

Well Name: CHAOS WC FED COM	Well Location: T22S / R28E / SEC 34 / NESE /	County or Parish/State:
Well Number: 804H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM16102	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001553641	Well Status: Approved Application for Permit to Drill	Operator: MARATHON OIL PERMIAN LLC

Notice of Intent

Sundry ID: 2724209

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 04/04/2023	Time Sundry Submitted: 07:02
Date proposed operation will begin: 04/04/2023	

Procedure Description: Marathon Oil Permian LLC requests to make the following changes to the approved APD. Well Name Change from Chaos 34-33 WXY Fed Com 2H to Chaos WC Federal Com 804H. As well as BHL from 2620 FSL to 330 FWL to 2360 FSL to 330 FWL

NOI Attachments

Procedure Description

- Chaos_WC_Federal_Com_804H__Plan_1_04_03_23_20230404070202.pdf
- Chaos_WC_Federal_Com_804H_DrillPlan_20230404070124.pdf
- R4099_001_CHAOS_WC_FEDERAL_COM_804H_REV._2__CERTIFIED_FORM_C_102_20230317_20230404070113.pdf

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Well Number: 804H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM16102	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001553641	Well Status: Approved Application for Permit to Drill	Operator: MARATHON OIL PERMIAN LLC

Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: NICOLE LEE

Signed on: APR 04, 2023 07:02 AM

Name: MARATHON OIL PERMIAN LLC

Title: Regulatory Compliance Representative

Street Address: 990 TOWN & COUNTRY BLVD

City: HOUSTONState: TX

Phone: (713) 929-6600

Email address: NJLEE@MARATHONOIL.COM

Field

Representative Name:

Street Address:

City:State:Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: ZOTA M STEVENS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752345998

BLM POC Email Address: ZSTEVEN@BLM.GOV

Disposition: Approved

Disposition Date: 09/26/2023

Signature: Zota Stevens

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM 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.	
6. If Indian, Allottee or Tribe Name	
7. If Unit of CA/Agreement, Name and/or No.	
8. Well Name and No.	
9. API Well No.	
10. Field and Pool or Exploratory Area	
11. Country or Parish, State	

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 perfonned 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 recompleation 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 detennined that the site is ready for final inspection.)

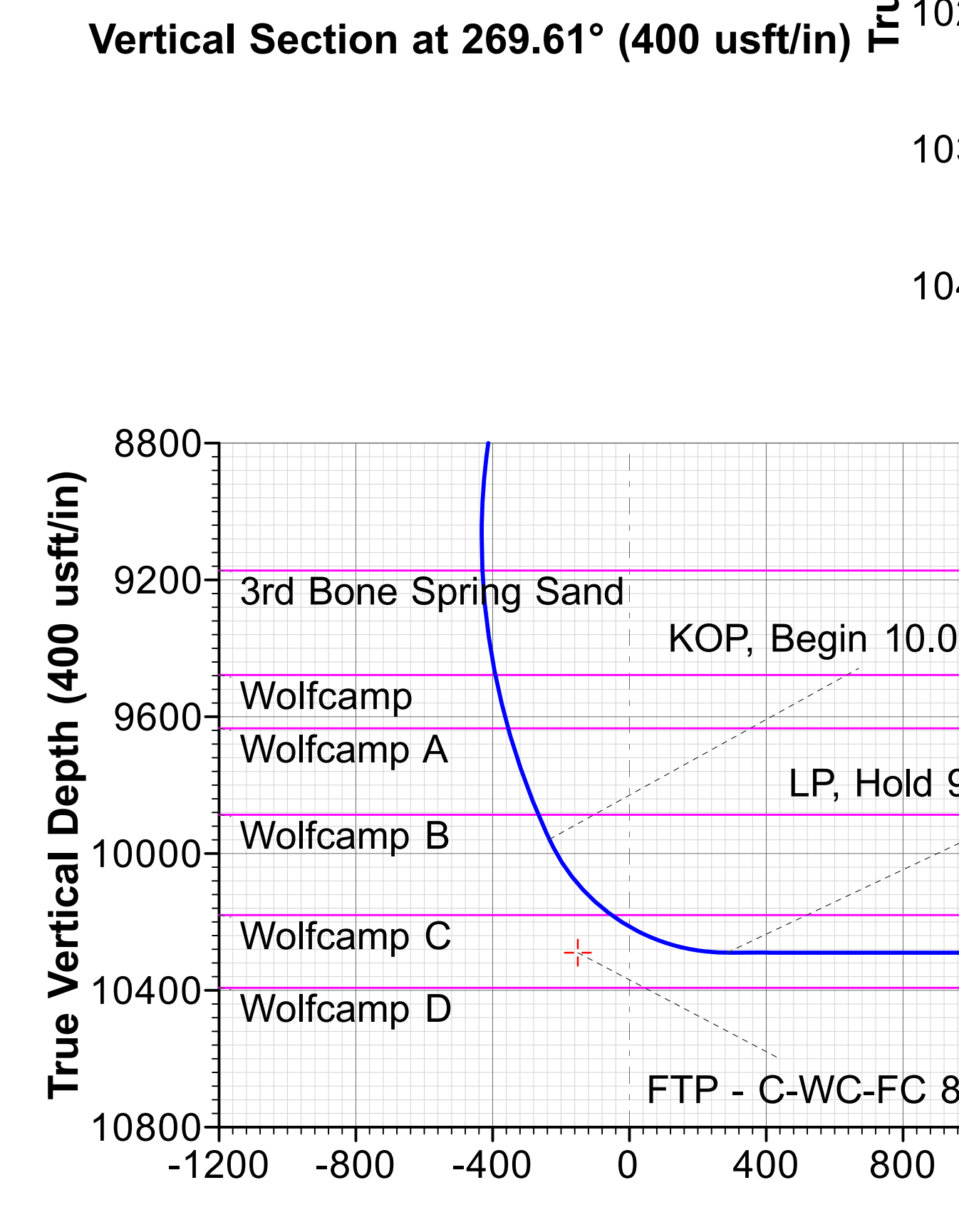
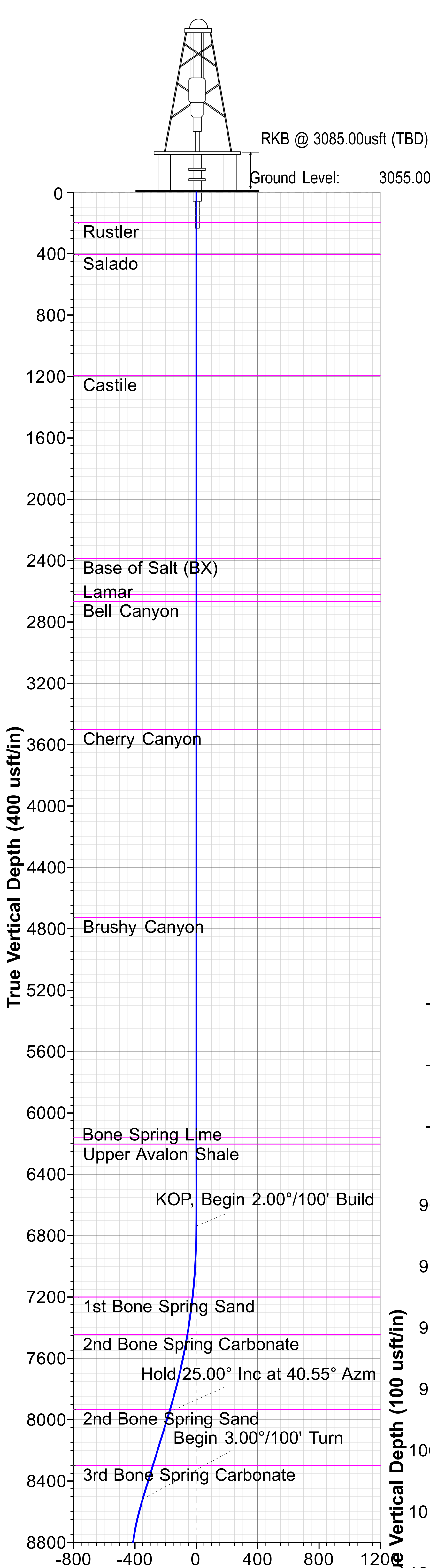
14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)	Title
Signature	Date

THE SPACE FOR FEDERAL OR STATE OFFICE USE

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

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

(Instructions on page 2)

