



Marathon Oil
Corporation

Marathon Oil
Lea County, NM
Frizzle Fry Fed 22-32-15 (1-2-7)
WA #2H
Prelim Plan B
GL: 3790' + KB: 26.5' (H&P480)

US State Plane 1927 (Exact solution)
NAD 1983 (NAD80 CONUS)
Clarke 1866
New Mexico East 3001
Mean Sea Level

RKB Elevation: Well @ 3816.50usft (GL: 3790' + KB: 26.5' (H&P480))

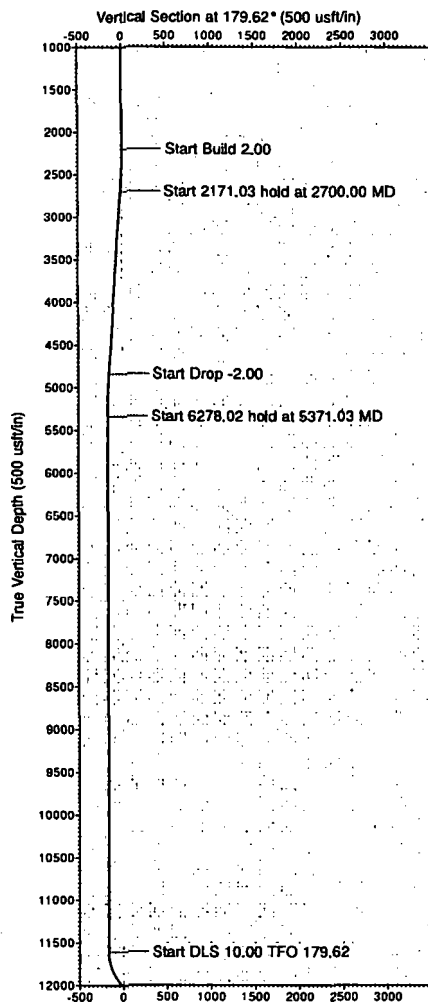
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	509175.51	705302.09	32.398083	-103.668174	

