

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTCarlsbad Field Office
OCD ArtesiaFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*5. Lease Serial No.
NMNM119272

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
MARATHON OIL PERMIAN LLCContact: MELISSA SZUDERA
E-Mail: mszudera@marathonoil.com8. Well Name and No.
BLUE STEEL 21 WXY FED COM 18H9. API Well No.
30-015-46209-00-X13a. Address
5555 SAN FELIPE ST
HOUSTON, TX 770563b. Phone No. (include area code)
Ph: 713-296-317910. Field and Pool or Exploratory Area
PURPLE SAGE-WOLFCAMP (GAS)

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 28 T23S R29E NENE 220FNL 877FEL
32.279873 N Lat, 103.984047 W Lon11. County or Parish, State
EDDY COUNTY, NM**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A PD
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Marathon Oil respectfully requests to move this SHL of this well from 877' FEL to 937' FEL. See attached Revised C-102 Plat & Directional Drill Plan.

RECEIVED

JAN 09 2020

EMNRD-OCD ARTESIA

Engineering okay - Dylan Rossmango
No new surface disturbance.
Approved CofA - 11/26/2019. DOI-BLM-NM-PD20-2019-0340-EA. Same CofA apply

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #492855 verified by the BLM Well Information System

For MARATHON OIL PERMIAN LLC, sent to the Carlsbad

Committed to AFMSS for processing by PRISCILLA PEREZ on 11/20/2019 (20PP0492SE)

Name (Printed/Typed) MELISSA SZUDERA

Title REGULATORY COMPLIANCE REP

Signature (Electronic Submission)

Date 11/19/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

1/29/20 KS

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-46209	² Pool Code 98220	³ Pool Name PURPLE SAGE; WOLFCAMP
⁴ Property Code	⁵ Property Name BLUE STEEL 21 WXY FED COM	⁶ Well Number 18H
⁷ OGRID No. 372098	⁸ Operator Name MARATHON OIL PERMIAN LLC	⁹ Elevation 2998'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	28	23S	29E		1220	NORTH	937	EAST	EDDY

¹¹ Bottom Hole Location If Different From Surface

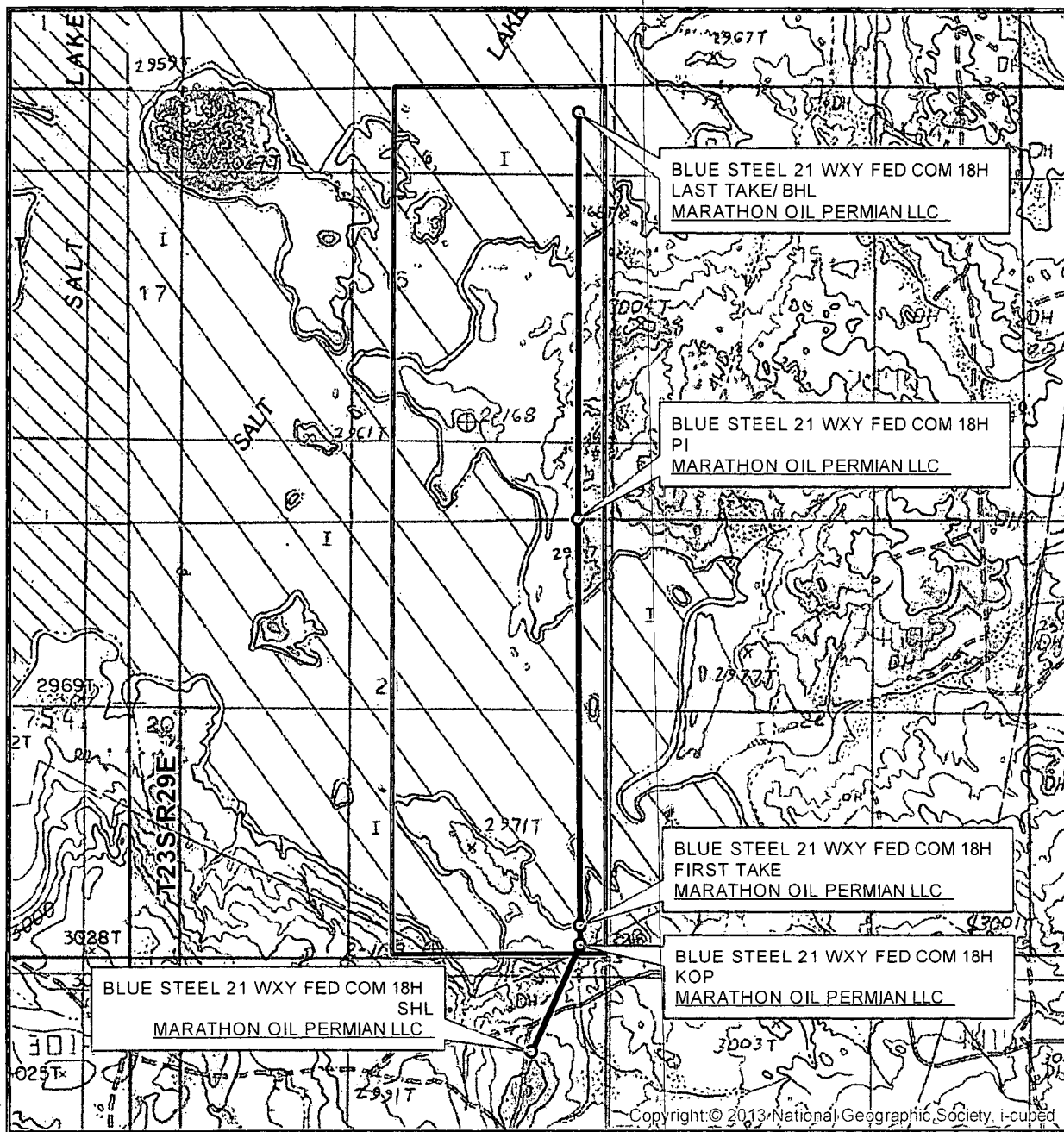
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	16	23S	29E		330	NORTH	330	EAST	EDDY

