

PRO-DIRECTIONAL



Marathon Oil

Corporation

Flowmaster Fee 24-34-15 WXY No. 2H
Lea County, NM

September 09, 2019

Job No. LNM1452319
API No. 30-025-44689

Survey Completion Report



Survey Certification Letter

September 09, 2019



Operator Name: Marathon Oil
Well Name: Flowmaster Fee 24-34-15 WXY No. 2H
County/Parish: Lea County,
State: NM
Rig Name: Precision 582
Job Number: LNM1452319

This is to certify the surveys performed on the referenced well by Professional Directional Ent., Inc. are true and correct MWD Surveys, data provided as follows:

<u>Surveyor</u>	<u>Surveyed Depths</u>	<u>Projection to Bit</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
ProDirectional	1,255' MD – 17,009' MD	17,066' MD	06/26/19 – 08/09/19	MWD

Sincerely,

Mike Coats
Regulatory Specialist
Professional Directional

850 Conroe Park West Drive | Conroe, TX 77303 | Phone: 936.441.7266
prodirectional.com



Marathon Oil

Marathon Oil

Lea County, NM

Flowmaster 24-34-15 WXY

No. 2H

OH

Survey: ProDirectional

Survey Report

09 September, 2019





ProDirectional Survey Report



Company: Marathon Oil
Project: Lea County, NM(NAD 83)
Site: Flowmaster 24-34-15
Well: No. 2H
Wellbore: OH
Design: MWD-180'-17009', PTB: 17066'

Local Co-ordinate Reference: Well No. 2H
TVD Reference: Well @ 3546.00usft
MD Reference: Well @ 3546.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Project	Lea County, NM(NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Flowmaster 24-34-15		
Site Position:		Northing:	446,265.62 usft
From:	Map	Easting:	810,715.91 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.223859
		Longitude:	-103.462229
		Grid Convergence:	0.46 "

Well		No. 2H, LNM1452319				
Well Position	+N/-S	0.00 usft	Northing:	441,921.94 usft	Latitude:	32.211906
	+E/-W	0.00 usft	Easting:	811,355.02 usft	Longitude:	-103.460276
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,519.00 usft

Wellbore	OH					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength	
			(°)	(°)	(nT)	
	HDGM	5/31/2019	6.63	59.87	47,897.60	

Design	MWD-180'-17009', PTB: 17066'				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.00	0.00	0.00	359.57	



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Survey Program Date 9/9/2019

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
180.00	1,123.00	Survey #1 (OH)	GYRO-NS-CT	OWSG XYZ Accel with XY Static and Continuous Gyro
1,255.00	17,066.00	Survey #2 (OH)	MWD+IFR1	OWSG MWD + IFR1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	441,921.94	811,355.02
180.00	0.40	162.23	180.00	-0.60	-0.60	0.19	0.63	162.23	441,921.34	811,355.21
297.00	0.40	51.23	297.00	-0.74	-0.73	0.63	0.97	139.05	441,921.21	811,355.65
391.00	0.30	59.23	391.00	-0.41	-0.40	1.10	1.17	109.96	441,921.54	811,356.12
485.00	0.70	103.23	484.99	-0.42	-0.41	1.87	1.92	102.22	441,921.53	811,356.89
580.00	0.60	188.23	579.99	-1.05	-1.03	2.37	2.58	113.54	441,920.91	811,357.39
675.00	0.20	256.23	674.99	-1.58	-1.56	2.13	2.64	126.21	441,920.38	811,357.15
864.00	0.50	65.23	863.98	-1.31	-1.30	2.56	2.87	116.82	441,920.64	811,357.58
959.00	0.60	139.23	958.98	-1.52	-1.50	3.26	3.59	114.66	441,920.44	811,358.28
990.00	0.50	15.23	989.98	-1.52	-1.49	3.41	3.72	113.65	441,920.45	811,358.43
1,123.00	0.40	35.23	1,122.98	-0.58	-0.55	3.83	3.86	98.21	441,921.39	811,358.85
1,255.00	0.30	105.80	1,254.97	-0.30	-0.27	4.42	4.43	93.49	441,921.67	811,359.44
Pro MWD First Survey: 1255' MD										
1,345.00	0.10	29.40	1,344.97	-0.30	-0.27	4.69	4.70	93.24	441,921.67	811,359.71
1,435.00	0.70	300.70	1,434.97	0.05	0.08	4.25	4.26	88.87	441,922.02	811,359.27
1,524.00	1.00	307.90	1,523.96	0.81	0.84	3.17	3.28	75.20	441,922.78	811,358.19
1,614.00	1.00	313.10	1,613.95	1.84	1.86	1.98	2.72	46.85	441,923.80	811,357.00
1,703.00	0.90	317.90	1,702.93	2.90	2.91	0.95	3.06	18.02	441,924.85	811,355.97
1,793.00	1.10	295.30	1,792.92	3.80	3.80	-0.31	3.81	355.35	441,925.74	811,354.71
1,882.00	2.70	257.10	1,881.87	3.72	3.70	-3.13	4.84	319.80	441,925.64	811,351.89
1,972.00	4.30	242.70	1,971.70	1.74	1.68	-8.19	8.36	281.57	441,923.62	811,346.83

