

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

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

Form C-103
Revised July 18, 2013

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" FOR OIL CONSERVATION PROPOSALS.)		WELL API NO. 30-015-45174
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐		5. Indicate Type of Lease STATE ☐ FEE ☒
2. Name of Operator Marathon Oil Permian LLC		6. State Oil & Gas Lease No.
3. Address of Operator 5555 San Felipe St., Houston, TX 77056		7. Lease Name or Unit Agreement Name WHISTLE PIG FEE 25 28 1 TB
4. Well Location Unit Letter <u>A</u> : <u>300</u> feet from the <u>NORTH</u> line and <u>770</u> feet from the <u>EAST</u> line Section <u>1</u> Township <u>25S</u> Range <u>28E</u> NMPM County <u>EDDY</u>		8. Well Number <u>5H</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 2912' GL		9. OGRID Number 372098
		10. Pool name or Wildcat WILLOW LAKE; BONE SPRING, WEST

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 requests the following changes to the approved APD:

Change name of well.

From: Whistle Pig Fee 25 28 1 TB 5H - 322252

To: Whistle Pig 1 TB Fee 5H - 322890

effective 11-15-2018

Change Target Measured Depth

From: 14,482'

To: 13,294'

Spud Date:

Rig Release Date:

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

SIGNATURE *MsZudera* TITLE Regulatory Compliance Rep DATE 11/21/2018

Type or print name Melissa Szudera E-mail address: mszudera@marathonoil.com PHONE: 713-296-3179

For State Use Only

APPROVED BY: *Bustyn K...* TITLE Business Ops Spec A DATE 11-21-2018
Conditions of Approval (if any)

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
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District III
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Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
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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

NOV 20 2018
DISTRICT II-ARTESIA O.C.D.

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-45174	² Pool Code 96415	³ Pool Name WILLOW LAKE, WEST (BONE SPRING)
⁴ Property Code	Property Name WHISTLE PIG 1 TB FEE	⁶ Well Number 5H
⁷ OGRID No. 372098	⁸ Operator Name MARATHON OIL PERMIAN LLC	⁹ Elevation 2912

¹⁰ Surface Location

UL or lot no. A	Section 1	Township T25S	Range R28E	Lot Idn	Feet from the 300	North/South line NORTH	Feet from the 770	East/West line EAST	County EDDY
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. P	Section 1	Township T25S	Range R28E	Lot Idn	Feet from the 100	North/South line SOUTH	Feet from the 999	East/West line EAST	County EDDY
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¹² Dedicated Acres 320.08	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.

¹⁶ SECTION 35 SECTION 2 SECTION 36 SECTION 1 T-24-S T-25-S A FIRST TAKE POINT 100' FNL 995' FEL, SECTION 1 NAD 83, SPCS NM EAST X:633731.20' / Y:424125.66' LAT:32.16564721N / LON:104.03474020W NAD 27, SPCS NM EAST X:592547.05' / Y:424067.27' LAT:32.16552433N / LON:104.03425140W FIRST TAKE POINT 100' FNL 995' FEL, SECTION 1 NAD 83, SPCS NM EAST X:633506.21' / Y:424324.94' LAT:32.16619673N / LON:104.03546551W NAD 27, SPCS NM EAST X:592322.07' / Y:424266.55' LAT:32.16607386N / LON:104.03497666W LAST TAKE POINT/BOTTOM HOLE LOCATION 100' FNL 999' FEL, SECTION 1 NAD 83, SPCS NM EAST X:633508.15' / Y:419222.16' LAT:32.15216970N / LON:104.0350485V NAD 27, SPCS NM EAST X:592323.90' / Y:419163.87' LAT:32.15204666N / LON:104.03501646W SECTION 2 SECTION 11 SECTION 1 SECTION 12 CORNER COORDINATES NAD 83, SPCS NM EAST A - X: 631848.34' / Y: 424418.02' B - X: 634500.87' / Y: 424428.61' C - X: 634506.81' / Y: 419106.02' D - X: 631843.83' / Y: 419149.02' CORNER COORDINATES NAD 27, SPCS NM EAST A - X: 590664.24' / Y: 424360.45' B - X: 593316.72' / Y: 424370.20' C - X: 593322.53' / Y: 419047.72' D - X: 590659.62' / Y: 419090.76' LAST TAKE POINT/BHL SECTION 6 SECTION 7 SECTION 31 SECTION 6 SECTION 6 SECTION 7 DAVID W. MYERS NEW MEXICO PROFESSIONAL SURVEYOR 11403 JULY 11, 2018 Date of Survey Signature and Seal of Professional Surveyor Certificate Number DAVID W. MYERS 11403	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 in a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division Signature: <i>Adrian Covarrubias</i> Date: 11/15/2018 Printed Name: Adrian Covarrubias 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 Signature: <i>David W. Myers</i>
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J	07/03/2018	JCS
REV.	DATE	BY