¹² Dedicated Acres 640.0	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

SECTION 8 SECTION 9 SECTION 10 SECTION 11 SECTION 15 SECTION 14 SECTION 17 SECTION 16 SECTION 20 SECTION 21 SECTION 22 SECTION 27 SECTION 28 SECTION 29	CORNER COORDINATES NAD 83, SPCS NM EAST A - X: 650146.73' / Y: 477587.62' B - X: 650153.81' / Y: 466951.26' C - X: 647475.03' / Y: 466934.71' D - X: 647506.95' / Y: 477578.03'	CORNER COORDINATES NAD 27, SPCS NM EAST A - X: 608963.74' / Y: 477527.94' B - X: 608970.52' / Y: 466891.83' C - X: 606291.75' / Y: 466875.28' D - X: 606323.97' / Y: 477518.36'	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. Signature: <i>[Signature]</i> Date: 11/19/2019 Printed Name: MELISSA SZUDERA E-mail Address: mszudera@marathonoil.com
	LAST TAKE POINT/BOTTOM HOLE LOCATION 330' FNL 330' FEL, SECTION 16 NAD 83, SPCS NM EAST X: 649816.23' / Y: 477256.41' LAT: 32.31156228N / LON: 103.98219687W NAD 27, SPCS NM EAST X: 608633.23' / Y: 477196.75' LAT: 32.31144036N / LON: 103.98170479W		
	FIRST TAKE POINT 330' FSL 330' FEL, SECTION 21 NAD 83, SPCS NM EAST X: 649822.87' / Y: 467279.22' LAT: 32.28413668N / LON: 103.98228108W NAD 27, SPCS NM EAST X: 608639.60' / Y: 467219.79' LAT: 32.28401453N / LON: 103.98179005W		
	KICK OFF POINT 100' FSL 330' FEL, SECTION 21 NAD 83, SPCS NM EAST X: 649823.53' / Y: 467049.22' LAT: 32.28350445N / LON: 103.98228139W NAD 27, SPCS NM EAST X: 608640.25' / Y: 466989.79' LAT: 32.28338229N / LON: 103.98179039W		
SURFACE HOLE LOCATION 1220' FNL 937' FEL, SECTION 28 NAD 83, SPCS NM EAST X: 649222.32' / Y: 465725.48' LAT: 32.27987111N / LON: 103.98424076W NAD 27, SPCS NM EAST X: 608039.00' / Y: 465666.08' LAT: 32.27974893N / LON: 103.98374986W			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. NOVEMBER 13, 2019 Date of Survey Signature and Seal of Professional Surveyor: <i>[Signature]</i> Certificate Number: 11403

LOCATION VERIFICATION MAP



SEC. 28 TWP. 23-S RGE. 29-E
 SURVEY: N.M.P.M.
 COUNTY: EDDY
 OPERATOR: MARATHON OIL PERMIAN LLC
 DESCRIPTION: 1220' FNL & 937' FEL
 ELEVATION: 2998'
 LEASE: BLUE STEEL 21 FED COM
 U.S.G.S. TOPOGRAPHIC MAP: REMUDA BASIN, NM.

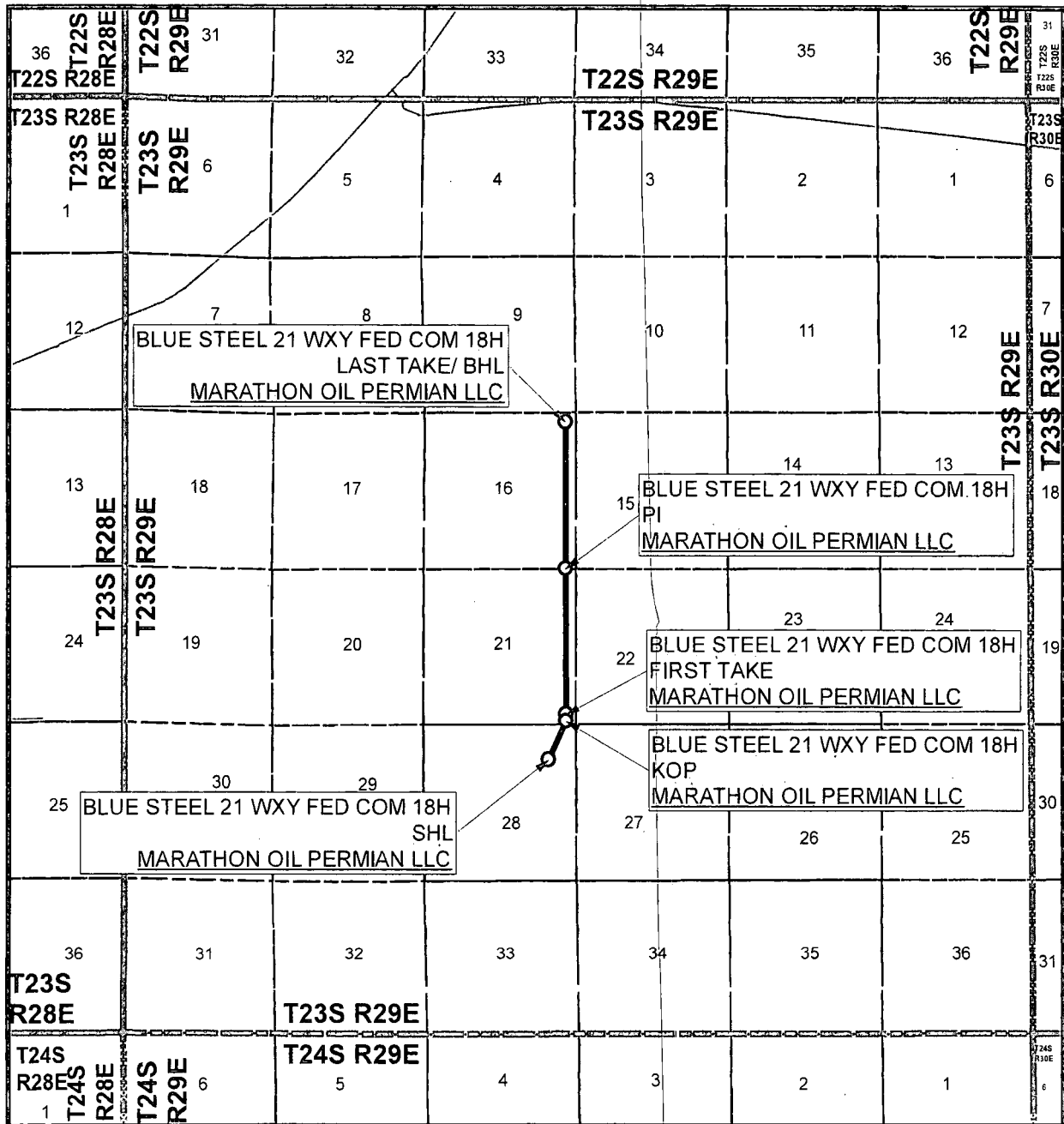
1" = 2,000'
 CONTOUR INTERVAL = 10'