SECTION DETAILS

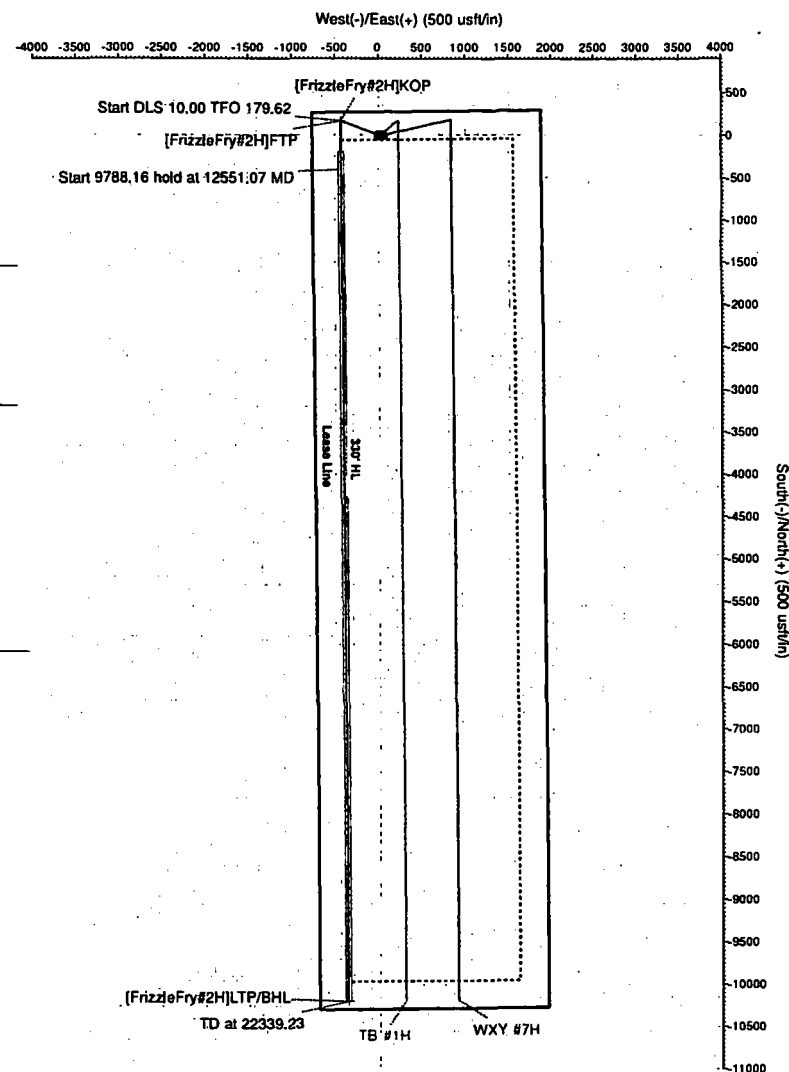
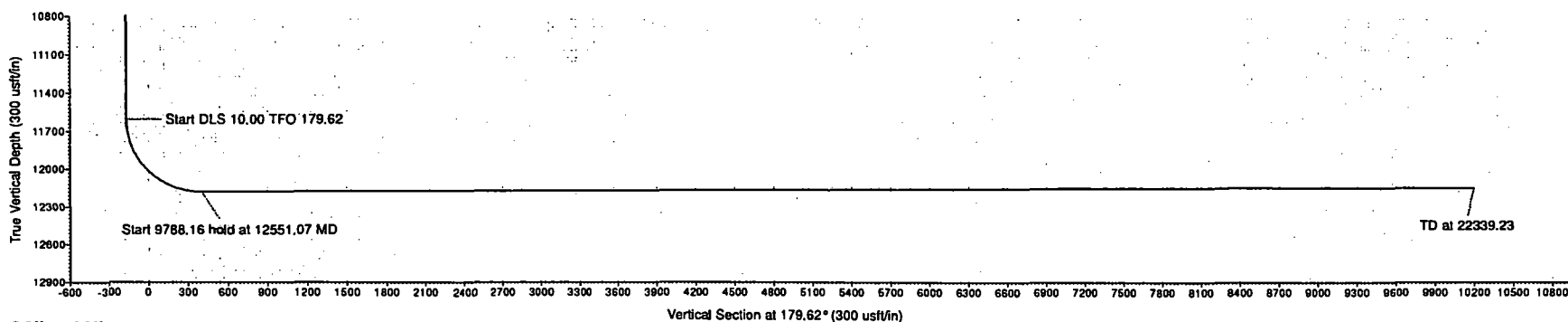
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00
3	2700.00	10.00	291.18	2697.47	15.73	-40.58	2.00	-15.99
4	4871.03	10.00	291.18	4835.51	151.94	-392.11	0.00	-154.54
5	5371.03	0.00	0.00	5332.98	167.67	-432.69	2.00	-170.54
6	11649.05	0.00	0.00	11611.00	167.67	-432.69	0.00	-170.54
7	12551.07	90.20	179.62	12183.95	-407.30	-428.90	10.00	404.44
8	22339.23	90.20	179.62	12149.42	-10195.18	-364.37	0.00	10192.54

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
[FrizzleFry#2H]FTP	0.00	167.67	-432.69	509343.18	704859.40
[FrizzleFry#2H]KOP	11611.00	167.67	-432.69	509343.18	704859.40
[FrizzleFry#2H]LTP/BHL	12149.42	-10195.18	-364.37	498980.33	704937.72



Target Line: 12185' TVD @ 0° VS, 90.2° INC



Azimuths to Grid North
True North: -0.36°
Magnetic North: 8.54°
Magnetic Field
Strength: 48202.4nT
Dip Angle: 60.22°
Date: 2/6/2018
Model: HDGM

Azimuth Corrections

Total Magnetic Corr. (M to G): 6.54°

Declination (M to T): 6.90° East

Company: Marathon Oil
Project: Lea County, NM
Site: Frizzle Fry Fed 22-32-15 (1-2-7)
Well: WA #2H
Wellbore: OH
Design: Prelim Plan B

Local Co-ordinate Reference: Well WA #2H
TVD Reference: Well @ 3816.50usft (GL: 3790' + KB: 26.5' (H&P480))
MD Reference: Well @ 3816.50usft (GL: 3790' + KB: 26.5' (H&P480))
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Project	Lea 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	Frizzle Fry Fed 22-32-15 (1-2-7)			
Site Position:		Northing:	509,175.53 usft	Latitude: 32.398083
From: Map		Easting:	705,302.08 usft	Longitude: -103.668174
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.36 °

Well	WA #2H			
Well Position	+N/-S	0.00 usft	Northing:	509,175.51 usft
	+E/-W	0.00 usft	Easting:	705,302.09 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	usft
			Ground Level:	3,790.00 usft

Wellbore	OH					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)	
	HDGM	2/6/2018	6.90	60.22	48,202.40	

Design	Prelim Plan B				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	179.62	

Survey Tool Program	Date 6/17/2019				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	5,000.00	Prelim Plan B (OH)	MWD+IFR1	OWSG MWD + IFR1	
5,000.00	10,000.00	Prelim Plan B (OH)	MWD+IFR1	OWSG MWD + IFR1	
10,000.00	22,339.23	Prelim Plan B (OH)	MWD+IFR1	OWSG MWD + IFR1	

