

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
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> <i>Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.</i>		5. Lease Serial No. NMNM27919
		6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2		7. If Unit of CA/Agreement, Name and/or No.
1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No. Fiddle Fire Fed Com/301H
2. Name of Operator MARATHON OIL PERMIAN LLC		9. API Well No. 3001549146
3a. Address 990 TOWN & COUNTRY BLVD, HOUSTON, TX	3b. Phone No. (include area code) (713) 296-2113	10. Field and Pool or Exploratory Area MALAGA/BONE SPRING
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description) SEC 23/T24S/R28E/NMP		11. Country or Parish, State EDDY/NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA					
TYPE OF SUBMISSION		TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off	
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity	
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other	
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon		
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 recompleate 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.)

Marathon Oil respectfully requests approval to change the casing design and cement design for the Fiddle Fire Fed Com #301H.

Setting Depths:

Surf Csg - 546'

Int 1 Csg - 6615

Prod Csg - 17773'

Please see attached drill plan for additional details.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) TERRI STATHEM / Ph: (713) 296-2113	Title Regulatory Compliance Manager
Signature (Electronic Submission)	Date 08/13/2024

THE SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by KEITH P IMMATTY / Ph: (575) 988-4722 / Accepted	Title ENGINEER	Date 08/28/2024
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

### Location of Well

0. SHL: SWNW / 1701 FNL / 913 FWL / TWSP: 24S / RANGE: 28E / SECTION: 23 / LAT: 32.2060289 / LONG: -104.0640153 ( TVD: 0 feet, MD: 0 feet )  
PPP: NWNW / 1000 FNL / 100 FWL / TWSP: 24S / RANGE: 28E / SECTION: 23 / LAT: 32.2079931 / LONG: -104.0666892 ( TVD: 7627 feet, MD: 7768 feet )  
PPP: NWNW / 979 FNL / 0 FWL / TWSP: 24S / RANGE: 28E / SECTION: 24 / LAT: 32.2078091 / LONG: -104.0492796 ( TVD: 8257 feet, MD: 13457 feet )  
PPP: NENE / 995 FNL / 1319 FEL / TWSP: 24S / RANGE: 28E / SECTION: 24 / LAT: 32.2076722 / LONG: -104.0364775 ( TVD: 8327 feet, MD: 17417 feet )  
BHL: NENE / 1000 FNL / 100 FEL / TWSP: 24S / RANGE: 28E / SECTION: 24 / LAT: 32.2076298 / LONG: -104.032537 ( TVD: 8348 feet, MD: 18636 feet )

CONFIDENTIAL

MARATHON OIL PERMIAN, LLC.

DRILLING AND OPERATIONS PLAN



WELL NAME & NUMBER:

Fiddle Fire Fed Com 301H

LOCATION:

SECTION 23 & 24TOWNSHIP 24SRANGE 28E

EddyCOUNTY, NEW MEXICO

Section 1:

GEOLOGICAL FORMATIONS

Name of Surface Formation:Permian

Elevation:2992 feet

Estimated Tops of Important Geological Markers:

Formation	TVD (ft)	MD (ft)	Elevation (ft SS)	Lithologies	Mineral Resources	Producing Formation?
Salado	497	520.6	2495	Salt/Anhydrite	Brine	No
Castile	1052	1075.6	1940	Salt/Anhydrite	Brine	No
Base of Salt (BX)	2558	2581.6	434	Salt/Anhydrite	Brine	No
Lamar	2558	2581.6	434	Sandstone/Shale	None	No
Bell Canyon	2590	2613.6	402	Sandstone	Oil	No
Cherry Canyon	3446	3469.6	-454	Sandstone	Oil	No
Brushy Canyon	4715	4738.6	-1723	Sandstone	Oil	No
Bone Spring	6214	6237.6	-3222	Limestone	None	No
1st Bone Spring Sand	7157	7180.6	-4165	Sandstone	Oil	Yes
2nd Bone Spring Sand	7976	7999.6	-4984	Sandstone	Oil	Yes
3rd Bone Spring Sand	9063	9086.6	-6071	Sandstone	Oil	Yes
Wolfcamp	9410	9433.6	-6418	Sandstone/Shale/Carbonates	Natural Gas / Oil	Yes

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, and 5,000psi for the BOP Stack before drilling the production hole. Testing will be conducted by an independent service company per 43 CFR 3172 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 too 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 43 CFR 3172. 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 43 CFR 3172. A multibowl wellhead is being used. The BOP will be tested per 43 CFR 3172 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.

