

1625 N. French Dr., Hobbs, NM 88240

District II

811 S. First St., Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural ResourcesForm C-104
Revised August 1, 2011Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit one copy to appropriate District Office

☐ AMENDED REPORT**I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT**

¹ Operator name and Address Marathon Oil Permian LLC 990 Town & Country Blvd. Houston, TX 77024		² OGRID Number 372098
		³ Reason for Filing Code/ Effective Date NW / Sep. 28, 20201
⁴ API Number 30 - 015-46146	⁵ Pool Name PURPLE SAGE; WOLFCAMP (GAS)	⁶ Pool Code 98220
⁷ Property Code 325772	⁸ Property Name MAZER RACKHAM 20 WA FEDERAL COM	⁹ Well Number 1H

II. 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	20	26S	29E		966	NORTH	540	EAST	EDDY

¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	20	26S	29E		286	SOUTH	329	EAST	EDDY
¹² Lse Code F	¹³ Producing Method Code F	¹⁴ Gas Connection Date	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

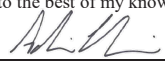
III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
271831	Endeavor Services Inc	O
6488	Draco Energy LLC	O
314437	Delaware Basin Midstream, LLC	G

IV. Well Completion Data

²¹ Spud Date 12/28/2019	²² Ready Date 9/20/2021	²³ TD 14636'	²⁴ PBDT 14580'	²⁵ Perforations 10,004' - 14,523'	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
17-1/2"	13-3/8", 54.5#, J55, STC	436'	455		
12-1/4"	9-5/8", 40#, J55, BTC	2855'	990		
8-3/4"	7", 29#, P110, VA Roughneck	9238'	970		
6-1/8"	4-1/2", 13.5#, P110, VA Roughneck	8936' - 14626'	545		

V. Well Test Data

³¹ Date New Oil 9/28/2021	³² Gas Delivery Date 9/28/2021	³³ Test Date 9/30/2021	³⁴ Test Length 24hrs	³⁵ Tbg. Pressure 0	³⁶ Csg. Pressure 2440
³⁷ Choke Size 20/64	³⁸ Oil 330	³⁹ Water 1937	⁴⁰ Gas 1063		⁴¹ Test Method Flowing
⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: 			OIL CONSERVATION DIVISION		
Printed name: Adrian Covarrubias			Approved by:		
Title: Regulatory Professional			Title:		
E-mail Address: acovarrubias@marathonoil.com			Approval Date:		
Date: 10/1/2021		Phone: 713-296-3368			

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: (505) 748-1283 Fax: (505) 334-6170
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

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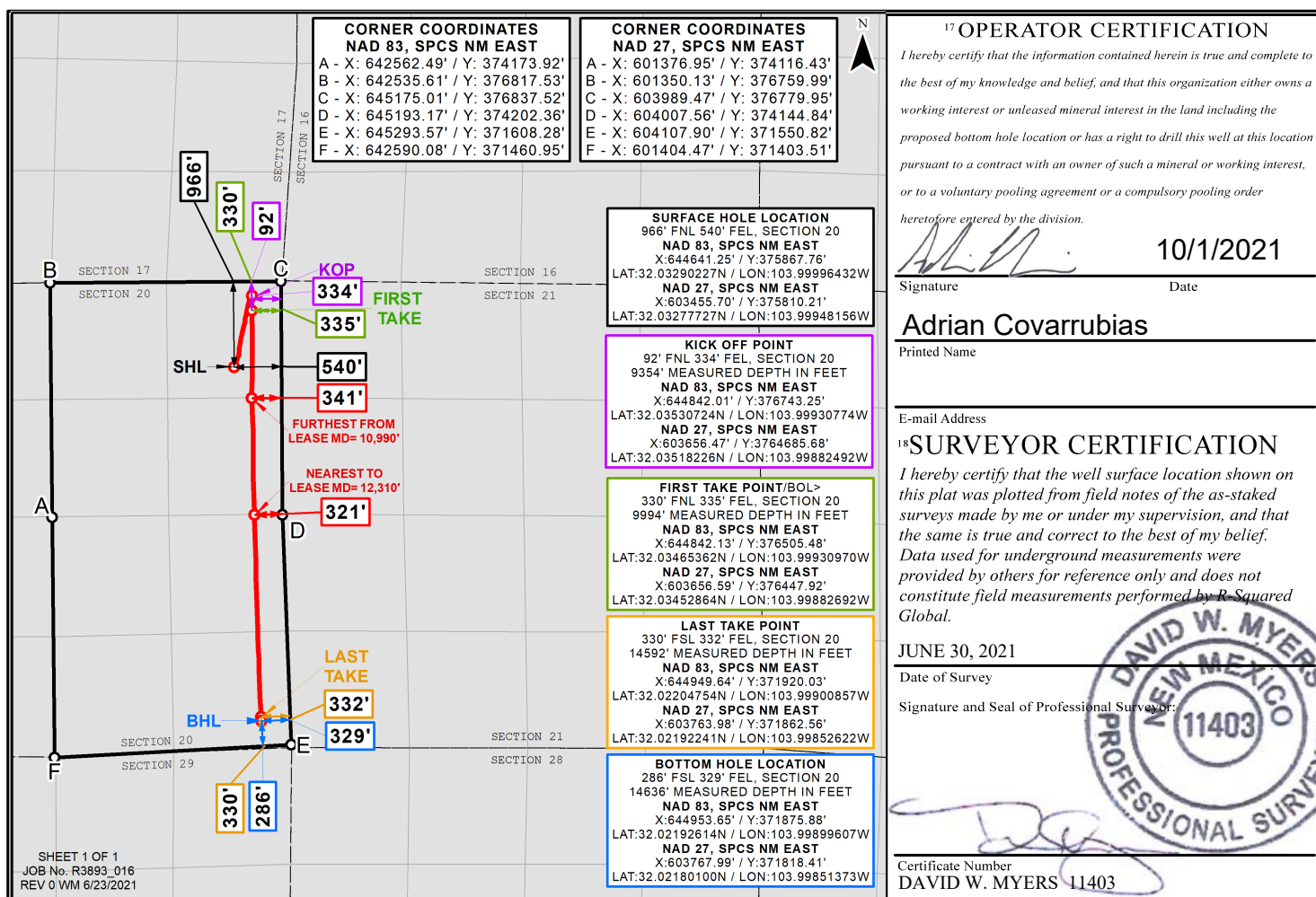
WELL LOCATION AND ACREAGE DEDICATION AS-DRILLED PLAT