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Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
2,062.00	6.30	230.00	2,061.32	-2.93	-3.05	-14.97	15.28	258.50	441,918.89	811,340.05
2,151.00	8.60	226.20	2,149.56	-10.61	-10.79	-23.52	25.87	245.35	441,911.15	811,331.50
2,241.00	11.30	223.50	2,238.20	-21.59	-21.85	-34.45	40.79	237.62	441,900.09	811,320.57
2,331.00	11.70	223.50	2,326.39	-34.51	-34.86	-46.80	58.35	233.31	441,887.08	811,308.22
2,420.00	12.00	222.00	2,413.50	-47.84	-48.28	-59.20	76.39	230.80	441,873.66	811,295.82
2,510.00	11.20	215.60	2,501.66	-61.81	-62.34	-70.55	94.15	228.53	441,859.60	811,284.47
2,600.00	11.60	216.00	2,589.88	-76.16	-76.77	-80.95	111.57	226.52	441,845.17	811,274.07
2,690.00	11.80	217.00	2,678.01	-90.75	-91.44	-91.81	129.58	225.12	441,830.50	811,263.21
2,779.00	10.20	216.80	2,765.38	-104.25	-105.02	-102.01	146.41	224.17	441,816.92	811,253.01
2,869.00	10.10	217.20	2,853.97	-116.85	-117.69	-111.55	162.16	223.47	441,804.25	811,243.47
2,959.00	10.40	219.20	2,942.53	-129.35	-130.27	-121.46	178.11	223.00	441,791.67	811,233.56
3,048.00	10.40	219.80	3,030.07	-141.67	-142.66	-131.68	194.15	222.71	441,779.28	811,223.34
3,138.00	10.40	219.90	3,118.59	-154.07	-155.14	-142.09	210.37	222.49	441,766.80	811,212.93
3,228.00	10.50	221.90	3,207.10	-166.32	-167.47	-152.78	226.69	222.37	441,754.47	811,202.24
3,318.00	10.50	221.60	3,295.59	-178.48	-179.71	-163.70	243.09	222.33	441,742.23	811,191.32
3,407.00	10.70	222.30	3,383.07	-190.57	-191.89	-174.64	259.46	222.31	441,730.05	811,180.38
3,497.00	10.80	220.40	3,471.49	-203.09	-204.49	-185.73	276.24	222.25	441,717.45	811,169.29
3,586.00	10.80	215.50	3,558.92	-216.15	-217.62	-195.98	292.86	222.00	441,704.32	811,159.04
3,676.00	10.90	215.40	3,647.31	-229.87	-231.43	-205.80	309.70	221.65	441,690.51	811,149.22
3,765.00	11.00	216.10	3,734.69	-243.52	-245.15	-215.68	326.52	221.34	441,676.79	811,139.34
3,855.00	11.00	217.60	3,823.04	-257.18	-258.89	-225.98	343.64	221.12	441,663.05	811,129.04
3,945.00	11.00	218.50	3,911.38	-270.63	-272.41	-236.56	360.79	220.97	441,649.53	811,118.46
4,035.00	11.00	218.80	3,999.73	-283.96	-285.82	-247.29	377.95	220.87	441,636.12	811,107.73
4,124.00	11.40	219.00	4,087.03	-297.33	-299.27	-258.14	395.23	220.78	441,622.67	811,096.88
4,214.00	11.70	217.30	4,175.21	-311.42	-313.45	-269.27	413.23	220.66	441,608.49	811,085.75
4,304.00	11.30	215.50	4,263.41	-325.77	-327.88	-279.92	431.12	220.49	441,594.06	811,075.10
4,393.00	11.10	216.20	4,350.71	-339.71	-341.89	-290.05	448.35	220.31	441,580.05	811,064.97

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Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
4,482.00	8.80	213.50	4,438.37	-352.23	-354.49	-298.86	463.66	220.13	441,567.45	811,056.16
4,572.00	8.30	212.40	4,527.37	-363.40	-365.71	-306.14	476.94	219.93	441,556.23	811,048.88
4,662.00	7.80	203.10	4,616.48	-374.46	-376.82	-312.02	489.23	219.63	441,545.12	811,043.00
4,752.00	7.40	193.50	4,705.70	-385.69	-388.07	-315.77	500.31	219.14	441,533.87	811,039.25
4,841.00	7.40	197.20	4,793.95	-396.71	-399.12	-318.80	510.81	218.62	441,522.82	811,036.22
4,931.00	8.10	208.90	4,883.14	-407.77	-410.21	-323.58	522.47	218.27	441,511.73	811,031.44
5,021.00	8.00	204.30	4,972.25	-418.98	-421.46	-329.22	534.81	217.99	441,500.48	811,025.80
5,111.00	7.80	195.80	5,061.40	-430.53	-433.05	-333.46	546.56	217.60	441,488.89	811,021.56
5,200.00	7.60	187.90	5,149.60	-442.16	-444.69	-335.92	557.31	217.07	441,477.25	811,019.10
5,290.00	7.30	186.80	5,238.84	-453.72	-456.26	-337.41	567.47	216.48	441,465.68	811,017.61
5,379.00	7.10	186.70	5,327.14	-464.79	-467.34	-338.72	577.18	215.93	441,454.60	811,016.30
5,457.00	7.30	188.60	5,404.52	-474.46	-477.03	-340.03	585.81	215.48	441,444.91	811,014.99
5,547.00	5.40	201.40	5,493.97	-484.04	-486.63	-342.43	595.03	215.13	441,435.31	811,012.59
5,636.00	4.90	212.30	5,582.61	-491.13	-493.74	-345.99	602.90	215.02	441,428.20	811,009.03
5,726.00	5.10	208.00	5,672.27	-497.88	-500.52	-349.92	610.71	214.96	441,421.42	811,005.10
5,816.00	4.20	218.90	5,761.98	-503.95	-506.62	-353.87	617.97	214.93	441,415.32	811,001.15
5,905.00	3.00	235.30	5,850.80	-507.78	-510.48	-357.83	623.40	215.03	441,411.46	810,997.19
5,995.00	3.10	231.00	5,940.67	-510.62	-513.35	-361.66	627.95	215.16	441,408.59	810,993.36
6,084.00	3.00	235.60	6,029.55	-513.42	-516.18	-365.45	632.45	215.30	441,405.76	810,989.57
6,174.00	2.30	228.90	6,119.45	-515.92	-518.70	-368.75	636.42	215.41	441,403.24	810,986.27
6,264.00	1.90	225.60	6,209.39	-518.13	-520.93	-371.18	639.64	215.47	441,401.01	810,983.84
6,354.00	2.00	231.60	6,299.34	-520.13	-522.95	-373.48	642.62	215.53	441,398.99	810,981.54
6,443.00	1.90	230.70	6,388.29	-522.01	-524.85	-375.83	645.54	215.61	441,397.09	810,979.19
6,533.00	1.70	236.20	6,478.24	-523.68	-526.54	-378.10	648.23	215.68	441,395.40	810,976.92
6,622.00	1.60	228.70	6,567.21	-525.22	-528.09	-380.13	650.67	215.75	441,393.85	810,974.89
6,712.00	1.70	228.80	6,657.17	-526.92	-529.80	-382.08	653.20	215.80	441,392.14	810,972.94
6,801.00	1.60	229.60	6,746.13	-528.58	-531.47	-384.02	655.69	215.85	441,390.47	810,971.00

