

Marathon Oil Permian, LLC

Eddy County, NM (NAD27)

Black River 374 State 24-27-15

TB #6H

NM OIL CONSERVATION
ARTESIA DISTRICT

MAR 16 2018

OH

30-015-44814

RECEIVED

Plan: Plan #1

Standard Planning Report

27 February, 2018



www.scientificdrilling.com

Planning Report

Company:	Midland District	Well TB #6H
Client:	Marathon Oil Permian, LLC	KB = 26.5' @ 3248.50usft (H&P 441)
Project:	Eddy County, NM (NAD27)	KB = 26.5' @ 3248.50usft (H&P 441)
Site:	Black River 374 State 24-27-15	Grid
Well:	TB #6H	Minimum Curvature
Toolbit:	OH	
Plan:	Plan #1	

Location:	Eddy County, NM (NAD27)		
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		Using geodetic scale factor

Black River 374 State 24-27-15						
Site Position:		Northing:	440,373.41 usft	Latitude:	32° 12' 38.202 N	
From:	Map	Easting:	547,156.41 usft	Longitude:	104° 10' 51.110 W	
Position Uncertainty:		0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.08 °

Well:		TB #6H				
Well Position	+N/-S	52.29 usft	Northing:	440,425.70 usft	Latitude:	32° 12' 38.733 N
	+E/-W	-1,008.68 usft	Easting:	546,147.82 usft	Longitude:	104° 11' 2.849 W
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,222.00 usft	

Wellbit:	OH			
HDGM	2/27/2018	7.37	59.95	47,987

Plan:	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
0.00	0.00	0.00	0.00	0.00

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	10.00	235.00	2,897.47	-24.96	-35.65	2.00	2.00	0.00	235.00
4,525.00	10.00	235.00	4,497.78	-186.81	-266.80	0.00	0.00	0.00	0.00
5,025.00	0.00	0.00	4,995.24	-211.78	-302.45	2.00	-2.00	0.00	180.00
8,426.80	0.00	0.00	8,397.04	-211.78	-302.45	0.00	0.00	0.00	0.00
9,326.80	90.00	0.15	8,970.00	361.18	-300.97	10.00	10.00	0.00	0.15
13,602.08	90.00	0.15	8,970.00	4,636.44	-289.89	0.00	0.00	0.00	0.00 BHL[BR374\TB#6H]
13,647.08	90.00	0.15	8,970.00	4,681.44	-289.77	0.00	0.00	0.00	0.00

Planning Report

Midland District Marathon Oil Permian, LLC Eddy County, NM (NAD27) Black River 374 State 24-27-15 TB #6H OH Plan #1	Well TB #6H KB = 26.5' @ 3248.50usft (H&P 441) KB = 26.5' @ 3248.50usft (H&P 441) Grid Minimum Curvature
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Station	Elevation	Grade	Offset	Station	Elevation	Grade	Offset	Station	Elevation	Grade	Offset
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	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	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	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	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	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	0.00	0.00
713.00	0.00	0.00	713.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Castile / Salado											
800.00	0.00	0.00	800.00	0.00	0.00	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	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	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	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	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	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	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	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	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	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	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	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	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	0.00	0.00
2,225.00	0.00	0.00	2,225.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Base of Salt											
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,366.00	0.00	0.00	2,366.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lamar											
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP - Build 2.0° / 100											
2,437.00	0.74	235.00	2,437.00	-0.14	-0.20	-0.14	2.00	2.00	0.00	0.00	0.00
Bell Canyon											
2,500.00	2.00	235.00	2,499.98	-1.00	-1.43	-1.00	2.00	2.00	0.00	0.00	0.00
2,600.00	4.00	235.00	2,599.84	-4.00	-5.72	-4.00	2.00	2.00	0.00	0.00	0.00
2,700.00	6.00	235.00	2,699.45	-9.00	-12.86	-9.00	2.00	2.00	0.00	0.00	0.00
2,800.00	8.00	235.00	2,798.70	-15.99	-22.84	-15.99	2.00	2.00	0.00	0.00	0.00
2,900.00	10.00	235.00	2,897.47	-24.96	-35.65	-24.96	2.00	2.00	0.00	0.00	0.00
EOB - HOLD											
3,000.00	10.00	235.00	2,995.95	-34.92	-49.88	-34.92	0.00	0.00	0.00	0.00	0.00
3,100.00	10.00	235.00	3,094.43	-44.88	-64.10	-44.88	0.00	0.00	0.00	0.00	0.00
3,197.05	10.00	235.00	3,190.00	-54.55	-77.90	-54.55	0.00	0.00	0.00	0.00	0.00
Brushy Canyon											
3,200.00	10.00	235.00	3,192.91	-54.84	-78.32	-54.84	0.00	0.00	0.00	0.00	0.00
3,300.00	10.00	235.00	3,291.39	-64.80	-92.55	-64.80	0.00	0.00	0.00	0.00	0.00
3,400.00	10.00	235.00	3,389.87	-74.76	-106.77	-74.76	0.00	0.00	0.00	0.00	0.00
3,500.00	10.00	235.00	3,488.35	-84.72	-121.00	-84.72	0.00	0.00	0.00	0.00	0.00
3,600.00	10.00	235.00	3,586.83	-94.68	-135.22	-94.68	0.00	0.00	0.00	0.00	0.00
3,700.00	10.00	235.00	3,685.31	-104.64	-149.45	-104.64	0.00	0.00	0.00	0.00	0.00
3,800.00	10.00	235.00	3,783.79	-114.60	-163.67	-114.60	0.00	0.00	0.00	0.00	0.00
3,900.00	10.00	235.00	3,882.27	-124.56	-177.90	-124.56	0.00	0.00	0.00	0.00	0.00
4,000.00	10.00	235.00	3,980.75	-134.52	-192.12	-134.52	0.00	0.00	0.00	0.00	0.00