¹ API Number 30-015-46146	² Pool Code 98220	³ Pool Name PURPLE SAGE; WOLFCAMP (GAS)
⁴ Property Code 325772	Property Name MAZER RACKHAM 20 WA FEDERAL COM	⁶ Well Number 1H
⁷ OGRID No. 372098	⁸ Operator Name MARATHON OIL PERMIAN LLC	⁹ Elevation 2872'

¹⁰ Surface Location

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A	20	26S	29E		966	NORTH	540	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
P	20	26S	29E		286	SOUTH	329	EAST	EDDY
¹² Dedicated Acres 320.0	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

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.



Distances/areas relative to NAD 83 Combined Scale Factor: 0.99978647 Convergence Angle: 00°10'32.39608"

☐ Horizontal Spacing Unit



Marathon Oil Permian LLC

Eddy County, New Mexico (NAD 27)

Sec 20, T26S, R29E

Mazer Rackham 20 WA Fed Com #1H

Wellbore #1

Design: Wellbore #1

QES Survey Report

17 March, 2020





QES Survey Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Mazer Rackham 20 WA Fed Com #1H
Project:	Eddy County, New Mexico (NAD 27)	TVD Reference:	WELL @ 2896.8usft (PD #101)
Site:	Sec 20, T26S, R29E	MD Reference:	WELL @ 2896.8usft (PD #101)
Well:	Mazer Rackham 20 WA Fed Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project	Eddy County, New Mexico (NAD 27)		
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	Sec 20, T26S, R29E		
Site Position:		Northing:	375,810.09 usft
From:	Map	Easting:	603,425.73 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 1' 57.998 N
		Longitude:	103° 59' 58.482 W
		Grid Convergence:	0.18 °

Well	Mazer Rackham 20 WA Fed Com #1H					
Well Position	+N/-S	0.0 usft	Northing:	375,810.21 usft	Latitude:	32° 1' 57.998 N
	+E/-W	0.0 usft	Easting:	603,455.70 usft	Longitude:	103° 59' 58.134 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	2,871.8 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2020	2/29/2020	6.77	59.65	47,731.70000000

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	175.54	

Survey Program	Date	3/17/2020			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
76.0	406.0	Surface Surveys (Wellbore #1)	MWD	OWSG MWD - Standard	
488.0	14,636.0	QES MWD Surveys (Wellbore #1)	MWD	OWSG MWD - Standard	

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)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
76.0	0.80	227.30	76.0	-0.4	-0.4	0.3	1.05	1.05	0.00	
161.0	0.90	291.00	161.0	-0.5	-1.4	0.4	1.06	0.12	74.94	
217.0	1.00	268.30	217.0	-0.4	-2.3	0.2	0.69	0.18	-40.54	
305.0	1.30	279.40	305.0	-0.2	-4.1	-0.1	0.42	0.34	12.61	
Tie In @ 406.0'MD / 405.9' TVD										
406.0	1.10	257.60	405.9	-0.3	-6.2	-0.2	0.49	-0.20	-21.58	
488.0	1.01	248.03	487.9	-0.7	-7.6	0.1	0.24	-0.11	-11.67	
582.0	1.14	148.01	581.9	-1.8	-7.9	1.2	1.75	0.14	-106.40	
645.0	2.07	122.69	644.9	-2.9	-6.6	2.4	1.82	1.48	-40.19	



