

Submit 1 Copy To Appropriate District
Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 30-015-44456
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Black River 15 10 State Com X
8. Well Number 7H
9. OGRID Number 372098
10. Pool name or Wildcat Willow Lake; Bone Spring East

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well ☐ Gas Well ☒ Other	
2. Name of Operator Marathon Oil Permian LLC. NM OIL CONSERVATION ARTESIA DISTRICT	
3. Address of Operator 5555 San Felipe St, Houston, TX 77056 FEB 26 2018	
4. Well Location Unit Letter O : 270 feet from the South line and 2038 feet from the East line Section 15 Township 24S Range 27E NMPM County Eddy	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3229'	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☒	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
CLOSED-LOOP SYSTEM ☐			
OTHER: ☐		OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Marathon Oil Permian LLC. respectfully requests to change this well to a Purple Sage; Wolfcamp C from the Willow Lake; Bone Springs pool/formation. The FTP and LTP will move 150' to the east due to collision risk with an existing vertical well. There are no changes to the SHL. Please see the attached C-102 and directional.

Casing and Cement changes for the Purple Sage Wolfcamp Pool/Formation.

Type	Hole Size	Casing Size	Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	440	500	0
Int1	12.25	9.625	36	2300	800	0
Prod	8.75	7	29	9100	1500	0
Liner	6.125	4.5	13.5	19714	1150	8800

Spud Date:

1/13/2018

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Jennifer Van Curen TITLE Sr. Regulatory Compliance Representative DATE 2/26/2018

Type or print name Jennifer Van Curen E-mail address: jvancuren@marathonoil.com PHONE: 713-296-2500

For State Use Only

APPROVED BY: Raymond R. Padany TITLE Geo log. 37 DATE 2-26-2018
Conditions of Approval (if any):

☐ AMENDED REPORT

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

RECEIVED

¹ API Number 30.015-44456		² Pool Code 98220	³ Pool Name PURPLE SAGE; WOLFCAMP	
⁴ Property Code 318162	⁵ Property Name BLACK RIVER 15-10 STATE COM X			⁶ Well Number 7H
⁷ OGRID No. 372098	⁸ Operator Name MARATHON OIL PERMIAN LLC			⁹ Elevation 3229'

UL or lot no.	Section	Township	Range	Lot 1dn	Feet from the	North/South line	Feet from the	East/West line	County
0	15	T24S	R27E		270'	SOUTH	2038'	EAST	EDDY

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	10	T24S	R27E		330'	NORTH	1824'	EAST	EDDY

¹² Dedicated Acres 640.00	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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SECTION 4		SECTION 3		SECTION 2	
SECTION 9		SECTION 10		SECTION 11	
LAST TAKE POINT/BOTTOM HOLE LOCATION 330' FNL 1824' FEL, SECTION 10 NAD 83, SPCS NM EAST Y450396.59 / X590000.93 LAT:32.2381814N / LON:104.17594044W NAD 27, SPCS NM EAST Y450338.27 / X548818.18 LAT:32.23799831N / LON:104.17544352W		330' 1824' BHL/ LAST TAKE POINT N 007°19' W 4,992.80' 640.00 ACRE PRODUCING AREA PI N 007°15' E 4,332.36' FIRST TAKE POINT 1903' 2038' SHL 270' 330' CORNER COORDINATES NAD 83, SPCS NM EAST A - Y: 450743.64 / X: 589192.43 B - Y: 450688.80 / X: 591823.83 C - Y: 440114.53 / X: 591868.86 D - Y: 440159.23 / X: 589132.63			
SECTION 9		SECTION 10		SECTION 11	
SECTION 16		SECTION 15		SECTION 14	
FIRST TAKE POINT 330' FSL 1903' FEL, SECTION 15 NAD 83, SPCS NM EAST Y440475.60 / X589969.48 LAT:32.21084650N / LON:104.17608911W NAD 27, SPCS NM EAST Y440417.47 / X548786.56 LAT:32.21072632N / LON:104.17559291W SURFACE HOLE LOCATION 270' FSL 2038' FEL, SECTION 15 NAD 83, SPCS NM EAST Y440417.80 / X589834.49 LAT:32.21068814N / LON:104.17652585W NAD 27, SPCS NM EAST Y440359.67 / X548651.57 LAT:32.21056797N / LON:104.17602963W					
SECTION 16		SECTION 15		SECTION 14	
SECTION 21		SECTION 22		SECTION 23	

