	-315.67	2.59	-2.18	33.49
7,213.00	1.31	0.45	7,194.73	-154.77	-318.83	-316.67	1.31	-0.32	51.69
7,308.00	1.22	5.62	7,289.71	-152.68	-318.73	-316.59	0.15	-0.09	5.44
7,402.00	1.31	40.11	7,383.69	-150.86	-317.94	-315.82	0.80	0.10	36.69
7,497.00	0.50	41.21	7,478.67	-149.72	-316.96	-314.87	0.85	-0.85	1.16
7,591.00	1.45	89.16	7,572.66	-149.39	-315.50	-313.41	1.25	1.01	51.01
7,685.00	3.68	83.97	7,666.56	-149.06	-311.31	-309.23	2.38	2.37	-5.52
7,780.00	2.57	122.35	7,761.43	-149.88	-306.48	-304.39	2.43	-1.17	40.40
7,875.00	2.62	127.77	7,856.33	-152.35	-302.97	-300.84	0.26	0.05	5.71
7,970.00	3.11	130.86	7,951.21	-155.36	-299.30	-297.13	0.54	0.52	3.25
8,064.00	2.75	132.86	8,045.09	-158.57	-295.72	-293.50	0.40	-0.38	2.13
8,159.00	1.70	151.45	8,140.02	-161.35	-293.37	-291.12	1.33	-1.11	19.57
8,253.00	1.21	168.54	8,233.99	-163.55	-292.51	-290.23	0.69	-0.52	18.18
8,348.00	0.54	87.61	8,328.98	-164.52	-291.86	-289.57	1.31	-0.71	-85.19
8,442.00	0.62	301.72	8,422.97	-164.23	-291.85	-289.56	1.18	0.09	-155.20
8,537.00	1.96	283.46	8,517.95	-163.58	-293.87	-291.59	1.46	1.41	-19.22
8,631.00	0.90	287.14	8,611.92	-162.99	-296.14	-293.87	1.13	-1.13	3.91
8,721.00	0.31	4.75	8,701.91	-162.54	-296.80	-294.53	0.99	-0.66	86.23
8,815.00	0.70	196.36	8,795.91	-162.84	-296.94	-294.66	1.07	0.41	-179.14
8,910.00	0.90	189.03	8,890.90	-164.13	-297.22	-294.93	0.24	0.21	-7.72
9,004.00	0.74	209.51	8,984.89	-165.39	-297.63	-295.32	0.35	-0.17	21.79
9,099.00	0.51	214.73	9,079.89	-166.27	-298.18	-295.85	0.25	-0.24	5.49
9,194.00	9.18	79.84	9,174.50	-165.28	-290.94	-288.63	10.05	9.13	-141.99
9,289.00	15.66	89.50	9,267.23	-163.83	-270.64	-268.35	7.14	6.82	10.17
9,383.00	24.53	92.63	9,355.42	-164.61	-238.39	-236.10	9.50	9.44	3.33
9,478.00	35.37	87.37	9,437.63	-164.26	-191.08	-188.79	11.73	11.41	-5.54
9,525.00	39.47	87.38	9,474.95	-162.95	-162.55	-160.29	8.72	8.72	0.02
9,552.00	38.15	86.59	9,495.99	-162.06	-145.65	-143.41	5.22	-4.89	-2.93

Survey Report

Company:	Marathon Oil Permian, LLC	Local Co-ordinate Reference:	Well WA #6H
Project:	Eddy County, NM (NAD27)	TVD Reference:	KB = 26.5 @ 3023.50usft (H&P 498)
Site:	Fiddle Fee 24-28-23	MD Reference:	KB = 26.5 @ 3023.50usft (H&P 498)
Well:	WA #6H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

