

Form 3160-5
(June 2019)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021**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. **NMNM84728**

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator **MARATHON OIL PERMIAN LLC**3a. Address **990 TOWN & COUNTRY BLVD, HOUSTON, TX** 3b. Phone No. (include area code)
(713) 296-21134. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SEC 15/T23S/R32E/NMP

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

8. Well Name and No. **BING CLAWSBY 15-10 TB FEDERA**9. API Well No. **3002551265**10. Field and Pool or Exploratory Area
DIAMONDTAIL; BONE SPRING11. Country or Parish, State
LEA/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		
	☐ 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 recompleat 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 Permian LLC. requests to make the following changes to the Approved APD:

Name Change:

From: Bing Clawsby 15-10 TB Federal Com 1H

To: Bing Clawsby WC Federal Com 701H

Formation Target Change:

From: Diamondtail; Bone Spring

To: Diamondtail; Wolfcamp

BHL Change:

From: 100 FNL 2250 FEL of Sec 10, T23S-R32E

Continued on page 3 additional information

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

ADRIAN COVARRUBIAS / Ph: (713) 296-3368

regulatory Compliance Representative

Title

Signature

Adrian Covarrubias

Date

06/27/2023

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

ZOTA M STEVENS / Ph: (575) 234-5998 / ApprovedTitle **Petroleum Engineer**Date **06/27/2023**

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 **CARLSBAD**

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)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Additional Remarks

To: 100 FNL 2310 FEL Sec 3, T23S-R32E

Please see attached updated C-102, Drill Plan, and Directional Survey.

Location of Well

0. SHL: SWSE / 393 FSL / 1463 FEL / TWSP: 23S / RANGE: 32E / SECTION: 15 / LAT: 32.2984842 / LONG: -103.6586983 (TVD: 0 feet, MD: 0 feet)

PPP: SWSE / 0 FNL / 2250 FEL / TWSP: 23S / RANGE: 32E / SECTION: 10 / LAT: 32.3119205 / LONG: -103.6612505 (TVD: 12096 feet, MD: 17100 feet)

PPP: SWSE / 100 FSL / 2250 FEL / TWSP: 23S / RANGE: 32E / SECTION: 15 / LAT: 32.2976719 / LONG: -103.6612458 (TVD: 11529 feet, MD: 11600 feet)

BHL: NWNE / 100 FNL / 2250 FEL / TWSP: 23S / RANGE: 32E / SECTION: 10 / LAT: 32.3261673 / LONG: -103.6612559 (TVD: 12096 feet, MD: 22275 feet)

CONFIDENTIAL

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 30-025-51265	² Pool Code 98248	³ Pool Name WC-025 G-08 S243217P;UPR WC
⁴ Property Code 333889	⁵ Property Name BING CLAWSBY WC FEDERAL COM	⁶ Well Number 701H
⁷ OGRID No. 372098	⁸ Operator Name MARATHON OIL PERMIAN LLC	⁹ Elevation 3709'

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
O	15	23S	32E		393	SOUTH	1463	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
L 2	3	23S	32E		100	NORTH	2310	EAST	LEA

¹² Dedicated Acres 959.22	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.

	CORNER COORDINATES NAD 83, SPCS NM EAST A - X: 751147.37' / Y: 488431.01' B - X: 751165.49' / Y: 485805.43' C - X: 751183.52' / Y: 483166.02' D - X: 751209.78' / Y: 480526.61' E - X: 751218.73' / Y: 477879.73' F - X: 751235.66' / Y: 475239.28' G - X: 751253.34' / Y: 472596.79' H - X: 748611.34' / Y: 472572.87' I - X: 748594.33' / Y: 475215.23' J - X: 748577.33' / Y: 477856.57' K - X: 748559.48' / Y: 480500.48' L - X: 748541.66' / Y: 483138.93' M - X: 748523.95' / Y: 485779.80' N - X: 748506.35' / Y: 488403.47'	CORNER COORDINATES NAD 27, SPCS NM EAST A - X: 709964.45' / Y: 488371.00' B - X: 709982.50' / Y: 485745.50' C - X: 710000.46' / Y: 483106.16' D - X: 710026.65' / Y: 480466.83' E - X: 710035.53' / Y: 477820.02' F - X: 710052.39' / Y: 475179.64' G - X: 710070.01' / Y: 472537.23' H - X: 710052.39' / Y: 475179.64' I - X: 707411.07' / Y: 475155.59' J - X: 707394.14' / Y: 477796.85' K - X: 707376.36' / Y: 480440.69' L - X: 707358.61' / Y: 483079.07' M - X: 707340.97' / Y: 485719.87' N - X: 707323.44' / Y: 488343.46'	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: <u>Adrian Covarrubias</u> Date: <u>4/25/2023</u> Printed Name: <u>Adrian Covarrubias</u> E-mail Address:
	LAST TAKE POINT/ BOTTOM HOLE LOCATION 100' FNL 2310' FEL, SECTION 3 NAD 83, SPCS NM EAST X: 748838.17' / Y: 488306.92' LAT: 32.34063794N / LON: 103.66146134W NAD 27, SPCS NM EAST X: 707655.26' / Y: 488246.92' LAT: 32.34051478N / LON: 103.66097618W	KICK OFF POINT/ FIRST TAKE POINT 100' FSL 2310' FEL, SECTION 15 NAD 83, SPCS NM EAST X: 748942.76' / Y: 472675.88' LAT: 32.29767146N / LON: 103.66144001W NAD 27, SPCS NM EAST X: 707759.43' / Y: 472616.31' LAT: 32.29754814N / LON: 103.66095643W	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. MARCH 31, 2023 Date of Survey Signature and Seal of Professional Surveyor: <u>Lloyd P. Short</u> Certificate Number: <u>21653</u>
	SURFACE HOLE LOCATION 393' FSL 1463' FEL, SECTION 15 NAD 83, SPCS NM EAST X: 749788.06' / Y: 472976.88' LAT: 32.29848423N / LON: 103.65869832W NAD 27, SPCS NM EAST X: 708604.74' / Y: 472917.30' LAT: 32.29836090N / LON: 103.65821477W		
	SHEET 1 OF 3 JOB No. R4193_001 REV 2 BM 3/1/2023		

Distances/areas relative to NAD 83 Combined Scale Factor: 0.99914426 Convergence Angle: 00°07'17.93119"

MARATHON OIL PERMIAN, LLC.
DRILLING AND OPERATIONS PLAN



WELL NAME & NUMBER:

BING CLAWSBY WC FEDERAL COM 701H

LOCATION:

SECTION **15** TOWNSHIP **23S** RANGE **32E**
LEA COUNTY, **NEW MEXICO**

Section 1:**GEOLOGICAL FORMATIONS**

Name of Surface Formation: Permian

Elevation: 3709 feet

Estimated Tops of Important Geological Markers:

Formation	TVD (ft)	MD (ft)	Elevation (ft SS)	Lithologies	Mineral Resources	Producing Formation?
Rustler	1221	1248	2488	Anhydrite	Brine	No
Salado	1696	1723	2013	Salt/Anhydrite	Brine	No
Castile	3604	3631	105	Salt/Anhydrite	Brine	No
Base of Salt (BX)	4942	4969	-1233	Salt/Anhydrite	Brine	No
Lamar	4942	4969	-1233	Sandstone/Shale	None	No
Bell Canyon	4994	5021	-1285	Sandstone	Oil	No
Cherry Canyon	6117	6144	-2408	Sandstone	Oil	No
Brushy Canyon	7094	7121	-3385	Sandstone	Oil	No
Bone Spring Lime	8757	8784	-5048	Limestone	None	No
Upper Avalon Shale	8887	8914	-5178	Shale	Oil	Yes
1st Bone Spring Sand	9940	9967	-6231	Sandstone	Oil	Yes
2nd Bone Spring Carbonate	10242	10269	-6533	Limestone/Shale	None	No
2nd Bone Spring Sand	10607	10634	-6898	Sandstone	Oil	Yes
3rd Bone Spring Carbonate	11115	11142	-7406	Limestone	Oil	No
3rd Bone Spring Sand	11890	11917	-8181	Sandstone	Oil	Yes
Wolfcamp	12176	12203	-8467	Sandstone/Shale/Carbonates	Natural Gas / Oil	Yes
Wolfcamp A	12395	12422	-8686	Sandstone/Shale/Carbonates	Natural Gas / Oil	Yes
Wolfcamp B	12831	12858	-9122	Sandstone/Shale/Carbonates	Natural Gas / Oil	No
Wolfcamp C	12997	13024	-9288	Sandstone/Shale/Carbonates	Natural Gas / Oil	No
Wolfcamp D	13108	13135	-9399	Sandstone/Shale/Carbonates	Natural Gas / Oil	No

Section 2:**BLOWOUT PREVENTER TESTING PROCEDURE**

Pressure Rating (PSI): 10M

Rating Depth: 10000

Equipment: 13 5/8 BOP Annular (5,000 psi WP) and BOP Stack (10,000 psi WP) will be installed and tested before drilling all holes.

Requesting Variance? Yes

Variance Request: A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.

Testing Procedure: BOP/BOPE will be tested to 250 psi low and a high of 100% WP for the Annular and 5,000psi for the BOP Stack before drilling the intermediate hole, 10,000psi for the BOP Stacking before drilling the production hole. Testing will be conducted by an independent service company per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the Equipment Description above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams and Blind rams will be operationally checked on each trip out of the hole, but not to exceed more than once per day. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock, full opening safety valve / inside BOP and choke lines and choke manifold. See attached schematics.

Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i. A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. See attached schematic.

Marathon Oil Permian LLC.

Drilling & Operations Plan - Page 2 of 4

Section 3:**CASING PROGRAM**

String Type	Hole Size	Casing Size	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Weight (lbs/ft)	Grade	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
Surface	17.5	13.375	0	1318	0	1291	3709	2418	54.5	J55	BTC	5.22	1.81	BUOY	4.52	BUOY	4.52
Intermediate	12.25	9.625	0	11598	0	11520	3709	-7811	40	P110HC	BTC	1.20	1.42	BUOY	2.44	BUOY	2.44
Production	8.75	5.5	0	27706	0	12193	3709	-8484	23	P110HC	TLW	2.53	1.26	BUOY	2.22	BUOY	2.22
All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h												Safety Factors will Meet or Exceed					

Casing Condition: New
Casing Standard: API
Tapered String? No

Yes or No

Is casing new? If used, attach certification as required in Onshore Order #1.	Yes
Does casing meet API specifications? If no, attach casing specification sheet.	Yes
Is premium or uncommon casing planned? If yes attach casing specification sheet.	No
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Yes
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Yes
Is well located within Capitan Reef?	No
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is proposed well within the designated four string boundary?	
Is well located in R-111-P and SOPA?	No
If yes, are the first three strings cemented to surface?	
Is the second string set 100' to 600' below the base of salt?	
Is well located in SOPA but not in R-111-P?	No
If yes, are the first 2 strings cemented to surface and third string cement tied back 500' into previous casing?	
Is well located in high Cave/Karst?	No
If yes, are there two strings cemented to surface?	
If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	No
If yes, are there three strings cemented to surface?	

Section 4:**CEMENT PROGRAM**

String Type	Lead/Tail	Top MD	Bottom MD	Quantity (sks)	Yield (ft ³ /sks)	Density (ppg)	Slurry Volume (ft ³)	Excess (%)	Cement Type	Additives
Surface	Lead	0	1168	501	2.12	12.5	1063	25	Class C	Extender, Accelerator, LCM
Surface	Tail	1168	1318	99	1.32	14.8	130	25	Class C	Accelerator
Intermediate	Lead	0	11098	2030	2.18	12.4	4426	25	Class C	Extender, Accelerator, LCM
Intermediate	Tail	11098	11598	147	1.33	14.8	196	25	Class C	Retarder
Production	Tail	11298	27706	3124	1.68	13	5249	25	Class H	Retarder, Extender, Fluid Loss, Suspension Agent

Stage tool depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. Stage tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Pilot Hole? No
Pilot Hole Depth: N/A
KOP Depth: N/A
Plugging Procedure for Pilot Hole: N/A

Plug Top	Plug Bottom	Excess (%)	Quantity (sx)	Density (ppg)	Yield (ft ³ /sks)	Water gal/sk	Slurry Description and Cement Type

Marathon Oil Permian LLC.