SHEET 2 OF 3

PREPARED BY:
 R-SQUARED GLOBAL, LLC
 1309 LOUISVILLE AVENUE, MONROE, LA 71201
 318-323-6900 OFFICE
 JOB No. R3942_012

VICINITY MAP



SEC. 28 TWP. 23-S RGE. 29-E
 SURVEY: N.M.P.M.
 COUNTY: EDDY
 OPERATOR: MARATHON OIL PERMIAN LLC
 DESCRIPTION: 1220' FNL & 937' FEL
 ELEVATION: 2998'
 LEASE: BLUE STEEL 21 FED COM
 U.S.G.S. TOPOGRAPHIC MAP: REMUDA BASIN, NM.

1" = 1 MILE



SHEET 3 OF 3

PREPARED BY:
 R-SQUARED GLOBAL, LLC
 1309 LOUISVILLE AVENUE, MONROE, LA 71201
 318-323-6900 OFFICE
 JOB No. R3942_012



Marathon Oil
Eddy County, NM
Blue Steel Fed Com 23-29-21
WXY #18H
Prelim Plan B
GL: 2998' + KB: 25' (PD594)

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

RKB Elevation: Well @ 3023.00usft (GL: 2998' + KB: 25' (PD594))

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	465666.08	608039.00	32.279749	-103.983750	

SECTION DETAILS

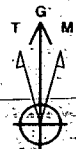
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Diag	Vsect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00
3	1800.00	12.00	24.43	1795.62	57.00	25.89	2.00	56.98
4	8190.48	12.00	24.43	8046.45	1266.71	575.36	0.00	1266.31
5	8790.48	0.00	0.00	8642.08	1323.71	601.25	2.00	1323.29
6	9647.40	0.00	0.00	9499.00	1323.71	601.25	0.00	1323.28
7	10547.40	90.00	359.96	10071.96	1896.67	600.86	10.00	1896.25
8	20181.41	90.00	359.96	10072.00	11530.67	594.23	0.00	11530.25

WELLBORE TARGET-DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
[BlueSteelWXY#18H]FTP	0.00	1553.71	600.60	467219.79	608639.60
[BlueSteelWXY#18H]KOP	9499.00	1323.71	601.25	466989.79	608640.25
[BlueSteelWXY#18H]LTP/BHL	10072.00	11530.67	594.23	477196.75	608633.23



PRODIRECTIONAL

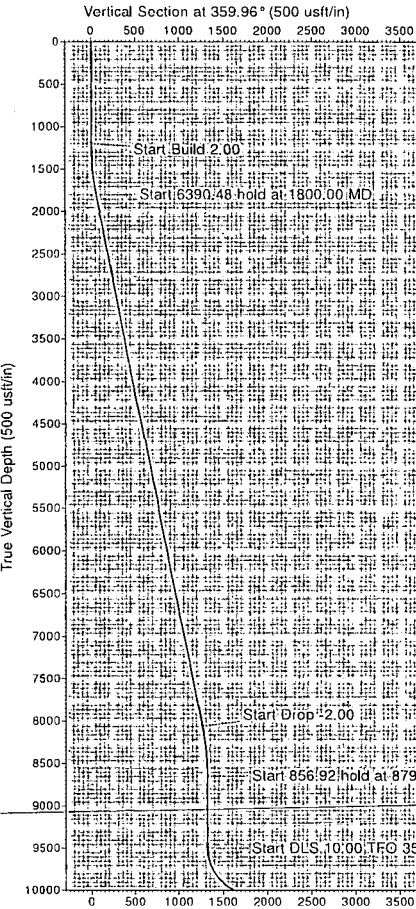


Azimuths to Grid North:
True North: 0.19°
Magnetic North: 6.90°
Magnetic Field
Strength: 47994.55mT
Dip Angle: 60.05°
Date: 9/25/2018
Model: HDGM