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Jennifer Van Curen 2/26/18
 Signature Date
Jennifer Van Curen
 Printed Name

E-mail Address _____

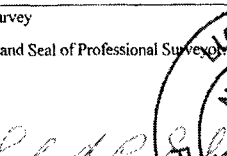
18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

FEBRUARY 26, 2018

Date of Survey _____

Signature and Seal of Professional Surveyor _____



Certificate Number _____

Certificate Number LLOYD P. SHORT, 21658

2	02/21/2018	CAP
REV.	DATE	BY

RVP. 2-26-18.

RECEIVED



SCALE: 1" = 2000'
CONTOUR INTERVAL = 5'

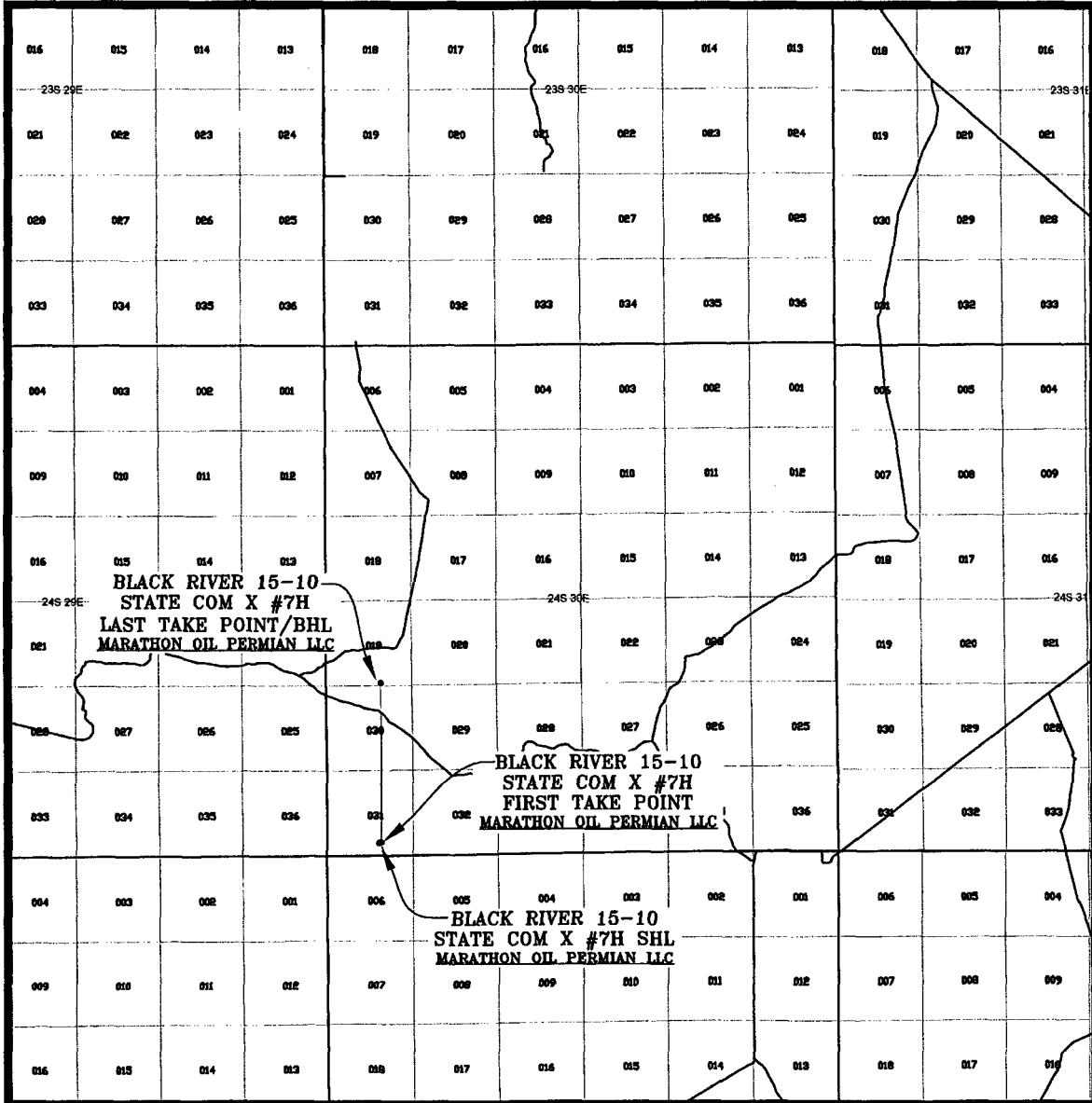
PREPARED BY:
R-SQUARED GLOBAL, LLC
1309 LOUISVILLE AVENUE, MONROE, LA 71201
318-323-6900 OFFICE
JOB No. R3784.007