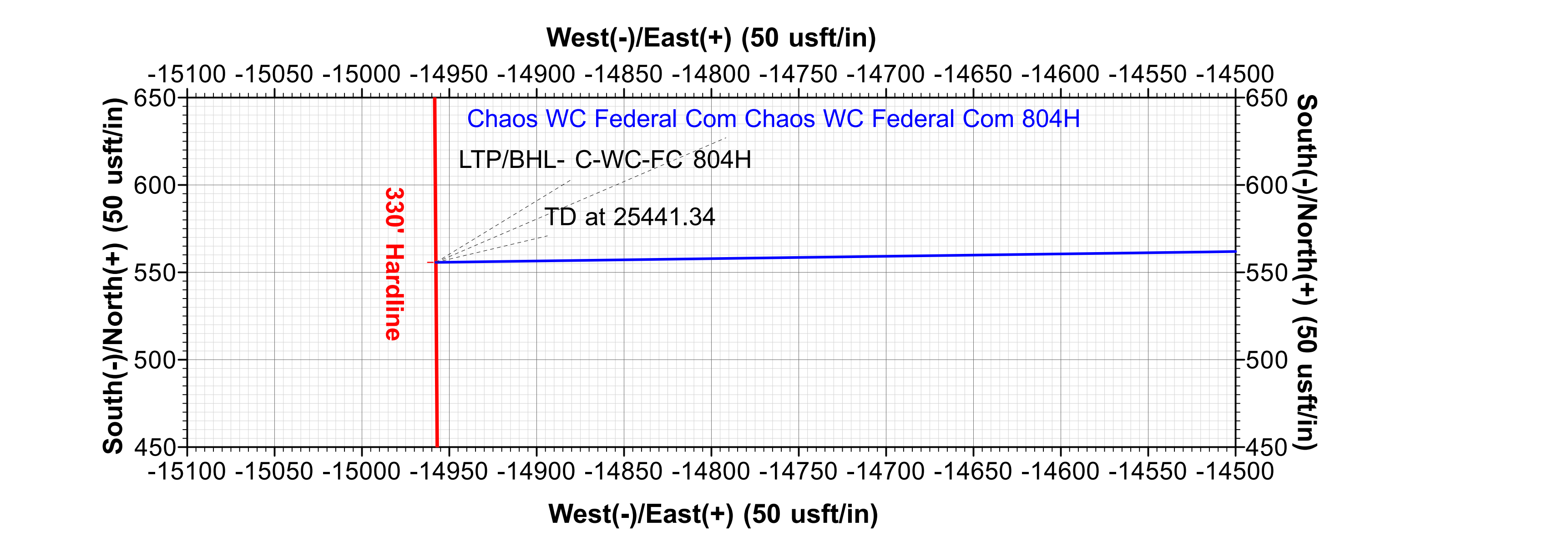
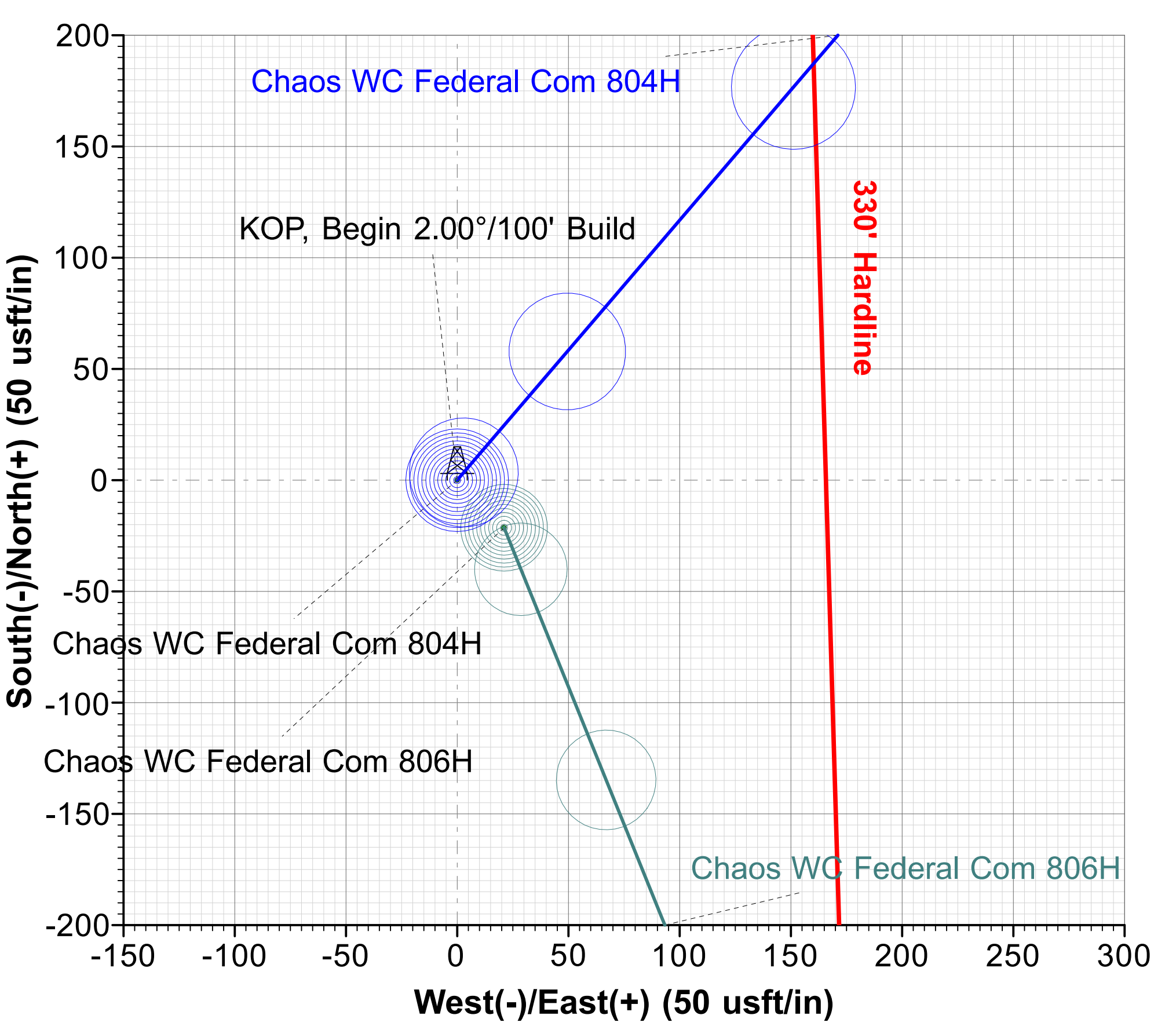
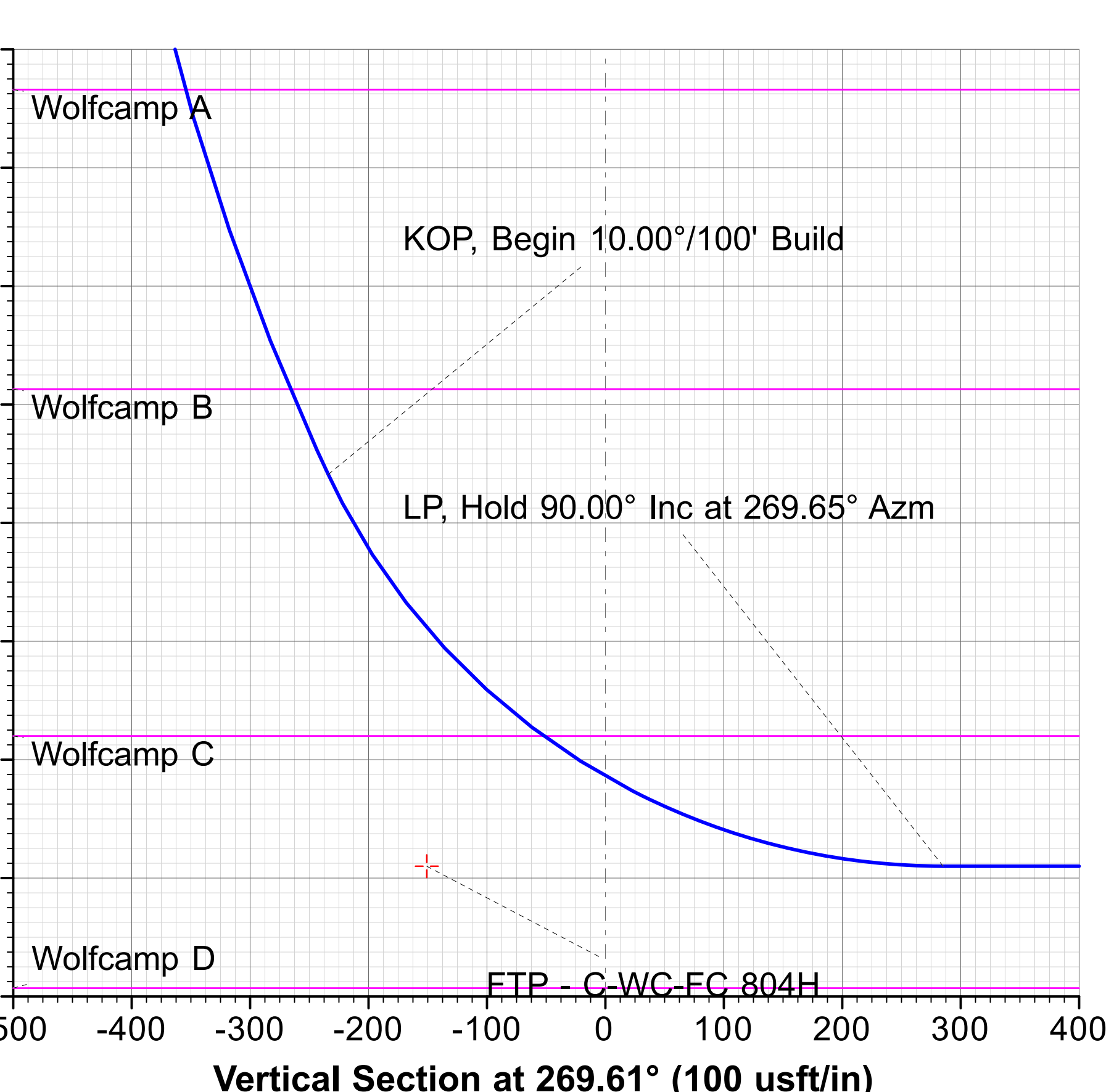
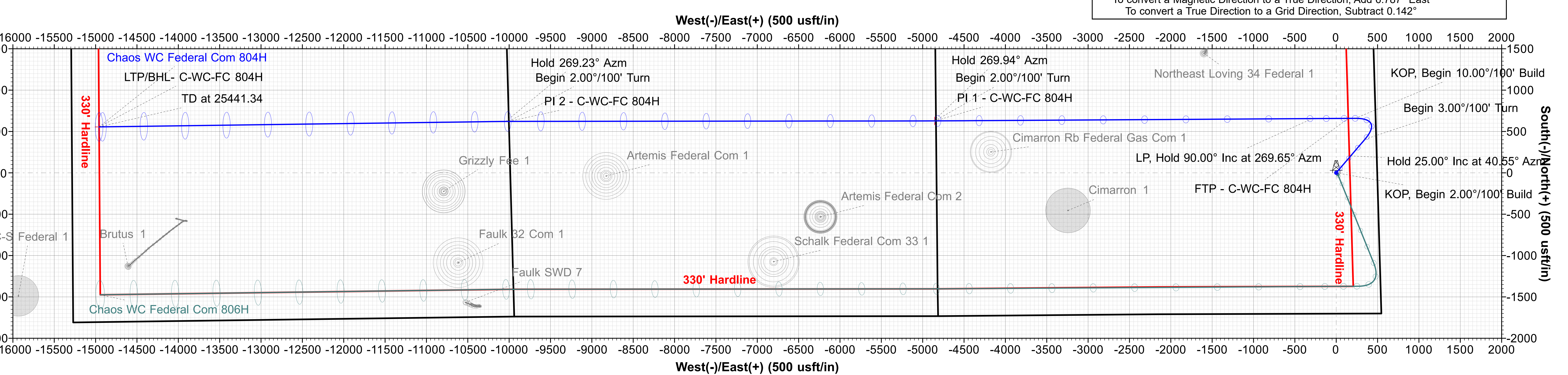