Pro Directional Survey Report

DISTRICT II-ARTESIA O.C.D. PRO DIRECTIONAL

Company: Marathon Oil
Project: Eddy County, NM
Site: Whistle Pig 1
Well: SB Fee #5H
Wellbore: OH
Design: Prelim Plan B

Local Co-ordinate Reference: Well SB Fee #5H
TVD Reference: Well @ 2939.00usft (GL: 2912' + KB: 27' (Precision582))
MD Reference: Well @ 2939.00usft (GL: 2912' + KB: 27' (Precision582))
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: 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		

Site	Whistle Pig 1				
Site Position:		Northing:	424,067.27 usft	Latitude:	32.165525
From:	Map	Easting:	592,517.05 usft	Longitude:	-104.034349
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.16 °

Well	SB Fee #5H					
Well Position	+N/-S	0.00 usft	Northing:	424,067.27 usft	Latitude:	32.165524
	+E/-W	0.00 usft	Easting:	592,547.05 usft	Longitude:	-104.034252
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	2,912.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	8/3/2018	7.10	59.92	47,969.70

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	179.98	

Survey Tool Program	Date	11/15/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	1,850.00	Prelim Plan B (OH)	MWD+IFR1	OWSG MWD + IFR1	
1,850.00	5,400.00	Prelim Plan B (OH)	MWD+IFR1	OWSG MWD + IFR1	
5,400.00	10,000.00	Prelim Plan B (OH)	MWD+IFR1	OWSG MWD + IFR1	
10,000.00	13,280.47	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
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
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Site: Whistle Pig 1
Well: SB Fee #5H
Wellbore: OH
Design: Prelim Plan B