QES
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Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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)
707.0	3.60	105.38	706.8	-4.1	-3.8	3.8	2.80	2.47	-27.92
801.0	2.15	135.97	800.7	-6.1	0.3	6.1	2.19	-1.54	32.54
895.0	0.62	60.73	894.7	-7.1	2.0	7.3	2.21	-1.63	-80.04
989.0	0.53	31.90	988.7	-6.5	2.6	6.7	0.32	-0.10	-30.67
1,083.0	0.31	49.47	1,082.7	-6.0	3.1	6.2	0.27	-0.23	18.69
1,177.0	0.22	55.72	1,176.7	-5.7	3.4	6.0	0.10	-0.10	6.65
1,270.0	0.26	82.70	1,269.7	-5.6	3.8	5.9	0.13	0.04	29.01
1,364.0	0.22	130.96	1,363.7	-5.7	4.1	6.0	0.21	-0.04	51.34
1,458.0	0.40	160.84	1,457.7	-6.1	4.3	6.4	0.25	0.19	31.79
1,552.0	1.10	8.70	1,551.7	-5.5	4.6	5.9	1.56	0.74	-161.85
1,642.0	3.82	16.17	1,641.6	-1.8	5.6	2.2	3.04	3.02	8.30
1,732.0	6.15	15.12	1,731.2	5.7	7.7	-5.1	2.59	2.59	-1.17
1,821.0	7.91	14.59	1,819.6	16.3	10.4	-15.4	1.98	1.98	-0.60
1,911.0	8.35	15.99	1,908.6	28.5	13.8	-27.4	0.54	0.49	1.56
2,000.0	7.52	14.68	1,996.8	40.4	17.1	-38.9	0.95	-0.93	-1.47
2,090.0	7.34	13.62	2,086.0	51.7	19.9	-50.0	0.25	-0.20	-1.18
2,179.0	8.75	17.49	2,174.2	63.7	23.3	-61.7	1.70	1.58	4.35
2,269.0	9.85	17.66	2,263.0	77.5	27.7	-75.1	1.22	1.22	0.19
2,359.0	9.41	20.04	2,351.7	91.8	32.5	-89.0	0.66	-0.49	2.64
2,448.0	9.19	26.37	2,439.5	105.0	38.2	-101.7	1.18	-0.25	7.11
2,538.0	8.22	27.07	2,528.5	117.1	44.3	-113.3	1.08	-1.08	0.78
2,628.0	7.47	17.75	2,617.7	128.4	49.0	-124.2	1.64	-0.83	-10.36
2,717.0	7.25	9.14	2,705.9	139.5	51.7	-135.1	1.26	-0.25	-9.67
2,803.0	7.43	8.96	2,791.2	150.3	53.4	-145.7	0.21	0.21	-0.21
2,891.0	8.13	6.33	2,878.4	162.2	55.0	-157.4	0.89	0.80	-2.99
2,981.0	8.04	4.30	2,967.5	174.8	56.1	-169.9	0.33	-0.10	-2.26
3,070.0	7.91	3.34	3,055.7	187.1	57.0	-182.1	0.21	-0.15	-1.08
3,160.0	8.04	1.40	3,144.8	199.5	57.5	-194.5	0.33	0.14	-2.16
3,249.0	8.00	1.14	3,232.9	212.0	57.7	-206.8	0.06	-0.04	-0.29
3,339.0	9.10	12.13	3,321.9	225.2	59.4	-219.9	2.18	1.22	12.21
3,429.0	8.97	11.51	3,410.8	239.0	62.3	-233.4	0.18	-0.14	-0.69
3,518.0	8.97	10.81	3,498.7	252.6	64.9	-246.8	0.12	0.00	-0.79
3,607.0	8.48	10.02	3,586.7	265.9	67.4	-259.9	0.57	-0.55	-0.89
3,697.0	7.69	7.91	3,675.8	278.4	69.4	-272.2	0.94	-0.88	-2.34
3,787.0	7.74	5.54	3,765.0	290.4	70.8	-284.0	0.36	0.06	-2.63
3,876.0	9.23	13.97	3,853.0	303.3	73.1	-296.7	2.18	1.67	9.47
3,966.0	9.36	14.76	3,941.8	317.4	76.7	-310.5	0.20	0.14	0.88
4,056.0	9.19	13.18	4,030.6	331.5	80.2	-324.2	0.34	-0.19	-1.76
4,145.0	8.92	11.60	4,118.5	345.1	83.2	-337.6	0.41	-0.30	-1.78
4,235.0	8.75	10.81	4,207.5	358.7	85.9	-350.9	0.23	-0.19	-0.88
4,325.0	8.57	8.70	4,296.4	372.0	88.2	-364.1	0.41	-0.20	-2.34
4,415.0	9.36	11.42	4,385.3	385.8	90.7	-377.6	1.00	0.88	3.02
4,504.0	9.45	12.83	4,473.2	400.1	93.7	-391.6	0.28	0.10	1.58



