

Submit 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. 30-025-50618
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No. LG14876
7. Lease Name or Unit Agreement Name Grama Ridge 116 35 SB State Com
8. Well Number 201H
9. OGRID Number 372098
10. Pool name or Wildcat Grama Ridge; Bone Spring, NE

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>B</u> : <u>371</u> feet from the <u>NORTH</u> line and <u>1616</u> feet from the <u>EAST</u> line Section <u>35</u> Township <u>21S</u> Range <u>34E</u> NMPM County <u>LEA</u>	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3679' 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: ☐

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 to make the following changes to the approved drilling permit:

Change BHL from 100 FSL 2310 FEL to 100 FSL 1980 FEL
 Change Casing and Cement Program

See Attached C-102, Drilling Plan, and Directional Survey for details.

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  TITLE Regulatory Compliance Representative DATE 1/26/2023

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

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any):

District I

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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 30-025-50618	² Pool Code 28435	³ Pool Name GRAMA RIDGE; BONE SPRING NE
⁴ Property Code 333309	⁵ Property Name GRAMA RIDGE 116 35 SB STATE COM	⁶ Well Number 201H
⁷ OGRID No. 372098	⁸ Operator Name MARATHON OIL PERMIAN LLC	⁹ Elevation 3679'

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
B	35	21S	34E		371	NORTH	1616	EAST	LEA

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
O	2	22S	34E		100	SOUTH	1980	EAST	LEA

¹² Dedicated Acres 644.63	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.

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: Adrian Covarrubias Date: 1/26/2023

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.

Date of Survey: _____

Signature and Seal of Professional Surveyor: _____

Certificate Number: _____

CORNER COORDINATES NAD 27, SPCS NM EAST

A - X: 778247.66' / Y: 517904.42'
B - X: 778262.87' / Y: 515264.49'
C - X: 775624.48' / Y: 515242.18'
D - X: 775608.91' / Y: 517881.23'
E - X: 775592.90' / Y: 520594.27'
F - X: 775569.66' / Y: 523237.32'
G - X: 775546.44' / Y: 525877.66'
H - X: 778185.32' / Y: 525908.57'
I - X: 778206.35' / Y: 523267.14'
J - X: 778232.29' / Y: 520623.34'

CORNER COORDINATES NAD 83, SPCS NM EAST

A - X: 819430.77' / Y: 517965.44'
B - X: 819446.04' / Y: 515325.44'
C - X: 816807.57' / Y: 515303.12'
D - X: 816791.95' / Y: 517942.24'
E - X: 816775.88' / Y: 520655.35'
F - X: 816752.59' / Y: 523298.48'
G - X: 816729.31' / Y: 525938.90'
H - X: 819368.27' / Y: 525969.82'
I - X: 819389.36' / Y: 523328.31'
J - X: 819415.35' / Y: 520684.44'

SURFACE HOLE LOCATION
371' FNL 1616' FEL, SECTION 35
NAD 83, SPCS NM EAST
X: 817755.76' / Y: 525580.34'
LAT: 32.44169817N / LON: 103.43732073W
NAD 27, SPCS NM EAST
X: 776572.84' / Y: 525519.11'
LAT: 32.44157400N / LON: 103.43684024W

KICK OFF POINT/ FIRST TAKE POINT
100' FNL 1980' FEL, SECTION 35
NAD 83, SPCS NM EAST
X: 817389.19' / Y: 525846.62'
LAT: 32.44243849N / LON: 103.43850160W
NAD 27, SPCS NM EAST
X: 776206.29' / Y: 525785.38'
LAT: 32.44231433N / LON: 103.43802103W

LAST TAKE POINT/ BOTTOM HOLE LOCATION
100' FSL 1980' FEL, SECTION 2
NAD 83, SPCS NM EAST
X: 817465.52' / Y: 515408.69'
LAT: 32.41374826N / LON: 103.43853754W
NAD 27, SPCS NM EAST
X: 776282.41' / Y: 515347.75'
LAT: 32.41362401N / LON: 103.43805779W

Distances/areas relative to NAD 83 Combined Scale Factor: 0.99982436 Convergence Angle: 00°28'51.35002"

☐ Horizontal Spacing Unit



Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

		GL @ 3679.00			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	525519.11	776572.84	32° 26' 29.666 N	103° 26' 12.625 W