Drilling & Operations Plan - Page 3 of 4

Section 5:**CIRCULATING MEDIUM**

Mud System Type: Closed
Will an air or gas system be used? No

Describe what will be on location to control well or mitigate other conditions:

The necessary mud products for additional weight and fluid loss control will be on location at all times.

Describe the mud monitoring system utilized:

Losses or gains in the mud system will be monitored visually/manually as well as with an electronic PVT.

Circulating Medium Table:

Top Depth	Bottom Depth	Mud Type	Min. Weight (ppg)	Max Weight (ppg)
0	1318	Water Based Mud	8.4	8.8
1318	11598	Brine or Oil Based Mud	9.2	10.2
11598	27706	Oil Based Mud	10.5	12.5

Section 6:**TESTING, LOGGING, CORING****List of production tests including testing procedures, equipment and safety measures:**

GR from TD to surface (horizontal well - vertical portion of hole)

List of open and cased hole logs run in the well:

GR while drilling from Intermediate casing shoe to TD.

Coring operation description for the well:

Run gamma-ray (GR) and corrected neutron log (CNL) or analogous to surface for future development of the area, one per shared well pad not to exceed 200' radial distance.

Section 7:**ANTICIPATED PRESSURE**

Anticipated Bottom Hole Pressure: 7925 PSI
Anticipated Bottom Hole Temperature: 195 °F
Anticipated Abnormal Pressure? No
Anticipated Abnormal Temperature? No

Potential Hazards:

H2S detection equipment will be in operation after drilling out the surface casing shoe until the production casing has been cemented. Breathing equipment will be on location from drilling out the surface shoe until production casing is cemented. If H2S is encountered the operator will comply with Onshore Order #6. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. See attached H2S Contingency Plan.

Section 8:**OTHER INFORMATION****Auxiliary Well Control and Monitoring Equipment:**

A Kelly cock will be in the drill string at all times. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor unobstructed and readily accessible at all times.

Hydrogen Sulfide detection equipment will be in operation after drilling out the surface casing shoe until the production casing is cemented. Breathing equipment will be on location upon drilling the surface casing shoe until total depth is reached. If Hydrogen Sulfide is encountered, measured amounts and formations will be reported to the BLM.

Anticipated Starting Date and Duration of Operations:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon as possible after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 30 days.

Marathon Oil Permian LLC.

Drilling & Operations Plan - Page 4 of 4

DRILL PLAN CHANGE REGISTER

BING CLAWSBY WC FEDERAL COM 701H

SECTION 15, TOWNSHIP 23S, RANGE 32E
LEA COUNTY, NEW MEXICO

Original Document Date:

Friday, April 21, 2023

Prepared By:

Court Nelson

Submitted By:

Adrian Covarrubias

Revised Date: Monday, October 18, 2021
Revised By: Court Nelson (Drilling Engineer)
Matt Baker (Geologist)Submittal Date: Monday, November 1, 2021
Submittal Type: NOI Change to AAPD Sundry Notice
Submitted By: Melissa Szudera

Summary of Revisions:

Section	Description
2 - Casing	Removed second intermediate string
4 - Cement	Removed second intermediate string
5 - Mud	Removed second intermediate string

Revised Date:
Revised By:Submittal Date:
Submittal Type:
Submitted By:

Summary of Revisions:

Section	Description

Revised Date:
Revised By:Submittal Date:
Submittal Type:
Submitted By:

Summary of Revisions:

Section	Description

Revised Date:
Revised By:Submittal Date:
Submittal Type:
Submitted By:

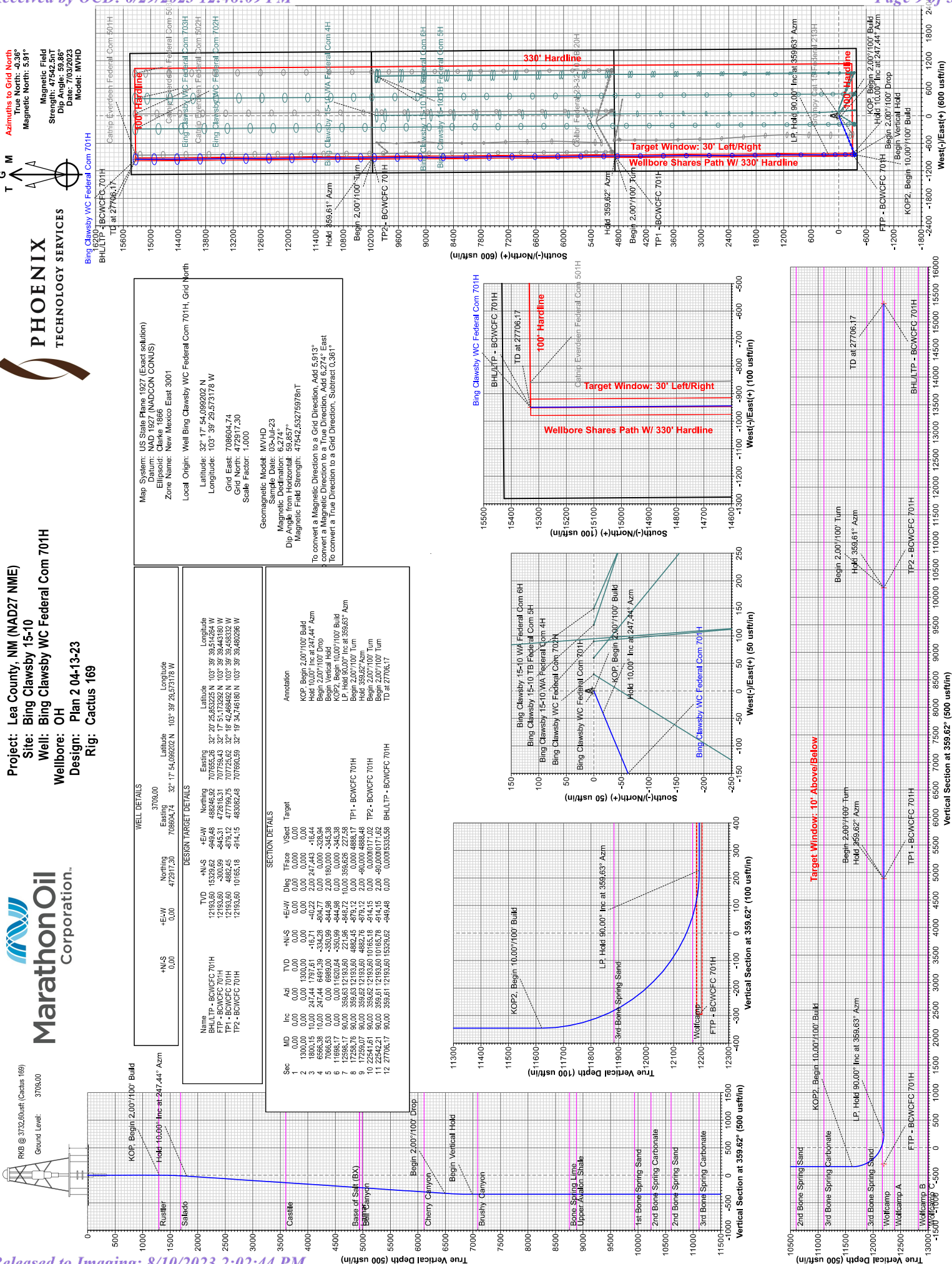
Summary of Revisions:

Section	Description



Marathon Oil
Corporation[™]

RKB @ 3732.50usft (Cactus 169)
Ground Level: 3705.00





Marathon Oil Permian LLC

Lea County, NM (NAD27 NME)

Bing Clawsby 15-10

Bing Clawsby WC Federal Com 701H

OH

Plan: Plan 2 04-13-23

Standard Planning Report

13 April, 2023





Phoenix Planning Report



Database:	USAEDMDB	Local Co-ordinate Reference:	Well Bing Clawsby WC Federal Com 701H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3732.60usft (Cactus 169)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3732.60usft (Cactus 169)
Site:	Bing Clawsby 15-10	North Reference:	Grid
Well:	Bing Clawsby WC Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 04-13-23		

Project	Lea County, NM (NAD27 NME)		
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		Bing Clawsby 15-10			
Site Position:		Northing:	472,917.30 usft	Latitude:	32° 17' 54.097368 N
From:	Map	Easting:	708,634.73 usft	Longitude:	103° 39' 29.223684 W
Position Uncertainty:		0.00 usft	Slot Radius:	13-3/16 "	

Well	Bing Clawsby WC Federal Com 701H					
Well Position	+N/-S	0.00 usft	Northing:	472,917.30 usft	Latitude:	32° 17' 54.099202 N
	+E/-W	0.00 usft	Easting:	708,604.74 usft	Longitude:	103° 39' 29.573178 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,709.00 usft
Grid Convergence:	0.361 °					

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	7/03/23	6.274	59.857	47,542.53275978

Design	Plan 2 04-13-23				
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	359.62	

Plan Survey Tool Program	Date	4/13/23			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	27,706.17	Plan 2 04-13-23 (OH)	MWD+IFR1+MS	
				OWSG Rev. 2 MWD + IFR1	



Phoenix Planning Report



Database:	USAEDMDB	Local Co-ordinate Reference:	Well Bing Clawsby WC Federal Com 701H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3732.60usft (Cactus 169)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3732.60usft (Cactus 169)
Site:	Bing Clawsby 15-10	North Reference:	Grid
Well:	Bing Clawsby WC Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 04-13-23		

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	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,800.15	10.00	247.44	1,797.61	-16.71	-40.22	2.00	2.00	0.00	247.443	
6,566.38	10.00	247.44	6,491.39	-334.28	-804.77	0.00	0.00	0.00	0.000	
7,066.53	0.00	0.00	6,989.00	-350.99	-844.98	2.00	-2.00	0.00	180.000	
11,698.17	0.00	0.00	11,620.64	-350.99	-844.98	0.00	0.00	0.00	0.000	
12,598.17	90.00	359.63	12,193.60	221.96	-848.72	10.00	10.00	0.00	359.626	
17,258.76	90.00	359.63	12,193.60	4,882.45	-879.12	0.00	0.00	0.00	0.000	TP1 - BCWCFC 70
17,259.07	90.00	359.62	12,193.60	4,882.76	-879.12	2.00	0.00	-2.00	-90.000	
22,541.61	90.00	359.62	12,193.60	10,165.18	-914.15	0.00	0.00	0.00	0.000	TP2 - BCWCFC 70
22,542.21	90.00	359.61	12,193.60	10,165.78	-914.15	2.00	0.00	-2.00	-90.000	
27,706.17	90.00	359.61	12,193.60	15,329.62	-949.48	0.00	0.00	0.00	0.000	BHL/LTP - BCWCFC



Phoenix Planning Report



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Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3732.60usft (Cactus 169)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3732.60usft (Cactus 169)
Site:	Bing Clawsby 15-10	North Reference:	Grid
Well:	Bing Clawsby WC Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 04-13-23		