QES
Survey Report



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4,594.0	9.14	13.45	4,562.0	414.2	97.0	-405.4	0.36	-0.34	0.69	
4,684.0	9.27	12.92	4,650.8	428.2	100.3	-419.1	0.17	0.14	-0.59	
4,773.0	8.84	11.25	4,738.7	441.9	103.2	-432.6	0.57	-0.48	-1.88	
4,863.0	8.26	10.63	4,827.7	455.1	105.8	-445.5	0.65	-0.64	-0.69	
4,953.0	8.70	20.04	4,916.7	467.8	109.3	-457.9	1.62	0.49	10.46	
5,042.0	8.22	18.46	5,004.8	480.2	113.6	-469.9	0.60	-0.54	-1.78	
5,132.0	7.38	17.66	5,093.9	491.8	117.4	-481.2	0.94	-0.93	-0.89	
5,222.0	7.16	19.25	5,183.2	502.6	121.0	-491.7	0.33	-0.24	1.77	
5,312.0	7.34	6.24	5,272.5	513.6	123.5	-502.4	1.83	0.20	-14.46	
5,401.0	6.55	2.02	5,360.8	524.3	124.3	-513.1	1.06	-0.89	-4.74	
5,491.0	7.38	5.36	5,450.2	535.2	125.0	-523.9	1.03	0.92	3.71	
5,580.0	7.47	3.69	5,538.4	546.7	125.9	-535.2	0.26	0.10	-1.88	
5,670.0	8.48	14.06	5,627.6	559.0	127.9	-547.3	1.95	1.12	11.52	
5,760.0	8.75	14.41	5,716.5	572.0	131.2	-560.1	0.31	0.30	0.39	
5,849.0	7.91	13.09	5,804.6	584.5	134.3	-572.3	0.97	-0.94	-1.48	
5,939.0	7.65	10.28	5,893.8	596.5	136.8	-584.0	0.51	-0.29	-3.12	
6,028.0	7.16	9.67	5,982.0	607.8	138.8	-595.1	0.56	-0.55	-0.69	
6,118.0	8.62	11.86	6,071.2	619.9	141.1	-607.0	1.66	1.62	2.43	
6,207.0	7.78	11.69	6,159.3	632.3	143.7	-619.2	0.94	-0.94	-0.19	
Cross 330' HL@ 6240.0' MD / 6191.9' TVD										
6,240.0	8.24	13.63	6,191.9	636.8	144.7	-623.6	1.61	1.39	5.89	
6,297.0	9.05	16.52	6,248.3	645.1	146.9	-631.7	1.61	1.42	5.07	
6,386.0	9.05	14.24	6,336.2	658.6	150.6	-644.9	0.40	0.00	-2.56	
6,476.0	8.40	11.42	6,425.1	671.9	153.7	-657.9	0.86	-0.72	-3.13	
6,566.0	10.02	14.32	6,514.0	685.9	156.9	-671.6	1.87	1.80	3.22	
6,655.0	9.36	13.80	6,601.7	700.4	160.6	-685.8	0.75	-0.74	-0.58	
6,745.0	8.09	10.02	6,690.7	713.8	163.4	-698.9	1.55	-1.41	-4.20	
6,834.0	8.70	14.32	6,778.7	726.5	166.2	-711.3	0.98	0.69	4.83	
6,923.0	8.31	10.55	6,866.7	739.3	169.0	-723.9	0.76	-0.44	-4.24	
7,013.0	9.10	12.83	6,955.7	752.6	171.8	-737.0	0.96	0.88	2.53	
7,102.0	7.30	12.57	7,043.8	765.0	174.6	-749.1	2.02	-2.02	-0.29	
7,191.0	8.09	11.69	7,132.0	776.7	177.1	-760.6	0.90	0.89	-0.99	
7,281.0	7.25	6.77	7,221.2	788.5	179.0	-772.2	1.18	-0.93	-5.47	
7,371.0	7.12	9.23	7,310.5	799.7	180.6	-783.2	0.37	-0.14	2.73	
7,460.0	7.52	18.54	7,398.7	810.6	183.3	-793.9	1.40	0.45	10.46	
7,549.0	9.19	9.93	7,486.8	823.2	186.4	-806.2	2.34	1.88	-9.67	
7,639.0	9.19	4.66	7,575.6	837.4	188.2	-820.2	0.93	0.00	-5.86	
7,728.0	7.87	3.69	7,663.7	850.6	189.2	-833.3	1.49	-1.48	-1.09	
7,817.0	6.20	5.10	7,752.0	861.4	190.0	-844.0	1.89	-1.88	1.58	
7,907.0	3.91	21.97	7,841.6	869.1	191.6	-851.6	3.01	-2.54	18.74	
7,997.0	3.30	29.18	7,931.5	874.2	194.0	-856.5	0.84	-0.68	8.01	
8,086.0	2.86	19.69	8,020.3	878.6	196.0	-860.7	0.76	-0.49	-10.66	
8,176.0	2.46	8.44	8,110.2	882.6	197.0	-864.6	0.73	-0.44	-12.50	
8,265.0	2.37	2.11	8,199.2	886.3	197.4	-868.3	0.32	-0.10	-7.11	