Planning Report

Client:	Midland District	Well TB #6H
Operator:	Marathon Oil Permian, LLC	KB = 26.5' @ 3248.50usft (H&P 441)
Location:	Eddy County, NM (NAD27)	KB = 26.5' @ 3248.50usft (H&P 441)
Section:	Black River 374 State 24-27-15	Grid
Well:	TB #6H	Minimum Curvature
Unit:	OH	
Plan:	Plan #1	

Depth (ft)	Interval (ft)	Area (sq ft)	Volume (cu ft)	Weight (lb)	Volume (cu ft)	Weight (lb)	Volume (cu ft)	Weight (lb)	Volume (cu ft)	Weight (lb)
4,100.00	10.00	235.00	4,079.23	-144.48	-206.34	-144.48	0.00	0.00	0.00	0.00
4,200.00	10.00	235.00	4,177.72	-154.44	-220.57	-154.44	0.00	0.00	0.00	0.00
4,300.00	10.00	235.00	4,276.20	-164.40	-234.79	-164.40	0.00	0.00	0.00	0.00
4,302.85	10.00	235.00	4,279.00	-164.69	-235.20	-164.69	0.00	0.00	0.00	0.00
Bone Spring										
4,400.00	10.00	235.00	4,374.68	-174.36	-249.02	-174.36	0.00	0.00	0.00	0.00
4,500.00	10.00	235.00	4,473.16	-184.32	-263.24	-184.32	0.00	0.00	0.00	0.00
4,525.00	10.00	235.00	4,497.78	-186.81	-266.80	-186.81	0.00	0.00	0.00	0.00
DROP 2.0" / 100										
4,600.00	8.50	235.00	4,571.80	-193.73	-276.67	-193.73	2.00	-2.00	0.00	0.00
4,700.00	6.50	235.00	4,670.94	-201.22	-287.37	-201.22	2.00	-2.00	0.00	0.00
4,800.00	4.50	235.00	4,770.47	-206.71	-295.22	-206.71	2.00	-2.00	0.00	0.00
4,900.00	2.50	235.00	4,870.28	-210.21	-300.22	-210.21	2.00	-2.00	0.00	0.00
5,000.00	0.50	235.00	4,970.24	-211.72	-302.36	-211.72	2.00	-2.00	0.00	0.00
5,025.00	0.00	0.00	4,995.24	-211.78	-302.45	-211.78	2.00	-2.00	0.00	0.00
EOD - HOLD										
5,100.00	0.00	0.00	5,070.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,170.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,270.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,370.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,470.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,570.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,670.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,770.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
5,860.76	0.00	0.00	5,831.00	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
1st Bone Spring Sand										
5,900.00	0.00	0.00	5,870.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	5,970.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,070.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,170.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,270.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,370.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,470.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,570.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,670.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,770.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
6,876.76	0.00	0.00	6,847.00	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
2nd Bone Spring Sand										
6,900.00	0.00	0.00	6,870.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	6,970.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,070.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,170.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,270.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,370.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
7,418.76	0.00	0.00	7,389.00	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
3rd Bone Spring Sand										
7,500.00	0.00	0.00	7,470.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,570.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,670.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,770.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,870.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	7,970.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,070.24	-211.78	-302.45	-211.78	0.00	0.00	0.00	0.00