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
1,294.60	0.00	0.00	1,294.60	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP, Begin 2.00°/100' Build									
1,400.00	2.00	247.44	1,399.98	-0.67	-1.61	-0.66	2.00	2.00	0.00
1,500.00	4.00	247.44	1,499.84	-2.68	-6.44	-2.63	2.00	2.00	0.00
1,600.00	6.00	247.44	1,599.45	-6.02	-14.49	-5.92	2.00	2.00	0.00
1,690.81	7.82	247.44	1,689.60	-10.21	-24.58	-10.05	2.00	2.00	0.00
Salado									
1,700.00	8.00	247.44	1,698.70	-10.69	-25.75	-10.52	2.00	2.00	0.00
1,800.00	10.00	247.44	1,797.47	-16.70	-40.19	-16.43	2.00	2.00	0.00
1,800.15	10.00	247.44	1,797.61	-16.71	-40.22	-16.44	2.00	2.00	0.00
Hold 10.00° Inc at 247.44° Azm									
1,900.00	10.00	247.44	1,895.95	-23.36	-56.23	-22.98	0.00	0.00	0.00
2,000.00	10.00	247.44	1,994.43	-30.02	-72.28	-29.54	0.00	0.00	0.00
2,100.00	10.00	247.44	2,092.91	-36.68	-88.32	-36.10	0.00	0.00	0.00
2,200.00	10.00	247.44	2,191.39	-43.35	-104.36	-42.65	0.00	0.00	0.00
2,300.00	10.00	247.44	2,289.86	-50.01	-120.40	-49.21	0.00	0.00	0.00
2,400.00	10.00	247.44	2,388.34	-56.67	-136.44	-55.77	0.00	0.00	0.00
2,500.00	10.00	247.44	2,486.82	-63.34	-152.48	-62.32	0.00	0.00	0.00
2,600.00	10.00	247.44	2,585.30	-70.00	-168.52	-68.88	0.00	0.00	0.00
2,700.00	10.00	247.44	2,683.78	-76.66	-184.56	-75.44	0.00	0.00	0.00
2,800.00	10.00	247.44	2,782.26	-83.33	-200.60	-81.99	0.00	0.00	0.00
2,900.00	10.00	247.44	2,880.74	-89.99	-216.64	-88.55	0.00	0.00	0.00
3,000.00	10.00	247.44	2,979.22	-96.65	-232.68	-95.11	0.00	0.00	0.00
3,100.00	10.00	247.44	3,077.70	-103.32	-248.73	-101.66	0.00	0.00	0.00
3,200.00	10.00	247.44	3,176.18	-109.98	-264.77	-108.22	0.00	0.00	0.00
3,300.00	10.00	247.44	3,274.66	-116.64	-280.81	-114.78	0.00	0.00	0.00
3,400.00	10.00	247.44	3,373.14	-123.30	-296.85	-121.33	0.00	0.00	0.00
3,500.00	10.00	247.44	3,471.62	-129.97	-312.89	-127.89	0.00	0.00	0.00
3,600.00	10.00	247.44	3,570.10	-136.63	-328.93	-134.45	0.00	0.00	0.00
3,627.92	10.00	247.44	3,597.60	-138.49	-333.41	-136.28	0.00	0.00	0.00
Castile									
3,700.00	10.00	247.44	3,668.58	-143.29	-344.97	-141.00	0.00	0.00	0.00
3,800.00	10.00	247.44	3,767.06	-149.96	-361.01	-147.56	0.00	0.00	0.00
3,900.00	10.00	247.44	3,865.54	-156.62	-377.05	-154.12	0.00	0.00	0.00
4,000.00	10.00	247.44	3,964.02	-163.28	-393.09	-160.67	0.00	0.00	0.00
4,100.00	10.00	247.44	4,062.50	-169.95	-409.14	-167.23	0.00	0.00	0.00
4,200.00	10.00	247.44	4,160.98	-176.61	-425.18	-173.79	0.00	0.00	0.00
4,300.00	10.00	247.44	4,259.46	-183.27	-441.22	-180.34	0.00	0.00	0.00
4,400.00	10.00	247.44	4,357.94	-189.94	-457.26	-186.90	0.00	0.00	0.00
4,500.00	10.00	247.44	4,456.42	-196.60	-473.30	-193.46	0.00	0.00	0.00
4,600.00	10.00	247.44	4,554.90	-203.26	-489.34	-200.01	0.00	0.00	0.00
4,700.00	10.00	247.44	4,653.38	-209.93	-505.38	-206.57	0.00	0.00	0.00
4,800.00	10.00	247.44	4,751.86	-216.59	-521.42	-213.13	0.00	0.00	0.00
4,900.00	10.00	247.44	4,850.34	-223.25	-537.46	-219.68	0.00	0.00	0.00
4,986.57	10.00	247.44	4,935.60	-229.02	-551.35	-225.36	0.00	0.00	0.00
Base of Salt (BX) - Lamar									
5,000.00	10.00	247.44	4,948.82	-229.91	-553.50	-226.24	0.00	0.00	0.00
5,039.38	10.00	247.44	4,987.60	-232.54	-559.82	-228.82	0.00	0.00	0.00
Bell Canyon									
5,100.00	10.00	247.44	5,047.30	-236.58	-569.55	-232.80	0.00	0.00	0.00



Phoenix Planning Report



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Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3732.60usft (Cactus 169)
Site:	Bing Clawsby 15-10	North Reference:	Grid
Well:	Bing Clawsby WC Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 04-13-23		

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)
5,200.00	10.00	247.44	5,145.78	-243.24	-585.59	-239.35	0.00	0.00	0.00
5,300.00	10.00	247.44	5,244.26	-249.90	-601.63	-245.91	0.00	0.00	0.00
5,400.00	10.00	247.44	5,342.74	-256.57	-617.67	-252.46	0.00	0.00	0.00
5,500.00	10.00	247.44	5,441.22	-263.23	-633.71	-259.02	0.00	0.00	0.00
5,600.00	10.00	247.44	5,539.70	-269.89	-649.75	-265.58	0.00	0.00	0.00
5,700.00	10.00	247.44	5,638.18	-276.56	-665.79	-272.13	0.00	0.00	0.00
5,800.00	10.00	247.44	5,736.66	-283.22	-681.83	-278.69	0.00	0.00	0.00
5,900.00	10.00	247.44	5,835.14	-289.88	-697.87	-285.25	0.00	0.00	0.00
6,000.00	10.00	247.44	5,933.62	-296.55	-713.91	-291.80	0.00	0.00	0.00
6,100.00	10.00	247.44	6,032.10	-303.21	-729.96	-298.36	0.00	0.00	0.00
6,179.71	10.00	247.44	6,110.60	-308.52	-742.74	-303.59	0.00	0.00	0.00
Cherry Canyon									
6,200.00	10.00	247.44	6,130.58	-309.87	-746.00	-304.92	0.00	0.00	0.00
6,300.00	10.00	247.44	6,229.06	-316.53	-762.04	-311.47	0.00	0.00	0.00
6,400.00	10.00	247.44	6,327.54	-323.20	-778.08	-318.03	0.00	0.00	0.00
6,500.00	10.00	247.44	6,426.02	-329.86	-794.12	-324.59	0.00	0.00	0.00
6,566.38	10.00	247.44	6,491.39	-334.28	-804.77	-328.94	0.00	0.00	0.00
Begin 2.00°/100' Drop									
6,600.00	9.33	247.44	6,524.53	-336.45	-809.98	-331.07	2.00	-2.00	0.00
6,700.00	7.33	247.44	6,623.47	-342.01	-823.36	-336.54	2.00	-2.00	0.00
6,800.00	5.33	247.44	6,722.86	-346.24	-833.54	-340.70	2.00	-2.00	0.00
6,900.00	3.33	247.44	6,822.57	-349.13	-840.52	-343.55	2.00	-2.00	0.00
7,000.00	1.33	247.44	6,922.48	-350.69	-844.27	-345.09	2.00	-2.00	0.00
7,066.53	0.00	0.00	6,989.00	-350.99	-844.98	-345.38	2.00	-2.00	0.00
Begin Vertical Hold									
7,165.13	0.00	0.00	7,087.60	-350.99	-844.98	-345.38	0.00	0.00	0.00
Brushy Canyon									
8,828.13	0.00	0.00	8,750.60	-350.99	-844.98	-345.38	0.00	0.00	0.00
Bone Spring Lime									
8,958.13	0.00	0.00	8,880.60	-350.99	-844.98	-345.38	0.00	0.00	0.00
Upper Avalon Shale									
10,011.13	0.00	0.00	9,933.60	-350.99	-844.98	-345.38	0.00	0.00	0.00
1st Bone Spring Sand									
10,313.13	0.00	0.00	10,235.60	-350.99	-844.98	-345.38	0.00	0.00	0.00
2nd Bone Spring Carbonate									
10,678.13	0.00	0.00	10,600.60	-350.99	-844.98	-345.38	0.00	0.00	0.00
2nd Bone Spring Sand									
11,186.13	0.00	0.00	11,108.60	-350.99	-844.98	-345.38	0.00	0.00	0.00
3rd Bone Spring Carbonate									
11,698.17	0.00	0.00	11,620.64	-350.99	-844.98	-345.38	0.00	0.00	0.00
KOP2, Begin 10.00°/100' Build									
11,700.00	0.18	359.63	11,622.47	-350.99	-844.98	-345.37	10.00	10.00	0.00
11,800.00	10.18	359.63	11,721.94	-341.96	-845.04	-336.35	10.00	10.00	0.00
11,900.00	20.18	359.63	11,818.33	-315.81	-845.21	-310.19	10.00	10.00	0.00
11,971.36	27.32	359.63	11,883.60	-287.08	-845.40	-281.47	10.00	10.00	0.00
3rd Bone Spring Sand									
12,000.00	30.18	359.63	11,908.71	-273.31	-845.49	-267.70	10.00	10.00	0.00
12,100.00	40.18	359.63	11,990.33	-215.77	-845.87	-210.15	10.00	10.00	0.00
12,200.00	50.18	359.63	12,060.73	-144.92	-846.33	-139.30	10.00	10.00	0.00
12,300.00	60.18	359.63	12,117.75	-62.93	-846.86	-57.31	10.00	10.00	0.00
12,400.00	70.18	359.63	12,159.67	27.72	-847.45	33.34	10.00	10.00	0.00
12,431.75	73.36	359.63	12,169.60	57.87	-847.65	63.49	10.00	10.00	0.00



Phoenix Planning Report



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Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3732.60usft (Cactus 169)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3732.60usft (Cactus 169)
Site:	Bing Clawsby 15-10	North Reference:	Grid
Well:	Bing Clawsby WC Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 04-13-23		