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6,891.00	1.60	231.40	6,836.10	-530.16	-533.07	-385.96	658.12	215.91	441,388.87	810,969.06
6,980.00	1.20	241.70	6,925.07	-531.36	-534.29	-387.75	660.16	215.97	441,387.65	810,967.27
7,070.00	0.80	253.20	7,015.06	-531.98	-534.92	-389.18	661.51	216.04	441,387.02	810,965.84
7,160.00	0.40	303.40	7,105.05	-531.98	-534.93	-390.04	662.03	216.10	441,387.01	810,964.98
7,249.00	0.30	231.40	7,194.05	-531.96	-534.90	-390.48	662.27	216.13	441,387.04	810,964.54
7,339.00	0.40	202.80	7,284.05	-532.39	-535.34	-390.79	662.80	216.13	441,386.60	810,964.23
7,428.00	0.30	230.60	7,373.05	-532.82	-535.77	-391.09	663.33	216.13	441,386.17	810,963.93
7,518.00	0.20	202.80	7,463.05	-533.11	-536.07	-391.33	663.71	216.13	441,385.87	810,963.69
7,607.00	0.20	240.00	7,552.05	-533.33	-536.29	-391.53	664.00	216.13	441,385.65	810,963.49
7,698.00	0.20	278.60	7,643.05	-533.39	-536.34	-391.82	664.22	216.15	441,385.60	810,963.20
7,787.00	0.30	249.80	7,732.05	-533.44	-536.40	-392.19	664.49	216.17	441,385.54	810,962.83
7,877.00	0.40	224.50	7,822.04	-533.74	-536.71	-392.64	664.99	216.19	441,385.23	810,962.38
7,966.00	0.60	246.70	7,911.04	-534.14	-537.11	-393.28	665.70	216.21	441,384.83	810,961.74
8,056.00	0.70	242.20	8,001.03	-534.58	-537.55	-394.20	666.60	216.25	441,384.39	810,960.82
8,145.00	1.00	256.20	8,090.02	-535.01	-537.99	-395.44	667.69	216.32	441,383.95	810,959.58
8,234.00	0.80	284.60	8,179.01	-535.03	-538.02	-396.79	668.51	216.41	441,383.92	810,958.23
8,324.00	0.90	311.60	8,269.00	-534.39	-537.39	-397.93	668.68	216.52	441,384.55	810,957.09
8,413.00	1.00	292.70	8,357.99	-533.62	-536.63	-399.17	668.81	216.64	441,385.31	810,955.85
8,503.00	0.80	289.40	8,447.98	-533.10	-536.12	-400.48	669.19	216.76	441,385.82	810,954.54
8,593.00	0.80	343.60	8,537.97	-532.28	-535.31	-401.25	669.00	216.85	441,386.63	810,953.77
8,682.00	0.60	333.90	8,626.97	-531.26	-534.29	-401.63	668.41	216.93	441,387.65	810,953.39
8,772.00	0.60	332.80	8,716.96	-530.42	-533.45	-402.06	668.00	217.01	441,388.49	810,952.96
8,861.00	0.50	316.80	8,805.96	-529.72	-532.75	-402.54	667.73	217.07	441,389.19	810,952.48
8,951.00	0.60	281.40	8,895.95	-529.33	-532.37	-403.27	667.87	217.14	441,389.57	810,951.75
9,040.00	0.20	331.40	8,984.95	-529.10	-532.14	-403.80	668.00	217.19	441,389.80	810,951.22
9,130.00	0.20	26.70	9,074.95	-528.82	-531.87	-403.80	667.79	217.21	441,390.07	810,951.22
9,220.00	0.70	323.30	9,164.95	-528.24	-531.29	-404.06	667.48	217.25	441,390.65	810,950.96



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9,310.00	0.90	312.00	9,254.94	-527.32	-530.37	-404.91	667.27	217.36	441,391.57	810,950.11
9,399.00	1.00	312.40	9,343.93	-526.32	-529.38	-406.01	667.15	217.49	441,392.56	810,949.01
9,489.00	1.50	314.80	9,433.91	-524.95	-528.02	-407.42	666.93	217.65	441,393.92	810,947.60
9,578.00	1.60	317.80	9,522.87	-523.19	-526.28	-409.08	666.57	217.86	441,395.66	810,945.94
9,668.00	1.80	313.40	9,612.83	-521.28	-524.38	-410.96	666.22	218.09	441,397.56	810,944.06
9,758.00	1.90	300.30	9,702.79	-519.54	-522.65	-413.27	666.30	218.33	441,399.29	810,941.75
9,847.00	2.00	299.70	9,791.74	-518.00	-521.14	-415.89	666.75	218.59	441,400.80	810,939.13
9,937.00	1.90	324.20	9,881.69	-516.00	-519.15	-418.13	666.60	218.85	441,402.79	810,936.89
10,026.00	1.60	312.30	9,970.64	-513.95	-517.12	-419.91	666.14	219.08	441,404.82	810,935.11
10,116.00	1.00	304.00	10,060.62	-512.66	-515.83	-421.49	666.14	219.25	441,406.11	810,933.53
10,205.00	1.40	303.50	10,149.60	-511.61	-514.80	-423.04	666.32	219.41	441,407.14	810,931.98
10,295.00	2.20	304.30	10,239.56	-510.01	-513.22	-425.39	666.59	219.65	441,408.72	810,929.63
10,385.00	1.60	25.60	10,329.52	-507.90	-511.11	-426.27	665.54	219.83	441,410.83	810,928.75
10,474.00	2.20	35.00	10,418.47	-505.39	-508.59	-424.75	662.63	219.87	441,413.35	810,930.27
10,563.00	1.70	28.30	10,507.42	-502.84	-506.03	-423.15	659.64	219.90	441,415.91	810,931.87
10,653.00	1.10	8.50	10,597.39	-500.82	-504.00	-422.39	657.59	219.97	441,417.94	810,932.63
10,743.00	0.50	0.80	10,687.38	-499.57	-502.75	-422.26	656.55	220.03	441,419.19	810,932.76
10,832.00	0.20	314.10	10,776.38	-499.07	-502.26	-422.36	656.24	220.06	441,419.68	810,932.66
10,922.00	0.20	210.40	10,866.38	-499.10	-502.28	-422.55	656.38	220.07	441,419.66	810,932.47
11,011.00	0.60	215.60	10,955.38	-499.61	-502.80	-422.90	657.00	220.07	441,419.14	810,932.12
11,101.00	1.00	242.80	11,045.37	-500.34	-503.54	-423.88	658.20	220.09	441,418.40	810,931.14
11,190.00	0.60	150.00	11,134.36	-501.10	-504.30	-424.33	659.07	220.08	441,417.64	810,930.69
11,280.00	0.80	119.60	11,224.36	-501.82	-505.02	-423.55	659.12	219.99	441,416.92	810,931.47
11,369.00	0.10	254.40	11,313.35	-502.15	-505.34	-423.09	659.07	219.94	441,416.60	810,931.93
11,459.00	0.80	265.00	11,403.35	-502.22	-505.42	-423.79	659.58	219.98	441,416.52	810,931.23
11,549.00	1.20	260.40	11,493.34	-502.42	-505.63	-425.34	660.74	220.07	441,416.31	810,929.68
11,638.00	1.80	241.80	11,582.31	-503.22	-506.45	-427.49	662.75	220.17	441,415.49	810,927.53