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	546	0	522	2992	2470	54.5	J55	BTC	1.00	1.15	BUOY	1.30	BUOY	1.30
Intermediate	12.25	9.625	0	6615	0	6615	2992	-3623	40	P110HC	BTC	1.00	1.15	BUOY	1.30	BUOY	1.30
Production	8.75	5.5	0	17773	0	7485	2992	-4493	23	P110EC	TC	1.00	1.15	BUOY	1.30	BUOY	1.30
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	246	124	2.12	12.5	262	25	Class C	Extender, Accelerator, LCM
Surface	Tail	246	546	197	1.32	14.8	260	25	Class C	Accelerator
Intermediate	Lead	0	6115	1114	2.18	12.4	2428	25	Class C	Extender, Accelerator, LCM
Intermediate	Tail	6115	6615	147	1.33	14.8	196	25	Class C	Retarder
Production	Tail	6315	17773	2194	1.68	13	3686	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	545.6	Water Based Mud	8.4	8.8
545.6	6615	Brine or Oil Based Mud	9.2	10
6615	17773.48	Brtine or Oil Based Mud	9	11

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: 4281 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.

<b>Well Name:</b> Fiddle Fire Fed Com	<b>Well Location:</b> T24S / R28E / SEC 23 / SWNW / 32.2060289 / -104.0640153	<b>County or Parish/State:</b> EDDY / NM
<b>Well Number:</b> 301H	<b>Type of Well:</b> CONVENTIONAL GAS WELL	<b>Allottee or Tribe Name:</b>
<b>Lease Number:</b> NMNM27919	<b>Unit or CA Name:</b>	<b>Unit or CA Number:</b>
<b>US Well Number:</b> 3001549146	<b>Operator:</b> MARATHON OIL PERMIAN LLC	

### Notice of Intent

**Sundry ID:** 2806751

**Type of Submission:** Notice of Intent

**Type of Action:** APD Change

**Date Sundry Submitted:** 08/13/2024

**Time Sundry Submitted:** 04:14

**Date proposed operation will begin:** 05/02/2023

**Procedure Description:** Marathon Oil respectfully requests approval to change the casing design and cement design for the Fiddle Fire Fed Com #301H. Setting Depths: Surf Csg - 546' Int 1 Csg - 6615 Prod Csg - 17773' Please see attached drill plan for additional details.

### NOI Attachments

#### Procedure Description

Fiddle\_Fire\_301H\_Drill\_Plan\_20240813160935.pdf



**Well Location:** T24S / R28E / SEC 23 / SWNW / 32.2060289 / -104.0640153

**County or Parish/State:** EDDY / NM

**Well Number:** 301H

**Type of Well:** CONVENTIONAL GAS WELL

**Allottee or Tribe Name:**

**Lease Number:** NMNM27919

**Unit or CA Name:**

**Unit or CA Number:**

**US Well Number:** 3001549146

**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:** TERRI STATHEM

**Signed on:** AUG 13, 2024 04:11 PM

**Name:** MARATHON OIL PERMIAN LLC

**Title:** Regulatory Compliance Manager

**Street Address:** 990 TOWN & COUNTRY BLVD

**City:** HOUSTON

**State:** TX

**Phone:** (713) 296-2113

**Email address:** TSTATHEM@MARATHONOIL.COM

### Field

**Representative Name:**

**Street Address:**

**City:**

**State:**

**Zip:**

**Phone:**

**Email address:**

### BLM Point of Contact

**BLM POC Name:** KEITH P IMMATTY

**BLM POC Title:** ENGINEER

**BLM POC Phone:** 5759884722

**BLM POC Email Address:** KIMMATTY@BLM.GOV

**Disposition:** Accepted

**Disposition Date:** 08/28/2024

**Signature:** Keith Immatty



**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 396520

CONDITIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 396520
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	All original COA's still apply.	11/3/2024