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)
Wolfcamp									
12,500.00	80.18	359.63	12,185.21	124.27	-848.08	129.89	10.00	10.00	0.00
12,598.17	90.00	359.63	12,193.60	221.96	-848.72	227.58	10.00	10.00	0.00
LP, Hold 90.00° Inc at 359.63° Azm									
12,600.00	90.00	359.63	12,193.60	223.79	-848.73	229.41	0.00	0.00	0.00
12,700.00	90.00	359.63	12,193.60	323.79	-849.39	329.41	0.00	0.00	0.00
12,800.00	90.00	359.63	12,193.60	423.78	-850.04	429.41	0.00	0.00	0.00
12,900.00	90.00	359.63	12,193.60	523.78	-850.69	529.41	0.00	0.00	0.00
13,000.00	90.00	359.63	12,193.60	623.78	-851.34	629.41	0.00	0.00	0.00
13,100.00	90.00	359.63	12,193.60	723.78	-851.99	729.41	0.00	0.00	0.00
13,200.00	90.00	359.63	12,193.60	823.78	-852.65	829.41	0.00	0.00	0.00
13,300.00	90.00	359.63	12,193.60	923.77	-853.30	929.41	0.00	0.00	0.00
13,400.00	90.00	359.63	12,193.60	1,023.77	-853.95	1,029.41	0.00	0.00	0.00
13,500.00	90.00	359.63	12,193.60	1,123.77	-854.60	1,129.41	0.00	0.00	0.00
13,600.00	90.00	359.63	12,193.60	1,223.77	-855.26	1,229.41	0.00	0.00	0.00
13,700.00	90.00	359.63	12,193.60	1,323.77	-855.91	1,329.41	0.00	0.00	0.00
13,800.00	90.00	359.63	12,193.60	1,423.76	-856.56	1,429.41	0.00	0.00	0.00
13,900.00	90.00	359.63	12,193.60	1,523.76	-857.21	1,529.41	0.00	0.00	0.00
14,000.00	90.00	359.63	12,193.60	1,623.76	-857.86	1,629.41	0.00	0.00	0.00
14,100.00	90.00	359.63	12,193.60	1,723.76	-858.52	1,729.41	0.00	0.00	0.00
14,200.00	90.00	359.63	12,193.60	1,823.76	-859.17	1,829.41	0.00	0.00	0.00
14,300.00	90.00	359.63	12,193.60	1,923.75	-859.82	1,929.41	0.00	0.00	0.00
14,400.00	90.00	359.63	12,193.60	2,023.75	-860.47	2,029.41	0.00	0.00	0.00
14,500.00	90.00	359.63	12,193.60	2,123.75	-861.13	2,129.41	0.00	0.00	0.00
14,600.00	90.00	359.63	12,193.60	2,223.75	-861.78	2,229.41	0.00	0.00	0.00
14,700.00	90.00	359.63	12,193.60	2,323.74	-862.43	2,329.41	0.00	0.00	0.00
14,800.00	90.00	359.63	12,193.60	2,423.74	-863.08	2,429.41	0.00	0.00	0.00
14,900.00	90.00	359.63	12,193.60	2,523.74	-863.73	2,529.41	0.00	0.00	0.00
15,000.00	90.00	359.63	12,193.60	2,623.74	-864.39	2,629.41	0.00	0.00	0.00
15,100.00	90.00	359.63	12,193.60	2,723.74	-865.04	2,729.41	0.00	0.00	0.00
15,200.00	90.00	359.63	12,193.60	2,823.73	-865.69	2,829.41	0.00	0.00	0.00
15,300.00	90.00	359.63	12,193.60	2,923.73	-866.34	2,929.41	0.00	0.00	0.00
15,400.00	90.00	359.63	12,193.60	3,023.73	-867.00	3,029.41	0.00	0.00	0.00
15,500.00	90.00	359.63	12,193.60	3,123.73	-867.65	3,129.41	0.00	0.00	0.00
15,600.00	90.00	359.63	12,193.60	3,223.73	-868.30	3,229.41	0.00	0.00	0.00
15,700.00	90.00	359.63	12,193.60	3,323.72	-868.95	3,329.41	0.00	0.00	0.00
15,800.00	90.00	359.63	12,193.60	3,423.72	-869.61	3,429.41	0.00	0.00	0.00
15,900.00	90.00	359.63	12,193.60	3,523.72	-870.26	3,529.41	0.00	0.00	0.00
16,000.00	90.00	359.63	12,193.60	3,623.72	-870.91	3,629.41	0.00	0.00	0.00
16,100.00	90.00	359.63	12,193.60	3,723.71	-871.56	3,729.41	0.00	0.00	0.00
16,200.00	90.00	359.63	12,193.60	3,823.71	-872.21	3,829.41	0.00	0.00	0.00
16,300.00	90.00	359.63	12,193.60	3,923.71	-872.87	3,929.41	0.00	0.00	0.00
16,400.00	90.00	359.63	12,193.60	4,023.71	-873.52	4,029.41	0.00	0.00	0.00
16,500.00	90.00	359.63	12,193.60	4,123.71	-874.17	4,129.41	0.00	0.00	0.00
16,600.00	90.00	359.63	12,193.60	4,223.70	-874.82	4,229.41	0.00	0.00	0.00
16,700.00	90.00	359.63	12,193.60	4,323.70	-875.48	4,329.41	0.00	0.00	0.00
16,800.00	90.00	359.63	12,193.60	4,423.70	-876.13	4,429.41	0.00	0.00	0.00
16,900.00	90.00	359.63	12,193.60	4,523.70	-876.78	4,529.41	0.00	0.00	0.00
17,000.00	90.00	359.63	12,193.60	4,623.70	-877.43	4,629.41	0.00	0.00	0.00
17,100.00	90.00	359.63	12,193.60	4,723.69	-878.08	4,729.41	0.00	0.00	0.00
17,200.00	90.00	359.63	12,193.60	4,823.69	-878.74	4,829.41	0.00	0.00	0.00
17,258.76	90.00	359.63	12,193.60	4,882.45	-879.12	4,888.17	0.00	0.00	0.00
Begin 2.00°/100' Turn									



Phoenix Planning Report



Database:	USAEDMDB	Local Co-ordinate Reference:	Well Bing Clawsby WC Federal Com 701H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3732.60usft (Cactus 169)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3732.60usft (Cactus 169)
Site:	Bing Clawsby 15-10	North Reference:	Grid
Well:	Bing Clawsby WC Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 04-13-23		

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)
17,259.07	90.00	359.62	12,193.60	4,882.76	-879.12	4,888.48	2.00	0.00	-2.00
Hold 359.62° Azm									
17,300.00	90.00	359.62	12,193.60	4,923.69	-879.39	4,929.41	0.00	0.00	0.00
17,400.00	90.00	359.62	12,193.60	5,023.69	-880.06	5,029.41	0.00	0.00	0.00
17,500.00	90.00	359.62	12,193.60	5,123.68	-880.72	5,129.41	0.00	0.00	0.00
17,600.00	90.00	359.62	12,193.60	5,223.68	-881.38	5,229.41	0.00	0.00	0.00
17,700.00	90.00	359.62	12,193.60	5,323.68	-882.05	5,329.41	0.00	0.00	0.00
17,800.00	90.00	359.62	12,193.60	5,423.68	-882.71	5,429.41	0.00	0.00	0.00
17,900.00	90.00	359.62	12,193.60	5,523.68	-883.37	5,529.41	0.00	0.00	0.00
18,000.00	90.00	359.62	12,193.60	5,623.67	-884.04	5,629.41	0.00	0.00	0.00
18,100.00	90.00	359.62	12,193.60	5,723.67	-884.70	5,729.41	0.00	0.00	0.00
18,200.00	90.00	359.62	12,193.60	5,823.67	-885.36	5,829.41	0.00	0.00	0.00
18,300.00	90.00	359.62	12,193.60	5,923.67	-886.02	5,929.41	0.00	0.00	0.00
18,400.00	90.00	359.62	12,193.60	6,023.66	-886.69	6,029.41	0.00	0.00	0.00
18,500.00	90.00	359.62	12,193.60	6,123.66	-887.35	6,129.41	0.00	0.00	0.00
18,600.00	90.00	359.62	12,193.60	6,223.66	-888.01	6,229.41	0.00	0.00	0.00
18,700.00	90.00	359.62	12,193.60	6,323.66	-888.68	6,329.41	0.00	0.00	0.00
18,800.00	90.00	359.62	12,193.60	6,423.66	-889.34	6,429.41	0.00	0.00	0.00
18,900.00	90.00	359.62	12,193.60	6,523.65	-890.00	6,529.41	0.00	0.00	0.00
19,000.00	90.00	359.62	12,193.60	6,623.65	-890.67	6,629.41	0.00	0.00	0.00
19,100.00	90.00	359.62	12,193.60	6,723.65	-891.33	6,729.41	0.00	0.00	0.00
19,200.00	90.00	359.62	12,193.60	6,823.65	-891.99	6,829.41	0.00	0.00	0.00
19,300.00	90.00	359.62	12,193.60	6,923.65	-892.66	6,929.41	0.00	0.00	0.00
19,400.00	90.00	359.62	12,193.60	7,023.64	-893.32	7,029.41	0.00	0.00	0.00
19,500.00	90.00	359.62	12,193.60	7,123.64	-893.98	7,129.41	0.00	0.00	0.00
19,600.00	90.00	359.62	12,193.60	7,223.64	-894.64	7,229.41	0.00	0.00	0.00
19,700.00	90.00	359.62	12,193.60	7,323.64	-895.31	7,329.41	0.00	0.00	0.00
19,800.00	90.00	359.62	12,193.60	7,423.63	-895.97	7,429.41	0.00	0.00	0.00
19,900.00	90.00	359.62	12,193.60	7,523.63	-896.63	7,529.41	0.00	0.00	0.00
20,000.00	90.00	359.62	12,193.60	7,623.63	-897.30	7,629.41	0.00	0.00	0.00
20,100.00	90.00	359.62	12,193.60	7,723.63	-897.96	7,729.41	0.00	0.00	0.00
20,200.00	90.00	359.62	12,193.60	7,823.63	-898.62	7,829.41	0.00	0.00	0.00
20,300.00	90.00	359.62	12,193.60	7,923.62	-899.29	7,929.41	0.00	0.00	0.00
20,400.00	90.00	359.62	12,193.60	8,023.62	-899.95	8,029.41	0.00	0.00	0.00
20,500.00	90.00	359.62	12,193.60	8,123.62	-900.61	8,129.41	0.00	0.00	0.00
20,600.00	90.00	359.62	12,193.60	8,223.62	-901.28	8,229.41	0.00	0.00	0.00
20,700.00	90.00	359.62	12,193.60	8,323.61	-901.94	8,329.41	0.00	0.00	0.00
20,800.00	90.00	359.62	12,193.60	8,423.61	-902.60	8,429.41	0.00	0.00	0.00
20,900.00	90.00	359.62	12,193.60	8,523.61	-903.26	8,529.41	0.00	0.00	0.00
21,000.00	90.00	359.62	12,193.60	8,623.61	-903.93	8,629.41	0.00	0.00	0.00
21,100.00	90.00	359.62	12,193.60	8,723.61	-904.59	8,729.41	0.00	0.00	0.00
21,200.00	90.00	359.62	12,193.60	8,823.60	-905.25	8,829.41	0.00	0.00	0.00
21,300.00	90.00	359.62	12,193.60	8,923.60	-905.92	8,929.41	0.00	0.00	0.00
21,400.00	90.00	359.62	12,193.60	9,023.60	-906.58	9,029.41	0.00	0.00	0.00
21,500.00	90.00	359.62	12,193.60	9,123.60	-907.24	9,129.41	0.00	0.00	0.00
21,600.00	90.00	359.62	12,193.60	9,223.59	-907.91	9,229.41	0.00	0.00	0.00
21,700.00	90.00	359.62	12,193.60	9,323.59	-908.57	9,329.41	0.00	0.00	0.00
21,800.00	90.00	359.62	12,193.60	9,423.59	-909.23	9,429.41	0.00	0.00	0.00
21,900.00	90.00	359.62	12,193.60	9,523.59	-909.90	9,529.41	0.00	0.00	0.00
22,000.00	90.00	359.62	12,193.60	9,623.59	-910.56	9,629.41	0.00	0.00	0.00
22,100.00	90.00	359.62	12,193.60	9,723.58	-911.22	9,729.41	0.00	0.00	0.00
22,200.00	90.00	359.62	12,193.60	9,823.58	-911.88	9,829.41	0.00	0.00	0.00
22,300.00	90.00	359.62	12,193.60	9,923.58	-912.55	9,929.41	0.00	0.00	0.00
22,400.00	90.00	359.62	12,193.60	10,023.58	-913.21	10,029.41	0.00	0.00	0.00



Phoenix Planning Report



Database:	USAEDMDB	Local Co-ordinate Reference:	Well Bing Clawsby WC Federal Com 701H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3732.60usft (Cactus 169)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3732.60usft (Cactus 169)
Site:	Bing Clawsby 15-10	North Reference:	Grid
Well:	Bing Clawsby WC Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 04-13-23		