ProDirectional Survey Report



Company: Marathon Oil
Project: Lea County, NM(NAD 83)
Site: Flowmaster 24-34-15
Well: No. 2H
Wellbore: OH
Design: MWD-180°-17009', PTB: 17066'

Local Co-ordinate Reference: Well No. 2H
TVD Reference: Well @ 3546.00usft
MD Reference: Well @ 3546.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
11,699.00	2.00	238.60	11,643.27	-504.22	-507.45	-429.25	664.65	220.23	441,414.49	810,925.77
11,843.00	1.70	21.90	11,787.24	-503.54	-506.78	-430.60	665.01	220.35	441,415.16	810,924.42
11,937.00	10.20	15.50	11,880.65	-494.22	-497.45	-427.85	656.13	220.70	441,424.49	810,927.17
12,032.00	27.40	3.10	11,970.27	-464.08	-467.28	-424.39	631.23	222.25	441,454.66	810,930.63
12,127.00	36.00	1.90	12,051.03	-414.27	-417.45	-422.28	593.79	225.33	441,504.49	810,932.74
12,220.00	35.90	2.70	12,126.31	-359.74	-362.90	-420.09	555.13	229.18	441,559.04	810,934.93
12,315.00	42.60	4.00	12,199.84	-299.80	-302.94	-416.53	515.04	233.97	441,619.00	810,938.49
12,409.00	57.80	2.00	12,259.84	-227.92	-231.03	-412.90	473.14	240.77	441,690.91	810,942.12
12,503.00	74.90	2.00	12,297.41	-142.21	-145.29	-409.91	434.89	250.48	441,776.65	810,945.11
12,526.00	78.30	1.10	12,302.74	-119.86	-122.93	-409.30	427.36	253.28	441,799.01	810,945.72
12,621.00	86.00	358.80	12,315.70	-25.83	-28.90	-409.40	410.42	265.96	441,893.04	810,945.62
12,716.00	86.90	359.00	12,321.58	68.98	65.90	-411.22	416.47	279.10	441,987.84	810,943.80
12,761.00	90.70	359.10	12,322.53	113.96	110.88	-411.97	426.63	285.06	442,032.82	810,943.05
12,810.00	91.40	359.40	12,321.63	162.96	159.86	-412.61	442.49	291.18	442,081.80	810,942.41
12,905.00	90.70	359.50	12,319.89	257.94	254.84	-413.52	485.74	301.64	442,176.78	810,941.50
12,999.00	91.60	359.50	12,318.00	351.92	348.82	-414.34	541.62	310.09	442,270.76	810,940.68
13,094.00	91.40	359.70	12,315.51	446.89	443.78	-415.00	607.59	316.92	442,365.72	810,940.02
13,188.00	91.20	359.80	12,313.38	540.86	537.76	-415.41	679.52	322.31	442,459.70	810,939.61
13,283.00	91.10	0.10	12,311.48	635.84	632.74	-415.50	756.96	326.71	442,554.68	810,939.52
13,377.00	91.40	0.30	12,309.43	729.81	726.72	-415.17	836.95	330.26	442,648.66	810,939.85
13,472.00	91.00	0.70	12,307.44	824.78	821.69	-414.34	920.25	333.24	442,743.63	810,940.68
13,567.00	90.70	1.00	12,306.03	919.74	916.67	-412.93	1,005.38	335.75	442,838.61	810,942.09
13,662.00	89.50	0.80	12,305.86	1,014.72	1,011.66	-411.44	1,092.12	337.87	442,933.60	810,943.58
13,756.00	89.80	0.50	12,306.43	1,108.70	1,105.65	-410.37	1,179.35	339.64	443,027.59	810,944.65
13,851.00	89.50	0.60	12,307.01	1,203.68	1,200.64	-409.46	1,268.54	341.17	443,122.58	810,945.56
13,945.00	89.70	0.70	12,307.67	1,297.66	1,294.63	-408.39	1,357.52	342.49	443,216.57	810,946.63
14,040.00	89.80	0.20	12,308.09	1,392.65	1,389.63	-407.65	1,448.19	343.65	443,311.57	810,947.37



ProDirectional Survey Report



Company: Marathon Oil
Project: Lea County, NM(NAD 83)
Site: Flowmaster 24-34-15
Well: No. 2H
Wellbore: OH
Design: MWD-180'-17009', PTB: 17066'