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)
9,558.34	38.90	86.31	9,500.95	-161.82	-141.71	-139.47	12.15	11.85	-4.35
FTP[FF#6H]									
9,573.00	40.64	85.71	9,512.22	-161.16	-132.36	-130.12	12.15	11.86	-4.12
9,605.00	46.34	86.04	9,535.42	-159.58	-110.40	-108.19	17.83	17.81	1.03
9,636.00	50.51	86.77	9,555.99	-158.13	-87.26	-85.07	13.57	13.45	2.35
9,668.00	51.59	86.27	9,576.11	-156.62	-62.42	-60.26	3.59	3.38	-1.56
9,699.00	52.71	86.14	9,595.13	-155.00	-38.00	-35.86	3.63	3.61	-0.42
9,731.00	53.39	86.20	9,614.36	-153.29	-12.48	-10.37	2.13	2.13	0.19
9,762.00	55.15	86.45	9,632.46	-151.68	12.63	14.72	5.72	5.68	0.81
9,794.00	59.87	88.28	9,649.65	-150.45	39.58	41.66	15.52	14.75	5.72
9,825.00	64.70	90.20	9,664.06	-150.10	67.02	69.08	16.52	15.58	6.19
9,857.00	68.77	91.19	9,676.70	-150.46	96.41	98.47	13.03	12.72	3.09
9,888.00	72.09	92.10	9,687.08	-151.30	125.60	127.67	11.06	10.71	2.94
9,920.00	75.03	91.39	9,696.14	-152.23	156.27	158.36	9.43	9.19	-2.22
9,951.00	78.10	91.07	9,703.34	-152.88	186.41	188.50	9.95	9.90	-1.03
9,983.00	81.19	90.12	9,709.09	-153.20	217.89	219.98	10.09	9.66	-2.97
10,106.00	88.83	91.21	9,719.78	-154.63	340.32	342.42	6.27	6.21	0.89
10,200.00	89.33	90.88	9,721.29	-156.35	434.29	436.40	0.64	0.53	-0.35
10,295.00	89.53	91.37	9,722.24	-158.21	529.27	531.40	0.56	0.21	0.52
10,389.00	88.66	91.56	9,723.72	-160.61	623.22	625.38	0.95	-0.93	0.20
10,484.00	88.99	91.90	9,725.67	-163.48	718.16	720.35	0.50	0.35	0.36
10,578.00	87.92	92.65	9,728.20	-167.21	812.05	814.28	1.39	-1.14	0.80
10,672.00	87.31	93.19	9,732.12	-172.00	905.85	908.13	0.87	-0.65	0.57
10,766.00	87.98	89.83	9,735.98	-174.47	999.72	1,002.03	3.64	0.71	-3.57
10,861.00	88.86	90.33	9,738.60	-174.60	1,094.68	1,096.99	1.07	0.93	0.53
10,955.00	87.99	90.87	9,741.18	-175.59	1,188.64	1,190.95	1.09	-0.93	0.57
11,049.00	87.55	90.49	9,744.84	-176.70	1,282.56	1,284.88	0.62	-0.47	-0.40
11,143.00	88.59	89.23	9,748.01	-176.47	1,376.51	1,378.81	1.74	1.11	-1.34
11,238.00	89.06	90.02	9,749.95	-175.85	1,471.48	1,473.77	0.97	0.49	0.83
11,332.00	88.15	88.73	9,752.24	-174.82	1,565.45	1,567.71	1.68	-0.97	-1.37
11,427.00	88.86	86.87	9,754.72	-171.18	1,660.34	1,662.54	2.10	0.75	-1.96
11,521.00	92.35	87.80	9,753.73	-166.81	1,754.22	1,756.35	3.84	3.71	0.99
11,616.00	91.91	91.05	9,750.20	-165.86	1,849.13	1,851.24	3.45	-0.46	3.42
11,710.00	90.97	90.57	9,747.84	-167.19	1,943.09	1,945.21	1.12	-1.00	-0.51
11,804.00	91.31	91.25	9,745.97	-168.68	2,037.06	2,039.19	0.81	0.36	0.72
11,898.00	90.70	93.76	9,744.32	-172.79	2,130.95	2,133.13	2.75	-0.65	2.67
11,994.00	88.29	93.99	9,745.16	-179.27	2,226.72	2,228.98	2.52	-2.51	0.24
12,088.00	85.80	91.67	9,750.01	-183.91	2,320.47	2,322.78	3.62	-2.65	-2.47
12,182.00	85.26	90.83	9,757.33	-185.95	2,414.16	2,416.49	1.06	-0.57	-0.89
12,276.00	88.35	88.58	9,762.57	-185.47	2,507.99	2,510.31	4.06	3.29	-2.39
12,370.00	87.38	88.22	9,766.08	-182.84	2,601.89	2,604.16	1.10	-1.03	-0.38
12,465.00	86.88	88.28	9,770.83	-179.95	2,696.72	2,698.95	0.53	-0.53	0.06
12,559.00	88.83	88.46	9,774.35	-177.28	2,790.62	2,792.80	2.08	2.07	0.19
12,654.00	91.04	90.73	9,774.46	-176.60	2,885.60	2,887.76	3.33	2.33	2.39

Survey Report

Company: Marathon Oil Permian, LLC
Project: Eddy County, NM (NAD27)
Site: Fiddle Fee 24-28-23
Well: WA #6H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well WA #6H
TVD Reference: KB = 26.5 @ 3023.50usft (H&P 498)
MD Reference: KB = 26.5 @ 3023.50usft (H&P 498)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland District