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)
22,500.00	90.00	359.62	12,193.60	10,123.57	-913.87	10,129.41	0.00	0.00	0.00
22,541.61	90.00	359.62	12,193.60	10,165.18	-914.15	10,171.02	0.00	0.00	0.00
Begin 2.00°/100' Turn									
22,542.21	90.00	359.61	12,193.60	10,165.78	-914.15	10,171.62	2.01	0.00	-2.01
Hold 359.61° Azm									
22,600.00	90.00	359.61	12,193.60	10,223.57	-914.55	10,229.41	0.00	0.00	0.00
22,700.00	90.00	359.61	12,193.60	10,323.57	-915.23	10,329.41	0.00	0.00	0.00
22,800.00	90.00	359.61	12,193.60	10,423.57	-915.92	10,429.41	0.00	0.00	0.00
22,900.00	90.00	359.61	12,193.60	10,523.57	-916.60	10,529.41	0.00	0.00	0.00
23,000.00	90.00	359.61	12,193.60	10,623.56	-917.29	10,629.41	0.00	0.00	0.00
23,100.00	90.00	359.61	12,193.60	10,723.56	-917.97	10,729.41	0.00	0.00	0.00
23,200.00	90.00	359.61	12,193.60	10,823.56	-918.65	10,829.41	0.00	0.00	0.00
23,300.00	90.00	359.61	12,193.60	10,923.56	-919.34	10,929.41	0.00	0.00	0.00
23,400.00	90.00	359.61	12,193.60	11,023.55	-920.02	11,029.41	0.00	0.00	0.00
23,500.00	90.00	359.61	12,193.60	11,123.55	-920.71	11,129.41	0.00	0.00	0.00
23,600.00	90.00	359.61	12,193.60	11,223.55	-921.39	11,229.41	0.00	0.00	0.00
23,700.00	90.00	359.61	12,193.60	11,323.55	-922.07	11,329.41	0.00	0.00	0.00
23,800.00	90.00	359.61	12,193.60	11,423.54	-922.76	11,429.41	0.00	0.00	0.00
23,900.00	90.00	359.61	12,193.60	11,523.54	-923.44	11,529.41	0.00	0.00	0.00
24,000.00	90.00	359.61	12,193.60	11,623.54	-924.13	11,629.41	0.00	0.00	0.00
24,100.00	90.00	359.61	12,193.60	11,723.54	-924.81	11,729.41	0.00	0.00	0.00
24,200.00	90.00	359.61	12,193.60	11,823.54	-925.49	11,829.41	0.00	0.00	0.00
24,300.00	90.00	359.61	12,193.60	11,923.53	-926.18	11,929.41	0.00	0.00	0.00
24,400.00	90.00	359.61	12,193.60	12,023.53	-926.86	12,029.41	0.00	0.00	0.00
24,500.00	90.00	359.61	12,193.60	12,123.53	-927.55	12,129.41	0.00	0.00	0.00
24,600.00	90.00	359.61	12,193.60	12,223.53	-928.23	12,229.41	0.00	0.00	0.00
24,700.00	90.00	359.61	12,193.60	12,323.52	-928.92	12,329.41	0.00	0.00	0.00
24,800.00	90.00	359.61	12,193.60	12,423.52	-929.60	12,429.41	0.00	0.00	0.00
24,900.00	90.00	359.61	12,193.60	12,523.52	-930.28	12,529.41	0.00	0.00	0.00
25,000.00	90.00	359.61	12,193.60	12,623.52	-930.97	12,629.41	0.00	0.00	0.00
25,100.00	90.00	359.61	12,193.60	12,723.51	-931.65	12,729.41	0.00	0.00	0.00
25,200.00	90.00	359.61	12,193.60	12,823.51	-932.34	12,829.41	0.00	0.00	0.00
25,300.00	90.00	359.61	12,193.60	12,923.51	-933.02	12,929.41	0.00	0.00	0.00
25,400.00	90.00	359.61	12,193.60	13,023.51	-933.70	13,029.41	0.00	0.00	0.00
25,500.00	90.00	359.61	12,193.60	13,123.50	-934.39	13,129.41	0.00	0.00	0.00
25,600.00	90.00	359.61	12,193.60	13,223.50	-935.07	13,229.41	0.00	0.00	0.00
25,700.00	90.00	359.61	12,193.60	13,323.50	-935.76	13,329.41	0.00	0.00	0.00
25,800.00	90.00	359.61	12,193.60	13,423.50	-936.44	13,429.41	0.00	0.00	0.00
25,900.00	90.00	359.61	12,193.60	13,523.50	-937.12	13,529.41	0.00	0.00	0.00
26,000.00	90.00	359.61	12,193.60	13,623.49	-937.81	13,629.41	0.00	0.00	0.00
26,100.00	90.00	359.61	12,193.60	13,723.49	-938.49	13,729.41	0.00	0.00	0.00
26,200.00	90.00	359.61	12,193.60	13,823.49	-939.18	13,829.41	0.00	0.00	0.00
26,300.00	90.00	359.61	12,193.60	13,923.49	-939.86	13,929.41	0.00	0.00	0.00
26,400.00	90.00	359.61	12,193.60	14,023.48	-940.54	14,029.41	0.00	0.00	0.00
26,500.00	90.00	359.61	12,193.60	14,123.48	-941.23	14,129.41	0.00	0.00	0.00
26,600.00	90.00	359.61	12,193.60	14,223.48	-941.91	14,229.41	0.00	0.00	0.00
26,700.00	90.00	359.61	12,193.60	14,323.48	-942.60	14,329.41	0.00	0.00	0.00
26,800.00	90.00	359.61	12,193.60	14,423.47	-943.28	14,429.41	0.00	0.00	0.00
26,900.00	90.00	359.61	12,193.60	14,523.47	-943.97	14,529.41	0.00	0.00	0.00
27,000.00	90.00	359.61	12,193.60	14,623.47	-944.65	14,629.41	0.00	0.00	0.00
27,100.00	90.00	359.61	12,193.60	14,723.47	-945.33	14,729.41	0.00	0.00	0.00
27,200.00	90.00	359.61	12,193.60	14,823.47	-946.02	14,829.41	0.00	0.00	0.00
27,300.00	90.00	359.61	12,193.60	14,923.46	-946.70	14,929.41	0.00	0.00	0.00



Phoenix Planning Report



Database:	USAEDMDB	Local Co-ordinate Reference:	Well Bing Clawsby WC Federal Com 701H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3732.60usft (Cactus 169)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3732.60usft (Cactus 169)
Site:	Bing Clawsby 15-10	North Reference:	Grid
Well:	Bing Clawsby WC Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 04-13-23		

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)
27,400.00	90.00	359.61	12,193.60	15,023.46	-947.39	15,029.41	0.00	0.00	0.00
27,500.00	90.00	359.61	12,193.60	15,123.46	-948.07	15,129.41	0.00	0.00	0.00
27,600.00	90.00	359.61	12,193.60	15,223.46	-948.75	15,229.41	0.00	0.00	0.00
27,700.00	90.00	359.61	12,193.60	15,323.45	-949.44	15,329.41	0.00	0.00	0.00
27,706.17	90.00	359.61	12,193.60	15,329.62	-949.48	15,335.58	0.00	0.00	0.00
TD at 27706.17									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP - BCWCFC 701H - plan misses target center by 203.03usft at 12182.92usft MD (12049.60 TVD, -157.88 N, -846.24 E) - Point	0.00	0.01	12,193.60	-300.99	-845.31	472,616.31	707,759.43	2° 17' 51.173292 N 3° 39' 39.443181 W	
TP1 - BCWCFC 701H - plan hits target center - Point	0.00	0.01	12,193.60	4,882.45	-879.12	477,799.75	707,725.62	2° 18' 42.468492 N 3° 39' 39.458332 W	
TP2 - BCWCFC 701H - plan hits target center - Point	0.00	0.01	12,193.60	10,165.18	-914.15	483,082.48	707,690.59	2° 19' 34.746180 N 3° 39' 39.480296 W	
BHL/LTP - BCWCFC - plan hits target center - Rectangle (sides W60.00 H15,630.96 D20.00)	0.00	359.62	12,193.60	15,329.62	-949.48	488,246.92	707,655.26	2° 20' 25.853225 N 3° 39' 39.514264 W	

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,294.60	1,294.60	Rustler		0.000	359.62
1,690.81	1,689.60	Salado		0.000	359.62
3,627.92	3,597.60	Castile		0.000	359.62
4,986.57	4,935.60	Base of Salt (BX)		0.000	359.62
4,986.57	4,935.60	Lamar		0.000	359.62
5,039.38	4,987.60	Bell Canyon		0.000	359.62
6,179.71	6,110.60	Cherry Canyon		0.000	359.62
7,165.13	7,087.60	Brushy Canyon		0.000	359.62
8,828.13	8,750.60	Bone Spring Lime		0.000	359.62
8,958.13	8,880.60	Upper Avalon Shale		0.000	359.62
10,011.13	9,933.60	1st Bone Spring Sand		0.000	359.62
10,313.13	10,235.60	2nd Bone Spring Carbonate		0.000	359.62
10,678.13	10,600.60	2nd Bone Spring Sand		0.000	359.62
11,186.13	11,108.60	3rd Bone Spring Carbonate		0.000	359.62
11,971.36	11,883.60	3rd Bone Spring Sand		0.000	359.62
12,431.75	12,169.60	Wolfcamp		0.000	359.62



Phoenix Planning Report



Database:	USAEDMDB	Local Co-ordinate Reference:	Well Bing Clawsby WC Federal Com 701H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3732.60usft (Cactus 169)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3732.60usft (Cactus 169)
Site:	Bing Clawsby 15-10	North Reference:	Grid
Well:	Bing Clawsby WC Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 04-13-23		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,300.00	1,300.00	0.00	0.00	KOP, Begin 2.00°/100' Build
1,800.15	1,797.61	-16.71	-40.22	Hold 10.00° Inc at 247.44° Azm
6,566.38	6,491.39	-334.28	-804.77	Begin 2.00°/100' Drop
7,066.53	6,989.00	-350.99	-844.98	Begin Vertical Hold
11,698.17	11,620.64	-350.99	-844.98	KOP2, Begin 10.00°/100' Build
12,598.17	12,193.60	221.96	-848.72	LP, Hold 90.00° Inc at 359.63° Azm
17,258.76	12,193.60	4,882.45	-879.12	Begin 2.00°/100' Turn
17,259.07	12,193.60	4,882.76	-879.12	Hold 359.62° Azm
22,541.61	12,193.60	10,165.18	-914.15	Begin 2.00°/100' Turn
22,542.21	12,193.60	10,165.78	-914.15	Hold 359.61° Azm
27,706.17	12,193.60	15,329.62	-949.48	TD at 27706.17



Marathon Oil Permian LLC

Lea County, NM (NAD27 NME)

Bing Clawsby 15-10

Bing Clawsby WC Federal Com 701H

OH

Plan: Plan 2 04-13-23

Standard Planning Report

13 April, 2023





Phoenix Planning Report



Database:	USAEDMDB	Local Co-ordinate Reference:	Well Bing Clawsby WC Federal Com 701H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3732.60usft (Cactus 169)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3732.60usft (Cactus 169)
Site:	Bing Clawsby 15-10	North Reference:	Grid
Well:	Bing Clawsby WC Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 04-13-23		

Project	Lea County, NM (NAD27 NME)		
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	Bing Clawsby 15-10		
Site Position:		Northing:	472,917.30 usft
From:	Map	Easting:	708,634.73 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 17' 54.097368 N
		Longitude:	103° 39' 29.223684 W

Well	Bing Clawsby WC Federal Com 701H		
Well Position	+N/-S	0.00 usft	Northing: 472,917.30 usft
	+E/-W	0.00 usft	Easting: 708,604.74 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
Grid Convergence:	0.361 °	Ground Level:	3,709.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	7/03/23	6.274	59.857	47,542.53275978

Design	Plan 2 04-13-23				
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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	359.62	

Plan Survey Tool Program	Date	4/13/23			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	27,706.17	Plan 2 04-13-23 (OH)	MWD+IFR1+MS	
				OWSG Rev. 2 MWD + IFR1	



Phoenix Planning Report



Database:	USAEDMDB	Local Co-ordinate Reference:	Well Bing Clawsby WC Federal Com 701H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3732.60usft (Cactus 169)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3732.60usft (Cactus 169)
Site:	Bing Clawsby 15-10	North Reference:	Grid
Well:	Bing Clawsby WC Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 04-13-23		