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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)	Bulld 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	2.00	311.53	1,599.98	1.16	-1.31	-1.16	2.00	2.00	0.00
1,700.00	4.00	311.53	1,699.84	4.63	-5.22	-4.63	2.00	2.00	0.00
1,800.00	6.00	311.53	1,799.45	10.41	-11.75	-10.41	2.00	2.00	0.00
1,900.00	8.00	311.53	1,898.70	18.49	-20.87	-18.49	2.00	2.00	0.00
2,000.00	10.00	311.53	1,997.47	28.86	-32.58	-28.87	2.00	2.00	0.00
2,100.00	10.00	311.53	2,095.95	40.37	-45.58	-40.39	0.00	0.00	0.00
2,200.00	10.00	311.53	2,194.43	51.89	-58.58	-51.91	0.00	0.00	0.00
2,300.00	10.00	311.53	2,292.91	63.40	-71.58	-63.42	0.00	0.00	0.00
2,400.00	10.00	311.53	2,391.39	74.91	-84.57	-74.94	0.00	0.00	0.00
2,500.00	10.00	311.53	2,489.87	86.43	-97.57	-86.46	0.00	0.00	0.00
2,600.00	10.00	311.53	2,588.35	97.94	-110.57	-97.98	0.00	0.00	0.00
2,700.00	10.00	311.53	2,686.83	109.46	-123.57	-109.50	0.00	0.00	0.00
2,800.00	10.00	311.53	2,785.31	120.97	-136.57	-121.02	0.00	0.00	0.00
2,900.00	10.00	311.53	2,883.79	132.48	-149.57	-132.54	0.00	0.00	0.00
3,000.00	10.00	311.53	2,982.27	144.00	-162.57	-144.05	0.00	0.00	0.00
3,100.00	10.00	311.53	3,080.75	155.51	-175.57	-155.57	0.00	0.00	0.00
3,200.00	10.00	311.53	3,179.23	167.02	-188.56	-167.09	0.00	0.00	0.00
3,229.51	10.00	311.53	3,208.29	170.42	-192.40	-170.49	0.00	0.00	0.00
3,300.00	8.59	311.53	3,277.86	177.97	-200.92	-178.04	2.00	-2.00	0.00
3,400.00	6.59	311.53	3,376.98	186.73	-210.81	-186.80	2.00	-2.00	0.00
3,500.00	4.59	311.53	3,476.50	193.19	-218.10	-193.26	2.00	-2.00	0.00
3,600.00	2.59	311.53	3,576.30	197.34	-222.79	-197.42	2.00	-2.00	0.00
3,700.00	0.59	311.53	3,676.25	199.18	-224.87	-199.26	2.00	-2.00	0.00
3,729.51	0.00	0.00	3,705.76	199.28	-224.98	-199.36	2.00	-2.00	0.00
3,800.00	0.00	0.00	3,776.25	199.28	-224.98	-199.36	0.00	0.00	0.00
3,900.00	0.00	0.00	3,876.25	199.28	-224.98	-199.36	0.00	0.00	0.00
4,000.00	0.00	0.00	3,976.25	199.28	-224.98	-199.36	0.00	0.00	0.00
4,100.00	0.00	0.00	4,076.25	199.28	-224.98	-199.36	0.00	0.00	0.00
4,200.00	0.00	0.00	4,176.25	199.28	-224.98	-199.36	0.00	0.00	0.00
4,300.00	0.00	0.00	4,276.25	199.28	-224.98	-199.36	0.00	0.00	0.00
4,400.00	0.00	0.00	4,376.25	199.28	-224.98	-199.36	0.00	0.00	0.00
4,500.00	0.00	0.00	4,476.25	199.28	-224.98	-199.36	0.00	0.00	0.00

Company: Marathon Oil
Project: Eddy County, NM
Site: Whistle Pig 1
Well: SB Fee #5H
Wellbore: OH
Design: Prelim Plan B