Planned 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
[FrizzleFry#2H]FTP									
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

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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Planned 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)
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	2.00	291.18	2,299.98	0.63	-1.63	-0.64	2.00	2.00	0.00
2,400.00	4.00	291.18	2,399.84	2.52	-6.51	-2.56	2.00	2.00	0.00
2,500.00	6.00	291.18	2,499.45	5.67	-14.63	-5.77	2.00	2.00	0.00
2,600.00	8.00	291.18	2,598.70	10.07	-26.00	-10.25	2.00	2.00	0.00
2,700.00	10.00	291.18	2,697.47	15.73	-40.58	-15.99	2.00	2.00	0.00
2,800.00	10.00	291.18	2,795.95	22.00	-56.77	-22.38	0.00	0.00	0.00
2,900.00	10.00	291.18	2,894.43	28.27	-72.97	-28.76	0.00	0.00	0.00
3,000.00	10.00	291.18	2,992.91	34.55	-89.16	-35.14	0.00	0.00	0.00
3,100.00	10.00	291.18	3,091.39	40.82	-105.35	-41.52	0.00	0.00	0.00
3,200.00	10.00	291.18	3,189.87	47.10	-121.54	-47.90	0.00	0.00	0.00
3,300.00	10.00	291.18	3,288.35	53.37	-137.73	-54.28	0.00	0.00	0.00
3,400.00	10.00	291.18	3,386.83	59.65	-153.92	-60.67	0.00	0.00	0.00
3,500.00	10.00	291.18	3,485.31	65.92	-170.12	-67.05	0.00	0.00	0.00
3,600.00	10.00	291.18	3,583.79	72.20	-186.31	-73.43	0.00	0.00	0.00
3,700.00	10.00	291.18	3,682.27	78.47	-202.50	-79.81	0.00	0.00	0.00
3,800.00	10.00	291.18	3,780.75	84.74	-218.69	-86.19	0.00	0.00	0.00
3,900.00	10.00	291.18	3,879.23	91.02	-234.88	-92.57	0.00	0.00	0.00
4,000.00	10.00	291.18	3,977.72	97.29	-251.07	-98.96	0.00	0.00	0.00
4,100.00	10.00	291.18	4,076.20	103.57	-267.27	-105.34	0.00	0.00	0.00
4,200.00	10.00	291.18	4,174.68	109.84	-283.46	-111.72	0.00	0.00	0.00
4,300.00	10.00	291.18	4,273.16	116.12	-299.65	-118.10	0.00	0.00	0.00
4,400.00	10.00	291.18	4,371.64	122.39	-315.84	-124.48	0.00	0.00	0.00
4,500.00	10.00	291.18	4,470.12	128.66	-332.03	-130.86	0.00	0.00	0.00
4,600.00	10.00	291.18	4,568.60	134.94	-348.22	-137.24	0.00	0.00	0.00
4,700.00	10.00	291.18	4,667.08	141.21	-364.42	-143.63	0.00	0.00	0.00