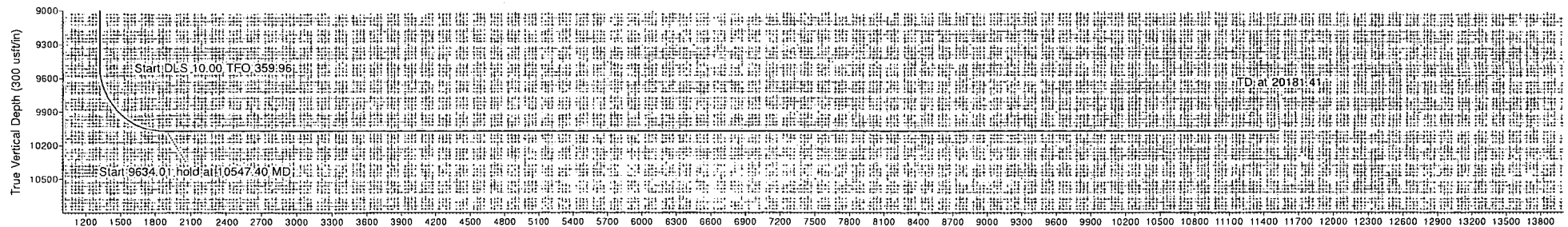
Azimuth Corrections

Total Magnetic Corr. (M to G): 6.90°

Declination (M to T): 7.08° East

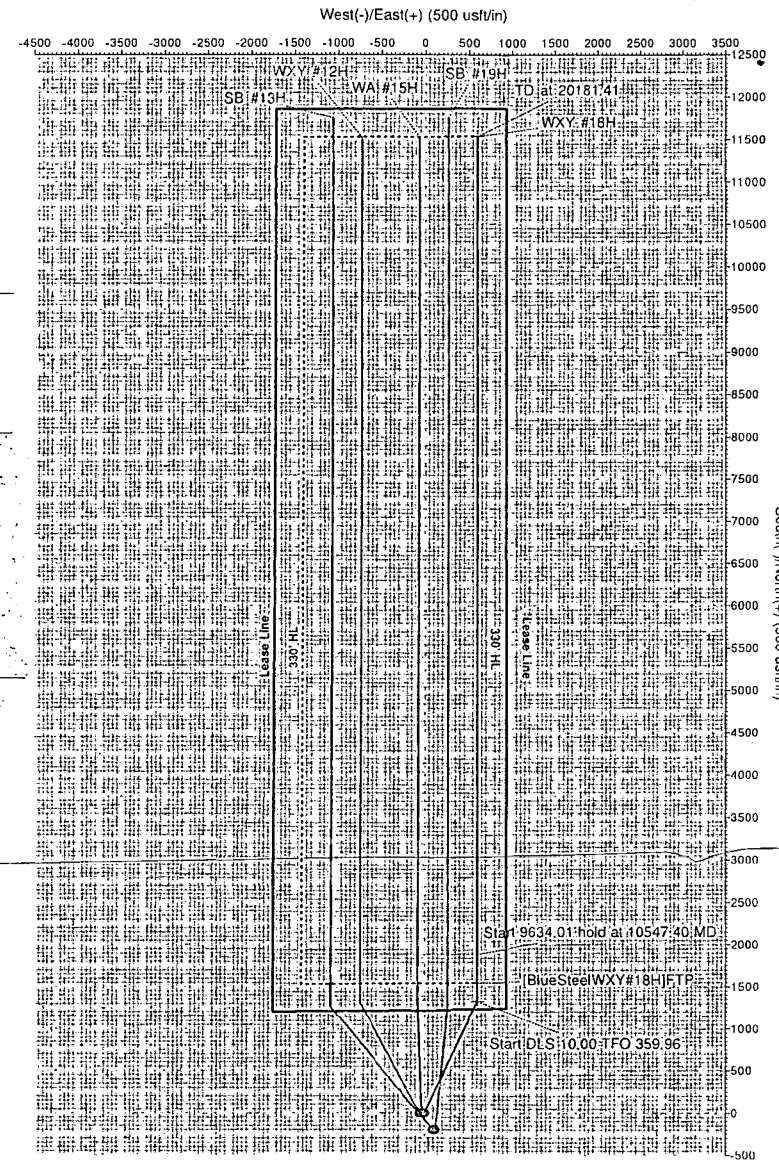


Target Line: 10072' TVD @ 0° VS: 90° INC



36" x 48"

Vertical Section at 359.96° (300 usft/in)





ProDIRECTIONAL

Plan Survey Tool Program		Date		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	20,181.41	Prelim Plan B (OH)	MWD+IFR1 OWSG MWD + IFR1

Database:	WellPlanner1	Local Co-ordinate Reference:	Well WXY #18H
Company:	Marathon Oil	TVD Reference:	Well @ 3023.00usft (GL: 2998' + KB: 25' (PD594))
Project:	Eddy County, NM	MD Reference:	Well @ 3023.00usft (GL: 2998' + KB: 25' (PD594))
Site:	Blue Steel Fed Com 23-29-21	North Reference:	Grid
Well:	WXY #18H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim Plan B		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	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	
1,800.00	12.00	24.43	1,795.62	57.00	25.89	2.00	2.00	0.00	24.43	
8,190.48	12.00	24.43	8,046.45	1,266.71	575.36	0.00	0.00	0.00	0.00	
8,790.48	0.00	0.00	8,642.08	1,323.71	601.25	2.00	-2.00	0.00	180.00	
9,647.40	0.00	0.00	9,499.00	1,323.71	601.25	0.00	0.00	0.00	0.00	[BlueSteelWXY#18H]
10,547.40	90.00	359.96	10,071.96	1,896.67	600.86	10.00	10.00	0.00	359.96	
20,181.41	90.00	359.96	10,072.00	11,530.67	594.23	0.00	0.00	0.00	0.00	[BlueSteelWXY#18H]

Database Company:	WellPlanner1 Marathon Oil	Local Co-ordinate Reference:	Well WXY #18H
Project:	Eddy County, NM	TVD Reference:	Well @ 3023.00usft (GL: 2998' + KB: 25' (PD594))
Site:	Blue Steel Fed Com 23-29-21	MD Reference:	Well @ 3023.00usft (GL: 2998' + KB: 25' (PD594))
Well:	WXY #18H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Prelim Plan B		