QES
Survey Report



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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)
8,355.0	2.51	353.58	8,289.1	890.1	197.2	-872.1	0.43	0.16	-9.48
8,444.0	0.79	140.62	8,378.1	891.6	197.4	-873.5	3.60	-1.93	165.21
8,534.0	1.67	160.93	8,468.0	889.9	198.2	-871.8	1.08	0.98	22.57
8,623.0	1.41	170.42	8,557.0	887.6	198.8	-869.4	0.41	-0.29	10.66
8,713.0	1.27	184.13	8,647.0	885.5	198.9	-867.3	0.39	-0.16	15.23
8,802.0	1.23	185.80	8,736.0	883.5	198.8	-865.4	0.06	-0.04	1.88
8,892.0	1.32	179.56	8,825.9	881.5	198.7	-863.4	0.18	0.10	-6.93
8,981.0	1.41	168.84	8,914.9	879.4	198.9	-861.3	0.30	0.10	-12.04
9,071.0	1.10	170.15	9,004.9	877.5	199.3	-859.4	0.35	-0.34	1.46
9,160.0	1.01	172.00	9,093.9	875.9	199.5	-857.7	0.11	-0.10	2.08
9,190.0	0.97	167.52	9,123.9	875.4	199.6	-857.2	0.29	-0.13	-14.93
9,287.0	0.48	153.10	9,220.9	874.2	200.0	-856.0	0.54	-0.51	-14.87
9,382.0	2.90	22.59	9,315.8	876.1	201.1	-857.8	3.40	2.55	-137.38
9,480.0	3.65	5.01	9,413.7	881.5	202.3	-863.1	1.27	0.77	-17.94
9,575.0	10.55	181.93	9,508.2	875.8	202.3	-857.4	14.94	7.26	186.23
9,670.0	23.52	182.02	9,598.9	848.0	201.3	-829.8	13.65	13.65	0.09
9,764.0	33.98	182.81	9,681.2	802.9	199.4	-785.0	11.13	11.13	0.84
9,858.0	42.37	179.12	9,755.0	744.9	198.6	-727.2	9.25	8.93	-3.93
9,954.0	56.13	178.94	9,817.5	672.3	199.8	-654.8	14.33	14.33	-0.19
Cross 330' HL@ 9995.0' MD / 9838.6' TVD									
9,995.0	62.05	178.29	9,838.6	637.2	200.7	-619.7	14.51	14.44	-1.59
10,048.0	69.71	177.54	9,860.2	588.9	202.4	-571.4	14.51	14.45	-1.41
10,142.0	83.38	178.68	9,882.1	497.7	205.4	-480.3	14.59	14.54	1.21
10,233.0	91.30	179.47	9,886.3	406.9	206.9	-389.6	8.75	8.70	0.87
10,327.0	92.22	180.09	9,883.4	313.0	207.2	-295.9	1.18	0.98	0.66
10,422.0	91.60	179.38	9,880.2	218.0	207.7	-201.2	0.99	-0.65	-0.75
10,516.0	90.81	178.86	9,878.2	124.1	209.1	-107.4	1.01	-0.84	-0.55
10,611.0	90.24	180.70	9,877.4	29.1	209.5	-12.7	2.03	-0.60	1.94
10,706.0	89.76	181.32	9,877.4	-65.9	207.8	81.9	0.83	-0.51	0.65
10,800.0	89.36	182.11	9,878.1	-159.9	205.0	175.3	0.94	-0.43	0.84
10,895.0	89.05	181.67	9,879.4	-254.8	201.9	269.7	0.57	-0.33	-0.46
10,990.0	90.33	178.42	9,879.9	-349.8	201.8	364.4	3.68	1.35	-3.42
11,084.0	89.14	177.63	9,880.4	-443.7	205.0	458.3	1.52	-1.27	-0.84
11,177.0	90.73	178.15	9,880.5	-536.7	208.4	551.3	1.80	1.71	0.56
11,272.0	87.96	176.75	9,881.5	-631.6	212.7	646.2	3.27	-2.92	-1.47
11,367.0	89.54	178.42	9,883.6	-726.4	216.7	741.1	2.42	1.66	1.76
11,460.0	92.66	180.26	9,881.8	-819.4	217.7	833.9	3.89	3.35	1.98
11,555.0	92.66	180.35	9,877.4	-914.3	217.2	928.4	0.09	0.00	0.09
11,648.0	92.70	180.17	9,873.1	-1,007.2	216.8	1,021.0	0.20	0.04	-0.19
11,743.0	92.79	180.17	9,868.5	-1,102.1	216.5	1,115.6	0.09	0.09	0.00
11,838.0	89.36	178.86	9,866.7	-1,197.1	217.3	1,210.3	3.86	-3.61	-1.38
11,931.0	88.53	178.06	9,868.5	-1,290.0	219.8	1,303.2	1.24	-0.89	-0.86
12,026.0	89.05	178.15	9,870.5	-1,384.9	223.0	1,398.1	0.56	0.55	0.09