VICINITY MAP

NM OIL CONSERVATION
ARTESIA DISTRICT

FEB 26 2018

RECEIVED



SEC. 15 TWP. 24-S RGE. 27-E
SURVEY: N.M.P.M.
COUNTY: EDDY
DESCRIPTION: 270' FSL & 2038' FEL
ELEVATION: 3229'
OPERATOR: MARATHON OIL PERMIAN LLC
LEASE: BLACK RIVER
U.S.G.S. TOPOGRAPHIC MAP: BOND DRAW, N.M.

SCALE: 1" = 2 MILES

PREPARED BY:
R-SQUARED GLOBAL, LLC
1309 LOUISVILLE AVENUE, MONROE, LA 71201
318-323-6900 OFFICE
JOB No. R3784_007

NM OIL CONSERVATION ARTESIA DISTRICT



Pro Directional
Survey Report

FEB 26 2018



Company:	Marathon Oil	Well X No. 7H
State:	Eddy County, NM	Well @ 3255.50usft (GL: 3229' + KB: 26.5' (H&P423))
Section:	Black River 15-10 State Com	Well @ 3255.50usft (GL: 3229' + KB: 26.5' (H&P423))
Well:	X No. 7H	Grid
Operator:	OH	Minimum Curvature
Plan:	Prelim Plan C	WellPlanner1

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

Black River 15-10 State Com					
Site Position:		Northing:	440,358.91 usft	Latitude:	32° 12' 38.0376 N
From:	Map	Easting:	548,621.57 usft	Longitude:	104° 10' 34.0559 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.08 °

Well:	X No. 7H					
Well Position	+N/-S	0.00 usft	Northing:	440,359.65 usft	Latitude:	32° 12' 38.0445 N
	+E/-W	0.00 usft	Easting:	548,652.83 usft	Longitude:	104° 10' 33.6920 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,229.00 usft

Wellbore	OH			
HDGM	1/25/2018	7.37	59.97	47,999.60

Plan:		Prelim Plan C			
Audit Notes:					
Version:	Phase:	PLAN		Tie On Depth:	0.00
Well Position	Depth from (TVD)	0.00	0.00	0.00	0.18

Surveyed Depth	0.00	2,600.00 Prelim Plan C (OH)	MWD+IFR1	OWSG MWD + IFR1
	2,600.00	5,000.00 Prelim Plan C (OH)	MWD+IFR1	OWSG MWD + IFR1
	7,000.00	19,713.49 Prelim Plan C (OH)	MWD+IFR1	OWSG MWD + IFR1

Planned Supply									
PLANNED SUPPLY	PLANNED SUPPLY	PLANNED SUPPLY	PLANNED SUPPLY	PLANNED SUPPLY	PLANNED SUPPLY	PLANNED SUPPLY	PLANNED SUPPLY	PLANNED SUPPLY	PLANNED SUPPLY
PLANNED SUPPLY	PLANNED SUPPLY	PLANNED SUPPLY	PLANNED SUPPLY	PLANNED SUPPLY	PLANNED SUPPLY	PLANNED SUPPLY	PLANNED SUPPLY	PLANNED SUPPLY	PLANNED SUPPLY
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
[BikRvr#7H]NewFTP - [BikRvr#7H]PlatFTP									
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