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

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 Well @ 2939.00usft (GL: 2912' + KB: 27'
 (Precision582))
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 Grid
 Minimum Curvature
 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)
4,600.00	0.00	0.00	4,576.25	199.28	-224.98	-199.36	0.00	0.00	0.00
4,700.00	0.00	0.00	4,676.25	199.28	-224.98	-199.36	0.00	0.00	0.00
4,800.00	0.00	0.00	4,776.25	199.28	-224.98	-199.36	0.00	0.00	0.00
4,900.00	0.00	0.00	4,876.25	199.28	-224.98	-199.36	0.00	0.00	0.00
5,000.00	0.00	0.00	4,976.25	199.28	-224.98	-199.36	0.00	0.00	0.00
5,100.00	0.00	0.00	5,076.25	199.28	-224.98	-199.36	0.00	0.00	0.00
5,200.00	0.00	0.00	5,176.25	199.28	-224.98	-199.36	0.00	0.00	0.00
5,300.00	0.00	0.00	5,276.25	199.28	-224.98	-199.36	0.00	0.00	0.00
5,400.00	0.00	0.00	5,376.25	199.28	-224.98	-199.36	0.00	0.00	0.00
5,500.00	0.00	0.00	5,476.25	199.28	-224.98	-199.36	0.00	0.00	0.00
5,600.00	0.00	0.00	5,576.25	199.28	-224.98	-199.36	0.00	0.00	0.00
5,700.00	0.00	0.00	5,676.25	199.28	-224.98	-199.36	0.00	0.00	0.00
5,800.00	0.00	0.00	5,776.25	199.28	-224.98	-199.36	0.00	0.00	0.00
5,900.00	0.00	0.00	5,876.25	199.28	-224.98	-199.36	0.00	0.00	0.00
6,000.00	0.00	0.00	5,976.25	199.28	-224.98	-199.36	0.00	0.00	0.00
6,100.00	0.00	0.00	6,076.25	199.28	-224.98	-199.36	0.00	0.00	0.00
6,200.00	0.00	0.00	6,176.25	199.28	-224.98	-199.36	0.00	0.00	0.00
6,300.00	0.00	0.00	6,276.25	199.28	-224.98	-199.36	0.00	0.00	0.00
6,400.00	0.00	0.00	6,376.25	199.28	-224.98	-199.36	0.00	0.00	0.00
6,500.00	0.00	0.00	6,476.25	199.28	-224.98	-199.36	0.00	0.00	0.00
6,600.00	0.00	0.00	6,576.25	199.28	-224.98	-199.36	0.00	0.00	0.00
6,700.00	0.00	0.00	6,676.25	199.28	-224.98	-199.36	0.00	0.00	0.00
6,800.00	0.00	0.00	6,776.25	199.28	-224.98	-199.36	0.00	0.00	0.00
6,900.00	0.00	0.00	6,876.25	199.28	-224.98	-199.36	0.00	0.00	0.00
7,000.00	0.00	0.00	6,976.25	199.28	-224.98	-199.36	0.00	0.00	0.00
7,100.00	0.00	0.00	7,076.25	199.28	-224.98	-199.36	0.00	0.00	0.00
7,200.00	0.00	0.00	7,176.25	199.28	-224.98	-199.36	0.00	0.00	0.00
7,300.00	0.00	0.00	7,276.25	199.28	-224.98	-199.36	0.00	0.00	0.00
7,400.00	0.00	0.00	7,376.25	199.28	-224.98	-199.36	0.00	0.00	0.00
7,500.00	0.00	0.00	7,476.25	199.28	-224.98	-199.36	0.00	0.00	0.00
7,600.00	0.00	0.00	7,576.25	199.28	-224.98	-199.36	0.00	0.00	0.00
7,700.00	0.00	0.00	7,676.25	199.28	-224.98	-199.36	0.00	0.00	0.00
7,800.00	0.00	0.00	7,776.25	199.28	-224.98	-199.36	0.00	0.00	0.00
7,850.75	0.00	0.00	7,827.00	199.28	-224.98	-199.36	0.00	0.00	0.00
[WhistleTB#5H]FTP									
7,900.00	4.93	179.98	7,876.19	197.16	-224.98	-197.24	10.00	10.00	0.00
7,950.00	9.93	179.98	7,925.76	190.70	-224.98	-190.78	10.00	10.00	0.00
8,000.00	14.93	179.98	7,974.57	179.95	-224.97	-180.03	10.00	10.00	0.00
8,050.00	19.93	179.98	8,022.26	164.98	-224.97	-165.06	10.00	10.00	0.00
8,100.00	24.93	179.98	8,068.46	145.91	-224.96	-145.99	10.00	10.00	0.00
8,150.00	29.93	179.98	8,112.83	122.89	-224.95	-122.97	10.00	10.00	0.00
8,200.00	34.93	179.98	8,155.02	96.09	-224.94	-96.17	10.00	10.00	0.00

Company: Marathon Oil
Project: Eddy County, NM
Site: Whistle Pig 1
Well: SB Fee #5H
Wellbore: OH
Design: Prelim Plan B