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	
1900.00	0.00	0.00	1900.00	0.00	0.00	0.00	0.000	0.00	KOP, 2.00°/100' Build
2167.82	5.36	306.00	2167.43	7.35	-10.12	2.00	305.995	-7.43	Begin 5.36° Tangent
6752.98	5.36	306.00	6732.57	258.92	-356.43	0.00	0.000	-261.52	Begin 2.00°/100' Drop
7020.80	0.00	0.00	7000.00	266.27	-366.55	2.00	180.000	-268.95	Begin Vertical Hold
9718.91	0.00	0.00	9798.10	266.27	-366.55	0.00	0.000	-268.95	Begin 10.00°/100' Build
10716.91	89.80	179.58	10371.06	-304.67	-362.39	10.00	179.582	302.01	Begin 89.80° Lateral
20583.92	89.80	179.58	10405.50	-10171.36	-290.43	0.00	0.000	10168.96	PBHL

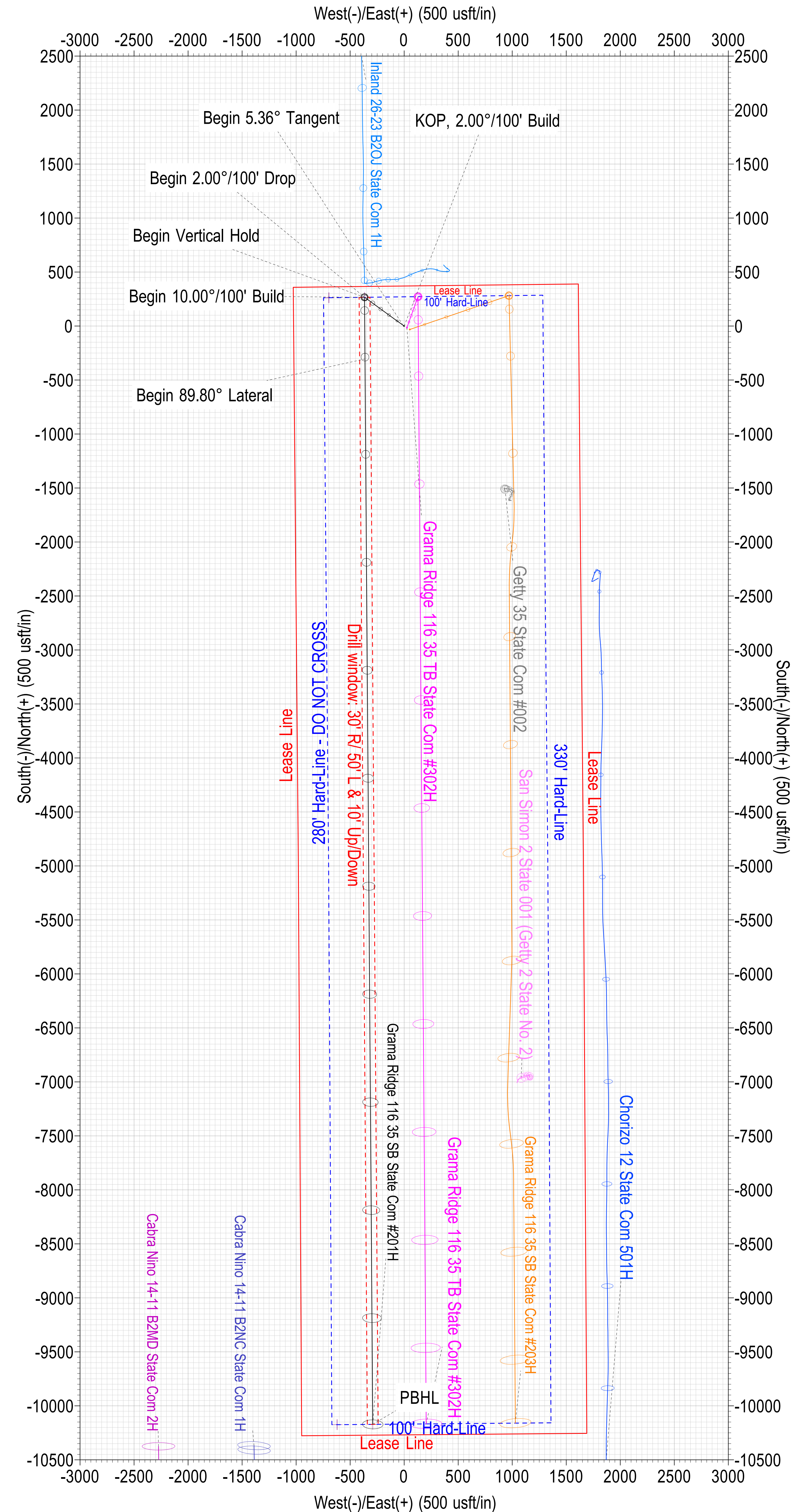
Name
KOP - Grama Ridge 201H
LTP/PBHL v5 - Grama Ridge 201H
VP v5- Grama Ridge 201H

TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
9798.10	262.41	-696.52	525781.52	775876.32	32° 26' 32.321 N	103° 26' 20.726 W
10405.50	-10171.36	-290.43	515347.75	776282.41	32° 24' 49.046 N	103° 26' 17.008 W
7000.00	266.27	-366.55	525785.38	776206.29	32° 26' 32.332 N	103° 26' 16.876 W

Tool
MWD+IFR1+FDIR




 Azimuths to Grid North:
 True North: -0.48°
 Magnetic North: 5.85°
 Magnetic Field:
 Strength: 47670.5nT
 Dip Angle: 60.12°
 Date: 2/15/2023
 Model: HDGM2023





Marathon Oil

Lea County, New Mexico (NAD 27)

Grama Ridge 116 35 SB State Com (201H, 203H, 302H)

Grama Ridge 116 35 SB State Com #201H

Wellbore #1

Plan: Design #5

Standard Planning Report

24 January, 2023





MS Directional Planning Report



Database:	Conroe DB	Local Co-ordinate Reference:	Well Grama Ridge 116 35 SB State Com #201H
Company:	Marathon Oil	TVD Reference:	Well @ 3704.00usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 27)	MD Reference:	Well @ 3704.00usft (Cactus 171)
Site:	Grama Ridge 116 35 SB State Com (201H, 203H, 302H)	North Reference:	Grid
Well:	Grama Ridge 116 35 SB State Com #201H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #5		

Project	Lea 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	Grama Ridge 116 35 SB State Com (201H, 203H, 302H)		
Site Position:		Northing:	525,519.11 usft
From:	Map	Easting:	776,572.84 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 26' 29.666 N
		Longitude:	103° 26' 12.625 W

Well	Grama Ridge 116 35 SB State Com #201H		
Well Position	+N/-S	0.00 usft	Northing: 525,519.11 usft
	+E/-W	0.00 usft	Easting: 776,572.84 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
Grid Convergence:	0.481 °	Ground Level:	3,679.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2023	2/15/2023	6.333	60.117	47,670.50

Design	Design #5			
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	179.58

Plan Survey Tool Program	Date	1/24/2023		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	20,583.92	Design #5 (Wellbore #1)	MWD+IFR1+FDIR
				OWSG MWD + IFR1 + FDIR



MS Directional Planning Report



Database:	Conroe DB	Local Co-ordinate Reference:	Well Grama Ridge 116 35 SB State Com #201H
Company:	Marathon Oil	TVD Reference:	Well @ 3704.00usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 27)	MD Reference:	Well @ 3704.00usft (Cactus 171)
Site:	Grama Ridge 116 35 SB State Com (201H, 203H, 302H)	North Reference:	Grid
Well:	Grama Ridge 116 35 SB State Com #201H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #5		

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	0.000	
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.000	
2,167.82	5.36	306.00	2,167.43	7.35	-10.12	2.00	2.00	0.00	305.995	
6,752.98	5.36	306.00	6,732.57	258.92	-356.43	0.00	0.00	0.00	0.000	
7,020.80	0.00	0.00	7,000.00	266.27	-366.55	2.00	-2.00	0.00	180.000	VP v5- Grama Ridg
9,818.91	0.00	0.00	9,798.10	266.27	-366.55	0.00	0.00	0.00	0.000	
10,716.91	89.80	179.58	10,371.06	-304.67	-362.39	10.00	10.00	0.00	179.582	
20,583.92	89.80	179.58	10,405.50	-10,171.36	-290.43	0.00	0.00	0.00	0.000	LTP/PBHL v5 - Grai