QES
Survey Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Mazer Rackham 20 WA Fed Com #1H
Project:	Eddy County, New Mexico (NAD 27)	TVD Reference:	WELL @ 2896.8usft (PD #101)
Site:	Sec 20, T26S, R29E	MD Reference:	WELL @ 2896.8usft (PD #101)
Well:	Mazer Rackham 20 WA Fed Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
12,121.0	91.87	178.42	9,869.7	-1,479.9	225.8	1,493.0	2.98	2.97	0.28	
12,215.0	87.56	178.86	9,870.2	-1,573.8	228.1	1,586.8	4.61	-4.59	0.47	
12,310.0	87.03	178.15	9,874.7	-1,668.7	230.5	1,681.6	0.93	-0.56	-0.75	
12,405.0	89.01	178.42	9,877.9	-1,763.6	233.4	1,776.4	2.10	2.08	0.28	
12,499.0	92.31	178.68	9,876.9	-1,857.5	235.7	1,870.2	3.52	3.51	0.28	
12,594.0	91.82	178.42	9,873.4	-1,952.4	238.1	1,965.0	0.58	-0.52	-0.27	
12,688.0	91.47	177.71	9,870.7	-2,046.3	241.3	2,058.9	0.84	-0.37	-0.76	
12,782.0	90.77	177.19	9,868.9	-2,140.2	245.5	2,152.8	0.93	-0.74	-0.55	
12,877.0	93.41	179.30	9,865.4	-2,235.1	248.4	2,247.7	3.56	2.78	2.22	
12,970.0	89.10	180.00	9,863.4	-2,328.1	249.0	2,340.4	4.70	-4.63	0.75	
13,065.0	88.79	178.77	9,865.1	-2,423.0	250.0	2,435.1	1.34	-0.33	-1.29	
13,159.0	91.30	177.10	9,865.1	-2,517.0	253.4	2,529.1	3.21	2.67	-1.78	
13,253.0	93.19	178.59	9,861.4	-2,610.8	256.9	2,622.9	2.56	2.01	1.59	
13,348.0	93.05	178.06	9,856.2	-2,705.6	259.7	2,717.6	0.58	-0.15	-0.56	
13,443.0	93.45	177.71	9,850.8	-2,800.4	263.2	2,812.4	0.56	0.42	-0.37	
13,538.0	92.40	178.42	9,846.0	-2,895.2	266.4	2,907.2	1.33	-1.11	0.75	
13,632.0	88.57	178.50	9,845.2	-2,989.2	268.9	3,001.1	4.08	-4.07	0.09	
13,727.0	88.79	178.15	9,847.4	-3,084.1	271.7	3,095.9	0.44	0.23	-0.37	
13,821.0	87.96	177.36	9,850.0	-3,178.0	275.4	3,189.8	1.22	-0.88	-0.84	
13,915.0	91.08	177.27	9,850.8	-3,271.9	279.8	3,283.7	3.32	3.32	-0.10	
14,010.0	91.60	178.68	9,848.6	-3,366.8	283.1	3,378.6	1.58	0.55	1.48	
14,104.0	90.73	178.42	9,846.7	-3,460.8	285.5	3,472.5	0.97	-0.93	-0.28	
14,198.0	91.12	178.06	9,845.2	-3,554.7	288.4	3,566.4	0.56	0.41	-0.38	
14,294.0	89.01	177.80	9,845.1	-3,650.6	291.9	3,662.3	2.21	-2.20	-0.27	
14,389.0	91.25	177.54	9,844.9	-3,745.5	295.7	3,757.2	2.37	2.36	-0.27	
14,484.0	90.33	176.83	9,843.5	-3,840.4	300.4	3,852.2	1.22	-0.97	-0.75	
14,583.0	87.96	174.81	9,845.0	-3,939.1	307.6	3,951.1	3.15	-2.39	-2.04	
Cross 330' HL@ 14591.5' MD / 9845.3' TVD										
14,591.5	87.96	174.81	9,845.3	-3,947.6	308.4	3,959.6	0.00	0.00	0.00	
TD @ 14636.0' MD / 9846.9' TVD										
14,636.0	87.96	174.81	9,846.9	-3,991.9	312.4	4,004.1	0.00	0.00	0.00	

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
406.0	405.9	-0.3	-6.2	Tie In @ 406.0' MD / 405.9' TVD	
6,240.0	6,191.9	636.8	144.7	Cross 330' HL@ 6240.0' MD / 6191.9' TVD	
9,995.0	9,838.6	637.2	200.7	Cross 330' HL@ 9995.0' MD / 9838.6' TVD	
14,591.5	9,845.3	-3,947.6	308.4	Cross 330' HL@ 14591.5' MD / 9845.3' TVD	
14,636.0	9,846.9	-3,991.9	312.4	TD @ 14636.0' MD / 9846.9' TVD	



QES
Survey Report



Company:	Marathon Oil Permian LLC	Local Co-ordinate Reference:	Well Mazer Rackham 20 WA Fed Com #1H
Project:	Eddy County, New Mexico (NAD 27)	TVD Reference:	WELL @ 2896.8usft (PD #101)
Site:	Sec 20, T26S, R29E	MD Reference:	WELL @ 2896.8usft (PD #101)
Well:	Mazer Rackham 20 WA Fed Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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. 30-015-46146
5. Indicate Type of Lease STATE ☐ FEE ☐
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name MAZER RACKHAM 20 WA FEDERAL COM
8. Well Number 1H
9. OGRID Number 372098
10. Pool name or Wildcat PURPLE SAGE; WOLFCAMP

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	
3. Address of Operator 990 Town & Country Blvd. Houston, TX 77024	
4. Well Location Unit Letter <u>A</u> : <u>966</u> feet from the <u>NORTH</u> line and <u>540</u> feet from the <u>EAST</u> line Section <u>20</u> Township <u>26S</u> Range <u>29E</u> NMPM County <u>EDDY</u>	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 2872' GL	

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

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

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.

8/31/2021 - Started Frac Prep operations.