Local Co-ordinate Reference: Well SB Fee #5H
TVD Reference: Well @ 2939.00usft (GL: 2912' + KB: 27' (Precision582))
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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)
8,250.00	39.93	179.98	8,194.72	65.71	-224.93	-65.79	10.00	10.00	0.00
8,300.00	44.93	179.98	8,231.61	31.99	-224.92	-32.07	10.00	10.00	0.00
8,350.00	49.93	179.98	8,265.43	-4.81	-224.91	4.74	10.00	10.00	0.00
8,400.00	54.93	179.98	8,295.91	-44.43	-224.89	44.35	10.00	10.00	0.00
8,450.00	59.93	179.98	8,322.82	-86.55	-224.88	86.47	10.00	10.00	0.00
8,500.00	64.93	179.98	8,345.96	-130.86	-224.86	130.78	10.00	10.00	0.00
8,550.00	69.93	179.98	8,365.15	-177.01	-224.85	176.93	10.00	10.00	0.00
8,600.00	74.93	179.98	8,380.24	-224.66	-224.83	224.58	10.00	10.00	0.00
8,650.00	79.93	179.98	8,391.12	-273.45	-224.81	273.37	10.00	10.00	0.00
8,700.00	84.93	179.98	8,397.71	-323.00	-224.79	322.92	10.00	10.00	0.00
8,750.74	90.00	179.98	8,399.96	-373.67	-224.77	373.59	10.00	10.00	0.00
8,800.00	90.00	179.98	8,399.96	-422.93	-224.76	422.85	0.00	0.00	0.00
8,900.00	90.00	179.98	8,399.96	-522.93	-224.72	522.85	0.00	0.00	0.00
9,000.00	90.00	179.98	8,399.96	-622.93	-224.69	622.85	0.00	0.00	0.00
9,100.00	90.00	179.98	8,399.96	-722.93	-224.65	722.85	0.00	0.00	0.00
9,200.00	90.00	179.98	8,399.96	-822.93	-224.61	822.85	0.00	0.00	0.00
9,300.00	90.00	179.98	8,399.96	-922.93	-224.58	922.85	0.00	0.00	0.00
9,400.00	90.00	179.98	8,399.96	-1,022.93	-224.54	1,022.85	0.00	0.00	0.00
9,500.00	90.00	179.98	8,399.96	-1,122.93	-224.51	1,122.85	0.00	0.00	0.00
9,600.00	90.00	179.98	8,399.97	-1,222.93	-224.47	1,222.85	0.00	0.00	0.00
9,700.00	90.00	179.98	8,399.97	-1,322.93	-224.43	1,322.85	0.00	0.00	0.00
9,800.00	90.00	179.98	8,399.97	-1,422.93	-224.40	1,422.85	0.00	0.00	0.00
9,900.00	90.00	179.98	8,399.97	-1,522.93	-224.36	1,522.85	0.00	0.00	0.00
10,000.00	90.00	179.98	8,399.97	-1,622.93	-224.33	1,622.85	0.00	0.00	0.00
10,100.00	90.00	179.98	8,399.97	-1,722.93	-224.29	1,722.85	0.00	0.00	0.00
10,200.00	90.00	179.98	8,399.97	-1,822.93	-224.25	1,822.85	0.00	0.00	0.00
10,300.00	90.00	179.98	8,399.97	-1,922.93	-224.22	1,922.85	0.00	0.00	0.00
10,400.00	90.00	179.98	8,399.97	-2,022.93	-224.18	2,022.85	0.00	0.00	0.00
10,500.00	90.00	179.98	8,399.97	-2,122.93	-224.15	2,122.85	0.00	0.00	0.00
10,600.00	90.00	179.98	8,399.98	-2,222.93	-224.11	2,222.85	0.00	0.00	0.00
10,700.00	90.00	179.98	8,399.98	-2,322.93	-224.08	2,322.85	0.00	0.00	0.00
10,800.00	90.00	179.98	8,399.98	-2,422.93	-224.04	2,422.85	0.00	0.00	0.00
10,900.00	90.00	179.98	8,399.98	-2,522.93	-224.00	2,522.85	0.00	0.00	0.00
11,000.00	90.00	179.98	8,399.98	-2,622.93	-223.97	2,622.85	0.00	0.00	0.00
11,100.00	90.00	179.98	8,399.98	-2,722.93	-223.93	2,722.85	0.00	0.00	0.00
11,200.00	90.00	179.98	8,399.98	-2,822.93	-223.90	2,822.85	0.00	0.00	0.00
11,300.00	90.00	179.98	8,399.98	-2,922.93	-223.86	2,922.85	0.00	0.00	0.00
11,400.00	90.00	179.98	8,399.98	-3,022.93	-223.82	3,022.85	0.00	0.00	0.00
11,500.00	90.00	179.98	8,399.98	-3,122.93	-223.79	3,122.85	0.00	0.00	0.00
11,600.00	90.00	179.98	8,399.98	-3,222.93	-223.75	3,222.85	0.00	0.00	0.00
11,700.00	90.00	179.98	8,399.99	-3,322.93	-223.72	3,322.85	0.00	0.00	0.00
11,800.00	90.00	179.98	8,399.99	-3,422.93	-223.68	3,422.85	0.00	0.00	0.00