Local Co-ordinate Reference: Well No. 2H
TVD Reference: Well @ 3546.00usft
MD Reference: Well @ 3546.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
14,134.00	89.50	359.80	12,308.66	1,486.65	1,483.63	-407.65	1,538.61	344.64	443,405.57	810,947.37
14,228.00	88.60	359.80	12,310.22	1,580.63	1,577.61	-407.97	1,629.51	345.50	443,499.55	810,947.05
14,323.00	90.60	359.90	12,310.88	1,675.62	1,672.61	-408.22	1,721.70	346.28	443,594.55	810,946.80
14,418.00	91.00	359.90	12,309.56	1,770.61	1,767.60	-408.39	1,814.16	346.99	443,689.54	810,946.63
14,513.00	91.50	359.40	12,307.48	1,865.59	1,862.57	-408.97	1,906.94	347.62	443,784.51	810,946.05
14,607.00	91.30	358.80	12,305.19	1,959.56	1,956.53	-410.45	1,999.12	348.15	443,878.47	810,944.57
14,701.00	90.20	358.60	12,303.96	2,053.54	2,050.50	-412.58	2,091.59	348.62	443,972.44	810,942.44
14,796.00	89.40	358.90	12,304.29	2,148.52	2,145.47	-414.65	2,185.18	349.06	444,067.41	810,940.37
14,891.00	89.40	358.40	12,305.28	2,243.51	2,240.44	-416.89	2,278.90	349.46	444,162.38	810,938.13
14,986.00	89.10	358.20	12,306.53	2,338.48	2,335.39	-419.71	2,372.81	349.81	444,257.33	810,935.31
15,080.00	89.40	359.20	12,307.76	2,432.46	2,429.36	-421.84	2,465.71	350.15	444,351.30	810,933.18
15,175.00	87.70	359.40	12,310.16	2,527.42	2,524.32	-423.00	2,559.51	350.49	444,446.26	810,932.02
15,269.00	88.70	359.60	12,313.11	2,621.37	2,618.27	-423.82	2,652.35	350.81	444,540.21	810,931.20
15,364.00	89.40	359.80	12,314.69	2,716.36	2,713.25	-424.32	2,746.23	351.11	444,635.19	810,930.70
15,458.00	88.40	359.90	12,316.49	2,810.34	2,807.23	-424.56	2,839.16	351.40	444,729.17	810,930.46
15,553.00	88.80	0.40	12,318.81	2,905.31	2,902.20	-424.31	2,933.06	351.68	444,824.14	810,930.71
15,647.00	88.90	0.00	12,320.70	2,999.28	2,996.18	-423.99	3,026.03	351.95	444,918.12	810,931.03
15,742.00	89.50	359.70	12,322.03	3,094.27	3,091.17	-424.23	3,120.15	352.19	445,013.11	810,930.79
15,836.00	89.80	359.80	12,322.60	3,188.27	3,185.17	-424.64	3,213.35	352.41	445,107.11	810,930.38
15,931.00	90.40	359.50	12,322.43	3,283.27	3,280.17	-425.22	3,307.61	352.61	445,202.11	810,929.80
16,025.00	90.30	359.50	12,321.86	3,377.26	3,374.16	-426.05	3,400.95	352.80	445,296.10	810,928.97
16,119.00	89.20	358.80	12,322.27	3,471.26	3,468.15	-427.44	3,494.39	352.97	445,390.09	810,927.58
16,214.00	90.10	359.60	12,322.85	3,566.25	3,563.14	-428.77	3,588.84	353.14	445,485.08	810,926.25
16,308.00	90.30	0.80	12,322.52	3,660.25	3,657.13	-428.44	3,682.14	353.32	445,579.07	810,926.58
16,403.00	91.40	1.30	12,321.11	3,755.20	3,752.10	-426.70	3,776.29	353.51	445,674.04	810,928.32
16,497.00	91.20	1.80	12,318.98	3,849.12	3,846.05	-424.16	3,869.36	353.71	445,767.99	810,930.86
16,591.00	91.60	2.20	12,316.68	3,943.01	3,939.96	-420.88	3,962.38	353.90	445,861.90	810,934.14



ProDirectional Survey Report



Company: Marathon Oil
Project: Lea County, NM(NAD 83)
Site: Flowmaster 24-34-15
Well: No. 2H
Wellbore: OH
Design: MWD-180'-17009', PTB: 17066'

Local Co-ordinate Reference: Well No. 2H
TVD Reference: Well @ 3546.00usft
MD Reference: Well @ 3546.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
16,685.00	90.50	2.70	12,314.96	4,036.87	4,033.86	-416.86	4,055.34	354.10	445,955.80	810,938.16
16,780.00	89.70	1.90	12,314.80	4,131.76	4,128.78	-413.05	4,149.39	354.29	446,050.72	810,941.97
16,874.00	90.20	1.70	12,314.88	4,225.69	4,222.73	-410.09	4,242.60	354.45	446,144.67	810,944.93
16,968.00	91.30	1.70	12,313.65	4,319.62	4,316.68	-407.30	4,335.85	354.61	446,238.62	810,947.72
17,009.00	91.50	2.00	12,312.65	4,360.57	4,357.65	-405.98	4,376.52	354.68	446,279.59	810,949.04
Last Survey: 17009' MD										
17,066.00	91.50	2.00	12,311.15	4,417.50	4,414.59	-403.99	4,433.04	354.77	446,336.53	810,951.03
PTB: 17066' MD										