Company:	Marathon Oil	Well X No. 7H
Project:	Eddy County, NM	Well @ 3255.50usft (GL: 3229' + KB: 26.5' (H&P423))
Site:	Black River 15-10 State Com	Well @ 3255.50usft (GL: 3229' + KB: 26.5' (H&P423))
Well:	X No. 7H	Grid
Wellbore:	OH	Minimum Curvature
Design:	Prelim Plan C	WellPlanner1

Depth (ft)	True Azimuth (°)	True Dip (°)	True Azimuth (°)	True Dip (°)	True Azimuth (°)	True Dip (°)	True Azimuth (°)	True Dip (°)	True Azimuth (°)
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	0.00	0.00	2,300.00	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
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00

Company	Marathon Oil	Well X No. 7H
Location	Eddy County, NM	Well @ 3255.50usft (GL: 3229' + KB: 26.5' (H&P423))
Survey	Black River 15-10 State Com	Well @ 3255.50usft (GL: 3229' + KB: 26.5' (H&P423))
Well	X No. 7H	Grid
Wellbore	OH	Minimum Curvature
Design	Prelim Plan C	WellPlanner1

Station	True North	Grid North	True North	Grid North	True North	Grid North	True North	Grid North	True North	Grid North
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,666.00	0.00	0.00	7,666.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.51	142.61	7,700.00	-0.12	0.09	-0.12	1.50	1.50	0.00	0.00
7,800.00	2.01	142.61	7,799.97	-1.87	1.43	-1.86	1.50	1.50	0.00	0.00
7,900.00	3.51	142.61	7,899.85	-5.69	4.35	-5.68	1.50	1.50	0.00	0.00
8,000.00	5.01	142.61	7,999.57	-11.59	8.86	-11.57	1.50	1.50	0.00	0.00
8,099.22	6.50	142.61	8,098.30	-19.50	14.90	-19.45	1.50	1.50	0.00	0.00
8,200.00	6.50	142.61	8,198.42	-28.56	21.83	-28.49	0.00	0.00	0.00	0.00
8,300.00	6.50	142.61	8,297.78	-37.55	28.70	-37.46	0.00	0.00	0.00	0.00
8,400.00	6.50	142.61	8,397.14	-46.54	35.58	-46.43	0.00	0.00	0.00	0.00
8,500.00	6.50	142.61	8,496.50	-55.53	42.45	-55.40	0.00	0.00	0.00	0.00
8,600.00	6.50	142.61	8,595.85	-64.52	49.32	-64.37	0.00	0.00	0.00	0.00
8,700.00	6.50	142.61	8,695.21	-73.52	56.20	-73.34	0.00	0.00	0.00	0.00
8,800.00	6.50	142.61	8,794.57	-82.51	63.07	-82.31	0.00	0.00	0.00	0.00

Company	Marathon Oil	Well X No. 7H
Location	Eddy County, NM	Well @ 3255.50usft (GL: 3229' + KB: 26.5' (H&P423))
Project	Black River 15-10 State Com	Well @ 3255.50usft (GL: 3229' + KB: 26.5' (H&P423))
Well	X No. 7H	Grid
Operator	OH	Minimum Curvature
Plan	Prelim Plan C	WellPlanner1