Planning Report

Midland District Marathon Oil Permian, LLC Eddy County, NM (NAD27) Black River 374 State 24-27-15 TB #6H OH Plan #1	Well TB #6H KB = 26.5' @ 3248.50usft (H&P 441) KB = 26.5' @ 3248.50usft (H&P 441) Grid Minimum Curvature
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8,200.00	0.00	0.00	8,170.24	-211.78	-302.45	-211.78	0.00	0.00	0.00
8,300.00	0.00	0.00	8,270.24	-211.78	-302.45	-211.78	0.00	0.00	0.00
8,400.00	0.00	0.00	8,370.24	-211.78	-302.45	-211.78	0.00	0.00	0.00
8,426.80	0.00	0.00	8,397.04	-211.78	-302.45	-211.78	0.00	0.00	0.00
Curve KOP - Build 10.0° / 100									
8,450.00	2.32	0.15	8,420.24	-211.31	-302.45	-211.31	10.00	10.00	0.00
8,500.00	7.32	0.15	8,470.04	-207.11	-302.44	-207.11	10.00	10.00	0.00
8,550.00	12.32	0.15	8,519.30	-198.58	-302.42	-198.58	10.00	10.00	0.00
8,600.00	17.32	0.15	8,567.62	-185.80	-302.38	-185.80	10.00	10.00	0.00
8,650.00	22.32	0.15	8,614.64	-168.85	-302.34	-168.85	10.00	10.00	0.00
8,700.00	27.32	0.15	8,660.01	-147.87	-302.28	-147.87	10.00	10.00	0.00
8,750.00	32.32	0.15	8,703.37	-123.01	-302.22	-123.01	10.00	10.00	0.00
8,800.00	37.32	0.15	8,744.41	-94.47	-302.15	-94.47	10.00	10.00	0.00
8,817.29	39.05	0.15	8,758.00	-83.78	-302.12	-83.78	10.00	10.00	0.00
3BS Sand Target									
8,850.00	42.32	0.15	8,782.80	-62.46	-302.06	-62.46	10.00	10.00	0.00
8,900.00	47.32	0.15	8,818.25	-27.23	-301.97	-27.23	10.00	10.00	0.00
8,950.00	52.32	0.15	8,850.50	10.96	-301.87	10.96	10.00	10.00	0.00
9,000.00	57.32	0.15	8,879.30	51.81	-301.77	51.81	10.00	10.00	0.00
9,009.45	58.27	0.15	8,884.34	59.81	-301.75	59.81	10.00	10.00	0.00
FTP[BR374\TB#6H]									
9,050.00	62.32	0.15	8,904.43	95.02	-301.66	95.02	10.00	10.00	0.00
9,100.00	67.32	0.15	8,925.70	140.26	-301.54	140.26	10.00	10.00	0.00
9,150.00	72.32	0.15	8,942.94	187.17	-301.42	187.17	10.00	10.00	0.00
9,200.00	77.32	0.15	8,956.03	235.41	-301.29	235.41	10.00	10.00	0.00
9,250.00	82.32	0.15	8,964.86	284.61	-301.16	284.61	10.00	10.00	0.00
9,300.00	87.32	0.15	8,969.37	334.39	-301.03	334.39	10.00	10.00	0.00
9,326.80	90.00	0.15	8,970.00	361.18	-300.97	361.18	10.00	10.00	0.00
EOC - HOLD									
9,400.00	90.00	0.15	8,970.00	434.38	-300.78	434.38	0.00	0.00	0.00
9,500.00	90.00	0.15	8,970.00	534.38	-300.52	534.38	0.00	0.00	0.00
9,600.00	90.00	0.15	8,970.00	634.38	-300.26	634.38	0.00	0.00	0.00
9,700.00	90.00	0.15	8,970.00	734.38	-300.00	734.38	0.00	0.00	0.00
9,800.00	90.00	0.15	8,970.00	834.38	-299.74	834.38	0.00	0.00	0.00
9,900.00	90.00	0.15	8,970.00	934.38	-299.48	934.38	0.00	0.00	0.00
10,000.00	90.00	0.15	8,970.00	1,034.38	-299.22	1,034.38	0.00	0.00	0.00
10,100.00	90.00	0.15	8,970.00	1,134.38	-298.96	1,134.38	0.00	0.00	0.00
10,200.00	90.00	0.15	8,970.00	1,234.38	-298.70	1,234.38	0.00	0.00	0.00
10,300.00	90.00	0.15	8,970.00	1,334.38	-298.44	1,334.38	0.00	0.00	0.00
10,400.00	90.00	0.15	8,970.00	1,434.38	-298.18	1,434.38	0.00	0.00	0.00
10,500.00	90.00	0.15	8,970.00	1,534.38	-297.92	1,534.38	0.00	0.00	0.00
10,600.00	90.00	0.15	8,970.00	1,634.37	-297.67	1,634.37	0.00	0.00	0.00
10,700.00	90.00	0.15	8,970.00	1,734.37	-297.41	1,734.37	0.00	0.00	0.00
10,800.00	90.00	0.15	8,970.00	1,834.37	-297.15	1,834.37	0.00	0.00	0.00
10,900.00	90.00	0.15	8,970.00	1,934.37	-296.89	1,934.37	0.00	0.00	0.00
11,000.00	90.00	0.15	8,970.00	2,034.37	-296.63	2,034.37	0.00	0.00	0.00
11,100.00	90.00	0.15	8,970.00	2,134.37	-296.37	2,134.37	0.00	0.00	0.00
11,200.00	90.00	0.15	8,970.00	2,234.37	-296.11	2,234.37	0.00	0.00	0.00
11,300.00	90.00	0.15	8,970.00	2,334.37	-295.85	2,334.37	0.00	0.00	0.00
11,400.00	90.00	0.15	8,970.00	2,434.37	-295.59	2,434.37	0.00	0.00	0.00
11,500.00	90.00	0.15	8,970.00	2,534.37	-295.33	2,534.37	0.00	0.00	0.00
11,600.00	90.00	0.15	8,970.00	2,634.37	-295.07	2,634.37	0.00	0.00	0.00
11,700.00	90.00	0.15	8,970.00	2,734.37	-294.81	2,734.37	0.00	0.00	0.00