9/1/2021 - MIRU

9/13/2021 - Start frac stages 1-15 with 2 shots per foot for a total of 450 shots, 0.35-in. in size using 11,340,434 lbs of 40/70; 100 Mesh. Stimulated with 4536 gal. of 15% HCL acid. Total interval from 10,004' to 14,523. Finish frac 9/19/2021.

9/20/2021 - RDMO. Ready to Produce.

9/28/2021 - Start flowback.

Spud Date:

12/28/2019

Rig Release Date:

3/26/2020

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

SIGNATURE Adrian Covarrubias TITLE Regulatory Professional DATE 10/1/2021

Type or print name Adrian Covarrubias E-mail address: acovarrubias@marathonoil.com PHONE: 713-296-3368

For State Use Only

APPROVED BY: John Garcia TITLE Petroleum Engineer DATE 1/28/2022

Conditions of Approval (if any):

Submit To Appropriate District Office Two Copies District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Rd., Aztec, NM 87410 District IV 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-105 Revised April 3, 2017					
WELL COMPLETION OR RECOMPLETION REPORT AND LOG										
4. Reason for filing: ☒ COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only) ☐ C-144 CLOSURE ATTACHMENT (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)								5. Lease Name or Unit Agreement Name MAZER RACKHAM 20 WA FEDERAL COM		
								6. Well Number: 1H		
7. Type of Completion: ☒ NEW WELL ☐ WORKOVER ☐ DEEPENING ☐ PLUGBACK ☐ DIFFERENT RESERVOIR ☐ OTHER										
8. Name of Operator Marathon Oil Permian LLC							9. OGRID 372098			
10. Address of Operator 990 Town & Country Blvd. Housotn, TX 77024							11. Pool name or Wildcat PURPLE SAGE; WOLFCAMP (GAS)			
12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
Surface:	A	20	26S	29E		966	N	540	E	EDDY
BH:	P	20	26S	29E		286	S	329	E	EDDY
13. Date Spudded 12/28/2019	14. Date T.D. Reached 3/17/2020		15. Date Rig Released 3/26/2020		16. Date Completed (Ready to Produce) 9/20/2021			17. Elevations (DF and RKB, RT, GR, etc.) 2872 GL		
18. Total Measured Depth of Well 14,636' MD / 9847' TVD			19. Plug Back Measured Depth 14580' MD / 9845' TVD		20. Was Directional Survey Made? Yes			21. Type Electric and Other Logs Run GR		
22. Producing Interval(s), of this completion - Top, Bottom, Name 10,004' - 14,523'; WOLFCAMP										
23. CASING RECORD (Report all strings set in well)										
CASING SIZE		WEIGHT LB./FT.		DEPTH SET		HOLE SIZE		CEMENTING RECORD		AMOUNT PULLED
13-3/8"		54.5#, J55, STC		436'		17-1/2"		455		
9-5/8"		40#, J55, BTC		2855'		12-1/4"		990		
7"		29#, P110, VA Roughneck		9238'		8-3/4"		970		
24. LINER RECORD										
SIZE	TOP	BOTTOM		SACKS CEMENT	SCREEN		25. TUBING RECORD			
4-1/2"	8936'	14626'		545			SIZE	DEPTH SET	PACKER SET	
26. Perforation record (interval, size, and number) 10,004' - 14,523'; 0.35", 450						27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.				
						DEPTH INTERVAL		AMOUNT AND KIND MATERIAL USED		
						10,004' - 14,523'		11,340,434 lbs 40/70; 100 Mesh Propan		
						10,004' - 14,523'		4,536 gal - 15% HCl Acid		
10,004' - 14,523'		233,022 bbls - Brackish Water								
28. PRODUCTION										
Date First Production 9/28/2021		Production Method (<i>Flowing, gas lift, pumping - Size and type pump</i>) Flowing					Well Status (<i>Prod. or Shut-in</i>) Prod.			
Date of Test 9/30/2021	Hours Tested 24	Choke Size 20/64	Prod'n For Test Period	Oil - Bbl 330	Gas - MCF 1063	Water - Bbl. 1937	Gas - Oil Ratio			
Flow Tubing Press. 0	Casing Pressure 2440	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (<i>Corr.</i>)				
29. Disposition of Gas (<i>Sold, used for fuel, vented, etc.</i>) Sold								30. Test Witnessed By		
31. List Attachments										
32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.								33. Rig Release Date:		
34. If an on-site burial was used at the well, report the exact location of the on-site burial:										
Latitude				Longitude				NAD83		
I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief										
Signature 			Printed Name Adrian Covarrubias			Title Regulatory Professional			Date 10/1/2021	
E-mail Address acovarrubias@marathonoil.com										

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy	T. Canyon 2842'	T. Ojo Alamo	T. Penn A"
T. Salt	T. Strawn	T. Kirtland	T. Penn. "B"
B. Salt 2732'	T. Atoka	T. Fruitland	T. Penn. "C"
T. Yates	T. Miss	T. Pictured Cliffs	T. Penn. "D"
T. 7 Rivers	T. Devonian	T. Cliff House	T. Leadville
T. Queen	T. Silurian	T. Menefee	T. Madison
T. Grayburg	T. Montoya	T. Point Lookout	T. Elbert
T. San Andres	T. Simpson	T. Mancos	T. McCracken
T. Glorieta	T. McKee	T. Gallup	T. Ignacio Otzte
T. Paddock	T. Ellenburger	Base Greenhorn	T. Granite
T. Blinebry	T. Gr. Wash	T. Dakota	
T. Tubb	T. Delaware Sand	T. Morrison	
T. Drinkard	T. Bone Springs	T. Todilto	
T. Abo	T. Lamar 2797'	T. Entrada	
T. Wolfcamp 9761'	T.	T. Wingate	
T. Penn	T.	T. Chinle	
T. Cisco (Bough C)	T.	T. Permian	

No. 1, from.....to.....