Station	Depth	Angle	True	Mag	Inc	Corr	Surf	Sub	Off
8,900.00	6.50	142.61	8,893.93	-91.50	69.94	-91.28	0.00	0.00	0.00
9,000.00	6.50	142.61	8,993.28	-100.49	76.82	-100.25	0.00	0.00	0.00
9,100.00	6.50	142.61	9,092.64	-109.48	83.69	-109.22	0.00	0.00	0.00
9,192.10	6.50	142.61	9,184.15	-117.76	90.02	-117.48	0.00	0.00	0.00
9,200.00	5.89	137.89	9,192.00	-118.42	90.56	-118.13	10.00	-7.66	-59.69
9,250.00	4.03	80.97	9,241.84	-120.05	94.02	-119.75	10.00	-3.74	-113.84
9,300.00	6.90	35.22	9,291.63	-117.32	97.49	-117.01	10.00	5.75	-91.50
9,350.00	11.35	20.42	9,340.99	-110.25	100.94	-109.93	10.00	8.91	-29.60
9,400.00	16.13	14.08	9,389.55	-98.89	104.34	-98.56	10.00	9.55	-12.68
9,450.00	21.01	10.60	9,436.93	-83.34	107.68	-83.00	10.00	9.76	-6.95
9,500.00	25.93	8.39	9,482.79	-63.70	110.93	-63.35	10.00	9.85	-4.42
9,550.00	30.88	6.85	9,526.75	-40.14	114.06	-39.78	10.00	9.89	-3.08
9,600.00	35.84	5.70	9,568.51	-12.82	117.05	-12.45	10.00	9.92	-2.30
9,650.00	40.80	4.79	9,607.72	18.05	119.87	18.42	10.00	9.94	-1.81
9,700.00	45.78	4.06	9,644.10	52.22	122.50	52.60	10.00	9.95	-1.48
9,750.00	50.76	3.43	9,677.38	89.44	124.93	89.83	10.00	9.96	-1.25
9,800.00	55.74	2.89	9,707.29	129.43	127.13	129.83	10.00	9.96	-1.08
9,850.00	60.72	2.41	9,733.60	171.88	129.09	172.28	10.00	9.97	-0.96
9,900.00	65.71	1.98	9,756.13	216.47	130.80	216.88	10.00	9.97	-0.87
9,950.00	70.69	1.57	9,774.69	262.85	132.23	263.27	10.00	9.97	-0.80
10,000.00	75.68	1.20	9,789.15	310.69	133.39	311.10	10.00	9.97	-0.76
10,050.00	80.67	0.83	9,799.40	359.60	134.25	360.02	10.00	9.97	-0.72
10,100.00	85.65	0.48	9,805.35	409.23	134.82	409.65	10.00	9.98	-0.70
10,143.56	90.00	0.18	9,807.00	452.75	135.07	453.17	10.00	9.98	-0.69
10,200.00	90.00	0.18	9,807.00	509.18	135.25	509.61	0.00	0.00	0.00
10,300.00	90.00	0.18	9,807.00	609.18	135.57	609.61	0.00	0.00	0.00
10,400.00	90.00	0.18	9,807.00	709.18	135.88	709.61	0.00	0.00	0.00
10,500.00	90.00	0.18	9,807.00	809.18	136.19	809.61	0.00	0.00	0.00
10,600.00	90.00	0.18	9,807.00	909.18	136.51	909.61	0.00	0.00	0.00
10,700.00	90.00	0.18	9,807.00	1,009.18	136.82	1,009.61	0.00	0.00	0.00
10,800.00	90.00	0.18	9,807.00	1,109.18	137.14	1,109.61	0.00	0.00	0.00
10,900.00	90.00	0.18	9,807.00	1,209.18	137.45	1,209.61	0.00	0.00	0.00
11,000.00	90.00	0.18	9,807.00	1,309.18	137.76	1,309.61	0.00	0.00	0.00
11,100.00	90.00	0.18	9,807.00	1,409.18	138.08	1,409.61	0.00	0.00	0.00
11,200.00	90.00	0.18	9,807.00	1,509.18	138.39	1,509.61	0.00	0.00	0.00
11,300.00	90.00	0.18	9,807.00	1,609.18	138.71	1,609.61	0.00	0.00	0.00
11,400.00	90.00	0.18	9,807.00	1,709.18	139.02	1,709.61	0.00	0.00	0.00
11,500.00	90.00	0.18	9,807.00	1,809.18	139.34	1,809.61	0.00	0.00	0.00
11,600.00	90.00	0.18	9,807.00	1,909.18	139.65	1,909.61	0.00	0.00	0.00
11,700.00	90.00	0.18	9,807.00	2,009.18	139.96	2,009.61	0.00	0.00	0.00
11,800.00	90.00	0.18	9,807.00	2,109.18	140.28	2,109.61	0.00	0.00	0.00
11,900.00	90.00	0.18	9,807.00	2,209.18	140.59	2,209.61	0.00	0.00	0.00

Company:	Marathon Oil	Well X No. 7H
Project:	Eddy County, NM	Well @ 3255.50usft (GL: 3229' + KB: 26.5' (H&P423))
Site:	Black River 15-10 State Com	Well @ 3255.50usft (GL: 3229' + KB: 26.5' (H&P423))
Well:	X No. 7H	Grid
Wellbore:	OH	Minimum Curvature
Wellplan:	Prelim Plan C	WellPlanner1