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
[BlueSteelWXY#18H]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
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	2.00	24.43	1,299.98	1.59	0.72	1.59	2.00	2.00	0.00
1,400.00	4.00	24.43	1,399.84	6.35	2.89	6.35	2.00	2.00	0.00
1,500.00	6.00	24.43	1,499.45	14.29	6.49	14.28	2.00	2.00	0.00
1,600.00	8.00	24.43	1,598.70	25.38	11.53	25.38	2.00	2.00	0.00
1,700.00	10.00	24.43	1,697.47	39.63	18.00	39.61	2.00	2.00	0.00
1,800.00	12.00	24.43	1,795.62	57.00	25.89	56.98	2.00	2.00	0.00
1,900.00	12.00	24.43	1,893.44	75.93	34.49	75.90	0.00	0.00	0.00
2,000.00	12.00	24.43	1,991.25	94.86	43.09	94.83	0.00	0.00	0.00
2,100.00	12.00	24.43	2,089.07	113.79	51.68	113.75	0.00	0.00	0.00
2,200.00	12.00	24.43	2,186.88	132.72	60.28	132.68	0.00	0.00	0.00
2,300.00	12.00	24.43	2,284.70	151.65	68.88	151.60	0.00	0.00	0.00
2,400.00	12.00	24.43	2,382.51	170.58	77.48	170.52	0.00	0.00	0.00
2,500.00	12.00	24.43	2,480.33	189.51	86.08	189.45	0.00	0.00	0.00
2,600.00	12.00	24.43	2,578.14	208.44	94.68	208.37	0.00	0.00	0.00
2,700.00	12.00	24.43	2,675.96	227.37	103.27	227.30	0.00	0.00	0.00
2,800.00	12.00	24.43	2,773.77	246.30	111.87	246.22	0.00	0.00	0.00
2,900.00	12.00	24.43	2,871.59	265.23	120.47	265.14	0.00	0.00	0.00
3,000.00	12.00	24.43	2,969.40	284.16	129.07	284.07	0.00	0.00	0.00
3,100.00	12.00	24.43	3,067.22	303.09	137.67	302.99	0.00	0.00	0.00
3,200.00	12.00	24.43	3,165.03	322.02	146.27	321.92	0.00	0.00	0.00
3,300.00	12.00	24.43	3,262.84	340.95	154.86	340.84	0.00	0.00	0.00
3,400.00	12.00	24.43	3,360.66	359.88	163.46	359.76	0.00	0.00	0.00
3,500.00	12.00	24.43	3,458.47	378.81	172.06	378.69	0.00	0.00	0.00
3,600.00	12.00	24.43	3,556.29	397.74	180.66	397.61	0.00	0.00	0.00
3,700.00	12.00	24.43	3,654.10	416.67	189.26	416.53	0.00	0.00	0.00
3,800.00	12.00	24.43	3,751.92	435.60	197.86	435.46	0.00	0.00	0.00
3,900.00	12.00	24.43	3,849.73	454.53	206.45	454.38	0.00	0.00	0.00
4,000.00	12.00	24.43	3,947.55	473.46	215.05	473.31	0.00	0.00	0.00
4,100.00	12.00	24.43	4,045.36	492.39	223.65	492.23	0.00	0.00	0.00
4,200.00	12.00	24.43	4,143.18	511.32	232.25	511.15	0.00	0.00	0.00
4,300.00	12.00	24.43	4,240.99	530.25	240.85	530.08	0.00	0.00	0.00
4,400.00	12.00	24.43	4,338.81	549.18	249.44	549.00	0.00	0.00	0.00
4,500.00	12.00	24.43	4,436.62	568.11	258.04	567.93	0.00	0.00	0.00
4,600.00	12.00	24.43	4,534.44	587.04	266.64	586.85	0.00	0.00	0.00
4,700.00	12.00	24.43	4,632.25	605.97	275.24	605.77	0.00	0.00	0.00
4,800.00	12.00	24.43	4,730.07	624.90	283.84	624.70	0.00	0.00	0.00
4,900.00	12.00	24.43	4,827.88	643.83	292.44	643.62	0.00	0.00	0.00
5,000.00	12.00	24.43	4,925.70	662.76	301.03	662.55	0.00	0.00	0.00



Marathon Oil

Professional Directional

Planning Report



PRODirectional

Database Company	WellPlanner1 Marathon Oil	Local Co-ordinate Reference	Well WXY #18H
Project	Eddy County, NM	WVD Reference	Well @ 3023.00usft (GL: 2998' + KB: 25' (PD594))
Site	Blue Steel Fed Com 23-29-21	MD Reference	Well @ 3023.00usft (GL: 2998' + KB: 25' (PD594))
Well	WXY #18H	North Reference	Grid
Wellbore	OH	Survey Calculation Method	Minimum Curvature
Design	Prelim Plan B		