No. 2, from.....to.....

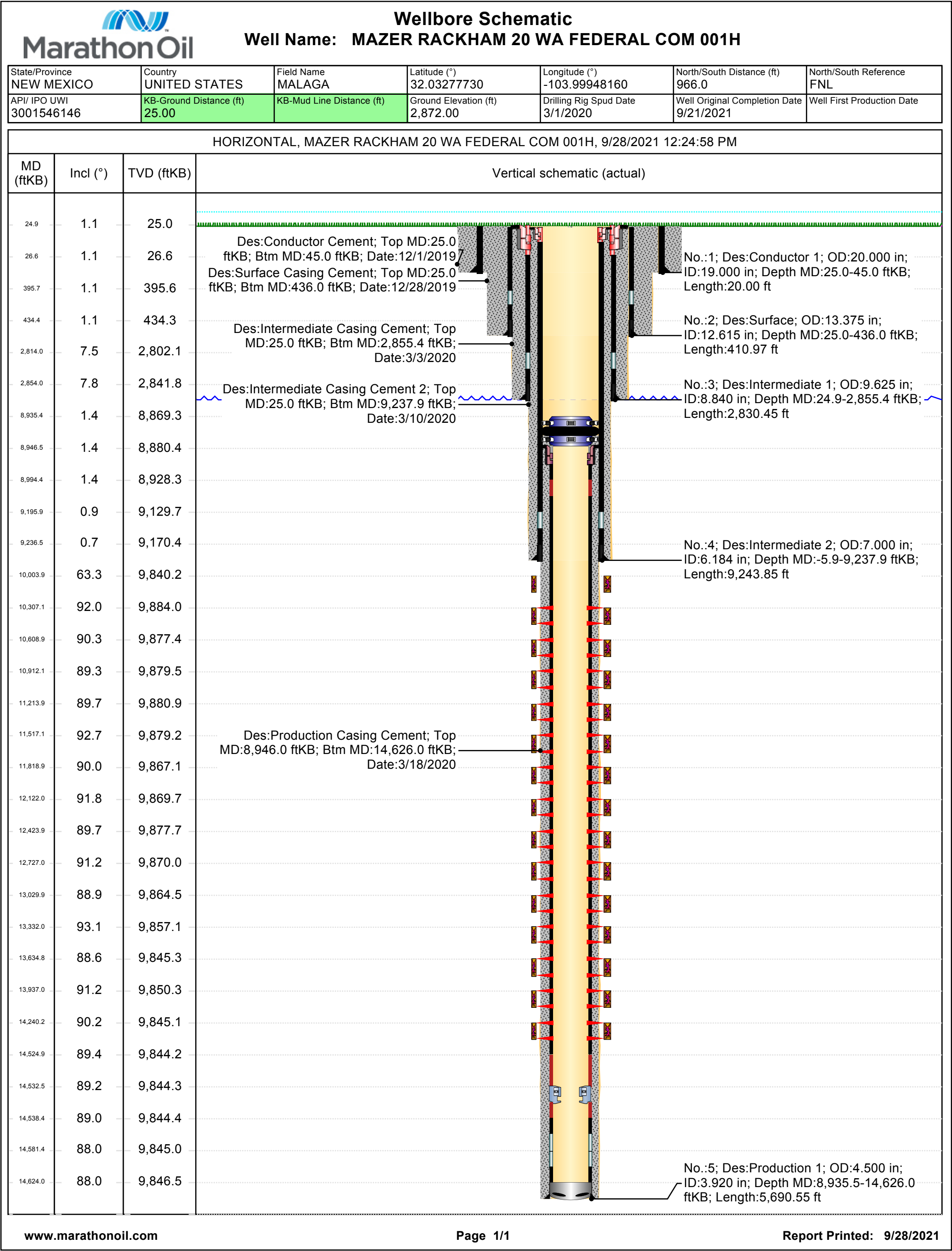
No. 3, from.....to.....

No. 4, from.....to.....

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.....
 No. 2, from.....to.....feet.....
 No. 3, from.....to.....feet.....

From	To	Thickness In Feet	Lithology



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 Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

ACKNOWLEDGMENTS

Action 53493

ACKNOWLEDGMENTS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 53493
	Action Type: [C-104] Completion Packet (C-104C)

ACKNOWLEDGMENTS

☒	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
☒	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.

District I
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Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 53493

CONDITIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 53493
	Action Type: [C-104] Completion Packet (C-104C)

CONDITIONS

Created By	Condition	Condition Date
plmartinez	None	1/28/2022