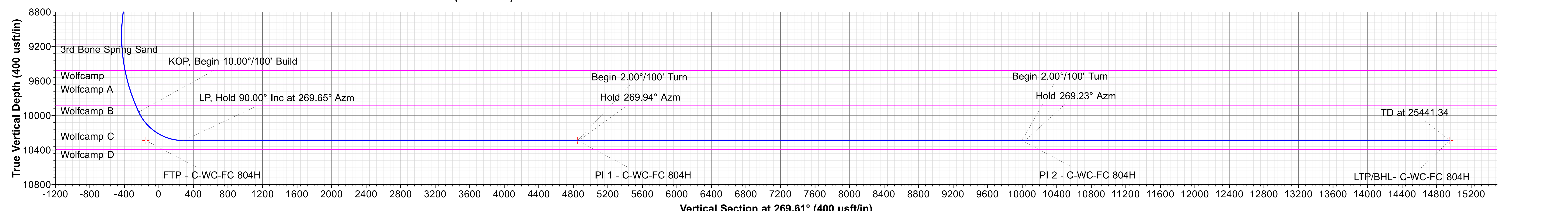
Marathon Oil Corporation™

WELL DETAILS											
				Ground Level:		3055.00					
	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude					
	0.00	0.00	489881.05	582009.63	32° 20' 47.468964 N	104° 4' 4.002511 W					

SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00		
2	6737.80	0.00	0.00	6737.80	0.00	0.00	0.00	0.000	0.00		KOP, Begin 2.00°/100' Build
3	7988.02	25.00	40.55	7948.71	204.00	174.57	2.00	40.554	-175.96		Hold 25.00° Inc at 40.55° Azm
4	8615.63	25.00	40.55	8517.50	405.56	347.05	0.00	0.000	-349.80		Begin 3.00°/100' Turn
5	10122.94	25.00	269.65	9959.18	658.95	229.50	3.00	-153.256	-233.98		KOP, Begin 10.00°/100' Build
6	10772.94	90.00	269.65	10290.00	655.78	-289.77	10.00	0.000	285.29		LP, Hold 90.00° Inc at 269.65° Azm
7	15337.94	90.00	269.65	10290.00	627.89	-4854.68	0.00	0.000	4850.29	PI 1 - C-WC-FC 804H	Begin 2.00°/100' Turn
8	15352.33	90.00	269.94	10290.00	627.84	-4869.07	2.00	90.000	4864.68		Hold 269.94° Azm
9	20486.56	90.00	269.94	10290.00	622.26	-10003.29	0.00	0.000	9998.82	PI 2 - C-WC-FC 804H	Begin 2.00°/100' Turn
10	20522.05	90.00	269.23	10290.00	622.00	-10038.78	2.00	-90.000	10034.32		Hold 269.23° Azm
11	25441.34	90.00	269.23	10290.00	555.71	-14957.63	0.00	0.000	14953.50	LTP/BHL- C-WC-FC 804H	TD at 25441.34



DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP - C-WC-FC 804H	10290.00	658.03	146.32	490539.08	582155.95	32° 20' 53.977288 N	104° 4' 2.277798 W
LTP/BHL- C-WC-FC 804H	10290.00	555.71	-14957.63	490436.76	567052.00	32° 20' 53.301929 N	104° 6' 58.351321 W
PI 1 - C-WC-FC 804H	10290.00	627.89	-4854.68	490508.94	577154.95	32° 20' 53.798232 N	104° 5' 0.576627 W
PI 2 - C-WC-FC 804H	10290.00	622.26	-10003.29	490503.31	572006.34	32° 20' 53.857429 N	104° 6' 0.595550 W





Marathon Oil Permian LLC

Eddy County, NM (NAD27-NME)

Chaos WC Federal Com

Chaos WC Federal Com 804H

OH

Plan: Plan 1 04-03-23

Standard Planning Report

03 April, 2023





Phoenix Planning Report



Database:	USA Compass	Local Co-ordinate Reference:	Well Chaos WC Federal Com 804H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3085.00usft (TBD)
Project:	Eddy County, NM (NAD27-NME)	MD Reference:	RKB @ 3085.00usft (TBD)
Site:	Chaos WC Federal Com	North Reference:	Grid
Well:	Chaos WC Federal Com 804H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 04-03-23		

Project	Eddy 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	Chaos WC Federal Com		
Site Position:		Northing:	489,881.05 usft
From:	Map	Easting:	582,009.63 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 20' 47.468964 N
		Longitude:	104° 4' 4.002511 W
		Grid Convergence:	0.142 °

Well	Chaos WC Federal Com 804H		
Well Position	+N/-S	0.00 usft	Northing: 489,881.05 usft
	+E/-W	0.00 usft	Easting: 582,009.63 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	Latitude: 32° 20' 47.468964 N
			Longitude: 104° 4' 4.002511 W
			Ground Level: 3,055.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	5/30/2023	6.787	59.965	47,504.90530994

Design	Plan 1 04-03-23			
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	269.61

Plan Survey Tool Program	Date	4/3/2023		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	25,441.34	Plan 1 04-03-23 (OH)	MWD+IFR1+MS
				OWSG Rev. 2 MWD + IFR1



Phoenix Planning Report



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Project:	Eddy County, NM (NAD27-NME)	MD Reference:	RKB @ 3085.00usft (TBD)
Site:	Chaos WC Federal Com	North Reference:	Grid
Well:	Chaos WC Federal Com 804H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 04-03-23		

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	
6,737.80	0.00	0.00	6,737.80	0.00	0.00	0.00	0.00	0.00	0.000	
7,988.02	25.00	40.55	7,948.71	204.00	174.57	2.00	2.00	0.00	40.554	
8,615.63	25.00	40.55	8,517.50	405.56	347.05	0.00	0.00	0.00	0.000	
10,122.94	25.00	269.65	9,959.18	658.95	229.50	3.00	0.00	-8.68	-153.256	
10,772.94	90.00	269.65	10,290.00	655.78	-289.77	10.00	10.00	0.00	0.000	
15,337.94	90.00	269.65	10,290.00	627.89	-4,854.68	0.00	0.00	0.00	0.000	PI 1 - C-WC-FC 804
15,352.33	90.00	269.94	10,290.00	627.84	-4,869.07	2.00	0.00	2.00	90.000	
20,486.56	90.00	269.94	10,290.00	622.26	-10,003.29	0.00	0.00	0.00	0.000	PI 2 - C-WC-FC 804
20,522.05	90.00	269.23	10,290.00	622.00	-10,038.78	2.00	0.00	-2.00	-90.000	
25,441.34	90.00	269.23	10,290.00	555.71	-14,957.63	0.00	0.00	0.00	0.000	LTP/BHL- C-WC-FC