Design Annotations

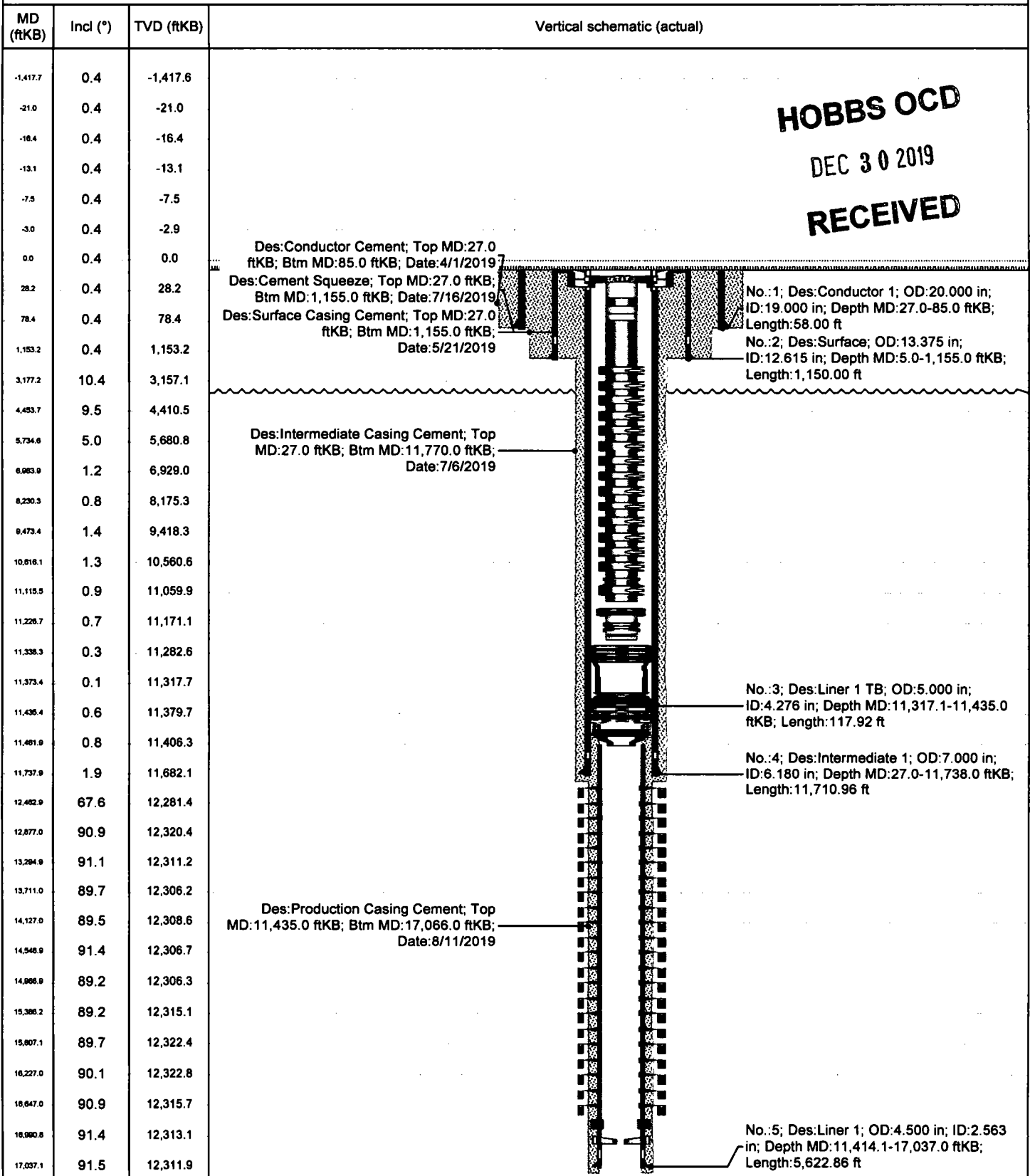
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,255.00	1,254.97	-0.27	4.42	Pro MWD First Survey: 1255' MD
17,009.00	12,312.65	4,357.65	-405.98	Last Survey: 17009' MD
17,066.00	12,311.15	4,414.59	-403.99	PTB: 17066' MD



Wellbore Schematic
Well Name: FLOWMASTER FEE 24 34 15 WXY 2H

State/Province NEW MEXICO	Country UNITED STATES	Field Name	Latitude (°) 32.21178290	Longitude (°) -103.45982400	North/South Distance (ft) 591.0	North/South Reference FSL
API/IPO UWI 3002544689	KB-Ground Distance (ft) 27.00	KB-Mud Line Distance (ft)	Ground Elevation (ft) 3,519.00	Drilling Rig Spud Date 6/25/2019	Well Original Completion Date	Well First Production Date 11/17/2019

HORIZONTAL, FLOWMASTER FEE 24 34 15 WXY 2H, 12/23/2019 11:46:48 AM





Marathon Oil

Marathon Oil

Lea County, NM

Flowmaster 24-34-15 WXY

No. 2H

OH

Survey: ProDirectional

Survey Report

09 September, 2019





ProDirectional Survey Report



Company: Marathon Oil
Project: Lea County, NM(NAD 83)
Site: Flowmaster 24-34-15
Well: No. 2H
Wellbore: OH
Design: MWD-180'-17009', PTB: 17066'

Local Co-ordinate Reference: Well No. 2H
TVD Reference: Well @ 3546.00usft
MD Reference: Well @ 3546.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey Program		Date	9/9/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
180.00	1,123.00	Survey #1 (OH)	GYRO-NS-CT	OWSG XYZ Accel with XY Static and Continuous Gyro	
1,255.00	17,066.00	Survey #2 (OH)	MWD+IFR1	OWSG MWD + IFR1	

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	441,921.94	811,355.02	
180.00	0.40	162.23	180.00	-0.60	-0.60	0.19	0.63	162.23	441,921.34	811,355.21	
297.00	0.40	51.23	297.00	-0.74	-0.73	0.63	0.97	139.05	441,921.21	811,355.65	
391.00	0.30	59.23	391.00	-0.41	-0.40	1.10	1.17	109.96	441,921.54	811,356.12	
485.00	0.70	103.23	484.99	-0.42	-0.41	1.87	1.92	102.22	441,921.53	811,356.89	
580.00	0.60	188.23	579.99	-1.05	-1.03	2.37	2.58	113.54	441,920.91	811,357.39	
675.00	0.20	256.23	674.99	-1.58	-1.56	2.13	2.64	126.21	441,920.38	811,357.15	
864.00	0.50	65.23	863.98	-1.31	-1.30	2.56	2.87	116.82	441,920.64	811,357.58	
959.00	0.60	139.23	958.98	-1.52	-1.50	3.26	3.59	114.66	441,920.44	811,358.28	
990.00	0.50	15.23	989.98	-1.52	-1.49	3.41	3.72	113.65	441,920.45	811,358.43	
1,123.00	0.40	35.23	1,122.98	-0.58	-0.55	3.83	3.86	98.21	441,921.39	811,358.85	
1,255.00	0.30	105.80	1,254.97	-0.30	-0.27	4.42	4.43	93.49	441,921.67	811,359.44	
Pro MWD First Survey: 1255' MD											
1,345.00	0.10	29.40	1,344.97	-0.30	-0.27	4.69	4.70	93.24	441,921.67	811,359.71	
1,435.00	0.70	300.70	1,434.97	0.05	0.08	4.25	4.26	88.87	441,922.02	811,359.27	
1,524.00	1.00	307.90	1,523.96	0.81	0.84	3.17	3.28	75.20	441,922.78	811,358.19	
1,614.00	1.00	313.10	1,613.95	1.84	1.86	1.98	2.72	46.85	441,923.80	811,357.00	
1,703.00	0.90	317.90	1,702.93	2.90	2.91	0.95	3.06	18.02	441,924.85	811,355.97	
1,793.00	1.10	295.30	1,792.92	3.80	3.80	-0.31	3.81	355.35	441,925.74	811,354.71	
1,882.00	2.70	257.10	1,881.87	3.72	3.70	-3.13	4.84	319.80	441,925.64	811,351.89	
1,972.00	4.30	242.70	1,971.70	1.74	1.68	-8.19	8.36	281.57	441,923.62	811,346.83	