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)
12,748.00	90.91	90.44	9,772.86	-177.56	2,979.58	2,981.75	0.34	-0.14	-0.31
12,842.00	90.44	91.97	9,771.75	-179.54	3,073.55	3,075.74	1.70	-0.50	1.63
12,936.00	87.82	94.21	9,773.18	-184.61	3,167.39	3,169.64	3.67	-2.79	2.38
13,030.00	88.79	94.20	9,775.96	-191.49	3,261.10	3,263.43	1.03	1.03	-0.01
13,125.00	88.22	94.24	9,778.44	-198.48	3,355.81	3,358.22	0.60	-0.60	0.04
13,220.00	89.06	94.17	9,780.69	-205.45	3,450.52	3,453.03	0.89	0.88	-0.07
13,314.00	85.60	93.31	9,785.07	-211.57	3,544.21	3,546.79	3.79	-3.68	-0.91
13,408.00	86.23	90.83	9,791.77	-214.96	3,637.90	3,640.52	2.72	0.67	-2.64
13,502.00	87.85	89.23	9,796.62	-215.01	3,731.77	3,734.38	2.42	1.72	-1.70
13,598.00	90.67	89.50	9,797.86	-213.94	3,827.74	3,830.33	2.95	2.94	0.28
13,692.00	89.66	89.27	9,797.59	-212.93	3,921.73	3,924.30	1.10	-1.07	-0.24
13,786.00	91.18	89.39	9,796.90	-211.83	4,015.72	4,018.26	1.62	1.62	0.13
13,881.00	91.58	89.58	9,794.61	-210.98	4,110.69	4,113.21	0.47	0.42	0.20
13,974.00	86.65	89.19	9,796.05	-209.98	4,203.65	4,206.14	5.32	-5.30	-0.42
14,068.00	86.68	88.83	9,801.52	-208.36	4,297.47	4,299.94	0.38	0.03	-0.38
14,163.00	87.59	88.66	9,806.27	-206.28	4,392.33	4,394.76	0.97	0.96	-0.18
14,257.00	86.68	87.98	9,810.96	-203.53	4,486.17	4,488.55	1.21	-0.97	-0.72
14,351.00	89.26	89.04	9,814.29	-201.09	4,580.07	4,582.41	2.97	2.74	1.13
14,446.00	89.50	89.43	9,815.32	-199.82	4,675.06	4,677.37	0.48	0.25	0.41
14,540.00	89.66	89.20	9,816.01	-198.70	4,769.05	4,771.33	0.30	0.17	-0.24
14,588.00	90.13	90.14	9,816.10	-198.42	4,817.05	4,819.32	2.19	0.98	1.96
FINAL MWD Survey (14588.00' MD) - BHL[FF#6H]									
14,636.00	90.13	90.14	9,815.99	-198.54	4,865.05	4,867.32	0.00	0.00	0.00
FINAL Proj. to Bit (14636.00' MD)									

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
14,588.00	9,816.10	-198.42	4,817.05	FINAL MWD Survey (14588.00' MD)
14,636.00	9,815.99	-198.54	4,865.05	FINAL Proj. to Bit (14636.00' MD)

Checked By: _____ Approved By: _____ Date: _____

Marathon Oil Corporation

EDDY COUNTY, NM (NAD27)
FIDDLE FEE 24-28-23
WA #6H
OH
PLAN #3
H&P 498

WELL DETAILS:

Ground Level: 2997.00
Northing 439935.99 Easting 582860.46 32° 12' 33.182 N 104° 3' 55.538 W

SECTION DETAILS

MD	INC	AZI	TVD	+N/-S	+E/-W	DLEG	TFACE	VSECT	TARGET
0.00	0.00	0.30	0.00	0.00	0.00	0.30	0.00	0.00	
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	0.00	
3000.00	5.00	240.00	2999.37	-10.90	-16.86	1.00	240.00	-18.73	
5620.00	5.00	240.00	5938.16	-159.40	-241.55	0.00	0.00	-239.60	
6450.00	0.00	0.00	5437.51	-50.36	-260.43	1.00	180.00	-258.33	
9159.87	0.00	0.00	9157.37	-50.36	-260.43	0.00	0.00	-258.33	
10046.87	88.60	90.74	6720.22	-58.09	301.48	10.00	90.74	303.63	
14565.04	88.90	92.74	9807.00	-220.28	4820.39	0.00	0.00	4822.97	BHLFF#6H
14614.05	88.90	90.74	9807.26	-220.90	4820.39	0.00	0.00	4827.97	