Phoenix Planning Report



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Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3085.00usft (TBD)
Project:	Eddy County, NM (NAD27-NME)	MD Reference:	RKB @ 3085.00usft (TBD)
Site:	Chaos WC Federal Com	North Reference:	Grid
Well:	Chaos WC Federal Com 804H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 04-03-23		

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
196.00	0.00	0.00	196.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
404.00	0.00	0.00	404.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado									
1,195.00	0.00	0.00	1,195.00	0.00	0.00	0.00	0.00	0.00	0.00
Castile									
2,386.00	0.00	0.00	2,386.00	0.00	0.00	0.00	0.00	0.00	0.00
Base of Salt (BX)									
2,622.00	0.00	0.00	2,622.00	0.00	0.00	0.00	0.00	0.00	0.00
Lamar									
2,667.00	0.00	0.00	2,667.00	0.00	0.00	0.00	0.00	0.00	0.00
Bell Canyon									
3,501.00	0.00	0.00	3,501.00	0.00	0.00	0.00	0.00	0.00	0.00
Cherry Canyon									
4,726.00	0.00	0.00	4,726.00	0.00	0.00	0.00	0.00	0.00	0.00
Brushy Canyon									
6,159.00	0.00	0.00	6,159.00	0.00	0.00	0.00	0.00	0.00	0.00
Bone Spring Lime									
6,208.00	0.00	0.00	6,208.00	0.00	0.00	0.00	0.00	0.00	0.00
Upper Avalon Shale									
6,737.80	0.00	0.00	6,737.80	0.00	0.00	0.00	0.00	0.00	0.00
KOP, Begin 2.00°/100' Build									
6,800.00	1.24	40.55	6,800.00	0.51	0.44	-0.44	2.00	2.00	0.00
6,900.00	3.24	40.55	6,899.91	3.49	2.98	-3.01	2.00	2.00	0.00
7,000.00	5.24	40.55	6,999.63	9.11	7.80	-7.86	2.00	2.00	0.00
7,100.00	7.24	40.55	7,099.04	17.37	14.87	-14.98	2.00	2.00	0.00
7,200.00	9.24	40.55	7,198.00	28.27	24.19	-24.38	2.00	2.00	0.00
7,202.03	9.28	40.55	7,200.00	28.52	24.40	-24.60	2.00	2.00	0.00
1st Bone Spring Sand									
7,300.00	11.24	40.55	7,296.40	41.78	35.75	-36.03	2.00	2.00	0.00
7,400.00	13.24	40.55	7,394.12	57.89	49.54	-49.93	2.00	2.00	0.00
7,453.42	14.31	40.55	7,446.00	67.56	57.81	-58.27	2.00	2.00	0.00
2nd Bone Spring Carbonate									
7,500.00	15.24	40.55	7,491.04	76.59	65.54	-66.06	2.00	2.00	0.00
7,600.00	17.24	40.55	7,587.04	97.84	83.72	-84.39	2.00	2.00	0.00
7,700.00	19.24	40.55	7,682.01	121.62	104.08	-104.90	2.00	2.00	0.00
7,800.00	21.24	40.55	7,775.83	147.91	126.57	-127.58	2.00	2.00	0.00
7,900.00	23.24	40.55	7,868.38	176.67	151.18	-152.38	2.00	2.00	0.00
7,970.71	24.66	40.55	7,933.00	198.48	169.84	-171.19	2.00	2.00	0.00
2nd Bone Spring Sand									
7,988.02	25.00	40.55	7,948.71	204.00	174.57	-175.96	2.00	2.00	0.00
Hold 25.00° Inc at 40.55° Azm									
8,000.00	25.00	40.55	7,959.57	207.85	177.86	-179.27	0.00	0.00	0.00
8,100.00	25.00	40.55	8,050.20	239.97	205.35	-206.97	0.00	0.00	0.00
8,200.00	25.00	40.55	8,140.82	272.08	232.83	-234.67	0.00	0.00	0.00
8,300.00	25.00	40.55	8,231.45	304.20	260.31	-262.37	0.00	0.00	0.00
8,374.53	25.00	40.55	8,299.00	328.13	280.79	-283.02	0.00	0.00	0.00
3rd Bone Spring Carbonate									
8,400.00	25.00	40.55	8,322.08	336.31	287.79	-290.07	0.00	0.00	0.00
8,500.00	25.00	40.55	8,412.71	368.43	315.27	-317.77	0.00	0.00	0.00
8,600.00	25.00	40.55	8,503.33	400.54	342.76	-345.47	0.00	0.00	0.00



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Well:	Chaos WC Federal Com 804H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 04-03-23		

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)
8,615.63	25.00	40.55	8,517.50	405.56	347.05	-349.80	0.00	0.00	0.00
Begin 3.00°/100' Turn									
8,700.00	22.77	37.61	8,594.64	432.05	368.61	-371.55	3.00	-2.65	-3.49
8,800.00	20.21	33.34	8,687.69	461.82	389.92	-393.06	3.00	-2.56	-4.27
8,900.00	17.78	27.93	8,782.24	489.74	406.57	-409.89	3.00	-2.43	-5.42
9,000.00	15.54	20.94	8,878.05	515.75	418.51	-422.01	3.00	-2.24	-6.99
9,100.00	13.59	11.84	8,974.84	539.77	425.71	-429.37	3.00	-1.95	-9.10
9,200.00	12.07	0.15	9,072.36	561.73	428.15	-431.96	3.00	-1.52	-11.69
9,300.00	11.16	345.91	9,170.33	581.57	425.82	-429.77	3.00	-0.91	-14.24
9,302.72	11.14	345.50	9,173.00	582.08	425.69	-429.64	3.00	-0.54	-15.26
3rd Bone Spring Sand									
9,400.00	11.00	330.28	9,268.49	599.25	418.73	-422.80	3.00	-0.14	-15.65
9,500.00	11.64	315.29	9,366.56	614.71	406.90	-411.08	3.00	0.63	-14.99
9,600.00	12.94	302.56	9,464.29	627.91	390.37	-394.63	3.00	1.31	-12.73
9,614.08	13.17	300.99	9,478.00	629.58	387.66	-391.94	3.00	1.62	-11.18
Wolfcamp									
9,700.00	14.74	292.51	9,561.39	638.81	369.17	-373.51	3.00	1.83	-9.87
9,775.36	16.33	286.49	9,634.00	645.49	350.14	-354.53	3.00	2.11	-7.99
Wolfcamp A									
9,800.00	16.88	284.77	9,657.61	647.38	343.36	-347.76	3.00	2.24	-6.99
9,900.00	19.25	278.80	9,752.68	653.61	313.02	-317.46	3.00	2.36	-5.97
10,000.00	21.77	274.13	9,846.35	657.47	278.23	-282.70	3.00	2.52	-4.67
10,043.95	22.91	272.39	9,887.00	658.41	261.56	-266.03	3.00	2.60	-3.95
Wolfcamp B									
10,100.00	24.39	270.40	9,938.34	658.94	239.09	-243.57	3.00	2.64	-3.55
10,122.94	25.00	269.65	9,959.18	658.95	229.50	-233.98	3.00	2.67	-3.27
KOP, Begin 10.00°/100' Build									
10,200.00	32.71	269.65	10,026.63	658.72	192.34	-196.82	10.00	10.00	0.00
10,300.00	42.71	269.65	10,105.64	658.35	131.26	-135.74	10.00	10.00	0.00
10,400.00	52.71	269.65	10,172.85	657.90	57.39	-61.86	10.00	10.00	0.00
10,411.97	53.90	269.65	10,180.00	657.84	47.79	-52.27	10.00	10.00	0.00
Wolfcamp C									
10,500.00	62.71	269.65	10,226.21	657.38	-27.03	22.56	10.00	10.00	0.00
10,600.00	72.71	269.65	10,264.10	656.82	-119.44	114.97	10.00	10.00	0.00
10,700.00	82.71	269.65	10,285.36	656.22	-217.02	212.55	10.00	10.00	0.00
10,772.94	90.00	269.65	10,290.00	655.78	-289.77	285.29	10.00	10.00	0.00
LP, Hold 90.00° Inc at 269.65° Azm									
10,800.00	90.00	269.65	10,290.00	655.61	-316.82	312.35	0.00	0.00	0.00
10,900.00	90.00	269.65	10,290.00	655.00	-416.82	412.35	0.00	0.00	0.00
11,000.00	90.00	269.65	10,290.00	654.39	-516.82	512.35	0.00	0.00	0.00
11,100.00	90.00	269.65	10,290.00	653.78	-616.82	612.35	0.00	0.00	0.00
11,200.00	90.00	269.65	10,290.00	653.17	-716.82	712.35	0.00	0.00	0.00
11,300.00	90.00	269.65	10,290.00	652.56	-816.81	812.35	0.00	0.00	0.00
11,400.00	90.00	269.65	10,290.00	651.95	-916.81	912.35	0.00	0.00	0.00
11,500.00	90.00	269.65	10,290.00	651.33	-1,016.81	1,012.35	0.00	0.00	0.00
11,600.00	90.00	269.65	10,290.00	650.72	-1,116.81	1,112.35	0.00	0.00	0.00
11,700.00	90.00	269.65	10,290.00	650.11	-1,216.81	1,212.35	0.00	0.00	0.00
11,800.00	90.00	269.65	10,290.00	649.50	-1,316.80	1,312.35	0.00	0.00	0.00
11,900.00	90.00	269.65	10,290.00	648.89	-1,416.80	1,412.35	0.00	0.00	0.00
12,000.00	90.00	269.65	10,290.00	648.28	-1,516.80	1,512.35	0.00	0.00	0.00
12,100.00	90.00	269.65	10,290.00	647.67	-1,616.80	1,612.35	0.00	0.00	0.00
12,200.00	90.00	269.65	10,290.00	647.06	-1,716.80	1,712.35	0.00	0.00	0.00
12,300.00	90.00	269.65	10,290.00	646.45	-1,816.79	1,812.35	0.00	0.00	0.00