Depth (ft)	Angle (deg)	Curvature (deg/ft)	True North (ft)	East (ft)	Depth (ft)	Angle (deg)	Curvature (deg/ft)	True North (ft)	East (ft)
12,000.00	90.00	0.18	9,807.00	2,309.18	140.91	2,309.61	0.00	0.00	0.00
12,100.00	90.00	0.18	9,807.00	2,409.18	141.22	2,409.61	0.00	0.00	0.00
12,200.00	90.00	0.18	9,807.00	2,509.17	141.53	2,509.61	0.00	0.00	0.00
12,300.00	90.00	0.18	9,807.00	2,609.17	141.85	2,609.61	0.00	0.00	0.00
12,400.00	90.00	0.18	9,807.00	2,709.17	142.16	2,709.61	0.00	0.00	0.00
12,500.00	90.00	0.18	9,807.00	2,809.17	142.48	2,809.61	0.00	0.00	0.00
12,600.00	90.00	0.18	9,807.00	2,909.17	142.79	2,909.61	0.00	0.00	0.00
12,700.00	90.00	0.18	9,807.00	3,009.17	143.11	3,009.61	0.00	0.00	0.00
12,800.00	90.00	0.18	9,807.00	3,109.17	143.42	3,109.61	0.00	0.00	0.00
12,900.00	90.00	0.18	9,807.00	3,209.17	143.73	3,209.61	0.00	0.00	0.00
13,000.00	90.00	0.18	9,807.00	3,309.17	144.05	3,309.61	0.00	0.00	0.00
13,100.00	90.00	0.18	9,807.00	3,409.17	144.36	3,409.61	0.00	0.00	0.00
13,200.00	90.00	0.18	9,807.00	3,509.17	144.68	3,509.61	0.00	0.00	0.00
13,300.00	90.00	0.18	9,807.00	3,609.17	144.99	3,609.61	0.00	0.00	0.00
13,400.00	90.00	0.18	9,807.00	3,709.17	145.30	3,709.61	0.00	0.00	0.00
13,500.00	90.00	0.18	9,807.00	3,809.17	145.62	3,809.61	0.00	0.00	0.00
13,600.00	90.00	0.18	9,807.00	3,909.17	145.93	3,909.61	0.00	0.00	0.00
13,700.00	90.00	0.18	9,807.00	4,009.17	146.25	4,009.61	0.00	0.00	0.00
13,800.00	90.00	0.18	9,807.00	4,109.17	146.56	4,109.61	0.00	0.00	0.00
13,900.00	90.00	0.18	9,807.00	4,209.17	146.88	4,209.61	0.00	0.00	0.00
14,000.00	90.00	0.18	9,807.00	4,309.17	147.19	4,309.61	0.00	0.00	0.00
14,100.00	90.00	0.18	9,807.00	4,409.17	147.50	4,409.61	0.00	0.00	0.00
14,200.00	90.00	0.18	9,807.00	4,509.17	147.82	4,509.61	0.00	0.00	0.00
14,300.00	90.00	0.18	9,807.00	4,609.16	148.13	4,609.61	0.00	0.00	0.00
14,400.00	90.00	0.18	9,807.00	4,709.16	148.45	4,709.61	0.00	0.00	0.00
14,500.00	90.00	0.18	9,807.00	4,809.16	148.76	4,809.61	0.00	0.00	0.00
14,600.00	90.00	0.18	9,807.00	4,909.16	149.07	4,909.61	0.00	0.00	0.00
14,700.00	90.00	0.18	9,807.00	5,009.16	149.39	5,009.61	0.00	0.00	0.00
14,800.00	90.00	0.18	9,807.00	5,109.16	149.70	5,109.61	0.00	0.00	0.00
14,900.00	90.00	0.18	9,807.00	5,209.16	150.02	5,209.61	0.00	0.00	0.00
15,000.00	90.00	0.18	9,807.00	5,309.16	150.33	5,309.61	0.00	0.00	0.00
15,100.00	90.00	0.18	9,807.00	5,409.16	150.64	5,409.61	0.00	0.00	0.00
15,200.00	90.00	0.18	9,807.00	5,509.16	150.96	5,509.61	0.00	0.00	0.00
15,300.00	90.00	0.18	9,807.00	5,609.16	151.27	5,609.61	0.00	0.00	0.00
15,400.00	90.00	0.18	9,807.00	5,709.16	151.59	5,709.61	0.00	0.00	0.00
15,500.00	90.00	0.18	9,807.00	5,809.16	151.90	5,809.61	0.00	0.00	0.00
15,600.00	90.00	0.18	9,807.00	5,909.16	152.22	5,909.61	0.00	0.00	0.00
15,700.00	90.00	0.18	9,807.00	6,009.16	152.53	6,009.61	0.00	0.00	0.00
15,800.00	90.00	0.18	9,807.00	6,109.16	152.84	6,109.61	0.00	0.00	0.00
15,900.00	90.00	0.18	9,807.00	6,209.16	153.16	6,209.61	0.00	0.00	0.00
16,000.00	90.00	0.18	9,807.00	6,309.16	153.47	6,309.61	0.00	0.00	0.00
16,100.00	90.00	0.18	9,807.00	6,409.16	153.79	6,409.61	0.00	0.00	0.00