ProDirectional Survey Report



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Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
4,482.00	8.80	213.50	4,438.37	-352.23	-354.49	-298.86	463.66	220.13	441,567.45	811,056.16
4,572.00	8.30	212.40	4,527.37	-363.40	-365.71	-306.14	476.94	219.93	441,556.23	811,048.88
4,662.00	7.80	203.10	4,616.48	-374.46	-376.82	-312.02	489.23	219.63	441,545.12	811,043.00
4,752.00	7.40	193.50	4,705.70	-385.69	-388.07	-315.77	500.31	219.14	441,533.87	811,039.25
4,841.00	7.40	197.20	4,793.95	-396.71	-399.12	-318.80	510.81	218.62	441,522.82	811,036.22
4,931.00	8.10	208.90	4,883.14	-407.77	-410.21	-323.58	522.47	218.27	441,511.73	811,031.44
5,021.00	8.00	204.30	4,972.25	-418.98	-421.46	-329.22	534.81	217.99	441,500.48	811,025.80
5,111.00	7.80	195.80	5,061.40	-430.53	-433.05	-333.46	546.56	217.60	441,488.89	811,021.56
5,200.00	7.60	187.90	5,149.60	-442.16	-444.69	-335.92	557.31	217.07	441,477.25	811,019.10
5,290.00	7.30	186.80	5,238.84	-453.72	-456.26	-337.41	567.47	216.48	441,465.68	811,017.61
5,379.00	7.10	186.70	5,327.14	-464.79	-467.34	-338.72	577.18	215.93	441,454.60	811,016.30
5,457.00	7.30	188.60	5,404.52	-474.46	-477.03	-340.03	585.81	215.48	441,444.91	811,014.99
5,547.00	5.40	201.40	5,493.97	-484.04	-486.63	-342.43	595.03	215.13	441,435.31	811,012.59
5,636.00	4.90	212.30	5,582.61	-491.13	-493.74	-345.99	602.90	215.02	441,428.20	811,009.03
5,726.00	5.10	208.00	5,672.27	-497.88	-500.52	-349.92	610.71	214.96	441,421.42	811,005.10
5,816.00	4.20	218.90	5,761.98	-503.95	-506.62	-353.87	617.97	214.93	441,415.32	811,001.15
5,905.00	3.00	235.30	5,850.80	-507.78	-510.48	-357.83	623.40	215.03	441,411.46	810,997.19
5,995.00	3.10	231.00	5,940.67	-510.62	-513.35	-361.66	627.95	215.16	441,408.59	810,993.36
6,084.00	3.00	235.60	6,029.55	-513.42	-516.18	-365.45	632.45	215.30	441,405.76	810,989.57
6,174.00	2.30	228.90	6,119.45	-515.92	-518.70	-368.75	636.42	215.41	441,403.24	810,986.27
6,264.00	1.90	225.60	6,209.39	-518.13	-520.93	-371.18	639.64	215.47	441,401.01	810,983.84
6,354.00	2.00	231.60	6,299.34	-520.13	-522.95	-373.48	642.62	215.53	441,398.99	810,981.54
6,443.00	1.90	230.70	6,388.29	-522.01	-524.85	-375.83	645.54	215.61	441,397.09	810,979.19
6,533.00	1.70	236.20	6,478.24	-523.68	-526.54	-378.10	648.23	215.68	441,395.40	810,976.92
6,622.00	1.60	228.70	6,567.21	-525.22	-528.09	-380.13	650.67	215.75	441,393.85	810,974.89
6,712.00	1.70	228.80	6,657.17	-526.92	-529.80	-382.08	653.20	215.80	441,392.14	810,972.94
6,801.00	1.60	229.60	6,746.13	-528.58	-531.47	-384.02	655.69	215.85	441,390.47	810,971.00

Company: Marathon Oil
Project: Lea County, NM(NAD 83)
Site: Flowmaster 24-34-15
Well: No. 2H
Wellbore: OH
Design: MWD-180'-17009', PTB: 17066'

Local Co-ordinate Reference: Well No. 2H
TVD Reference: Well @ 3546.00usft
MD Reference: Well @ 3546.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
9,310.00	0.90	312.00	9,254.94	-527.32	-530.37	-404.91	667.27	217.36	441,391.57	810,950.11
9,399.00	1.00	312.40	9,343.93	-526.32	-529.38	-406.01	667.15	217.49	441,392.56	810,949.01
9,489.00	1.50	314.80	9,433.91	-524.95	-528.02	-407.42	666.93	217.65	441,393.92	810,947.60
9,578.00	1.60	317.80	9,522.87	-523.19	-526.28	-409.08	666.57	217.86	441,395.66	810,945.94
9,668.00	1.80	313.40	9,612.83	-521.28	-524.38	-410.96	666.22	218.09	441,397.56	810,944.06
9,758.00	1.90	300.30	9,702.79	-519.54	-522.65	-413.27	666.30	218.33	441,399.29	810,941.75
9,847.00	2.00	299.70	9,791.74	-518.00	-521.14	-415.89	666.75	218.59	441,400.80	810,939.13
9,937.00	1.90	324.20	9,881.69	-516.00	-519.15	-418.13	666.60	218.85	441,402.79	810,936.89
10,026.00	1.60	312.30	9,970.64	-513.95	-517.12	-419.91	666.14	219.08	441,404.82	810,935.11
10,116.00	1.00	304.00	10,060.62	-512.66	-515.83	-421.49	666.14	219.25	441,406.11	810,933.53
10,205.00	1.40	303.50	10,149.60	-511.61	-514.80	-423.04	666.32	219.41	441,407.14	810,931.98
10,295.00	2.20	304.30	10,239.56	-510.01	-513.22	-425.39	666.59	219.65	441,408.72	810,929.63
10,385.00	1.60	25.60	10,329.52	-507.90	-511.11	-426.27	665.54	219.83	441,410.83	810,928.75
10,474.00	2.20	35.00	10,418.47	-505.39	-508.59	-424.75	662.63	219.87	441,413.35	810,930.27
10,563.00	1.70	28.30	10,507.42	-502.84	-506.03	-423.15	659.64	219.90	441,415.91	810,931.87
10,653.00	1.10	8.50	10,597.39	-500.82	-504.00	-422.39	657.59	219.97	441,417.94	810,932.63
10,743.00	0.50	0.80	10,687.38	-499.57	-502.75	-422.26	656.55	220.03	441,419.19	810,932.76
10,832.00	0.20	314.10	10,776.38	-499.07	-502.26	-422.36	656.24	220.06	441,419.68	810,932.66
10,922.00	0.20	210.40	10,866.38	-499.10	-502.28	-422.55	656.38	220.07	441,419.66	810,932.47
11,011.00	0.60	215.60	10,955.38	-499.61	-502.80	-422.90	657.00	220.07	441,419.14	810,932.12
11,101.00	1.00	242.80	11,045.37	-500.34	-503.54	-423.88	658.20	220.09	441,418.40	810,931.14
11,190.00	0.60	150.00	11,134.36	-501.10	-504.30	-424.33	659.07	220.08	441,417.64	810,930.69
11,280.00	0.80	119.60	11,224.36	-501.82	-505.02	-423.55	659.12	219.99	441,416.92	810,931.47
11,369.00	0.10	254.40	11,313.35	-502.15	-505.34	-423.09	659.07	219.94	441,416.60	810,931.93
11,459.00	0.80	265.00	11,403.35	-502.22	-505.42	-423.79	659.58	219.98	441,416.52	810,931.23
11,549.00	1.20	260.40	11,493.34	-502.42	-505.63	-425.34	660.74	220.07	441,416.31	810,929.68
11,638.00	1.80	241.80	11,582.31	-503.22	-506.45	-427.49	662.75	220.17	441,415.49	810,927.53