Planning Report

Midland District Marathon Oil Permian, LLC Eddy County, NM (NAD27) Black River 374 State 24-27-15 TB #6H OH Plan #1	Well TB #6H KB = 26.5' @ 3248.50usft (H&P 441) KB = 26.5' @ 3248.50usft (H&P 441) Grid Minimum Curvature
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Station	Interval	Depth	True Vertical	True Horizontal	True Vertical	True Horizontal	True Vertical	True Horizontal	True Vertical	True Horizontal
11,800.00	90.00	0.15	8,970.00	2,834.37	-294.56	2,834.37	0.00	0.00	0.00	0.00
11,900.00	90.00	0.15	8,970.00	2,934.37	-294.30	2,934.37	0.00	0.00	0.00	0.00
12,000.00	90.00	0.15	8,970.00	3,034.37	-294.04	3,034.37	0.00	0.00	0.00	0.00
12,100.00	90.00	0.15	8,970.00	3,134.37	-293.78	3,134.37	0.00	0.00	0.00	0.00
12,200.00	90.00	0.15	8,970.00	3,234.37	-293.52	3,234.37	0.00	0.00	0.00	0.00
12,300.00	90.00	0.15	8,970.00	3,334.37	-293.26	3,334.37	0.00	0.00	0.00	0.00
12,400.00	90.00	0.15	8,970.00	3,434.37	-293.00	3,434.37	0.00	0.00	0.00	0.00
12,500.00	90.00	0.15	8,970.00	3,534.37	-292.74	3,534.37	0.00	0.00	0.00	0.00
12,600.00	90.00	0.15	8,970.00	3,634.37	-292.48	3,634.37	0.00	0.00	0.00	0.00
12,700.00	90.00	0.15	8,970.00	3,734.37	-292.22	3,734.37	0.00	0.00	0.00	0.00
12,800.00	90.00	0.15	8,970.00	3,834.37	-291.96	3,834.37	0.00	0.00	0.00	0.00
12,900.00	90.00	0.15	8,970.00	3,934.37	-291.71	3,934.37	0.00	0.00	0.00	0.00
13,000.00	90.00	0.15	8,970.00	4,034.37	-291.45	4,034.37	0.00	0.00	0.00	0.00
13,100.00	90.00	0.15	8,970.00	4,134.37	-291.19	4,134.37	0.00	0.00	0.00	0.00
13,200.00	90.00	0.15	8,970.00	4,234.37	-290.93	4,234.37	0.00	0.00	0.00	0.00
13,300.00	90.00	0.15	8,970.00	4,334.37	-290.67	4,334.37	0.00	0.00	0.00	0.00
13,400.00	90.00	0.15	8,970.00	4,434.37	-290.41	4,434.37	0.00	0.00	0.00	0.00
13,500.00	90.00	0.15	8,970.00	4,534.37	-290.15	4,534.37	0.00	0.00	0.00	0.00
13,602.08	90.00	0.15	8,970.00	4,636.44	-289.89	4,636.44	0.00	0.00	0.00	0.00
TD at 13602.08 - BHL[BR374/TB#6H]										
13,647.08	90.00	0.15	8,970.00	4,681.44	-289.77	4,681.44	0.00	0.00	0.00	0.00
TD + 45' VS										