Phoenix Planning Report



Database:	USA Compass	Local Co-ordinate Reference:	Well Chaos WC Federal Com 804H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3085.00usft (TBD)
Project:	Eddy County, NM (NAD27-NME)	MD Reference:	RKB @ 3085.00usft (TBD)
Site:	Chaos WC Federal Com	North Reference:	Grid
Well:	Chaos WC Federal Com 804H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 04-03-23		

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)
12,400.00	90.00	269.65	10,290.00	645.84	-1,916.79	1,912.35	0.00	0.00	0.00
12,500.00	90.00	269.65	10,290.00	645.23	-2,016.79	2,012.35	0.00	0.00	0.00
12,600.00	90.00	269.65	10,290.00	644.62	-2,116.79	2,112.35	0.00	0.00	0.00
12,700.00	90.00	269.65	10,290.00	644.00	-2,216.79	2,212.35	0.00	0.00	0.00
12,800.00	90.00	269.65	10,290.00	643.39	-2,316.79	2,312.35	0.00	0.00	0.00
12,900.00	90.00	269.65	10,290.00	642.78	-2,416.78	2,412.35	0.00	0.00	0.00
13,000.00	90.00	269.65	10,290.00	642.17	-2,516.78	2,512.35	0.00	0.00	0.00
13,100.00	90.00	269.65	10,290.00	641.56	-2,616.78	2,612.35	0.00	0.00	0.00
13,200.00	90.00	269.65	10,290.00	640.95	-2,716.78	2,712.35	0.00	0.00	0.00
13,300.00	90.00	269.65	10,290.00	640.34	-2,816.78	2,812.35	0.00	0.00	0.00
13,400.00	90.00	269.65	10,290.00	639.73	-2,916.77	2,912.35	0.00	0.00	0.00
13,500.00	90.00	269.65	10,290.00	639.12	-3,016.77	3,012.35	0.00	0.00	0.00
13,600.00	90.00	269.65	10,290.00	638.51	-3,116.77	3,112.35	0.00	0.00	0.00
13,700.00	90.00	269.65	10,290.00	637.90	-3,216.77	3,212.35	0.00	0.00	0.00
13,800.00	90.00	269.65	10,290.00	637.28	-3,316.77	3,312.35	0.00	0.00	0.00
13,900.00	90.00	269.65	10,290.00	636.67	-3,416.76	3,412.35	0.00	0.00	0.00
14,000.00	90.00	269.65	10,290.00	636.06	-3,516.76	3,512.35	0.00	0.00	0.00
14,100.00	90.00	269.65	10,290.00	635.45	-3,616.76	3,612.35	0.00	0.00	0.00
14,200.00	90.00	269.65	10,290.00	634.84	-3,716.76	3,712.35	0.00	0.00	0.00
14,300.00	90.00	269.65	10,290.00	634.23	-3,816.76	3,812.35	0.00	0.00	0.00
14,400.00	90.00	269.65	10,290.00	633.62	-3,916.76	3,912.35	0.00	0.00	0.00
14,500.00	90.00	269.65	10,290.00	633.01	-4,016.75	4,012.35	0.00	0.00	0.00
14,600.00	90.00	269.65	10,290.00	632.40	-4,116.75	4,112.35	0.00	0.00	0.00
14,700.00	90.00	269.65	10,290.00	631.79	-4,216.75	4,212.35	0.00	0.00	0.00
14,800.00	90.00	269.65	10,290.00	631.18	-4,316.75	4,312.35	0.00	0.00	0.00
14,900.00	90.00	269.65	10,290.00	630.57	-4,416.75	4,412.35	0.00	0.00	0.00
15,000.00	90.00	269.65	10,290.00	629.95	-4,516.74	4,512.35	0.00	0.00	0.00
15,100.00	90.00	269.65	10,290.00	629.34	-4,616.74	4,612.35	0.00	0.00	0.00
15,200.00	90.00	269.65	10,290.00	628.73	-4,716.74	4,712.35	0.00	0.00	0.00
15,300.00	90.00	269.65	10,290.00	628.12	-4,816.74	4,812.35	0.00	0.00	0.00
15,337.94	90.00	269.65	10,290.00	627.89	-4,854.68	4,850.29	0.00	0.00	0.00
Begin 2.00°/100' Turn									
15,352.33	90.00	269.94	10,290.00	627.84	-4,869.07	4,864.68	2.00	0.00	2.00
Hold 269.94° Azm									
15,400.00	90.00	269.94	10,290.00	627.79	-4,916.74	4,912.35	0.00	0.00	0.00
15,500.00	90.00	269.94	10,290.00	627.68	-5,016.74	5,012.35	0.00	0.00	0.00
15,600.00	90.00	269.94	10,290.00	627.57	-5,116.74	5,112.35	0.00	0.00	0.00
15,700.00	90.00	269.94	10,290.00	627.46	-5,216.74	5,212.35	0.00	0.00	0.00
15,800.00	90.00	269.94	10,290.00	627.35	-5,316.74	5,312.34	0.00	0.00	0.00
15,900.00	90.00	269.94	10,290.00	627.24	-5,416.74	5,412.34	0.00	0.00	0.00
16,000.00	90.00	269.94	10,290.00	627.13	-5,516.74	5,512.34	0.00	0.00	0.00
16,100.00	90.00	269.94	10,290.00	627.03	-5,616.74	5,612.34	0.00	0.00	0.00
16,200.00	90.00	269.94	10,290.00	626.92	-5,716.74	5,712.34	0.00	0.00	0.00
16,300.00	90.00	269.94	10,290.00	626.81	-5,816.74	5,812.34	0.00	0.00	0.00
16,400.00	90.00	269.94	10,290.00	626.70	-5,916.74	5,912.33	0.00	0.00	0.00
16,500.00	90.00	269.94	10,290.00	626.59	-6,016.74	6,012.33	0.00	0.00	0.00
16,600.00	90.00	269.94	10,290.00	626.48	-6,116.74	6,112.33	0.00	0.00	0.00
16,700.00	90.00	269.94	10,290.00	626.37	-6,216.74	6,212.33	0.00	0.00	0.00
16,800.00	90.00	269.94	10,290.00	626.27	-6,316.74	6,312.33	0.00	0.00	0.00
16,900.00	90.00	269.94	10,290.00	626.16	-6,416.74	6,412.33	0.00	0.00	0.00
17,000.00	90.00	269.94	10,290.00	626.05	-6,516.74	6,512.32	0.00	0.00	0.00
17,100.00	90.00	269.94	10,290.00	625.94	-6,616.74	6,612.32	0.00	0.00	0.00
17,200.00	90.00	269.94	10,290.00	625.83	-6,716.74	6,712.32	0.00	0.00	0.00
17,300.00	90.00	269.94	10,290.00	625.72	-6,816.74	6,812.32	0.00	0.00	0.00



Phoenix Planning Report



Database:	USA Compass	Local Co-ordinate Reference:	Well Chaos WC Federal Com 804H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3085.00usft (TBD)
Project:	Eddy County, NM (NAD27-NME)	MD Reference:	RKB @ 3085.00usft (TBD)
Site:	Chaos WC Federal Com	North Reference:	Grid
Well:	Chaos WC Federal Com 804H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 04-03-23		