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4,800.00	10.00	291.18	4,765.56	147.49	-380.61	-150.01	0.00	0.00	0.00
4,871.03	10.00	291.18	4,835.51	151.94	-392.11	-154.54	0.00	0.00	0.00
4,900.00	9.42	291.18	4,864.07	153.71	-396.66	-156.34	2.00	-2.00	0.00
5,000.00	7.42	291.18	4,962.98	159.00	-410.32	-161.72	2.00	-2.00	0.00
5,100.00	5.42	291.18	5,062.35	163.04	-420.74	-165.83	2.00	-2.00	0.00
5,200.00	3.42	291.18	5,162.05	165.83	-427.93	-168.66	2.00	-2.00	0.00
5,300.00	1.42	291.18	5,261.96	167.35	-431.87	-170.21	2.00	-2.00	0.00
5,371.03	0.00	0.00	5,332.98	167.67	-432.69	-170.54	2.00	-2.00	0.00
5,400.00	0.00	0.00	5,361.95	167.67	-432.69	-170.54	0.00	0.00	0.00
5,500.00	0.00	0.00	5,461.95	167.67	-432.69	-170.54	0.00	0.00	0.00
5,600.00	0.00	0.00	5,561.95	167.67	-432.69	-170.54	0.00	0.00	0.00
5,700.00	0.00	0.00	5,661.95	167.67	-432.69	-170.54	0.00	0.00	0.00
5,800.00	0.00	0.00	5,761.95	167.67	-432.69	-170.54	0.00	0.00	0.00
5,900.00	0.00	0.00	5,861.95	167.67	-432.69	-170.54	0.00	0.00	0.00
6,000.00	0.00	0.00	5,961.95	167.67	-432.69	-170.54	0.00	0.00	0.00
6,100.00	0.00	0.00	6,061.95	167.67	-432.69	-170.54	0.00	0.00	0.00
6,200.00	0.00	0.00	6,161.95	167.67	-432.69	-170.54	0.00	0.00	0.00
6,300.00	0.00	0.00	6,261.95	167.67	-432.69	-170.54	0.00	0.00	0.00
6,400.00	0.00	0.00	6,361.95	167.67	-432.69	-170.54	0.00	0.00	0.00
6,500.00	0.00	0.00	6,461.95	167.67	-432.69	-170.54	0.00	0.00	0.00
6,600.00	0.00	0.00	6,561.95	167.67	-432.69	-170.54	0.00	0.00	0.00
6,700.00	0.00	0.00	6,661.95	167.67	-432.69	-170.54	0.00	0.00	0.00
6,800.00	0.00	0.00	6,761.95	167.67	-432.69	-170.54	0.00	0.00	0.00
6,900.00	0.00	0.00	6,861.95	167.67	-432.69	-170.54	0.00	0.00	0.00
7,000.00	0.00	0.00	6,961.95	167.67	-432.69	-170.54	0.00	0.00	0.00
7,100.00	0.00	0.00	7,061.95	167.67	-432.69	-170.54	0.00	0.00	0.00
7,200.00	0.00	0.00	7,161.95	167.67	-432.69	-170.54	0.00	0.00	0.00
7,300.00	0.00	0.00	7,261.95	167.67	-432.69	-170.54	0.00	0.00	0.00
7,400.00	0.00	0.00	7,361.95	167.67	-432.69	-170.54	0.00	0.00	0.00
7,500.00	0.00	0.00	7,461.95	167.67	-432.69	-170.54	0.00	0.00	0.00
7,600.00	0.00	0.00	7,561.95	167.67	-432.69	-170.54	0.00	0.00	0.00
7,700.00	0.00	0.00	7,661.95	167.67	-432.69	-170.54	0.00	0.00	0.00
7,800.00	0.00	0.00	7,761.95	167.67	-432.69	-170.54	0.00	0.00	0.00
7,900.00	0.00	0.00	7,861.95	167.67	-432.69	-170.54	0.00	0.00	0.00
8,000.00	0.00	0.00	7,961.95	167.67	-432.69	-170.54	0.00	0.00	0.00
8,100.00	0.00	0.00	8,061.95	167.67	-432.69	-170.54	0.00	0.00	0.00
8,200.00	0.00	0.00	8,161.95	167.67	-432.69	-170.54	0.00	0.00	0.00
8,300.00	0.00	0.00	8,261.95	167.67	-432.69	-170.54	0.00	0.00	0.00
8,400.00	0.00	0.00	8,361.95	167.67	-432.69	-170.54	0.00	0.00	0.00
8,500.00	0.00	0.00	8,461.95	167.67	-432.69	-170.54	0.00	0.00	0.00
8,600.00	0.00	0.00	8,561.95	167.67	-432.69	-170.54	0.00	0.00	0.00
8,700.00	0.00	0.00	8,661.95	167.67	-432.69	-170.54	0.00	0.00	0.00