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	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,800.15	10.00	247.44	1,797.61	-16.71	-40.22	2.00	2.00	0.00	247.443	
6,566.38	10.00	247.44	6,491.39	-334.28	-804.77	0.00	0.00	0.00	0.000	
7,066.53	0.00	0.00	6,989.00	-350.99	-844.98	2.00	-2.00	0.00	180.000	
11,698.17	0.00	0.00	11,620.64	-350.99	-844.98	0.00	0.00	0.00	0.000	
12,598.17	90.00	359.63	12,193.60	221.96	-848.72	10.00	10.00	0.00	359.626	
17,258.76	90.00	359.63	12,193.60	4,882.45	-879.12	0.00	0.00	0.00	0.000	TP1 - BCWCFC 70
17,259.07	90.00	359.62	12,193.60	4,882.76	-879.12	2.00	0.00	-2.00	-90.000	
22,541.61	90.00	359.62	12,193.60	10,165.18	-914.15	0.00	0.00	0.00	0.000	TP2 - BCWCFC 70
22,542.21	90.00	359.61	12,193.60	10,165.78	-914.15	2.00	0.00	-2.00	-90.000	
27,706.17	90.00	359.61	12,193.60	15,329.62	-949.48	0.00	0.00	0.00	0.000	BHL/LTP - BCWCFC



Phoenix Planning Report



Database:	USAEDMDB	Local Co-ordinate Reference:	Well Bing Clawsby WC Federal Com 701H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3732.60usft (Cactus 169)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3732.60usft (Cactus 169)
Site:	Bing Clawsby 15-10	North Reference:	Grid
Well:	Bing Clawsby WC Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 04-13-23		

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
1,294.60	0.00	0.00	1,294.60	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP, Begin 2.00°/100' Build									
1,400.00	2.00	247.44	1,399.98	-0.67	-1.61	-0.66	2.00	2.00	0.00
1,500.00	4.00	247.44	1,499.84	-2.68	-6.44	-2.63	2.00	2.00	0.00
1,600.00	6.00	247.44	1,599.45	-6.02	-14.49	-5.92	2.00	2.00	0.00
1,690.81	7.82	247.44	1,689.60	-10.21	-24.58	-10.05	2.00	2.00	0.00
Salado									
1,700.00	8.00	247.44	1,698.70	-10.69	-25.75	-10.52	2.00	2.00	0.00
1,800.00	10.00	247.44	1,797.47	-16.70	-40.19	-16.43	2.00	2.00	0.00
1,800.15	10.00	247.44	1,797.61	-16.71	-40.22	-16.44	2.00	2.00	0.00
Hold 10.00° Inc at 247.44° Azm									
1,900.00	10.00	247.44	1,895.95	-23.36	-56.23	-22.98	0.00	0.00	0.00
2,000.00	10.00	247.44	1,994.43	-30.02	-72.28	-29.54	0.00	0.00	0.00
2,100.00	10.00	247.44	2,092.91	-36.68	-88.32	-36.10	0.00	0.00	0.00
2,200.00	10.00	247.44	2,191.39	-43.35	-104.36	-42.65	0.00	0.00	0.00
2,300.00	10.00	247.44	2,289.86	-50.01	-120.40	-49.21	0.00	0.00	0.00
2,400.00	10.00	247.44	2,388.34	-56.67	-136.44	-55.77	0.00	0.00	0.00
2,500.00	10.00	247.44	2,486.82	-63.34	-152.48	-62.32	0.00	0.00	0.00
2,600.00	10.00	247.44	2,585.30	-70.00	-168.52	-68.88	0.00	0.00	0.00
2,700.00	10.00	247.44	2,683.78	-76.66	-184.56	-75.44	0.00	0.00	0.00
2,800.00	10.00	247.44	2,782.26	-83.33	-200.60	-81.99	0.00	0.00	0.00
2,900.00	10.00	247.44	2,880.74	-89.99	-216.64	-88.55	0.00	0.00	0.00
3,000.00	10.00	247.44	2,979.22	-96.65	-232.68	-95.11	0.00	0.00	0.00
3,100.00	10.00	247.44	3,077.70	-103.32	-248.73	-101.66	0.00	0.00	0.00
3,200.00	10.00	247.44	3,176.18	-109.98	-264.77	-108.22	0.00	0.00	0.00
3,300.00	10.00	247.44	3,274.66	-116.64	-280.81	-114.78	0.00	0.00	0.00
3,400.00	10.00	247.44	3,373.14	-123.30	-296.85	-121.33	0.00	0.00	0.00
3,500.00	10.00	247.44	3,471.62	-129.97	-312.89	-127.89	0.00	0.00	0.00
3,600.00	10.00	247.44	3,570.10	-136.63	-328.93	-134.45	0.00	0.00	0.00
3,627.92	10.00	247.44	3,597.60	-138.49	-333.41	-136.28	0.00	0.00	0.00
Castile									
3,700.00	10.00	247.44	3,668.58	-143.29	-344.97	-141.00	0.00	0.00	0.00
3,800.00	10.00	247.44	3,767.06	-149.96	-361.01	-147.56	0.00	0.00	0.00
3,900.00	10.00	247.44	3,865.54	-156.62	-377.05	-154.12	0.00	0.00	0.00
4,000.00	10.00	247.44	3,964.02	-163.28	-393.09	-160.67	0.00	0.00	0.00
4,100.00	10.00	247.44	4,062.50	-169.95	-409.14	-167.23	0.00	0.00	0.00
4,200.00	10.00	247.44	4,160.98	-176.61	-425.18	-173.79	0.00	0.00	0.00
4,300.00	10.00	247.44	4,259.46	-183.27	-441.22	-180.34	0.00	0.00	0.00
4,400.00	10.00	247.44	4,357.94	-189.94	-457.26	-186.90	0.00	0.00	0.00
4,500.00	10.00	247.44	4,456.42	-196.60	-473.30	-193.46	0.00	0.00	0.00
4,600.00	10.00	247.44	4,554.90	-203.26	-489.34	-200.01	0.00	0.00	0.00
4,700.00	10.00	247.44	4,653.38	-209.93	-505.38	-206.57	0.00	0.00	0.00
4,800.00	10.00	247.44	4,751.86	-216.59	-521.42	-213.13	0.00	0.00	0.00
4,900.00	10.00	247.44	4,850.34	-223.25	-537.46	-219.68	0.00	0.00	0.00
4,986.57	10.00	247.44	4,935.60	-229.02	-551.35	-225.36	0.00	0.00	0.00
Base of Salt (BX) - Lamar									
5,000.00	10.00	247.44	4,948.82	-229.91	-553.50	-226.24	0.00	0.00	0.00
5,039.38	10.00	247.44	4,987.60	-232.54	-559.82	-228.82	0.00	0.00	0.00
Bell Canyon									
5,100.00	10.00	247.44	5,047.30	-236.58	-569.55	-232.80	0.00	0.00	0.00



Phoenix Planning Report



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Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3732.60usft (Cactus 169)
Site:	Bing Clawsby 15-10	North Reference:	Grid
Well:	Bing Clawsby WC Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 04-13-23		

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)
5,200.00	10.00	247.44	5,145.78	-243.24	-585.59	-239.35	0.00	0.00	0.00
5,300.00	10.00	247.44	5,244.26	-249.90	-601.63	-245.91	0.00	0.00	0.00
5,400.00	10.00	247.44	5,342.74	-256.57	-617.67	-252.46	0.00	0.00	0.00
5,500.00	10.00	247.44	5,441.22	-263.23	-633.71	-259.02	0.00	0.00	0.00
5,600.00	10.00	247.44	5,539.70	-269.89	-649.75	-265.58	0.00	0.00	0.00
5,700.00	10.00	247.44	5,638.18	-276.56	-665.79	-272.13	0.00	0.00	0.00
5,800.00	10.00	247.44	5,736.66	-283.22	-681.83	-278.69	0.00	0.00	0.00
5,900.00	10.00	247.44	5,835.14	-289.88	-697.87	-285.25	0.00	0.00	0.00
6,000.00	10.00	247.44	5,933.62	-296.55	-713.91	-291.80	0.00	0.00	0.00
6,100.00	10.00	247.44	6,032.10	-303.21	-729.96	-298.36	0.00	0.00	0.00
6,179.71	10.00	247.44	6,110.60	-308.52	-742.74	-303.59	0.00	0.00	0.00
Cherry Canyon									
6,200.00	10.00	247.44	6,130.58	-309.87	-746.00	-304.92	0.00	0.00	0.00
6,300.00	10.00	247.44	6,229.06	-316.53	-762.04	-311.47	0.00	0.00	0.00
6,400.00	10.00	247.44	6,327.54	-323.20	-778.08	-318.03	0.00	0.00	0.00
6,500.00	10.00	247.44	6,426.02	-329.86	-794.12	-324.59	0.00	0.00	0.00
6,566.38	10.00	247.44	6,491.39	-334.28	-804.77	-328.94	0.00	0.00	0.00
Begin 2.00°/100' Drop									
6,600.00	9.33	247.44	6,524.53	-336.45	-809.98	-331.07	2.00	-2.00	0.00
6,700.00	7.33	247.44	6,623.47	-342.01	-823.36	-336.54	2.00	-2.00	0.00
6,800.00	5.33	247.44	6,722.86	-346.24	-833.54	-340.70	2.00	-2.00	0.00
6,900.00	3.33	247.44	6,822.57	-349.13	-840.52	-343.55	2.00	-2.00	0.00
7,000.00	1.33	247.44	6,922.48	-350.69	-844.27	-345.09	2.00	-2.00	0.00
7,066.53	0.00	0.00	6,989.00	-350.99	-844.98	-345.38	2.00	-2.00	0.00
Begin Vertical Hold									
7,165.13	0.00	0.00	7,087.60	-350.99	-844.98	-345.38	0.00	0.00	0.00
Brushy Canyon									
8,828.13	0.00	0.00	8,750.60	-350.99	-844.98	-345.38	0.00	0.00	0.00
Bone Spring Lime									
8,958.13	0.00	0.00	8,880.60	-350.99	-844.98	-345.38	0.00	0.00	0.00
Upper Avalon Shale									
10,011.13	0.00	0.00	9,933.60	-350.99	-844.98	-345.38	0.00	0.00	0.00
1st Bone Spring Sand									
10,313.13	0.00	0.00	10,235.60	-350.99	-844.98	-345.38	0.00	0.00	0.00
2nd Bone Spring Carbonate									
10,678.13	0.00	0.00	10,600.60	-350.99	-844.98	-345.38	0.00	0.00	0.00
2nd Bone Spring Sand									
11,186.13	0.00	0.00	11,108.60	-350.99	-844.98	-345.38	0.00	0.00	0.00
3rd Bone Spring Carbonate									
11,698.17	0.00	0.00	11,620.64	-350.99	-844.98	-345.38	0.00	0.00	0.00
KOP2, Begin 10.00°/100' Build									
11,700.00	0.18	359.63	11,622.47	-350.99	-844.98	-345.37	10.00	10.00	0.00
11,800.00	10.18	359.63	11,721.94	-341.96	-845.04	-336.35	10.00	10.00	0.00
11,900.00	20.18	359.63	11,818.33	-315.81	-845.21	-310.19	10.00	10.00	0.00
11,971.36	27.32	359.63	11,883.60	-287.08	-845.40	-281.47	10.00	10.00	0.00
3rd Bone Spring Sand									
12,000.00	30.18	359.63	11,908.71	-273.31	-845.49	-267.70	10.00	10.00	0.00
12,100.00	40.18	359.63	11,990.33	-215.77	-845.87	-210.15	10.00	10.00	0.00
12,200.00	50.18	359.63	12,060.73	-144.92	-846.33	-139.30	10.00	10.00	0.00
12,300.00	60.18	359.63	12,117.75	-62.93	-846.86	-57.31	10.00	10.00	0.00
12,400.00	70.18	359.63	12,159.67	27.72	-847.45	33.34	10.00	10.00	0.00
12,431.75	73.36	359.63	12,169.60	57.87	-847.65	63.49	10.00	10.00	0.00



Phoenix Planning Report



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Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3732.60usft (Cactus 169)
Site:	Bing Clawsby 15-10	North Reference:	Grid
Well:	Bing Clawsby WC Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 04-13-23		