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)	
17,400.00	90.00	269.94	10,290.00	625.61	-6,916.74	6,912.32	0.00	0.00	0.00	
17,500.00	90.00	269.94	10,290.00	625.50	-7,016.74	7,012.32	0.00	0.00	0.00	
17,600.00	90.00	269.94	10,290.00	625.40	-7,116.74	7,112.31	0.00	0.00	0.00	
17,700.00	90.00	269.94	10,290.00	625.29	-7,216.74	7,212.31	0.00	0.00	0.00	
17,800.00	90.00	269.94	10,290.00	625.18	-7,316.74	7,312.31	0.00	0.00	0.00	
17,900.00	90.00	269.94	10,290.00	625.07	-7,416.74	7,412.31	0.00	0.00	0.00	
18,000.00	90.00	269.94	10,290.00	624.96	-7,516.74	7,512.31	0.00	0.00	0.00	
18,100.00	90.00	269.94	10,290.00	624.85	-7,616.74	7,612.31	0.00	0.00	0.00	
18,200.00	90.00	269.94	10,290.00	624.74	-7,716.74	7,712.31	0.00	0.00	0.00	
18,300.00	90.00	269.94	10,290.00	624.64	-7,816.74	7,812.30	0.00	0.00	0.00	
18,400.00	90.00	269.94	10,290.00	624.53	-7,916.74	7,912.30	0.00	0.00	0.00	
18,500.00	90.00	269.94	10,290.00	624.42	-8,016.74	8,012.30	0.00	0.00	0.00	
18,600.00	90.00	269.94	10,290.00	624.31	-8,116.74	8,112.30	0.00	0.00	0.00	
18,700.00	90.00	269.94	10,290.00	624.20	-8,216.74	8,212.30	0.00	0.00	0.00	
18,800.00	90.00	269.94	10,290.00	624.09	-8,316.74	8,312.30	0.00	0.00	0.00	
18,900.00	90.00	269.94	10,290.00	623.98	-8,416.74	8,412.29	0.00	0.00	0.00	
19,000.00	90.00	269.94	10,290.00	623.88	-8,516.74	8,512.29	0.00	0.00	0.00	
19,100.00	90.00	269.94	10,290.00	623.77	-8,616.74	8,612.29	0.00	0.00	0.00	
19,200.00	90.00	269.94	10,290.00	623.66	-8,716.74	8,712.29	0.00	0.00	0.00	
19,300.00	90.00	269.94	10,290.00	623.55	-8,816.74	8,812.29	0.00	0.00	0.00	
19,400.00	90.00	269.94	10,290.00	623.44	-8,916.74	8,912.29	0.00	0.00	0.00	
19,500.00	90.00	269.94	10,290.00	623.33	-9,016.74	9,012.28	0.00	0.00	0.00	
19,600.00	90.00	269.94	10,290.00	623.22	-9,116.74	9,112.28	0.00	0.00	0.00	
19,700.00	90.00	269.94	10,290.00	623.11	-9,216.74	9,212.28	0.00	0.00	0.00	
19,800.00	90.00	269.94	10,290.00	623.01	-9,316.74	9,312.28	0.00	0.00	0.00	
19,900.00	90.00	269.94	10,290.00	622.90	-9,416.74	9,412.28	0.00	0.00	0.00	
20,000.00	90.00	269.94	10,290.00	622.79	-9,516.74	9,512.28	0.00	0.00	0.00	
20,100.00	90.00	269.94	10,290.00	622.68	-9,616.74	9,612.27	0.00	0.00	0.00	
20,200.00	90.00	269.94	10,290.00	622.57	-9,716.74	9,712.27	0.00	0.00	0.00	
20,300.00	90.00	269.94	10,290.00	622.46	-9,816.74	9,812.27	0.00	0.00	0.00	
20,400.00	90.00	269.94	10,290.00	622.35	-9,916.73	9,912.27	0.00	0.00	0.00	
20,486.56	90.00	269.94	10,290.00	622.26	-10,003.29	9,998.82	0.00	0.00	0.00	
Begin 2.00°/100' Turn										
20,500.00	90.00	269.67	10,290.00	622.21	-10,016.73	10,012.27	2.00	0.00	-2.00	
20,522.05	90.00	269.23	10,290.00	622.00	-10,038.78	10,034.32	2.00	0.00	-2.00	
Hold 269.23° Azm										
20,600.00	90.00	269.23	10,290.00	620.95	-10,116.73	10,112.27	0.00	0.00	0.00	
20,700.00	90.00	269.23	10,290.00	619.60	-10,216.72	10,212.26	0.00	0.00	0.00	
20,800.00	90.00	269.23	10,290.00	618.26	-10,316.71	10,312.26	0.00	0.00	0.00	
20,900.00	90.00	269.23	10,290.00	616.91	-10,416.70	10,412.26	0.00	0.00	0.00	
21,000.00	90.00	269.23	10,290.00	615.56	-10,516.69	10,512.26	0.00	0.00	0.00	
21,100.00	90.00	269.23	10,290.00	614.21	-10,616.68	10,612.25	0.00	0.00	0.00	
21,200.00	90.00	269.23	10,290.00	612.87	-10,716.67	10,712.25	0.00	0.00	0.00	
21,300.00	90.00	269.23	10,290.00	611.52	-10,816.66	10,812.25	0.00	0.00	0.00	
21,400.00	90.00	269.23	10,290.00	610.17	-10,916.65	10,912.25	0.00	0.00	0.00	
21,500.00	90.00	269.23	10,290.00	608.82	-11,016.65	11,012.25	0.00	0.00	0.00	
21,600.00	90.00	269.23	10,290.00	607.48	-11,116.64	11,112.24	0.00	0.00	0.00	
21,700.00	90.00	269.23	10,290.00	606.13	-11,216.63	11,212.24	0.00	0.00	0.00	
21,800.00	90.00	269.23	10,290.00	604.78	-11,316.62	11,312.24	0.00	0.00	0.00	
21,900.00	90.00	269.23	10,290.00	603.43	-11,416.61	11,412.24	0.00	0.00	0.00	
22,000.00	90.00	269.23	10,290.00	602.08	-11,516.60	11,512.23	0.00	0.00	0.00	
22,100.00	90.00	269.23	10,290.00	600.74	-11,616.59	11,612.23	0.00	0.00	0.00	
22,200.00	90.00	269.23	10,290.00	599.39	-11,716.58	11,712.23	0.00	0.00	0.00	
22,300.00	90.00	269.23	10,290.00	598.04	-11,816.57	11,812.23	0.00	0.00	0.00	



Phoenix Planning Report



Database:	USA Compass	Local Co-ordinate Reference:	Well Chaos WC Federal Com 804H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3085.00usft (TBD)
Project:	Eddy County, NM (NAD27-NME)	MD Reference:	RKB @ 3085.00usft (TBD)
Site:	Chaos WC Federal Com	North Reference:	Grid
Well:	Chaos WC Federal Com 804H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 04-03-23		