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8,800.00	0.00	0.00	8,761.95	167.67	-432.69	-170.54	0.00	0.00	0.00
8,900.00	0.00	0.00	8,861.95	167.67	-432.69	-170.54	0.00	0.00	0.00
9,000.00	0.00	0.00	8,961.95	167.67	-432.69	-170.54	0.00	0.00	0.00
9,100.00	0.00	0.00	9,061.95	167.67	-432.69	-170.54	0.00	0.00	0.00
9,200.00	0.00	0.00	9,161.95	167.67	-432.69	-170.54	0.00	0.00	0.00
9,300.00	0.00	0.00	9,261.95	167.67	-432.69	-170.54	0.00	0.00	0.00
9,400.00	0.00	0.00	9,361.95	167.67	-432.69	-170.54	0.00	0.00	0.00
9,500.00	0.00	0.00	9,461.95	167.67	-432.69	-170.54	0.00	0.00	0.00
9,600.00	0.00	0.00	9,561.95	167.67	-432.69	-170.54	0.00	0.00	0.00
9,700.00	0.00	0.00	9,661.95	167.67	-432.69	-170.54	0.00	0.00	0.00
9,800.00	0.00	0.00	9,761.95	167.67	-432.69	-170.54	0.00	0.00	0.00
9,900.00	0.00	0.00	9,861.95	167.67	-432.69	-170.54	0.00	0.00	0.00
10,000.00	0.00	0.00	9,961.95	167.67	-432.69	-170.54	0.00	0.00	0.00
10,100.00	0.00	0.00	10,061.95	167.67	-432.69	-170.54	0.00	0.00	0.00
10,200.00	0.00	0.00	10,161.95	167.67	-432.69	-170.54	0.00	0.00	0.00
10,300.00	0.00	0.00	10,261.95	167.67	-432.69	-170.54	0.00	0.00	0.00
10,400.00	0.00	0.00	10,361.95	167.67	-432.69	-170.54	0.00	0.00	0.00
10,500.00	0.00	0.00	10,461.95	167.67	-432.69	-170.54	0.00	0.00	0.00
10,600.00	0.00	0.00	10,561.95	167.67	-432.69	-170.54	0.00	0.00	0.00
10,700.00	0.00	0.00	10,661.95	167.67	-432.69	-170.54	0.00	0.00	0.00
10,800.00	0.00	0.00	10,761.95	167.67	-432.69	-170.54	0.00	0.00	0.00
10,900.00	0.00	0.00	10,861.95	167.67	-432.69	-170.54	0.00	0.00	0.00
11,000.00	0.00	0.00	10,961.95	167.67	-432.69	-170.54	0.00	0.00	0.00
11,100.00	0.00	0.00	11,061.95	167.67	-432.69	-170.54	0.00	0.00	0.00
11,200.00	0.00	0.00	11,161.95	167.67	-432.69	-170.54	0.00	0.00	0.00
11,300.00	0.00	0.00	11,261.95	167.67	-432.69	-170.54	0.00	0.00	0.00
11,400.00	0.00	0.00	11,361.95	167.67	-432.69	-170.54	0.00	0.00	0.00
11,500.00	0.00	0.00	11,461.95	167.67	-432.69	-170.54	0.00	0.00	0.00
11,600.00	0.00	0.00	11,561.95	167.67	-432.69	-170.54	0.00	0.00	0.00
11,649.05	0.00	0.00	11,611.00	167.67	-432.69	-170.54	0.00	0.00	0.00
[FrizzleFry#2H]KOP									
11,700.00	5.09	179.62	11,661.88	165.41	-432.68	-168.27	10.00	10.00	0.00
11,750.00	10.09	179.62	11,711.43	158.80	-432.63	-161.67	10.00	10.00	0.00
11,800.00	15.09	179.62	11,760.21	147.90	-432.56	-150.77	10.00	10.00	0.00
11,850.00	20.09	179.62	11,807.85	132.79	-432.46	-135.66	10.00	10.00	0.00
11,900.00	25.09	179.62	11,854.00	113.59	-432.33	-116.45	10.00	10.00	0.00
11,950.00	30.09	179.62	11,898.30	90.44	-432.18	-93.30	10.00	10.00	0.00
12,000.00	35.09	179.62	11,940.41	63.51	-432.00	-66.37	10.00	10.00	0.00
12,050.00	40.09	179.62	11,980.02	33.02	-431.80	-35.88	10.00	10.00	0.00
12,100.00	45.09	179.62	12,016.81	-0.81	-431.58	-2.05	10.00	10.00	0.00
12,150.00	50.09	179.62	12,050.52	-37.72	-431.34	34.86	10.00	10.00	0.00
12,200.00	55.09	179.62	12,080.88	-77.42	-431.07	74.56	10.00	10.00	0.00

Company: Marathon Oil
Project: Lea County, NM
Site: Frizzle Fry Fed 22-32-15 (1-2-7)
Well: WA #2H
Wellbore: OH
Design: Prelim Plan B