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)
5,100.00	12.00	24.43	5,023.51	681.69	309.63	681.47	0.00	0.00	0.00
5,200.00	12.00	24.43	5,121.33	700.62	318.23	700.39	0.00	0.00	0.00
5,300.00	12.00	24.43	5,219.14	719.55	326.83	719.32	0.00	0.00	0.00
5,400.00	12.00	24.43	5,316.95	738.48	335.43	738.24	0.00	0.00	0.00
5,500.00	12.00	24.43	5,414.77	757.41	344.03	757.17	0.00	0.00	0.00
5,600.00	12.00	24.43	5,512.58	776.34	352.62	776.09	0.00	0.00	0.00
5,700.00	12.00	24.43	5,610.40	795.27	361.22	795.01	0.00	0.00	0.00
5,800.00	12.00	24.43	5,708.21	814.20	369.82	813.94	0.00	0.00	0.00
5,900.00	12.00	24.43	5,806.03	833.13	378.42	832.86	0.00	0.00	0.00
6,000.00	12.00	24.43	5,903.84	852.06	387.02	851.79	0.00	0.00	0.00
6,100.00	12.00	24.43	6,001.66	870.99	395.62	870.71	0.00	0.00	0.00
6,200.00	12.00	24.43	6,099.47	889.92	404.21	889.63	0.00	0.00	0.00
6,300.00	12.00	24.43	6,197.29	908.85	412.81	908.56	0.00	0.00	0.00
6,400.00	12.00	24.43	6,295.10	927.78	421.41	927.48	0.00	0.00	0.00
6,500.00	12.00	24.43	6,392.92	946.71	430.01	946.40	0.00	0.00	0.00
6,600.00	12.00	24.43	6,490.73	965.64	438.61	965.33	0.00	0.00	0.00
6,700.00	12.00	24.43	6,588.55	984.57	447.21	984.25	0.00	0.00	0.00
6,800.00	12.00	24.43	6,686.36	1,003.49	455.80	1,003.18	0.00	0.00	0.00
6,900.00	12.00	24.43	6,784.18	1,022.42	464.40	1,022.10	0.00	0.00	0.00
7,000.00	12.00	24.43	6,881.99	1,041.35	473.00	1,041.02	0.00	0.00	0.00
7,100.00	12.00	24.43	6,979.81	1,060.28	481.60	1,059.95	0.00	0.00	0.00
7,200.00	12.00	24.43	7,077.62	1,079.21	490.20	1,078.87	0.00	0.00	0.00
7,300.00	12.00	24.43	7,175.44	1,098.14	498.79	1,097.80	0.00	0.00	0.00
7,400.00	12.00	24.43	7,273.25	1,117.07	507.39	1,116.72	0.00	0.00	0.00
7,500.00	12.00	24.43	7,371.06	1,136.00	515.99	1,135.64	0.00	0.00	0.00
7,600.00	12.00	24.43	7,468.88	1,154.93	524.59	1,154.57	0.00	0.00	0.00
7,700.00	12.00	24.43	7,566.69	1,173.86	533.19	1,173.49	0.00	0.00	0.00
7,800.00	12.00	24.43	7,664.51	1,192.79	541.79	1,192.42	0.00	0.00	0.00
7,900.00	12.00	24.43	7,762.32	1,211.72	550.38	1,211.34	0.00	0.00	0.00
8,000.00	12.00	24.43	7,860.14	1,230.65	558.98	1,230.26	0.00	0.00	0.00
8,100.00	12.00	24.43	7,957.95	1,249.58	567.58	1,249.19	0.00	0.00	0.00
8,190.48	12.00	24.43	8,046.45	1,266.71	575.36	1,266.31	0.00	0.00	0.00
8,200.00	11.81	24.43	8,055.77	1,268.50	576.17	1,268.10	2.00	-2.00	0.00
8,300.00	9.81	24.43	8,153.99	1,285.57	583.93	1,285.17	2.00	-2.00	0.00
8,400.00	7.81	24.43	8,252.81	1,299.52	590.26	1,299.11	2.00	-2.00	0.00
8,500.00	5.81	24.43	8,352.10	1,310.31	595.16	1,309.90	2.00	-2.00	0.00
8,600.00	3.81	24.43	8,451.74	1,317.95	598.63	1,317.53	2.00	-2.00	0.00
8,700.00	1.81	24.43	8,551.61	1,322.41	600.66	1,321.99	2.00	-2.00	0.00
8,790.48	0.00	0.00	8,642.08	1,323.71	601.25	1,323.29	2.00	-2.00	0.00
8,800.00	0.00	0.00	8,651.60	1,323.71	601.25	1,323.29	0.00	0.00	0.00
8,900.00	0.00	0.00	8,751.60	1,323.71	601.25	1,323.29	0.00	0.00	0.00
9,000.00	0.00	0.00	8,851.60	1,323.71	601.25	1,323.29	0.00	0.00	0.00
9,100.00	0.00	0.00	8,951.60	1,323.71	601.25	1,323.29	0.00	0.00	0.00
9,200.00	0.00	0.00	9,051.60	1,323.71	601.25	1,323.29	0.00	0.00	0.00
9,300.00	0.00	0.00	9,151.60	1,323.71	601.25	1,323.29	0.00	0.00	0.00
9,400.00	0.00	0.00	9,251.60	1,323.71	601.25	1,323.29	0.00	0.00	0.00
9,500.00	0.00	0.00	9,351.60	1,323.71	601.25	1,323.29	0.00	0.00	0.00
9,600.00	0.00	0.00	9,451.60	1,323.71	601.25	1,323.29	0.00	0.00	0.00
9,647.40	0.00	0.00	9,499.00	1,323.71	601.25	1,323.29	0.00	0.00	0.00
[BlueSteelWXY#18H]KOP									
9,650.00	0.26	359.96	9,501.60	1,323.72	601.25	1,323.30	10.00	10.00	0.00
9,700.00	5.26	359.96	9,551.53	1,326.12	601.25	1,325.70	10.00	10.00	0.00



Marathon Oil

Professional Directional

Planning Report


ProDirectional

Database:	WellPlanner1	Local/Co-ordinate Reference:	Well WXY #18H
Company:	Marathon Oil	TVD Reference:	Well @ 3023.00usft (GL: 2998' + KB: 25' (PD594))
Project:	Eddy County, NM	MD Reference:	Well @ 3023.00usft (GL: 2998' + KB: 25' (PD594))
Site:	Blue Steel Fed Com 23-29-21	North Reference:	Grid
Well:	WXY #18H	Survey/Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim Plan B		