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)
Wolfcamp									
12,500.00	80.18	359.63	12,185.21	124.27	-848.08	129.89	10.00	10.00	0.00
12,598.17	90.00	359.63	12,193.60	221.96	-848.72	227.58	10.00	10.00	0.00
LP, Hold 90.00° Inc at 359.63° Azm									
12,600.00	90.00	359.63	12,193.60	223.79	-848.73	229.41	0.00	0.00	0.00
12,700.00	90.00	359.63	12,193.60	323.79	-849.39	329.41	0.00	0.00	0.00
12,800.00	90.00	359.63	12,193.60	423.78	-850.04	429.41	0.00	0.00	0.00
12,900.00	90.00	359.63	12,193.60	523.78	-850.69	529.41	0.00	0.00	0.00
13,000.00	90.00	359.63	12,193.60	623.78	-851.34	629.41	0.00	0.00	0.00
13,100.00	90.00	359.63	12,193.60	723.78	-851.99	729.41	0.00	0.00	0.00
13,200.00	90.00	359.63	12,193.60	823.78	-852.65	829.41	0.00	0.00	0.00
13,300.00	90.00	359.63	12,193.60	923.77	-853.30	929.41	0.00	0.00	0.00
13,400.00	90.00	359.63	12,193.60	1,023.77	-853.95	1,029.41	0.00	0.00	0.00
13,500.00	90.00	359.63	12,193.60	1,123.77	-854.60	1,129.41	0.00	0.00	0.00
13,600.00	90.00	359.63	12,193.60	1,223.77	-855.26	1,229.41	0.00	0.00	0.00
13,700.00	90.00	359.63	12,193.60	1,323.77	-855.91	1,329.41	0.00	0.00	0.00
13,800.00	90.00	359.63	12,193.60	1,423.76	-856.56	1,429.41	0.00	0.00	0.00
13,900.00	90.00	359.63	12,193.60	1,523.76	-857.21	1,529.41	0.00	0.00	0.00
14,000.00	90.00	359.63	12,193.60	1,623.76	-857.86	1,629.41	0.00	0.00	0.00
14,100.00	90.00	359.63	12,193.60	1,723.76	-858.52	1,729.41	0.00	0.00	0.00
14,200.00	90.00	359.63	12,193.60	1,823.76	-859.17	1,829.41	0.00	0.00	0.00
14,300.00	90.00	359.63	12,193.60	1,923.75	-859.82	1,929.41	0.00	0.00	0.00
14,400.00	90.00	359.63	12,193.60	2,023.75	-860.47	2,029.41	0.00	0.00	0.00
14,500.00	90.00	359.63	12,193.60	2,123.75	-861.13	2,129.41	0.00	0.00	0.00
14,600.00	90.00	359.63	12,193.60	2,223.75	-861.78	2,229.41	0.00	0.00	0.00
14,700.00	90.00	359.63	12,193.60	2,323.74	-862.43	2,329.41	0.00	0.00	0.00
14,800.00	90.00	359.63	12,193.60	2,423.74	-863.08	2,429.41	0.00	0.00	0.00
14,900.00	90.00	359.63	12,193.60	2,523.74	-863.73	2,529.41	0.00	0.00	0.00
15,000.00	90.00	359.63	12,193.60	2,623.74	-864.39	2,629.41	0.00	0.00	0.00
15,100.00	90.00	359.63	12,193.60	2,723.74	-865.04	2,729.41	0.00	0.00	0.00
15,200.00	90.00	359.63	12,193.60	2,823.73	-865.69	2,829.41	0.00	0.00	0.00
15,300.00	90.00	359.63	12,193.60	2,923.73	-866.34	2,929.41	0.00	0.00	0.00
15,400.00	90.00	359.63	12,193.60	3,023.73	-867.00	3,029.41	0.00	0.00	0.00
15,500.00	90.00	359.63	12,193.60	3,123.73	-867.65	3,129.41	0.00	0.00	0.00
15,600.00	90.00	359.63	12,193.60	3,223.73	-868.30	3,229.41	0.00	0.00	0.00
15,700.00	90.00	359.63	12,193.60	3,323.72	-868.95	3,329.41	0.00	0.00	0.00
15,800.00	90.00	359.63	12,193.60	3,423.72	-869.61	3,429.41	0.00	0.00	0.00
15,900.00	90.00	359.63	12,193.60	3,523.72	-870.26	3,529.41	0.00	0.00	0.00
16,000.00	90.00	359.63	12,193.60	3,623.72	-870.91	3,629.41	0.00	0.00	0.00
16,100.00	90.00	359.63	12,193.60	3,723.71	-871.56	3,729.41	0.00	0.00	0.00
16,200.00	90.00	359.63	12,193.60	3,823.71	-872.21	3,829.41	0.00	0.00	0.00
16,300.00	90.00	359.63	12,193.60	3,923.71	-872.87	3,929.41	0.00	0.00	0.00
16,400.00	90.00	359.63	12,193.60	4,023.71	-873.52	4,029.41	0.00	0.00	0.00
16,500.00	90.00	359.63	12,193.60	4,123.71	-874.17	4,129.41	0.00	0.00	0.00
16,600.00	90.00	359.63	12,193.60	4,223.70	-874.82	4,229.41	0.00	0.00	0.00
16,700.00	90.00	359.63	12,193.60	4,323.70	-875.48	4,329.41	0.00	0.00	0.00
16,800.00	90.00	359.63	12,193.60	4,423.70	-876.13	4,429.41	0.00	0.00	0.00
16,900.00	90.00	359.63	12,193.60	4,523.70	-876.78	4,529.41	0.00	0.00	0.00
17,000.00	90.00	359.63	12,193.60	4,623.70	-877.43	4,629.41	0.00	0.00	0.00
17,100.00	90.00	359.63	12,193.60	4,723.69	-878.08	4,729.41	0.00	0.00	0.00
17,200.00	90.00	359.63	12,193.60	4,823.69	-878.74	4,829.41	0.00	0.00	0.00
17,258.76	90.00	359.63	12,193.60	4,882.45	-879.12	4,888.17	0.00	0.00	0.00
Begin 2.00°/100' Turn									



Phoenix Planning Report



Database:	USAEDMDB	Local Co-ordinate Reference:	Well Bing Clawsby WC Federal Com 701H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3732.60usft (Cactus 169)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3732.60usft (Cactus 169)
Site:	Bing Clawsby 15-10	North Reference:	Grid
Well:	Bing Clawsby WC Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 04-13-23		

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)
17,259.07	90.00	359.62	12,193.60	4,882.76	-879.12	4,888.48	2.00	0.00	-2.00
Hold 359.62° Azm									
17,300.00	90.00	359.62	12,193.60	4,923.69	-879.39	4,929.41	0.00	0.00	0.00
17,400.00	90.00	359.62	12,193.60	5,023.69	-880.06	5,029.41	0.00	0.00	0.00
17,500.00	90.00	359.62	12,193.60	5,123.68	-880.72	5,129.41	0.00	0.00	0.00
17,600.00	90.00	359.62	12,193.60	5,223.68	-881.38	5,229.41	0.00	0.00	0.00
17,700.00	90.00	359.62	12,193.60	5,323.68	-882.05	5,329.41	0.00	0.00	0.00
17,800.00	90.00	359.62	12,193.60	5,423.68	-882.71	5,429.41	0.00	0.00	0.00
17,900.00	90.00	359.62	12,193.60	5,523.68	-883.37	5,529.41	0.00	0.00	0.00
18,000.00	90.00	359.62	12,193.60	5,623.67	-884.04	5,629.41	0.00	0.00	0.00
18,100.00	90.00	359.62	12,193.60	5,723.67	-884.70	5,729.41	0.00	0.00	0.00
18,200.00	90.00	359.62	12,193.60	5,823.67	-885.36	5,829.41	0.00	0.00	0.00
18,300.00	90.00	359.62	12,193.60	5,923.67	-886.02	5,929.41	0.00	0.00	0.00
18,400.00	90.00	359.62	12,193.60	6,023.66	-886.69	6,029.41	0.00	0.00	0.00
18,500.00	90.00	359.62	12,193.60	6,123.66	-887.35	6,129.41	0.00	0.00	0.00
18,600.00	90.00	359.62	12,193.60	6,223.66	-888.01	6,229.41	0.00	0.00	0.00
18,700.00	90.00	359.62	12,193.60	6,323.66	-888.68	6,329.41	0.00	0.00	0.00
18,800.00	90.00	359.62	12,193.60	6,423.66	-889.34	6,429.41	0.00	0.00	0.00
18,900.00	90.00	359.62	12,193.60	6,523.65	-890.00	6,529.41	0.00	0.00	0.00
19,000.00	90.00	359.62	12,193.60	6,623.65	-890.67	6,629.41	0.00	0.00	0.00
19,100.00	90.00	359.62	12,193.60	6,723.65	-891.33	6,729.41	0.00	0.00	0.00
19,200.00	90.00	359.62	12,193.60	6,823.65	-891.99	6,829.41	0.00	0.00	0.00
19,300.00	90.00	359.62	12,193.60	6,923.65	-892.66	6,929.41	0.00	0.00	0.00
19,400.00	90.00	359.62	12,193.60	7,023.64	-893.32	7,029.41	0.00	0.00	0.00
19,500.00	90.00	359.62	12,193.60	7,123.64	-893.98	7,129.41	0.00	0.00	0.00
19,600.00	90.00	359.62	12,193.60	7,223.64	-894.64	7,229.41	0.00	0.00	0.00
19,700.00	90.00	359.62	12,193.60	7,323.64	-895.31	7,329.41	0.00	0.00	0.00
19,800.00	90.00	359.62	12,193.60	7,423.63	-895.97	7,429.41	0.00	0.00	0.00
19,900.00	90.00	359.62	12,193.60	7,523.63	-896.63	7,529.41	0.00	0.00	0.00
20,000.00	90.00	359.62	12,193.60	7,623.63	-897.30	7,629.41	0.00	0.00	0.00
20,100.00	90.00	359.62	12,193.60	7,723.63	-897.96	7,729.41	0.00	0.00	0.00
20,200.00	90.00	359.62	12,193.60	7,823.63	-898.62	7,829.41	0.00	0.00	0.00
20,300.00	90.00	359.62	12,193.60	7,923.62	-899.29	7,929.41	0.00	0.00	0.00
20,400.00	90.00	359.62	12,193.60	8,023.62	-899.95	8,029.41	0.00	0.00	0.00
20,500.00	90.00	359.62	12,193.60	8,123.62	-900.61	8,129.41	0.00	0.00	0.00
20,600.00	90.00	359.62	12,193.60	8,223.62	-901.28	8,229.41	0.00	0.00	0.00
20,700.00	90.00	359.62	12,193.60	8,323.61	-901.94	8,329.41	0.00	0.00	0.00
20,800.00	90.00	359.62	12,193.60	8,423.61	-902.60	8,429.41	0.00	0.00	0.00
20,900.00	90.00	359.62	12,193.60	8,523.61	-903.26	8,529.41	0.00	0.00	0.00
21,000.00	90.00	359.62	12,193.60	8,623.61	-903.93	8,629.41	0.00	0.00	0.00
21,100.00	90.00	359.62	12,193.60	8,723.61	-904.59	8,729.41	0.00	0.00	0.00
21,200.00	90.00	359.62	12,193.60	8,823.60	-905.25	8,829.41	0.00	0.00	0.00
21,300.00	90.00	359.62	12,193.60	8,923.60	-905.92	8,929.41	0.00	0.00	0.00
21,400.00	90.00	359.62	12,193.60	9,023.60	-906.58	9,029.41	0.00	0.00	0.00
21,500.00	90.00	359.62	12,193.60	9,123.60	-907.24	9,129.41	0.00	0.00	0.00
21,600.00	90.00	359.62	12,193.60	9,223.59	-907.91	9,229.41	0.00	0.00	0.00
21,700.00	90.00	359.62	12,193.60	9,323.59	-908.57	9,329.41	0.00	0.00	0.00
21,800.00	90.00	359.62	12,193.60	9,423.59	-909.23	9,429.41	0.00	0.00	0.00
21,900.00	90.00	359.62	12,193.60	9,523.59	-909.90	9,529.41	0.00	0.00	0.00
22,000.00	90.00	359.62	12,193.60	9,623.59	-910.56	9,629.41	0.00	0.00	0.00
22,100.00	90.00	359.62	12,193.60	9,723.58	-911.22	9,729.41	0.00	0.00	0.00
22,200.00	90.00	359.62	12,193.60	9,823.58	-911.88	9,829.41	0.00	0.00	0.00
22,300.00	90.00	359.62	12,193.60	9,923.58	-912.55	9,929.41	0.00	0.00	0.00
22,400.00	90.00	359.62	12,193.60	10,023.58	-913.21	10,029.41	0.00	0.00	0.00