Company: Marathon Oil
Project: Lea County, NM(NAD 83)
Site: Flowmaster 24-34-15
Well: No. 2H
Wellbore: OH
Design: MWD-180'-17009', PTB: 17066'

Local Co-ordinate Reference: Well No. 2H
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Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
14,134.00	89.50	359.80	12,308.66	1,486.65	1,483.63	-407.65	1,538.61	344.64	443,405.57	810,947.37
14,228.00	88.60	359.80	12,310.22	1,580.63	1,577.61	-407.97	1,629.51	345.50	443,499.55	810,947.05
14,323.00	90.60	359.90	12,310.88	1,675.62	1,672.61	-408.22	1,721.70	346.28	443,594.55	810,946.80
14,418.00	91.00	359.90	12,309.56	1,770.61	1,767.60	-408.39	1,814.16	346.99	443,689.54	810,946.63
14,513.00	91.50	359.40	12,307.48	1,865.59	1,862.57	-408.97	1,906.94	347.62	443,784.51	810,946.05
14,607.00	91.30	358.80	12,305.19	1,959.56	1,956.53	-410.45	1,999.12	348.15	443,878.47	810,944.57
14,701.00	90.20	358.60	12,303.96	2,053.54	2,050.50	-412.58	2,091.59	348.62	443,972.44	810,942.44
14,796.00	89.40	358.90	12,304.29	2,148.52	2,145.47	-414.65	2,185.18	349.06	444,067.41	810,940.37
14,891.00	89.40	358.40	12,305.28	2,243.51	2,240.44	-416.89	2,278.90	349.46	444,162.38	810,938.13
14,986.00	89.10	358.20	12,306.53	2,338.48	2,335.39	-419.71	2,372.81	349.81	444,257.33	810,935.31
15,080.00	89.40	359.20	12,307.76	2,432.46	2,429.36	-421.84	2,465.71	350.15	444,351.30	810,933.18
15,175.00	87.70	359.40	12,310.16	2,527.42	2,524.32	-423.00	2,559.51	350.49	444,446.26	810,932.02
15,269.00	88.70	359.60	12,313.11	2,621.37	2,618.27	-423.82	2,652.35	350.81	444,540.21	810,931.20
15,364.00	89.40	359.80	12,314.69	2,716.36	2,713.25	-424.32	2,746.23	351.11	444,635.19	810,930.70
15,458.00	88.40	359.90	12,316.49	2,810.34	2,807.23	-424.56	2,839.16	351.40	444,729.17	810,930.46
15,553.00	88.80	0.40	12,318.81	2,905.31	2,902.20	-424.31	2,933.06	351.68	444,824.14	810,930.71
15,647.00	88.90	0.00	12,320.70	2,999.28	2,996.18	-423.99	3,026.03	351.95	444,918.12	810,931.03
15,742.00	89.50	359.70	12,322.03	3,094.27	3,091.17	-424.23	3,120.15	352.19	445,013.11	810,930.79
15,836.00	89.80	359.80	12,322.60	3,188.27	3,185.17	-424.64	3,213.35	352.41	445,107.11	810,930.38
15,931.00	90.40	359.50	12,322.43	3,283.27	3,280.17	-425.22	3,307.61	352.61	445,202.11	810,929.80
16,025.00	90.30	359.50	12,321.86	3,377.26	3,374.16	-426.05	3,400.95	352.80	445,296.10	810,928.97
16,119.00	89.20	358.80	12,322.27	3,471.26	3,468.15	-427.44	3,494.39	352.97	445,390.09	810,927.58
16,214.00	90.10	359.60	12,322.85	3,566.25	3,563.14	-428.77	3,588.84	353.14	445,485.08	810,926.25
16,308.00	90.30	0.80	12,322.52	3,660.25	3,657.13	-428.44	3,682.14	353.32	445,579.07	810,926.58
16,403.00	91.40	1.30	12,321.11	3,755.20	3,752.10	-426.70	3,776.29	353.51	445,674.04	810,928.32
16,497.00	91.20	1.80	12,318.98	3,849.12	3,846.05	-424.16	3,869.36	353.71	445,767.99	810,930.86
16,591.00	91.60	2.20	12,316.68	3,943.01	3,939.96	-420.88	3,962.38	353.90	445,861.90	810,934.14

State/Province NEW MEXICO	Country UNITED STATES	Field Name	Latitude (°) 32.21178290	Longitude (°) -103.45982400	North/South Distance (ft) 591.0	North/South Reference FSL
API/ I/O UWI 3002544689	KB-Ground Distance (ft) 27.00	KB-Mud Line Distance (ft)	Ground Elevation (ft) 3,519.00	Drilling Rig Spud Date 6/25/2019	Well Original Completion Date	Well First Production Date 11/17/2019

HORIZONTAL, FLOWMASTER FEE 24 34 15 WXY 2H, 12/23/2019 11:46:48 AM