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)
9,750.00	10.26	359.96	9,601.05	1,332.87	601.24	1,332.45	10.00	10.00	0.00
9,800.00	15.26	359.96	9,649.80	1,343.91	601.24	1,343.49	10.00	10.00	0.00
9,850.00	20.26	359.96	9,697.40	1,359.16	601.23	1,358.74	10.00	10.00	0.00
9,900.00	25.26	359.96	9,743.50	1,378.50	601.21	1,378.08	10.00	10.00	0.00
9,950.00	30.26	359.96	9,787.73	1,401.78	601.20	1,401.36	10.00	10.00	0.00
10,000.00	35.26	359.96	9,829.76	1,428.82	601.18	1,428.40	10.00	10.00	0.00
10,050.00	40.26	359.96	9,869.28	1,459.43	601.16	1,459.01	10.00	10.00	0.00
10,100.00	45.26	359.96	9,905.98	1,493.37	601.13	1,492.95	10.00	10.00	0.00
10,150.00	50.26	359.96	9,939.58	1,530.37	601.11	1,529.95	10.00	10.00	0.00
10,200.00	55.26	359.96	9,969.83	1,570.16	601.08	1,569.74	10.00	10.00	0.00
10,250.00	60.26	359.96	9,996.49	1,612.44	601.05	1,612.02	10.00	10.00	0.00
10,300.00	65.26	359.96	10,019.37	1,656.88	601.02	1,656.46	10.00	10.00	0.00
10,350.00	70.26	359.96	10,038.29	1,703.15	600.99	1,702.73	10.00	10.00	0.00
10,400.00	75.26	359.96	10,053.10	1,750.89	600.96	1,750.47	10.00	10.00	0.00
10,450.00	80.26	359.96	10,063.70	1,799.74	600.92	1,799.32	10.00	10.00	0.00
10,500.00	85.26	359.96	10,070.00	1,849.32	600.89	1,848.90	10.00	10.00	0.00
10,547.40	90.00	359.96	10,071.96	1,896.67	600.86	1,896.25	10.00	10.00	0.00
10,600.00	90.00	359.96	10,071.96	1,949.27	600.82	1,948.85	0.00	0.00	0.00
10,700.00	90.00	359.96	10,071.96	2,049.27	600.75	2,048.85	0.00	0.00	0.00
10,800.00	90.00	359.96	10,071.96	2,149.27	600.68	2,148.85	0.00	0.00	0.00
10,900.00	90.00	359.96	10,071.96	2,249.27	600.61	2,248.85	0.00	0.00	0.00
11,000.00	90.00	359.96	10,071.96	2,349.27	600.54	2,348.85	0.00	0.00	0.00
11,100.00	90.00	359.96	10,071.96	2,449.27	600.48	2,448.85	0.00	0.00	0.00
11,200.00	90.00	359.96	10,071.96	2,549.27	600.41	2,548.85	0.00	0.00	0.00
11,300.00	90.00	359.96	10,071.96	2,649.27	600.34	2,648.85	0.00	0.00	0.00
11,400.00	90.00	359.96	10,071.96	2,749.27	600.27	2,748.85	0.00	0.00	0.00
11,500.00	90.00	359.96	10,071.96	2,849.27	600.20	2,848.85	0.00	0.00	0.00
11,600.00	90.00	359.96	10,071.96	2,949.27	600.13	2,948.85	0.00	0.00	0.00
11,700.00	90.00	359.96	10,071.96	3,049.27	600.06	3,048.85	0.00	0.00	0.00
11,800.00	90.00	359.96	10,071.96	3,149.27	599.99	3,148.85	0.00	0.00	0.00
11,900.00	90.00	359.96	10,071.96	3,249.27	599.93	3,248.85	0.00	0.00	0.00
12,000.00	90.00	359.96	10,071.96	3,349.27	599.86	3,348.85	0.00	0.00	0.00
12,100.00	90.00	359.96	10,071.96	3,449.27	599.79	3,448.85	0.00	0.00	0.00
12,200.00	90.00	359.96	10,071.97	3,549.27	599.72	3,548.85	0.00	0.00	0.00
12,300.00	90.00	359.96	10,071.97	3,649.27	599.65	3,648.85	0.00	0.00	0.00
12,400.00	90.00	359.96	10,071.97	3,749.27	599.58	3,748.85	0.00	0.00	0.00
12,500.00	90.00	359.96	10,071.97	3,849.27	599.51	3,848.85	0.00	0.00	0.00
12,600.00	90.00	359.96	10,071.97	3,949.27	599.44	3,948.85	0.00	0.00	0.00
12,700.00	90.00	359.96	10,071.97	4,049.27	599.38	4,048.85	0.00	0.00	0.00
12,800.00	90.00	359.96	10,071.97	4,149.27	599.31	4,148.85	0.00	0.00	0.00
12,900.00	90.00	359.96	10,071.97	4,249.27	599.24	4,248.85	0.00	0.00	0.00
13,000.00	90.00	359.96	10,071.97	4,349.27	599.17	4,348.85	0.00	0.00	0.00
13,100.00	90.00	359.96	10,071.97	4,449.27	599.10	4,448.85	0.00	0.00	0.00
13,200.00	90.00	359.96	10,071.97	4,549.27	599.03	4,548.85	0.00	0.00	0.00
13,300.00	90.00	359.96	10,071.97	4,649.27	598.96	4,648.85	0.00	0.00	0.00
13,400.00	90.00	359.96	10,071.97	4,749.27	598.89	4,748.85	0.00	0.00	0.00
13,500.00	90.00	359.96	10,071.97	4,849.27	598.83	4,848.85	0.00	0.00	0.00
13,600.00	90.00	359.96	10,071.97	4,949.27	598.76	4,948.85	0.00	0.00	0.00
13,700.00	90.00	359.96	10,071.97	5,049.27	598.69	5,048.85	0.00	0.00	0.00
13,800.00	90.00	359.96	10,071.97	5,149.27	598.62	5,148.85	0.00	0.00	0.00
13,900.00	90.00	359.96	10,071.97	5,249.27	598.55	5,248.85	0.00	0.00	0.00
14,000.00	90.00	359.96	10,071.97	5,349.27	598.48	5,348.85	0.00	0.00	0.00

Database	WellPlanner1	Local Co-ordinate Reference	Well WXY #18H
Company	Marathon Oil	TVD Reference	Well @ 3023.00usft (GL: 2998' + KB: 25' (PD594))
Project	Eddy County, NM	MD Reference	Well @ 3023.00usft (GL: 2998' + KB: 25' (PD594))
Site	Blue Steel Fed Com 23-29-21	North Reference	Grid
Well	WXY #18H	Survey Calculation Method	Minimum Curvature
Wellbore	OH		
Design	Prelim Plan B		