Company: Marathon Oil
Project: Eddy County, NM
Site: Whistle Pig 1
Well: SB Fee #5H
Wellbore: OH
Design: Prelim Plan B

Local Co-ordinate Reference: Well SB Fee #5H
TVD Reference: Well @ 2939.00usft (GL: 2912' + KB: 27' (Precision582))
MD Reference: Well @ 2939.00usft (GL: 2912' + KB: 27' (Precision582))
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)
11,900.00	90.00	179.98	8,399.99	-3,522.93	-223.65	3,522.85	0.00	0.00	0.00
12,000.00	90.00	179.98	8,399.99	-3,622.93	-223.61	3,622.85	0.00	0.00	0.00
12,100.00	90.00	179.98	8,399.99	-3,722.93	-223.57	3,722.85	0.00	0.00	0.00
12,200.00	90.00	179.98	8,399.99	-3,822.93	-223.54	3,822.85	0.00	0.00	0.00
12,300.00	90.00	179.98	8,399.99	-3,922.93	-223.50	3,922.85	0.00	0.00	0.00
12,400.00	90.00	179.98	8,399.99	-4,022.93	-223.47	4,022.85	0.00	0.00	0.00
12,500.00	90.00	179.98	8,399.99	-4,122.93	-223.43	4,122.85	0.00	0.00	0.00
12,600.00	90.00	179.98	8,399.99	-4,222.93	-223.39	4,222.85	0.00	0.00	0.00
12,700.00	90.00	179.98	8,399.99	-4,322.93	-223.36	4,322.85	0.00	0.00	0.00
12,800.00	90.00	179.98	8,400.00	-4,422.93	-223.32	4,422.85	0.00	0.00	0.00
12,900.00	90.00	179.98	8,400.00	-4,522.93	-223.29	4,522.85	0.00	0.00	0.00
13,000.00	90.00	179.98	8,400.00	-4,622.93	-223.25	4,622.85	0.00	0.00	0.00
13,100.00	90.00	179.98	8,400.00	-4,722.93	-223.21	4,722.85	0.00	0.00	0.00
13,200.00	90.00	179.98	8,400.00	-4,822.93	-223.18	4,822.85	0.00	0.00	0.00
13,280.47	90.00	179.98	8,400.00	-4,903.40	-223.15	4,903.32	0.00	0.00	0.00

[WhistleTB#5H]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									
[WhistleTB#5H]FTP	0.00	0.00	7,827.00	199.28	-224.98	424,266.55	592,322.07	32.166074	-104.034977
- plan hits target center									
- Point									
[WhistleTB#5H]LTP/BHL	0.00	0.00	8,400.00	-4,903.40	-223.15	419,163.87	592,323.90	32.152047	-104.035017
- plan hits target center									
- Point									