Local Co-ordinate Reference: Well WA #2H
TVD Reference: Well @ 3816.50usft (GL: 3790' + KB: 26.5' (H&P480))
MD Reference: Well @ 3816.50usft (GL: 3790' + KB: 26.5' (H&P480))
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Planned 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)
12,250.00	60.09	179.62	12,107.67	-119.62	-430.80	116.76	10.00	10.00	0.00
12,300.00	65.09	179.62	12,130.68	-164.00	-430.50	161.14	10.00	10.00	0.00
12,350.00	70.09	179.62	12,149.73	-210.21	-430.20	207.35	10.00	10.00	0.00
12,400.00	75.09	179.62	12,164.68	-257.90	-429.88	255.05	10.00	10.00	0.00
12,450.00	80.09	179.62	12,175.42	-306.72	-429.56	303.86	10.00	10.00	0.00
12,500.00	85.09	179.62	12,181.86	-356.28	-429.24	353.43	10.00	10.00	0.00
12,551.07	90.20	179.62	12,183.95	-407.30	-428.90	404.44	10.00	10.00	0.00
12,600.00	90.20	179.62	12,183.78	-456.22	-428.58	453.37	0.00	0.00	0.00
12,700.00	90.20	179.62	12,183.43	-556.22	-427.92	553.37	0.00	0.00	0.00
12,800.00	90.20	179.62	12,183.08	-656.22	-427.26	653.37	0.00	0.00	0.00
12,900.00	90.20	179.62	12,182.72	-756.21	-426.60	753.37	0.00	0.00	0.00
13,000.00	90.20	179.62	12,182.37	-856.21	-425.94	853.37	0.00	0.00	0.00
13,100.00	90.20	179.62	12,182.02	-956.21	-425.28	953.37	0.00	0.00	0.00
13,200.00	90.20	179.62	12,181.66	-1,056.21	-424.62	1,053.37	0.00	0.00	0.00
13,300.00	90.20	179.62	12,181.31	-1,156.20	-423.96	1,153.37	0.00	0.00	0.00
13,400.00	90.20	179.62	12,180.96	-1,256.20	-423.30	1,253.36	0.00	0.00	0.00
13,500.00	90.20	179.62	12,180.61	-1,356.20	-422.64	1,353.36	0.00	0.00	0.00
13,600.00	90.20	179.62	12,180.25	-1,456.19	-421.98	1,453.36	0.00	0.00	0.00
13,700.00	90.20	179.62	12,179.90	-1,556.19	-421.32	1,553.36	0.00	0.00	0.00
13,800.00	90.20	179.62	12,179.55	-1,656.19	-420.67	1,653.36	0.00	0.00	0.00
13,900.00	90.20	179.62	12,179.20	-1,756.19	-420.01	1,753.36	0.00	0.00	0.00
14,000.00	90.20	179.62	12,178.84	-1,856.18	-419.35	1,853.36	0.00	0.00	0.00
14,100.00	90.20	179.62	12,178.49	-1,956.18	-418.69	1,953.36	0.00	0.00	0.00
14,200.00	90.20	179.62	12,178.14	-2,056.18	-418.03	2,053.36	0.00	0.00	0.00
14,300.00	90.20	179.62	12,177.78	-2,156.17	-417.37	2,153.36	0.00	0.00	0.00
14,400.00	90.20	179.62	12,177.43	-2,256.17	-416.71	2,253.36	0.00	0.00	0.00
14,500.00	90.20	179.62	12,177.08	-2,356.17	-416.05	2,353.36	0.00	0.00	0.00
14,600.00	90.20	179.62	12,176.73	-2,456.17	-415.39	2,453.36	0.00	0.00	0.00
14,700.00	90.20	179.62	12,176.37	-2,556.16	-414.73	2,553.36	0.00	0.00	0.00
14,800.00	90.20	179.62	12,176.02	-2,656.16	-414.07	2,653.36	0.00	0.00	0.00
14,900.00	90.20	179.62	12,175.67	-2,756.16	-413.41	2,753.36	0.00	0.00	0.00
15,000.00	90.20	179.62	12,175.31	-2,856.15	-412.75	2,853.35	0.00	0.00	0.00
15,100.00	90.20	179.62	12,174.96	-2,956.15	-412.10	2,953.35	0.00	0.00	0.00
15,200.00	90.20	179.62	12,174.61	-3,056.15	-411.44	3,053.35	0.00	0.00	0.00
15,300.00	90.20	179.62	12,174.26	-3,156.15	-410.78	3,153.35	0.00	0.00	0.00
15,400.00	90.20	179.62	12,173.90	-3,256.14	-410.12	3,253.35	0.00	0.00	0.00
15,500.00	90.20	179.62	12,173.55	-3,356.14	-409.46	3,353.35	0.00	0.00	0.00
15,600.00	90.20	179.62	12,173.20	-3,456.14	-408.80	3,453.35	0.00	0.00	0.00
15,700.00	90.20	179.62	12,172.84	-3,556.14	-408.14	3,553.35	0.00	0.00	0.00
15,800.00	90.20	179.62	12,172.49	-3,656.13	-407.48	3,653.35	0.00	0.00	0.00
15,900.00	90.20	179.62	12,172.14	-3,756.13	-406.82	3,753.35	0.00	0.00	0.00
16,000.00	90.20	179.62	12,171.79	-3,856.13	-406.16	3,853.35	0.00	0.00	0.00