Company:	Marathon Oil	Local Coordinate Reference:	Well X No. 7H
Project:	Eddy County, NM	TVL Reference:	Well @ 3255.50usft (GL: 3229' + KB: 26.5' (H&P423))
Site:	Black River 15-10 State Com	MD Reference:	Well @ 3255.50usft (GL: 3229' + KB: 26.5' (H&P423))
Well:	X No. 7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Prelim Plan C	Database:	WellPlanner1

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	N/GS (usft)	MD (usft)	Vertical Section (usft)	Dogleg Rate (°/1000usft)	Build Rate (°/1000usft)	Turn Rate (°/1000usft)
16,200.00	90.00	0.18	9,807.00	6,509.16	154.10	6,509.61	0.00	0.00	0.00
16,300.00	90.00	0.18	9,807.00	6,609.15	154.41	6,609.61	0.00	0.00	0.00
16,400.00	90.00	0.18	9,807.00	6,709.15	154.73	6,709.61	0.00	0.00	0.00
16,500.00	90.00	0.18	9,807.00	6,809.15	155.04	6,809.61	0.00	0.00	0.00
16,600.00	90.00	0.18	9,807.00	6,909.15	155.36	6,909.61	0.00	0.00	0.00
16,700.00	90.00	0.18	9,807.00	7,009.15	155.67	7,009.61	0.00	0.00	0.00
16,800.00	90.00	0.18	9,807.00	7,109.15	155.99	7,109.61	0.00	0.00	0.00
16,900.00	90.00	0.18	9,807.00	7,209.15	156.30	7,209.61	0.00	0.00	0.00
17,000.00	90.00	0.18	9,807.00	7,309.15	156.61	7,309.61	0.00	0.00	0.00
17,100.00	90.00	0.18	9,807.00	7,409.15	156.93	7,409.61	0.00	0.00	0.00
17,200.00	90.00	0.18	9,807.00	7,509.15	157.24	7,509.61	0.00	0.00	0.00
17,300.00	90.00	0.18	9,807.00	7,609.15	157.56	7,609.61	0.00	0.00	0.00
17,400.00	90.00	0.18	9,807.00	7,709.15	157.87	7,709.61	0.00	0.00	0.00
17,500.00	90.00	0.18	9,807.00	7,809.15	158.18	7,809.61	0.00	0.00	0.00
17,600.00	90.00	0.18	9,807.00	7,909.15	158.50	7,909.61	0.00	0.00	0.00
17,700.00	90.00	0.18	9,807.00	8,009.15	158.81	8,009.61	0.00	0.00	0.00
17,800.00	90.00	0.18	9,807.00	8,109.15	159.13	8,109.61	0.00	0.00	0.00
17,900.00	90.00	0.18	9,807.00	8,209.15	159.44	8,209.61	0.00	0.00	0.00
18,000.00	90.00	0.18	9,807.00	8,309.15	159.76	8,309.61	0.00	0.00	0.00
18,100.00	90.00	0.18	9,807.00	8,409.15	160.07	8,409.61	0.00	0.00	0.00
18,200.00	90.00	0.18	9,807.00	8,509.15	160.38	8,509.61	0.00	0.00	0.00
18,300.00	90.00	0.18	9,807.00	8,609.14	160.70	8,609.61	0.00	0.00	0.00
18,400.00	90.00	0.18	9,807.00	8,709.14	161.01	8,709.61	0.00	0.00	0.00
18,500.00	90.00	0.18	9,807.00	8,809.14	161.33	8,809.61	0.00	0.00	0.00
18,600.00	90.00	0.18	9,807.00	8,909.14	161.64	8,909.61	0.00	0.00	0.00
18,700.00	90.00	0.18	9,807.00	9,009.14	161.95	9,009.61	0.00	0.00	0.00
18,800.00	90.00	0.18	9,807.00	9,109.14	162.27	9,109.61	0.00	0.00	0.00
18,900.00	90.00	0.18	9,807.00	9,209.14	162.58	9,209.61	0.00	0.00	0.00
19,000.00	90.00	0.18	9,807.00	9,309.14	162.90	9,309.61	0.00	0.00	0.00
19,100.00	90.00	0.18	9,807.00	9,409.14	163.21	9,409.61	0.00	0.00	0.00
19,200.00	90.00	0.18	9,807.00	9,509.14	163.53	9,509.61	0.00	0.00	0.00
19,300.00	90.00	0.18	9,807.00	9,609.14	163.84	9,609.61	0.00	0.00	0.00
19,400.00	90.00	0.18	9,807.00	9,709.14	164.15	9,709.61	0.00	0.00	0.00
19,500.00	90.00	0.18	9,807.00	9,809.14	164.47	9,809.61	0.00	0.00	0.00
19,600.00	90.00	0.18	9,807.00	9,909.14	164.78	9,909.61	0.00	0.00	0.00
19,669.36	90.00	0.18	9,807.00	9,978.50	165.00	9,978.97	0.00	0.00	0.00
[BikRvr#7H]NewBHL: 9979' VS									
19,672.13	90.00	0.18	9,807.00	9,981.27	165.01	9,981.74	0.00	0.00	0.00
[BikRvr#7H]PlatBHL									
19,700.00	90.00	0.18	9,807.00	10,009.14	165.10	10,009.61	0.00	0.00	0.00
19,714.36	90.00	0.18	9,807.00	10,023.50	165.14	10,023.97	0.00	0.00	0.00