Phoenix Planning Report



Database:	USAEDMDB	Local Co-ordinate Reference:	Well Bing Clawsby WC Federal Com 701H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3732.60usft (Cactus 169)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3732.60usft (Cactus 169)
Site:	Bing Clawsby 15-10	North Reference:	Grid
Well:	Bing Clawsby WC Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 04-13-23		

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)
22,500.00	90.00	359.62	12,193.60	10,123.57	-913.87	10,129.41	0.00	0.00	0.00
22,541.61	90.00	359.62	12,193.60	10,165.18	-914.15	10,171.02	0.00	0.00	0.00
Begin 2.00°/100' Turn									
22,542.21	90.00	359.61	12,193.60	10,165.78	-914.15	10,171.62	2.01	0.00	-2.01
Hold 359.61° Azm									
22,600.00	90.00	359.61	12,193.60	10,223.57	-914.55	10,229.41	0.00	0.00	0.00
22,700.00	90.00	359.61	12,193.60	10,323.57	-915.23	10,329.41	0.00	0.00	0.00
22,800.00	90.00	359.61	12,193.60	10,423.57	-915.92	10,429.41	0.00	0.00	0.00
22,900.00	90.00	359.61	12,193.60	10,523.57	-916.60	10,529.41	0.00	0.00	0.00
23,000.00	90.00	359.61	12,193.60	10,623.56	-917.29	10,629.41	0.00	0.00	0.00
23,100.00	90.00	359.61	12,193.60	10,723.56	-917.97	10,729.41	0.00	0.00	0.00
23,200.00	90.00	359.61	12,193.60	10,823.56	-918.65	10,829.41	0.00	0.00	0.00
23,300.00	90.00	359.61	12,193.60	10,923.56	-919.34	10,929.41	0.00	0.00	0.00
23,400.00	90.00	359.61	12,193.60	11,023.55	-920.02	11,029.41	0.00	0.00	0.00
23,500.00	90.00	359.61	12,193.60	11,123.55	-920.71	11,129.41	0.00	0.00	0.00
23,600.00	90.00	359.61	12,193.60	11,223.55	-921.39	11,229.41	0.00	0.00	0.00
23,700.00	90.00	359.61	12,193.60	11,323.55	-922.07	11,329.41	0.00	0.00	0.00
23,800.00	90.00	359.61	12,193.60	11,423.54	-922.76	11,429.41	0.00	0.00	0.00
23,900.00	90.00	359.61	12,193.60	11,523.54	-923.44	11,529.41	0.00	0.00	0.00
24,000.00	90.00	359.61	12,193.60	11,623.54	-924.13	11,629.41	0.00	0.00	0.00
24,100.00	90.00	359.61	12,193.60	11,723.54	-924.81	11,729.41	0.00	0.00	0.00
24,200.00	90.00	359.61	12,193.60	11,823.54	-925.49	11,829.41	0.00	0.00	0.00
24,300.00	90.00	359.61	12,193.60	11,923.53	-926.18	11,929.41	0.00	0.00	0.00
24,400.00	90.00	359.61	12,193.60	12,023.53	-926.86	12,029.41	0.00	0.00	0.00
24,500.00	90.00	359.61	12,193.60	12,123.53	-927.55	12,129.41	0.00	0.00	0.00
24,600.00	90.00	359.61	12,193.60	12,223.53	-928.23	12,229.41	0.00	0.00	0.00
24,700.00	90.00	359.61	12,193.60	12,323.52	-928.92	12,329.41	0.00	0.00	0.00
24,800.00	90.00	359.61	12,193.60	12,423.52	-929.60	12,429.41	0.00	0.00	0.00
24,900.00	90.00	359.61	12,193.60	12,523.52	-930.28	12,529.41	0.00	0.00	0.00
25,000.00	90.00	359.61	12,193.60	12,623.52	-930.97	12,629.41	0.00	0.00	0.00
25,100.00	90.00	359.61	12,193.60	12,723.51	-931.65	12,729.41	0.00	0.00	0.00
25,200.00	90.00	359.61	12,193.60	12,823.51	-932.34	12,829.41	0.00	0.00	0.00
25,300.00	90.00	359.61	12,193.60	12,923.51	-933.02	12,929.41	0.00	0.00	0.00
25,400.00	90.00	359.61	12,193.60	13,023.51	-933.70	13,029.41	0.00	0.00	0.00
25,500.00	90.00	359.61	12,193.60	13,123.50	-934.39	13,129.41	0.00	0.00	0.00
25,600.00	90.00	359.61	12,193.60	13,223.50	-935.07	13,229.41	0.00	0.00	0.00
25,700.00	90.00	359.61	12,193.60	13,323.50	-935.76	13,329.41	0.00	0.00	0.00
25,800.00	90.00	359.61	12,193.60	13,423.50	-936.44	13,429.41	0.00	0.00	0.00
25,900.00	90.00	359.61	12,193.60	13,523.50	-937.12	13,529.41	0.00	0.00	0.00
26,000.00	90.00	359.61	12,193.60	13,623.49	-937.81	13,629.41	0.00	0.00	0.00
26,100.00	90.00	359.61	12,193.60	13,723.49	-938.49	13,729.41	0.00	0.00	0.00
26,200.00	90.00	359.61	12,193.60	13,823.49	-939.18	13,829.41	0.00	0.00	0.00
26,300.00	90.00	359.61	12,193.60	13,923.49	-939.86	13,929.41	0.00	0.00	0.00
26,400.00	90.00	359.61	12,193.60	14,023.48	-940.54	14,029.41	0.00	0.00	0.00
26,500.00	90.00	359.61	12,193.60	14,123.48	-941.23	14,129.41	0.00	0.00	0.00
26,600.00	90.00	359.61	12,193.60	14,223.48	-941.91	14,229.41	0.00	0.00	0.00
26,700.00	90.00	359.61	12,193.60	14,323.48	-942.60	14,329.41	0.00	0.00	0.00
26,800.00	90.00	359.61	12,193.60	14,423.47	-943.28	14,429.41	0.00	0.00	0.00
26,900.00	90.00	359.61	12,193.60	14,523.47	-943.97	14,529.41	0.00	0.00	0.00
27,000.00	90.00	359.61	12,193.60	14,623.47	-944.65	14,629.41	0.00	0.00	0.00
27,100.00	90.00	359.61	12,193.60	14,723.47	-945.33	14,729.41	0.00	0.00	0.00
27,200.00	90.00	359.61	12,193.60	14,823.47	-946.02	14,829.41	0.00	0.00	0.00
27,300.00	90.00	359.61	12,193.60	14,923.46	-946.70	14,929.41	0.00	0.00	0.00



Phoenix Planning Report



Database:	USAEDMDB	Local Co-ordinate Reference:	Well Bing Clawsby WC Federal Com 701H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3732.60usft (Cactus 169)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3732.60usft (Cactus 169)
Site:	Bing Clawsby 15-10	North Reference:	Grid
Well:	Bing Clawsby WC Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 04-13-23		

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)
27,400.00	90.00	359.61	12,193.60	15,023.46	-947.39	15,029.41	0.00	0.00	0.00
27,500.00	90.00	359.61	12,193.60	15,123.46	-948.07	15,129.41	0.00	0.00	0.00
27,600.00	90.00	359.61	12,193.60	15,223.46	-948.75	15,229.41	0.00	0.00	0.00
27,700.00	90.00	359.61	12,193.60	15,323.45	-949.44	15,329.41	0.00	0.00	0.00
27,706.17	90.00	359.61	12,193.60	15,329.62	-949.48	15,335.58	0.00	0.00	0.00
TD at 27706.17									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP - BCWCFC 701H - hit/miss target - Shape - Point	0.00	0.01	12,193.60	-300.99	-845.31	472,616.31	707,759.43	2° 17' 51.173292 N 3° 39' 39.443181 W	
- plan misses target center by 203.03usft at 12182.92usft MD (12049.60 TVD, -157.88 N, -846.24 E)									
TP1 - BCWCFC 701H - plan hits target center - Point	0.00	0.01	12,193.60	4,882.45	-879.12	477,799.75	707,725.62	2° 18' 42.468492 N 3° 39' 39.458332 W	
TP2 - BCWCFC 701H - plan hits target center - Point	0.00	0.01	12,193.60	10,165.18	-914.15	483,082.48	707,690.59	2° 19' 34.746180 N 3° 39' 39.480296 W	
BHL/LTP - BCWCFC - plan hits target center - Rectangle (sides W60.00 H15,630.96 D20.00)	0.00	359.62	12,193.60	15,329.62	-949.48	488,246.92	707,655.26	2° 20' 25.853225 N 3° 39' 39.514264 W	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,294.60	1,294.60	Rustler		0.000	359.62	
1,690.81	1,689.60	Salado		0.000	359.62	
3,627.92	3,597.60	Castile		0.000	359.62	
4,986.57	4,935.60	Base of Salt (BX)		0.000	359.62	
4,986.57	4,935.60	Lamar		0.000	359.62	
5,039.38	4,987.60	Bell Canyon		0.000	359.62	
6,179.71	6,110.60	Cherry Canyon		0.000	359.62	
7,165.13	7,087.60	Brushy Canyon		0.000	359.62	
8,828.13	8,750.60	Bone Spring Lime		0.000	359.62	
8,958.13	8,880.60	Upper Avalon Shale		0.000	359.62	
10,011.13	9,933.60	1st Bone Spring Sand		0.000	359.62	
10,313.13	10,235.60	2nd Bone Spring Carbonate		0.000	359.62	
10,678.13	10,600.60	2nd Bone Spring Sand		0.000	359.62	
11,186.13	11,108.60	3rd Bone Spring Carbonate		0.000	359.62	
11,971.36	11,883.60	3rd Bone Spring Sand		0.000	359.62	
12,431.75	12,169.60	Wolfcamp		0.000	359.62	



Phoenix Planning Report



Database:	USAEDMDB	Local Co-ordinate Reference:	Well Bing Clawsby WC Federal Com 701H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3732.60usft (Cactus 169)
Project:	Lea County, NM (NAD27 NME)	MD Reference:	RKB @ 3732.60usft (Cactus 169)
Site:	Bing Clawsby 15-10	North Reference:	Grid
Well:	Bing Clawsby WC Federal Com 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2 04-13-23		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,300.00	1,300.00	0.00	0.00	KOP, Begin 2.00°/100' Build
1,800.15	1,797.61	-16.71	-40.22	Hold 10.00° Inc at 247.44° Azm
6,566.38	6,491.39	-334.28	-804.77	Begin 2.00°/100' Drop
7,066.53	6,989.00	-350.99	-844.98	Begin Vertical Hold
11,698.17	11,620.64	-350.99	-844.98	KOP2, Begin 10.00°/100' Build
12,598.17	12,193.60	221.96	-848.72	LP, Hold 90.00° Inc at 359.63° Azm
17,258.76	12,193.60	4,882.45	-879.12	Begin 2.00°/100' Turn
17,259.07	12,193.60	4,882.76	-879.12	Hold 359.62° Azm
22,541.61	12,193.60	10,165.18	-914.15	Begin 2.00°/100' Turn
22,542.21	12,193.60	10,165.78	-914.15	Hold 359.61° Azm
27,706.17	12,193.60	15,329.62	-949.48	TD at 27706.17

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District IV
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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 234483

CONDITIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 234483
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	IN ADDITION TO PRVIOUS COA, IF ON ANY STRING CEMENT DOES NOT CIRCULATE, A CBL MUST BE RUN ON THAT STRING OF CASING.	8/10/2023