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)
22,400.00	90.00	269.23	10,290.00	596.69	-11,916.56	11,912.23	0.00	0.00	0.00
22,500.00	90.00	269.23	10,290.00	595.35	-12,016.55	12,012.22	0.00	0.00	0.00
22,600.00	90.00	269.23	10,290.00	594.00	-12,116.55	12,112.22	0.00	0.00	0.00
22,700.00	90.00	269.23	10,290.00	592.65	-12,216.54	12,212.22	0.00	0.00	0.00
22,800.00	90.00	269.23	10,290.00	591.30	-12,316.53	12,312.22	0.00	0.00	0.00
22,900.00	90.00	269.23	10,290.00	589.96	-12,416.52	12,412.21	0.00	0.00	0.00
23,000.00	90.00	269.23	10,290.00	588.61	-12,516.51	12,512.21	0.00	0.00	0.00
23,100.00	90.00	269.23	10,290.00	587.26	-12,616.50	12,612.21	0.00	0.00	0.00
23,200.00	90.00	269.23	10,290.00	585.91	-12,716.49	12,712.21	0.00	0.00	0.00
23,300.00	90.00	269.23	10,290.00	584.57	-12,816.48	12,812.21	0.00	0.00	0.00
23,400.00	90.00	269.23	10,290.00	583.22	-12,916.47	12,912.20	0.00	0.00	0.00
23,500.00	90.00	269.23	10,290.00	581.87	-13,016.46	13,012.20	0.00	0.00	0.00
23,600.00	90.00	269.23	10,290.00	580.52	-13,116.45	13,112.20	0.00	0.00	0.00
23,700.00	90.00	269.23	10,290.00	579.18	-13,216.45	13,212.20	0.00	0.00	0.00
23,800.00	90.00	269.23	10,290.00	577.83	-13,316.44	13,312.19	0.00	0.00	0.00
23,900.00	90.00	269.23	10,290.00	576.48	-13,416.43	13,412.19	0.00	0.00	0.00
24,000.00	90.00	269.23	10,290.00	575.13	-13,516.42	13,512.19	0.00	0.00	0.00
24,100.00	90.00	269.23	10,290.00	573.79	-13,616.41	13,612.19	0.00	0.00	0.00
24,200.00	90.00	269.23	10,290.00	572.44	-13,716.40	13,712.19	0.00	0.00	0.00
24,300.00	90.00	269.23	10,290.00	571.09	-13,816.39	13,812.18	0.00	0.00	0.00
24,400.00	90.00	269.23	10,290.00	569.74	-13,916.38	13,912.18	0.00	0.00	0.00
24,500.00	90.00	269.23	10,290.00	568.40	-14,016.37	14,012.18	0.00	0.00	0.00
24,600.00	90.00	269.23	10,290.00	567.05	-14,116.36	14,112.18	0.00	0.00	0.00
24,700.00	90.00	269.23	10,290.00	565.70	-14,216.35	14,212.17	0.00	0.00	0.00
24,800.00	90.00	269.23	10,290.00	564.35	-14,316.35	14,312.17	0.00	0.00	0.00
24,900.00	90.00	269.23	10,290.00	563.01	-14,416.34	14,412.17	0.00	0.00	0.00
25,000.00	90.00	269.23	10,290.00	561.66	-14,516.33	14,512.17	0.00	0.00	0.00
25,100.00	90.00	269.23	10,290.00	560.31	-14,616.32	14,612.17	0.00	0.00	0.00
25,200.00	90.00	269.23	10,290.00	558.96	-14,716.31	14,712.16	0.00	0.00	0.00
25,300.00	90.00	269.23	10,290.00	557.61	-14,816.30	14,812.16	0.00	0.00	0.00
25,400.00	90.00	269.23	10,290.00	556.27	-14,916.29	14,912.16	0.00	0.00	0.00
25,441.34	90.00	269.23	10,290.00	555.71	-14,957.63	14,953.50	0.00	0.00	0.00
TD at 25441.34									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PI 2 - C-WC-FC 804H - hit/miss target - Shape - Point	0.00	0.00	10,290.00	622.26	-10,003.29	490,503.31	572,006.34	2° 20' 53.857429 N	104° 6' 0.595550 W
FTP - C-WC-FC 804H - plan misses target center by 147.08usft at 10400.00usft MD (10172.85 TVD, 657.90 N, 57.39 E) - Point	0.00	0.01	10,290.00	658.03	146.32	490,539.08	582,155.95	2° 20' 53.977288 N	104° 4' 2.277798 W
LTP/BHL- C-WC-FC 8 - plan hits target center - Point	0.00	0.00	10,290.00	555.71	-14,957.63	490,436.76	567,052.00	2° 20' 53.301929 N	104° 6' 58.351321 W
PI 1 - C-WC-FC 804H - plan hits target center - Point	0.00	0.00	10,290.00	627.89	-4,854.68	490,508.94	577,154.95	2° 20' 53.798232 N	104° 5' 0.576627 W



Phoenix Planning Report



Database:	USA Compass	Local Co-ordinate Reference:	Well Chaos WC Federal Com 804H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3085.00usft (TBD)
Project:	Eddy County, NM (NAD27-NME)	MD Reference:	RKB @ 3085.00usft (TBD)
Site:	Chaos WC Federal Com	North Reference:	Grid
Well:	Chaos WC Federal Com 804H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 04-03-23		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
196.00	196.00	Rustler		0.000	269.61
404.00	404.00	Salado		0.000	269.61
1,195.00	1,195.00	Castile		0.000	269.61
2,386.00	2,386.00	Base of Salt (BX)		0.000	269.61
2,622.00	2,622.00	Lamar		0.000	269.61
2,667.00	2,667.00	Bell Canyon		0.000	269.61
3,501.00	3,501.00	Cherry Canyon		0.000	269.61
4,726.00	4,726.00	Brushy Canyon		0.000	269.61
6,159.00	6,159.00	Bone Spring Lime		0.000	269.61
6,208.00	6,208.00	Upper Avalon Shale		0.000	269.61
7,202.03	7,200.00	1st Bone Spring Sand		0.000	269.61
7,453.42	7,446.00	2nd Bone Spring Carbonate		0.000	269.61
7,970.71	7,933.00	2nd Bone Spring Sand		0.000	269.61
8,374.53	8,299.00	3rd Bone Spring Carbonate		0.000	269.61
9,302.72	9,173.00	3rd Bone Spring Sand		0.000	269.61
9,614.08	9,478.00	Wolfcamp		0.000	269.61
9,775.36	9,634.00	Wolfcamp A		0.000	269.61
10,043.95	9,887.00	Wolfcamp B		0.000	269.61
10,411.97	10,180.00	Wolfcamp C		0.000	269.61

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,737.80	6,737.80	0.00	0.00	KOP, Begin 2.00°/100' Build
7,988.02	7,948.71	204.00	174.57	Hold 25.00° Inc at 40.55° Azm
8,615.63	8,517.50	405.56	347.05	Begin 3.00°/100' Turn
10,122.94	9,959.18	658.95	229.50	KOP, Begin 10.00°/100' Build
10,772.94	10,290.00	655.78	-289.77	LP, Hold 90.00° Inc at 269.65° Azm
15,337.94	10,290.00	627.89	-4,854.68	Begin 2.00°/100' Turn
15,352.33	10,290.00	627.84	-4,869.07	Hold 269.94° Azm
20,486.56	10,290.00	622.26	-10,003.29	Begin 2.00°/100' Turn
20,522.05	10,290.00	622.00	-10,038.78	Hold 269.23° Azm
25,441.34	10,290.00	555.71	-14,957.63	TD at 25441.34

MARATHON OIL PERMIAN, LLC.
DRILLING AND OPERATIONS PLAN



WELL NAME & NUMBER:

CHAOS WC FEDERAL COM 804H

LOCATION:

SECTION **34**
EDDYTOWNSHIP **22S**
COUNTY,RANGE **28E**
NEW MEXICO**Section 1:****GEOLOGICAL FORMATIONS**

Name of Surface Formation: Permian
 Elevation: 3055 feet

Estimated Tops of Important Geological Markers:

Formation	TVD (ft)	MD (ft)	Elevation (ft SS)	Lithologies	Mineral Resources	Producing Formation?
Rustler	196	223	2859	Anhydrite	Brine	No
Salado	404	431	2651	Salt/Anhydrite	Brine	No
Castile	1195	1222	1860	Salt/Anhydrite	Brine	No
Base of Salt (BX)	2386	2413	669	Salt/Anhydrite	Brine	No
Lamar	2622	2649	433	Sandstone/Shale	None	No
Bell Canyon	2667	2694	388	Sandstone	Oil	No
Cherry Canyon	3501	3528	-446	Sandstone	Oil	No
Brushy Canyon	4726	4753	-1671	Sandstone	Oil	No
Bone Spring Lime	6159	6186	-3104	Limestone	None	No
Upper Avalon Shale	6208	6235	-3153	Shale	Oil	Yes
1st Bone Spring Sand	7200	7227	-4145	Sandstone	Oil	Yes
2nd Bone Spring Carbonate	7446	7473	-4391	Limestone/Shale	None	No
2nd Bone Spring Sand	7933	7960	-4878	Sandstone	Oil	Yes
3rd Bone Spring Carbonate	8299	8326	-5244	Limestone	Oil	No
3rd Bone Spring Sand	9173	9200	-6118	Sandstone	Oil	Yes
Wolfcamp	9478	9505	-6423	Sandstone/Shale/Carbonates	Natural Gas / Oil	Yes
Wolfcamp A	9634	9661	-6579	Sandstone/Shale/Carbonates	Natural Gas / Oil	Yes
Wolfcamp B	9887	9914	-6832	Sandstone/Shale/Carbonates	Natural Gas / Oil	No
Wolfcamp C	10180	10207	-7125	Sandstone/Shale/Carbonates	Natural Gas / Oil	No
Wolfcamp D	10393	10420	-7338	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 Stacking 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 will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. 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	293	0	266	3055	2789	54.5	J55	BTC	5.22	1.81	BUOY	4.52	BUOY	4.52
Intermediate	12.25	9.625	0	10022	0	9859	3055	-6804	40	P110HC	BTC	1.20	1.42	BUOY	2.44	BUOY	2.44
Production	8.75	5.5	0	25441	0	10290	3055	-7235	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 (ft³/sks)	Density (ppg)	Slurry Volume (ft³)	Excess (%)	Cement Type	Additives
Surface	Lead	0	143	82	2.12	12.5	173	25	Class C	Extender, Accelerator, LCM
Surface	Tail	143	293	99	1.32	14.8	130	25	Class C	Accelerator
Intermediate	Lead	0	9522	1718	2.18	12.4	3746	25	Class C	Extender, Accelerator, LCM
Intermediate	Tail	9522	10022	147	1.33	14.8	196	25	Class C	Retarder
Production	Tail	9722	25441	2995	1.68	13	5031	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 (ft³/sks)	Water gal/sk	Slurry Description and Cement Type

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	293	Water Based Mud	8.4	8.8
293	10022	Brine or Oil Based Mud	9.2	10.2
10022	25441	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: 6689 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.