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	0.00
1,739.00	0.00	0.00	1,739.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13 3/8"										
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP, 2.00°/100' Build										
2,167.82	5.36	306.00	2,167.43	7.35	-10.12	-7.43	2.00	2.00	0.00	
Begin 5.36° Tangent										
5,751.04	5.36	306.00	5,735.00	203.95	-280.75	-206.00	0.00	0.00	0.00	
9 5/8"										
6,752.98	5.36	306.00	6,732.57	258.92	-356.43	-261.52	0.00	0.00	0.00	
Begin 2.00°/100' Drop										
7,020.80	0.00	0.00	7,000.00	266.27	-366.55	-268.95	2.00	-2.00	20.16	
Begin Vertical Hold										
9,818.91	0.00	0.00	9,798.11	266.27	-366.55	-268.95	0.00	0.00	0.00	
Begin 10.00°/100' Build										
10,716.91	89.80	179.58	10,371.06	-304.68	-362.39	302.01	10.00	10.00	0.00	
Begin 89.80° Lateral										
20,583.92	89.80	179.58	10,405.50	-10,171.36	-290.43	10,168.96	0.00	0.00	0.00	
PBHL										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
VP v5- Grama Ridge 1 - hit/miss target - Shape - Point	0.00	0.00	7,000.00	266.27	-366.55	525,785.38	776,206.29	32° 26' 32.332 N	103° 26' 16.876 W	
KOP - Grama Ridge 2 - plan misses target center by 329.99usft at 9820.04usft MD (9799.24 TVD, 266.27 N, -366.55 E) - Point	0.00	0.00	9,798.10	262.41	-696.52	525,781.52	775,876.32	32° 26' 32.321 N	103° 26' 20.726 W	
LTP/PBHL v5 - Grama - plan hits target center - Point	0.00	0.00	10,405.50	-10,171.36	-290.43	515,347.75	776,282.41	32° 24' 49.046 N	103° 26' 17.008 W	



MS Directional Planning Report



Database:	Conroe DB	Local Co-ordinate Reference:	Well Grama Ridge 116 35 SB State Com #201H
Company:	Marathon Oil	TVD Reference:	Well @ 3704.00usft (Cactus 171)
Project:	Lea County, New Mexico (NAD 27)	MD Reference:	Well @ 3704.00usft (Cactus 171)
Site:	Grama Ridge 116 35 SB State Com (201H, 203H, 302H)	North Reference:	Grid
Well:	Grama Ridge 116 35 SB State Com #201H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #5		

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,739.00	1,739.00	13 3/8"	13-3/8	17-1/2	
5,751.04	5,735.00	9 5/8"	9-5/8	12-1/4	
20,619.40		5 1/2"	5-1/2	6	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,900.00	1,900.00	0.00	0.00	KOP, 2.00°/100' Build	
2,167.82	2,167.43	7.35	-10.12	Begin 5.36° Tangent	
6,752.98	6,732.57	258.92	-356.43	Begin 2.00°/100' Drop	
7,020.80	7,000.00	266.27	-366.55	Begin Vertical Hold	
9,818.91	9,798.11	266.27	-366.55	Begin 10.00°/100' Build	
10,716.91	10,371.06	-304.68	-362.39	Begin 89.80° Lateral	
20,583.92	10,405.50	-10,171.36	-290.43	PBHL	

MARATHON OIL PERMIAN LLC**DRILLING AND OPERATIONS PLAN****PAD NAME:** Gramma Ridge 116 35 State Com 201H, 302H, 203H**STATE:** NEW MEXICO**COUNTY:** LEA

Well	Gramma Ridge 116 35 SB State Com 201H
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1. CASING PROGRAM

201H

String Type	Hole Size	Csg Size	Top Set MD	Bottom Set MD	Weight (lbs/ft)	Grade
Surface	<u>17 1/2</u>	<u>13 3/8</u>	<u>0</u>	<u>1,739</u>	<u>54.5</u>	<u>J55</u>
Intermediate I	<u>12 1/4</u>	<u>9 5/8</u>	<u>0</u>	<u>5,729</u>	<u>40</u>	<u>P110</u>
Production csg	<u>8 3/4</u>	<u>5 1/2</u>	<u>0</u>	<u>10,717</u>	<u>23</u>	<u>P110</u>
Production csg	<u>8 1/2</u>	<u>5 1/2</u>	<u>10,717</u>	<u>20,584</u>	<u>23</u>	<u>P110</u>

2. CEMENT PROGRAM:

201H

String Type	Top MD	Bottom MD	Quantity (sx)
Surface	0	1,739	1452
Intermediate I	0	5,729	1002
Production 8.75"	5,229	9,316	697
Production 8.5"	9,316	20,584	1972

3. PRESSURE CONTROL EQUIPMENT

201H, 302H, 203H

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12 ¼"	13 5/8	5000	Annular	x	50% of working pressure
			Blind Ram	X	5000
			Pipe Ram	X	
			Pipe Ram	X	
8 ¾" & 8 ½"	13 5/8	5000	5M Annular	x	50% of working pressure
			Blind Ram	x	5000
			Pipe Ram	x	
			Pipe Ram	x	

4. MUD PROGRAM:

201H, 302H, 203H

Hole Section	Mud Type
<u>Surface</u>	<u>Water Based Mud</u>
<u>Intermediate 1</u>	<u>Brine</u>
<u>Production</u>	<u>Cut Brine / OBM</u>

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

CONDITIONS

Action 180025

CONDITIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 180025
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	2/3/2023