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)
14,100.00	90.00	359.96	10,071.97	5,449.27	598.41	5,448.85	0.00	0.00	0.00
14,200.00	90.00	359.96	10,071.97	5,549.27	598.34	5,548.85	0.00	0.00	0.00
14,300.00	90.00	359.96	10,071.97	5,649.27	598.28	5,648.85	0.00	0.00	0.00
14,400.00	90.00	359.96	10,071.97	5,749.27	598.21	5,748.85	0.00	0.00	0.00
14,500.00	90.00	359.96	10,071.98	5,849.27	598.14	5,848.85	0.00	0.00	0.00
14,600.00	90.00	359.96	10,071.98	5,949.27	598.07	5,948.85	0.00	0.00	0.00
14,700.00	90.00	359.96	10,071.98	6,049.27	598.00	6,048.85	0.00	0.00	0.00
14,800.00	90.00	359.96	10,071.98	6,149.27	597.93	6,148.85	0.00	0.00	0.00
14,900.00	90.00	359.96	10,071.98	6,249.27	597.86	6,248.85	0.00	0.00	0.00
15,000.00	90.00	359.96	10,071.98	6,349.27	597.79	6,348.85	0.00	0.00	0.00
15,100.00	90.00	359.96	10,071.98	6,449.27	597.72	6,448.85	0.00	0.00	0.00
15,200.00	90.00	359.96	10,071.98	6,549.27	597.66	6,548.85	0.00	0.00	0.00
15,300.00	90.00	359.96	10,071.98	6,649.27	597.59	6,648.85	0.00	0.00	0.00
15,400.00	90.00	359.96	10,071.98	6,749.27	597.52	6,748.85	0.00	0.00	0.00
15,500.00	90.00	359.96	10,071.98	6,849.27	597.45	6,848.85	0.00	0.00	0.00
15,600.00	90.00	359.96	10,071.98	6,949.27	597.38	6,948.85	0.00	0.00	0.00
15,700.00	90.00	359.96	10,071.98	7,049.27	597.31	7,048.85	0.00	0.00	0.00
15,800.00	90.00	359.96	10,071.98	7,149.27	597.24	7,148.85	0.00	0.00	0.00
15,900.00	90.00	359.96	10,071.98	7,249.27	597.17	7,248.85	0.00	0.00	0.00
16,000.00	90.00	359.96	10,071.98	7,349.27	597.11	7,348.85	0.00	0.00	0.00
16,100.00	90.00	359.96	10,071.98	7,449.27	597.04	7,448.85	0.00	0.00	0.00
16,200.00	90.00	359.96	10,071.98	7,549.27	596.97	7,548.85	0.00	0.00	0.00
16,300.00	90.00	359.96	10,071.98	7,649.27	596.90	7,648.85	0.00	0.00	0.00
16,400.00	90.00	359.96	10,071.98	7,749.27	596.83	7,748.85	0.00	0.00	0.00
16,500.00	90.00	359.96	10,071.98	7,849.27	596.76	7,848.85	0.00	0.00	0.00
16,600.00	90.00	359.96	10,071.98	7,949.27	596.69	7,948.85	0.00	0.00	0.00
16,700.00	90.00	359.96	10,071.98	8,049.27	596.62	8,048.85	0.00	0.00	0.00
16,800.00	90.00	359.96	10,071.99	8,149.27	596.56	8,148.85	0.00	0.00	0.00
16,900.00	90.00	359.96	10,071.99	8,249.27	596.49	8,248.85	0.00	0.00	0.00
17,000.00	90.00	359.96	10,071.99	8,349.27	596.42	8,348.85	0.00	0.00	0.00
17,100.00	90.00	359.96	10,071.99	8,449.27	596.35	8,448.85	0.00	0.00	0.00
17,200.00	90.00	359.96	10,071.99	8,549.27	596.28	8,548.85	0.00	0.00	0.00
17,300.00	90.00	359.96	10,071.99	8,649.27	596.21	8,648.85	0.00	0.00	0.00
17,400.00	90.00	359.96	10,071.99	8,749.27	596.14	8,748.85	0.00	0.00	0.00
17,500.00	90.00	359.96	10,071.99	8,849.27	596.07	8,848.85	0.00	0.00	0.00
17,600.00	90.00	359.96	10,071.99	8,949.27	596.01	8,948.85	0.00	0.00	0.00
17,700.00	90.00	359.96	10,071.99	9,049.27	595.94	9,048.85	0.00	0.00	0.00
17,800.00	90.00	359.96	10,071.99	9,149.27	595.87	9,148.85	0.00	0.00	0.00
17,900.00	90.00	359.96	10,071.99	9,249.27	595.80	9,248.85	0.00	0.00	0.00
18,000.00	90.00	359.96	10,071.99	9,349.27	595.73	9,348.85	0.00	0.00	0.00
18,100.00	90.00	359.96	10,071.99	9,449.27	595.66	9,448.85	0.00	0.00	0.00
18,200.00	90.00	359.96	10,071.99	9,549.27	595.59	9,548.85	0.00	0.00	0.00
18,300.00	90.00	359.96	10,071.99	9,649.26	595.52	9,648.85	0.00	0.00	0.00
18,400.00	90.00	359.96	10,071.99	9,749.26	595.46	9,748.85	0.00	0.00	0.00
18,500.00	90.00	359.96	10,071.99	9,849.26	595.39	9,848.85	0.00	0.00	0.00
18,600.00	90.00	359.96	10,071.99	9,949.26	595.32	9,948.85	0.00	0.00	0.00
18,700.00	90.00	359.96	10,071.99	10,049.26	595.25	10,048.85	0.00	0.00	0.00
18,800.00	90.00	359.96	10,071.99	10,149.26	595.18	10,148.85	0.00	0.00	0.00
18,900.00	90.00	359.96	10,071.99	10,249.26	595.11	10,248.85	0.00	0.00	0.00
19,000.00	90.00	359.96	10,072.00	10,349.26	595.04	10,348.85	0.00	0.00	0.00
19,100.00	90.00	359.96	10,072.00	10,449.26	594.97	10,448.85	0.00	0.00	0.00
19,200.00	90.00	359.96	10,072.00	10,549.26	594.90	10,548.85	0.00	0.00	0.00

Database	WellPlanner1	Local Co-ordinate Reference	Well WXY #18H
Company	Marathon Oil	TVD Reference	Well @ 3023.00usft (GL: 2998' + KB: 25' (PD594))
Project	Eddy County, NM	MD Reference	Well @ 3023.00usft (GL: 2998' + KB: 25' (PD594))
Site	Blue Steel Fed Com 23-29-21	North Reference	Grid
Well	WXY #18H	Survey Calculation Method	Minimum Curvature
Wellbore	OH		
Design	Prelim Plan B		

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)	
19,300.00	90.00	359.96	10,072.00	10,649.26	594.84	10,648.85	0.00	0.00	0.00	
19,400.00	90.00	359.96	10,072.00	10,749.26	594.77	10,748.85	0.00	0.00	0.00	
19,500.00	90.00	359.96	10,072.00	10,849.26	594.70	10,848.85	0.00	0.00	0.00	
19,600.00	90.00	359.96	10,072.00	10,949.26	594.63	10,948.85	0.00	0.00	0.00	
19,700.00	90.00	359.96	10,072.00	11,049.26	594.56	11,048.85	0.00	0.00	0.00	
19,800.00	90.00	359.96	10,072.00	11,149.26	594.49	11,148.85	0.00	0.00	0.00	
19,900.00	90.00	359.96	10,072.00	11,249.26	594.42	11,248.85	0.00	0.00	0.00	
20,000.00	90.00	359.96	10,072.00	11,349.26	594.35	11,348.85	0.00	0.00	0.00	
20,100.00	90.00	359.96	10,072.00	11,449.26	594.29	11,448.85	0.00	0.00	0.00	
20,181.41	90.00	359.96	10,072.00	11,530.67	594.23	11,530.25	0.00	0.00	0.00	
[BlueSteelWXY#18H]LTP/BHL										