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	² Pool Code 98220	³ Pool Name PURPLE SAGE; WOLFCAMP (GAS)
⁴ Property Code	⁵ Property Name CHAOS WC FEDERAL COM	⁶ Well Number 804H
⁷ OGRID No. 372098	⁸ Operator Name MARATHON OIL PERMIAN LLC	⁹ Elevation 3055'

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
I	34	22S	28E		1702	SOUTH	496	EAST	EDDY

¹¹ Bottom Hole Location If Different From Surface

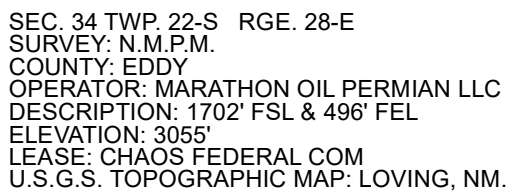
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	32	22S	28E		2360	SOUTH	330	WEST	EDDY

¹² Dedicated Acres 1920.0	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

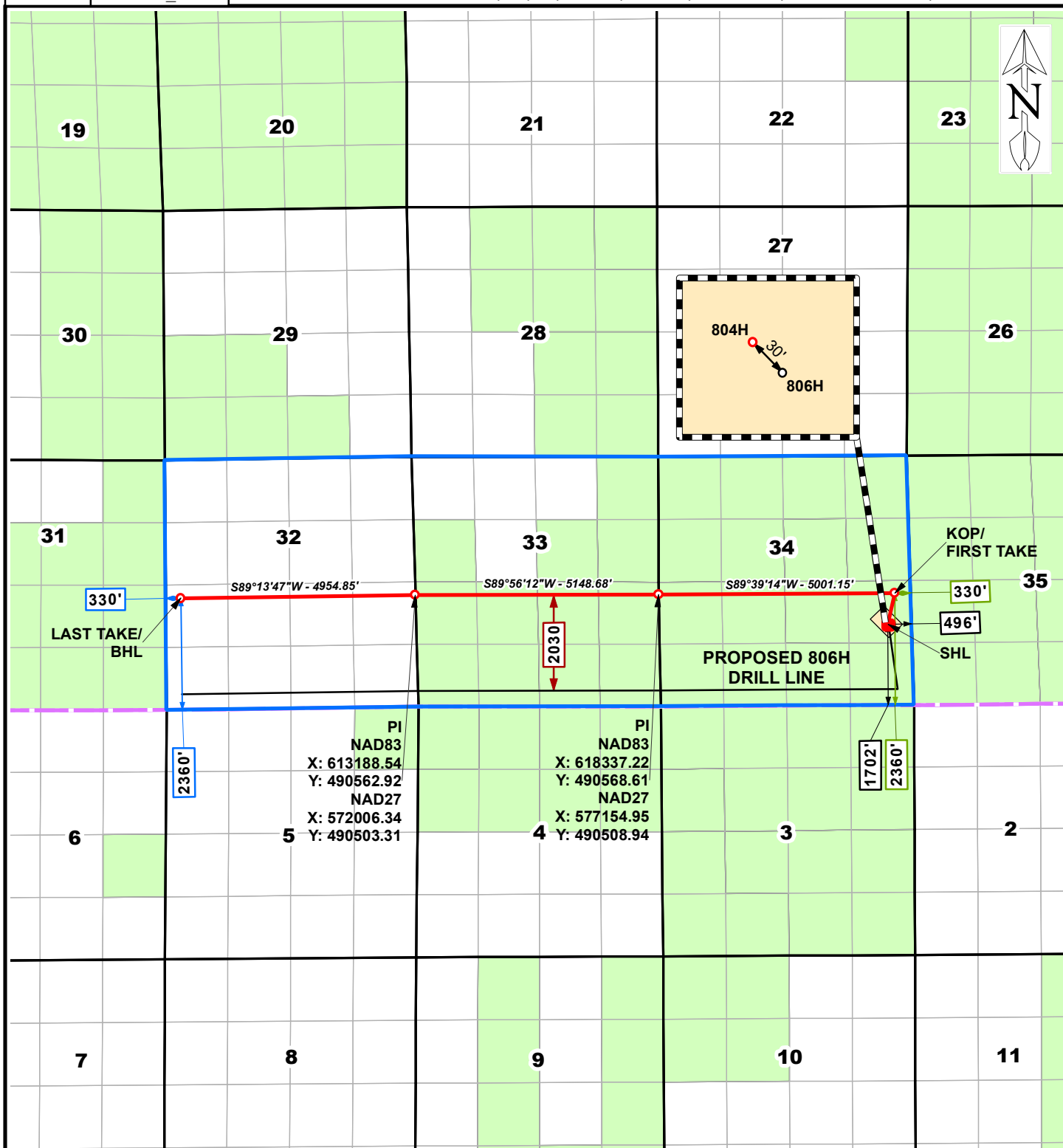
CORNER COORDINATES NAD 83, SPCS NM EAST A - X: 621045.95' / Y: 488231.32' B - X: 618378.75' / Y: 488208.65' C - X: 613253.53' / Y: 488203.58' D - X: 607921.17' / Y: 488131.88' E - X: 607883.07' / Y: 493420.58' F - X: 613107.71' / Y: 493497.62' G - X: 618325.09' / Y: 493490.53' H - X: 623580.49' / Y: 493520.23' I - X: 623659.98' / Y: 490884.16' J - X: 623738.32' / Y: 488240.10'	CORNER COORDINATES NAD 27, SPCS NM EAST A - X: 579863.58' / Y: 488171.68' B - X: 577196.42' / Y: 488149.04' C - X: 572071.26' / Y: 488144.03' D - X: 566738.97' / Y: 488072.40' E - X: 566701.00' / Y: 493360.96' F - X: 571925.58' / Y: 493437.94' G - X: 577142.89' / Y: 493430.79' H - X: 582398.22' / Y: 493460.43' I - X: 582477.64' / Y: 490824.42' J - X: 582555.91' / Y: 488180.43'		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. <i>Nicole Lee</i> 4/4/2023 Signature Date Nicole Lee Printed Name njlee@marathonoil.com E-mail Address
LAST TAKE POINT/ BOTTOM HOLE LOCATION 2360' FSL 330' FWL, SECTION 32 NAD 83, SPCS NM EAST X: 608234.15' / Y: 490496.31' LAT: 32.34825932N / LON: 104.11670681W NAD 27, SPCS NM EAST X: 567052.00' / Y: 490436.76' LAT: 32.34813942N / LON: 104.11620870W	KICK OFF POINT/FIRST TAKE POINT 2360' FSL 330' FEL, SECTION 34 NAD 83, SPCS NM EAST X: 623338.29' / Y: 490598.81' LAT: 32.34844761N / LON: 104.06779576W NAD 27, SPCS NM EAST X: 582155.95' / Y: 490539.08' LAT: 32.34832703N / LON: 104.06729940W	SURFACE HOLE LOCATION 1702' FSL 496' FEL, SECTION 34 NAD 83, SPCS NM EAST X: 623191.99' / Y: 489940.76' LAT: 32.34663975N / LON: 104.06827478W NAD 27, SPCS NM EAST X: 582009.63' / Y: 489881.05' LAT: 32.34651917N / LON: 104.06777846W	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 27, 2023 Date of Survey Signature and Seal of Professional Surveyor: <i>Lloyd P. Short</i> LLOYD P. SHORT 21653 Certificate Number

Distances/areas relative to NAD 83 Combined Scale Factor: 0.99977221 Convergence Angle: 00°07'02.700012"



**PREPARED BY:
R-SQUARED GLOBAL, LLC
510 TRENTON ST.
WEST MONROE, LA 71291
318-323-6900 OFFICE
JOB No. R4099 001**

JOB No. R4099_001 SECTIONS 32, 33, 34, T-22-S, R-28-E, N.M.P.M., EDDY COUNTY, NEW MEXICO



1,000 0 1,000 2,000



1 inch = 3,000 feet

LEGEND

- SUBJECT WELL / DRILL LINE
- SURVEY/SECTION LINE
- LEASE LINE
- OTHER WELLS / DRILL LINES
- TOWNSHIP / RANGE LINE
- DRILL LINE HOLES



MarathonOil
Permian LLC

WELL NAME

CHAOS WC
FEDERAL COM 804H

DATE SURVEYED: 10/12/2020

2	03/13/2023	REVISED DRILL LINES	JCS	MWS
REV.	DATE	DESCRIPTION	BY	CHKD
SHEET 3 OF 3		510 TRENTON ST. WEST MONROE, LA 71291 (318) 323-6900		
DRAWN BY: JCS				
DATE DRAWN: 3/17/2023				
CHECKED BY: MWS				

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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 269249

CONDITIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 269249
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	All original COA's still apply. Additionally, if cement is not circulated to surface during cementing operations, then a CBL is required,	7/12/2024