Company:	Marathon Oil	Well X No. 7H
Project:	Eddy County, NM	Well @ 3255.50usft (GL: 3229' + KB: 26.5' (H&P423))
Site:	Black River 15-10 State Com	Well @ 3255.50usft (GL: 3229' + KB: 26.5' (H&P423))
Well:	X No. 7H	Grid
Wellbore:	OH	Minimum Curvature
Design:	Prelim Plan C	WellPlanner1

Target Name	Depth (ft)	MD (ft)	TVD (ft)	N (ft)	E (ft)	Mag. (ft)	Lat (N)	Long (W)
[BlkRvr#7H]NewFTP	0.00	0.00	0.00	56.00	134.00	440,415.65	548,786.83	32° 12' 38.5967 N 104° 10' 32.1313 W
- plan misses target center by 145.23usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E) - Point								
[BlkRvr#7H]PlatBHL	0.00	0.00	0.00	9,981.74	15.35	450,341.39	548,668.18	32° 14' 16.8270 N 104° 10' 33.3431 W
- plan misses target center by 9808.14usft at 19672.13usft MD (9807.00 TVD, 9981.27 N, 165.01 E) - Point								
[BlkRvr#7H]PlatFTP	0.00	0.00	0.00	60.27	-16.25	440,419.92	548,636.58	32° 12' 38.6412 N 104° 10' 33.8801 W
- plan misses target center by 62.42usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E) - Point								
[BlkRvr#7H]NewBHL: 99	0.00	0.00	9,807.00	9,978.50	165.00	450,338.15	548,817.83	32° 14' 16.7928 N 104° 10' 31.6008 W
- plan hits target center - Rectangle (sides W60.00 H9,922.00 D0.00)								

Checked By: _____	Approved By: _____	Date: _____
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