Station	Interval	Depth	True Vertical	True Horizontal	True Vertical	True Horizontal	True Vertical	True Horizontal	True Vertical	True Horizontal
BHL[BR374/TB#6H]	0.00	0.00	8,970.00	4,636.44	-289.89	445,061.73	545,857.96	32° 13' 24.617 N	104° 11' 6.148 W	
- plan hits target center										
- Point										
FTP[BR374/TB#6H]	0.00	0.00	8,970.00	10.00	-302.32	440,435.70	545,845.53	32° 12' 38.837 N	104° 11' 6.367 W	
- plan misses target center by 99.09usft at 9009.45usft MD (8884.34 TVD, 59.81 N, -301.75 E)										
- Point										

Station	Interval	Depth	True Vertical	True Horizontal	True Vertical	True Horizontal	True Vertical	True Horizontal	True Vertical	True Horizontal
713.00	713.00		Castile / Salado							
2,225.00	2,225.00		Base of Salt							
2,366.00	2,366.00		Lamar							
2,437.00	2,437.00		Bell Canyon							
3,197.05	3,190.00		Brushy Canyon							
4,302.85	4,279.00		Bone Spring							
5,860.76	5,831.00		1st Bone Spring Sand							
6,876.76	6,847.00		2nd Bone Spring Sand							
7,418.76	7,389.00		3rd Bone Spring Sand							
8,817.29	8,758.00		3BS Sand Target							

Planning Report

Midland District Marathon Oil Permian, LLC Eddy County, NM (NAD27) Black River 374 State 24-27-15 TB #6H OH Plan #1	Well TB #6H KB = 26.5' @ 3248.50usft (H&P 441) KB = 26.5' @ 3248.50usft (H&P 441) Grid Minimum Curvature
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Station	Offset	Depth	Angle	Description
2,400.00	2,400.00	0.00	0.00	KOP - Build 2.0° / 100
2,900.00	2,897.47	-24.96	-35.65	EOB - HOLD
4,525.00	4,497.78	-186.81	-266.80	DROP 2.0° / 100
5,025.00	4,995.24	-211.78	-302.45	EOD - HOLD
8,426.80	8,397.04	-211.78	-302.45	Curve KOP - Build 10.0° / 100
9,326.80	8,970.00	361.18	-300.97	EOC - HOLD
13,602.08	8,970.00	4,636.44	-289.89	TD at 13602.08
13,647.08	8,970.00	4,681.44	-289.77	TD + 45' VS

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: OCTOBER 16, 2017

☒ Original Operator & OGRID No.: MARATHON OIL PERMIAN, LLC
☐ Amended - Reason for Amendment: OGRID: 372098

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Black River 374 State 24 27 15 WA 5H		M-15-T24S-R27E	321' FSL 747' FWL	4 MM	0	
Black River 374 State 24 27 15 TB 6H		M-15-T24S-R27E	321' FSL 797' FWL	2 MM	0	

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Lucid Energy and will be connected to Lucid Energy low/high pressure gathering system located in Eddy County, New Mexico. It will require about 5280' of pipeline to connect the facility to low/high pressure gathering system. MOP provides (periodically) to Lucid Energy a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, MOP and Lucid Energy have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Lucidy Energy Processing Plant located in Sec.15, Twn.24S, Rng.27E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Lucid Energy system at that time. Based on current information, it is MOP's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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