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
FTP(FF#6H)	9396.00	-153.30	-14.20	439782.70	582845.28
BHL(FF#6H)	9807.00	-220.28	4820.39	439715.73	587680.45



To convert Magnetic North to Grid, Add 7.09°
To convert True North to Grid, Subtract 0.14°

Azimuths to Grid North
True North: -0.14°
Magnetic North: 7.09°
Magnetic Field
Strength: 48048 SsnT
Dip Angle: 60.00°
Date: 12/13/2017
Model: HDGM

CASING DETAILS

No casing data is available

SITE DETAILS: Fiddle Fee 24-28-23
Site Centre Northing: 439935.99
Easting: 582860.46

Positional Uncertainty: 0.00
Convergence: 0.14
Local North: Grid

Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone Name: New Mexico East 3001
Local Origin: Well WA #6H, Grid North
Latitude: 32° 12' 33.182 N
Longitude: 104° 3' 55.538 W
Grid East: 582860.46
Grid North: 439935.99
Scale Factor: 1.000

Geomagnetic Model: HDGM
Sample Date: 13-Dec-17
Magnetic Declination: 7.23°
Dip Angle from Horizontal: 60.00°
Magnetic Field Strength: 48048

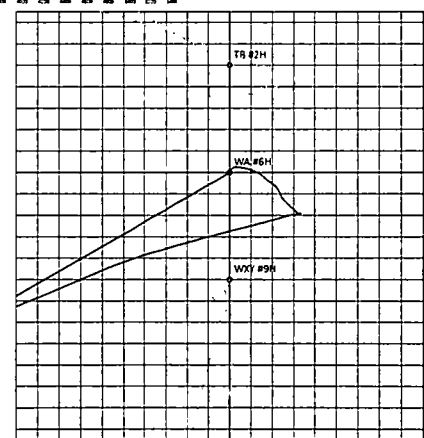
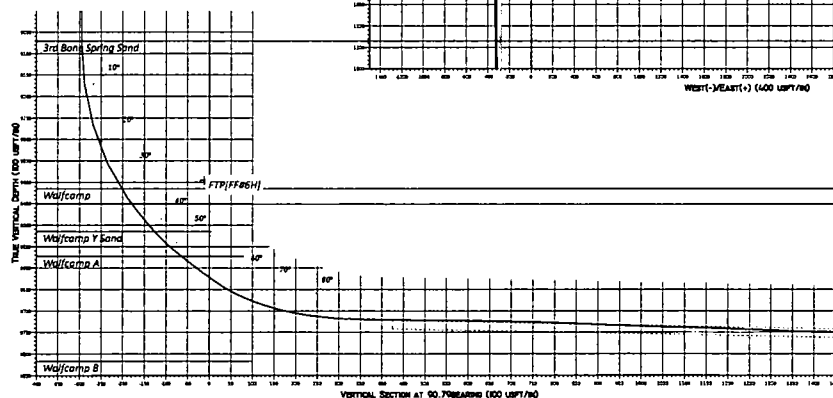
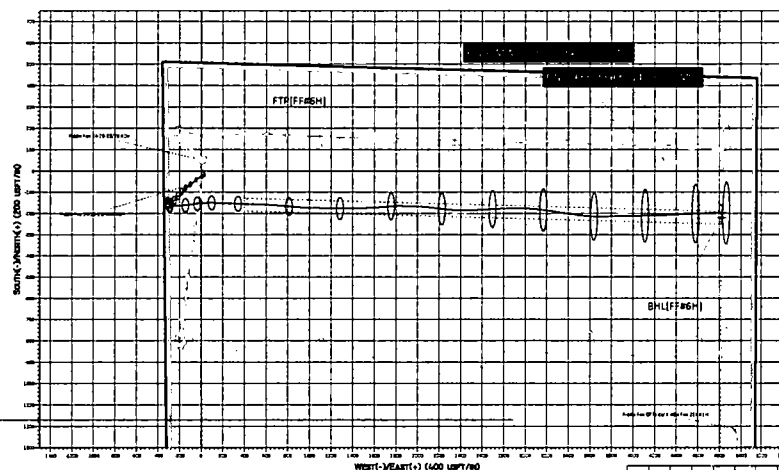
To convert Magnetic North to Grid, Add 7.09°
To convert Magnetic North to True, Add 7.23° East
To convert True North to Grid, Subtract 0.14°

PROJECT DETAILS: Eddy County, NM (NAD27)
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001

System Datum: Mean Sea Level

DRILLING TARGET: 9714' TVD @ OVS // 88.9° INC.

WINDOW: 15 UP // 15 DOWN



FIDDLE FEE 24-28-23



Scientific Drilling