Company: Marathon Oil
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Site: Frizzle Fry Fed 22-32-15 (1-2-7)
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Wellbore: OH
Design: Prelim Plan B

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MD Reference: Well @ 3816.50usft (GL: 3790' + KB: 26.5' (H&P480))
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Planned 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)
16,100.00	90.20	179.62	12,171.43	-3,956.12	-405.50	3,953.35	0.00	0.00	0.00
16,200.00	90.20	179.62	12,171.08	-4,056.12	-404.84	4,053.35	0.00	0.00	0.00
16,300.00	90.20	179.62	12,170.73	-4,156.12	-404.18	4,153.35	0.00	0.00	0.00
16,400.00	90.20	179.62	12,170.37	-4,256.12	-403.52	4,253.35	0.00	0.00	0.00
16,500.00	90.20	179.62	12,170.02	-4,356.11	-402.87	4,353.35	0.00	0.00	0.00
16,600.00	90.20	179.62	12,169.67	-4,456.11	-402.21	4,453.35	0.00	0.00	0.00
16,700.00	90.20	179.62	12,169.32	-4,556.11	-401.55	4,553.34	0.00	0.00	0.00
16,800.00	90.20	179.62	12,168.96	-4,656.10	-400.89	4,653.34	0.00	0.00	0.00
16,900.00	90.20	179.62	12,168.61	-4,756.10	-400.23	4,753.34	0.00	0.00	0.00
17,000.00	90.20	179.62	12,168.26	-4,856.10	-399.57	4,853.34	0.00	0.00	0.00
17,100.00	90.20	179.62	12,167.91	-4,956.10	-398.91	4,953.34	0.00	0.00	0.00
17,200.00	90.20	179.62	12,167.55	-5,056.09	-398.25	5,053.34	0.00	0.00	0.00
17,300.00	90.20	179.62	12,167.20	-5,156.09	-397.59	5,153.34	0.00	0.00	0.00
17,400.00	90.20	179.62	12,166.85	-5,256.09	-396.93	5,253.34	0.00	0.00	0.00
17,500.00	90.20	179.62	12,166.49	-5,356.08	-396.27	5,353.34	0.00	0.00	0.00
17,600.00	90.20	179.62	12,166.14	-5,456.08	-395.61	5,453.34	0.00	0.00	0.00
17,700.00	90.20	179.62	12,165.79	-5,556.08	-394.95	5,553.34	0.00	0.00	0.00
17,800.00	90.20	179.62	12,165.44	-5,656.08	-394.30	5,653.34	0.00	0.00	0.00
17,900.00	90.20	179.62	12,165.08	-5,756.07	-393.64	5,753.34	0.00	0.00	0.00
18,000.00	90.20	179.62	12,164.73	-5,856.07	-392.98	5,853.34	0.00	0.00	0.00
18,100.00	90.20	179.62	12,164.38	-5,956.07	-392.32	5,953.34	0.00	0.00	0.00
18,200.00	90.20	179.62	12,164.02	-6,056.07	-391.66	6,053.34	0.00	0.00	0.00
18,300.00	90.20	179.62	12,163.67	-6,156.06	-391.00	6,153.33	0.00	0.00	0.00
18,400.00	90.20	179.62	12,163.32	-6,256.06	-390.34	6,253.33	0.00	0.00	0.00
18,500.00	90.20	179.62	12,162.97	-6,356.06	-389.68	6,353.33	0.00	0.00	0.00
18,600.00	90.20	179.62	12,162.61	-6,456.05	-389.02	6,453.33	0.00	0.00	0.00
18,700.00	90.20	179.62	12,162.26	-6,556.05	-388.36	6,553.33	0.00	0.00	0.00
18,800.00	90.20	179.62	12,161.91	-6,656.05	-387.70	6,653.33	0.00	0.00	0.00
18,900.00	90.20	179.62	12,161.55	-6,756.05	-387.04	6,753.33	0.00	0.00	0.00
19,000.00	90.20	179.62	12,161.20	-6,856.04	-386.38	6,853.33	0.00	0.00	0.00
19,100.00	90.20	179.62	12,160.85	-6,956.04	-385.72	6,953.33	0.00	0.00	0.00
19,200.00	90.20	179.62	12,160.50	-7,056.04	-385.07	7,053.33	0.00	0.00	0.00
19,300.00	90.20	179.62	12,160.14	-7,156.03	-384.41	7,153.33	0.00	0.00	0.00
19,400.00	90.20	179.62	12,159.79	-7,256.03	-383.75	7,253.33	0.00	0.00	0.00
19,500.00	90.20	179.62	12,159.44	-7,356.03	-383.09	7,353.33	0.00	0.00	0.00
19,600.00	90.20	179.62	12,159.08	-7,456.03	-382.43	7,453.33	0.00	0.00	0.00
19,700.00	90.20	179.62	12,158.73	-7,556.02	-381.77	7,553.33	0.00	0.00	0.00
19,800.00	90.20	179.62	12,158.38	-7,656.02	-381.11	7,653.33	0.00	0.00	0.00
19,900.00	90.20	179.62	12,158.03	-7,756.02	-380.45	7,753.32	0.00	0.00	0.00
20,000.00	90.20	179.62	12,157.67	-7,856.02	-379.79	7,853.32	0.00	0.00	0.00
20,100.00	90.20	179.62	12,157.32	-7,956.01	-379.13	7,953.32	0.00	0.00	0.00
20,200.00	90.20	179.62	12,156.97	-8,056.01	-378.47	8,053.32	0.00	0.00	0.00