Checked By: _____ Approved By: _____ Date: _____



Marathon Oil
Eddy County, NM
Whistle Pig 1
SB Fee #5H
Prelim Plan B
GL: 2912' + KB: 27' (Precision582)

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

RKB Elevation: Well @ 2939.00usft (GL: 2912' + KB: 27' (Precision582))

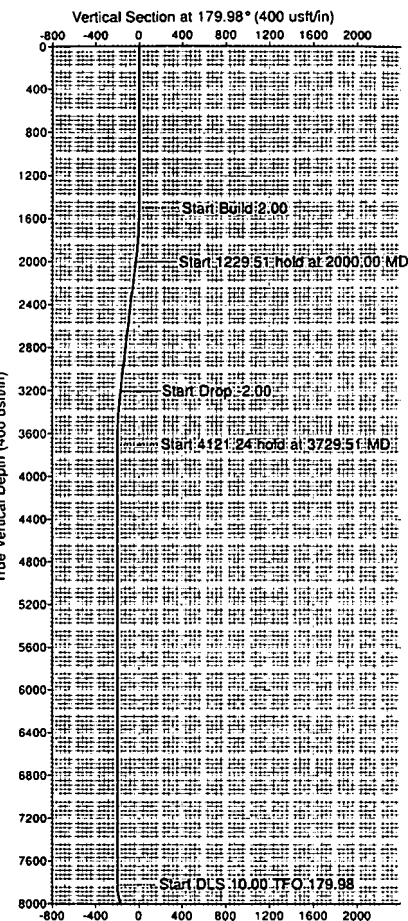
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Spot
0.00	0.00	424067.27	592547.05	32.165524	-104.034251	

SECTION DETAILS

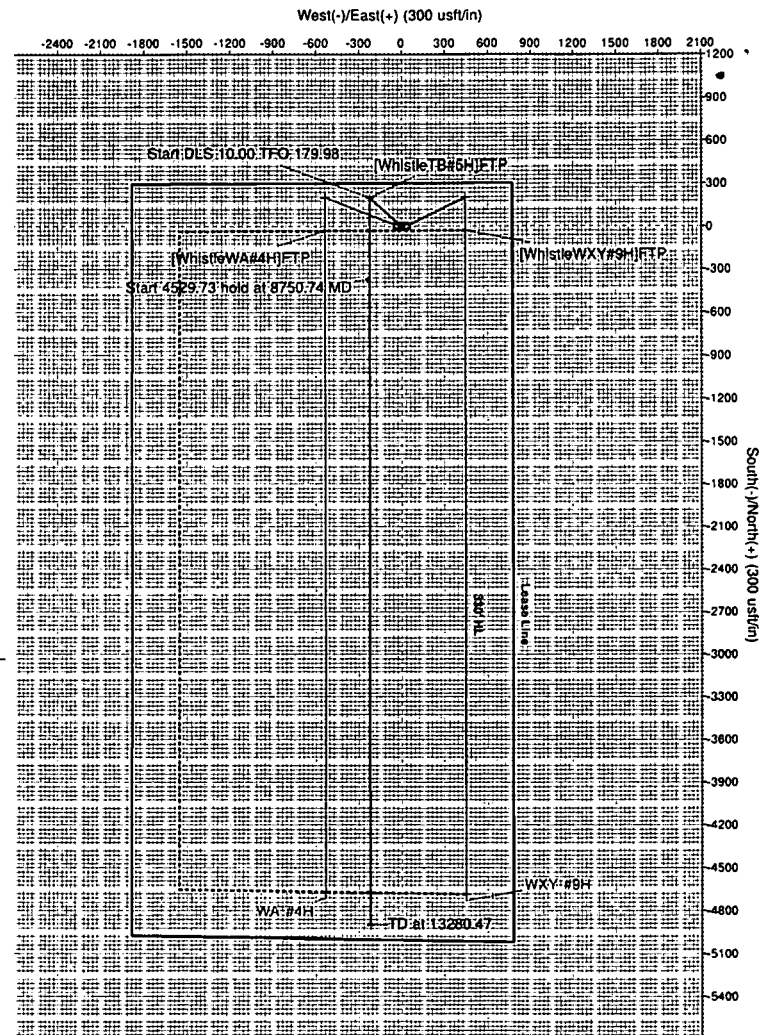
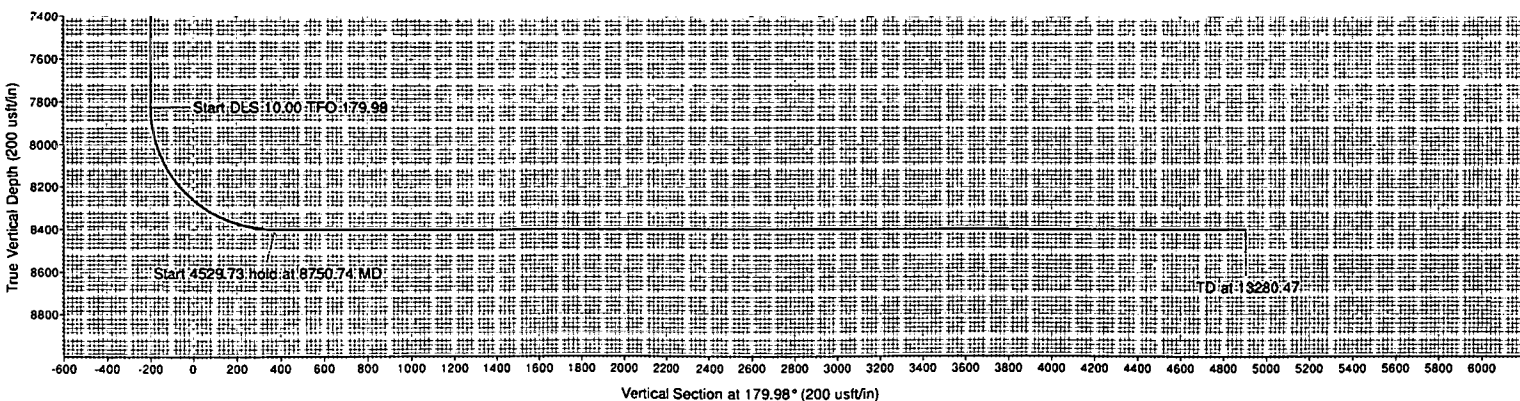
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00
3	2000.00	10.00	311.53	1997.47	28.86	-32.58	2.00	-28.87
4	3229.51	10.00	311.53	3208.29	170.42	-192.40	0.00	-170.49
5	3729.51	0.00	0.00	3705.76	199.28	-224.98	2.00	-199.36
6	7850.75	0.00	0.00	7827.00	199.28	-224.98	0.00	-199.36
7	8750.74	90.00	179.98	8399.96	-373.67	-224.77	10.00	373.59
8	13280.47	90.00	179.98	8400.00	-4903.40	-223.15	0.00	4903.32

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
[WhistleTB#5H]FTP	7827.00	199.28	-224.98	424266.55	592322.07
[WhistleTB#5H]LTP/BHL	8400.00	-4903.40	-223.15	419163.87	592323.90



Target Line: 8400' TVD @ 0' VS: 90° INC



Azimuths to Grid North
True North: -0.16°
Magnetic North: 6.94°
Magnetic Field
Strength: 47969.7nT
Dip Angle: 59.92°
Date: 8/3/2018
Model: IIGM

Azimuth Corrections

Total Magnetic Corr. (M to G): 6.94°

Declination (M to T): 7.10° East