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Survey Calculation Method: Minimum Curvature
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Planned 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)
20,300.00	90.20	179.62	12,156.62	-8,156.01	-377.81	8,153.32	0.00	0.00	0.00
20,400.00	90.20	179.62	12,156.26	-8,256.00	-377.15	8,253.32	0.00	0.00	0.00
20,500.00	90.20	179.62	12,155.91	-8,356.00	-376.50	8,353.32	0.00	0.00	0.00
20,600.00	90.20	179.62	12,155.56	-8,456.00	-375.84	8,453.32	0.00	0.00	0.00
20,700.00	90.20	179.62	12,155.20	-8,556.00	-375.18	8,553.32	0.00	0.00	0.00
20,800.00	90.20	179.62	12,154.85	-8,655.99	-374.52	8,653.32	0.00	0.00	0.00
20,900.00	90.20	179.62	12,154.50	-8,755.99	-373.86	8,753.32	0.00	0.00	0.00
21,000.00	90.20	179.62	12,154.15	-8,855.99	-373.20	8,853.32	0.00	0.00	0.00
21,100.00	90.20	179.62	12,153.79	-8,955.98	-372.54	8,953.32	0.00	0.00	0.00
21,200.00	90.20	179.62	12,153.44	-9,055.98	-371.88	9,053.32	0.00	0.00	0.00
21,300.00	90.20	179.62	12,153.09	-9,155.98	-371.22	9,153.32	0.00	0.00	0.00
21,400.00	90.20	179.62	12,152.73	-9,255.98	-370.56	9,253.32	0.00	0.00	0.00
21,500.00	90.20	179.62	12,152.38	-9,355.97	-369.90	9,353.31	0.00	0.00	0.00
21,600.00	90.20	179.62	12,152.03	-9,455.97	-369.24	9,453.31	0.00	0.00	0.00
21,700.00	90.20	179.62	12,151.68	-9,555.97	-368.58	9,553.31	0.00	0.00	0.00
21,800.00	90.20	179.62	12,151.32	-9,655.96	-367.92	9,653.31	0.00	0.00	0.00
21,900.00	90.20	179.62	12,150.97	-9,755.96	-367.27	9,753.31	0.00	0.00	0.00
22,000.00	90.20	179.62	12,150.62	-9,855.96	-366.61	9,853.31	0.00	0.00	0.00
22,100.00	90.20	179.62	12,150.26	-9,955.96	-365.95	9,953.31	0.00	0.00	0.00
22,200.00	90.20	179.62	12,149.91	-10,055.95	-365.29	10,053.31	0.00	0.00	0.00
22,300.00	90.20	179.62	12,149.56	-10,155.95	-364.63	10,153.31	0.00	0.00	0.00
22,339.23	90.20	179.62	12,149.42	-10,195.18	-364.37	10,192.54	0.00	0.00	0.00

[FrizzleFry#2H]LTP/BHL

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
[FrizzleFry#2H]FTP	0.00	0.00	0.00	167.67	-432.69	509,343.18	704,869.40	32.398551	-103.669572
- plan misses target center by 464.04usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									
[FrizzleFry#2H]KOP	0.00	0.00	11,611.00	167.67	-432.69	509,343.18	704,869.40	32.398551	-103.669572
- plan hits target center									
- Point									
[FrizzleFry#2H]LTP/BHL	0.00	0.00	12,149.4 2	-10,195.18	-364.37	498,980.33	704,937.72	32.370065	-103.669559
- plan hits target center									
- Rectangle (sides W60.00 H10,000.00 D0.00)									

Checked By: _____ Approved By: _____ Date: _____