API NUMBER: 017 25574 A

OKLAHOMA CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION P.O. BOX 52000 OKLAHOMA CITY, OK 73152-2000 (Rule 165:10-3-1)

Approval Date: 12/13/2019
Expiration Date: 06/13/2021

Horizontal Hole Oil & Gas

Amend reason: OCC CORRECTION UPDATE ORDERS

AMEND PERMIT TO DRILL

WELL LOCATION:	Sec:	01	Twp:	14N	Rge:	8W	County	: CAN	IADIAN			
SPOT LOCATION:	NW	NE	SE		SE		FEET FROM QUARTER:	FROM	SOUTH	FROM	EAST	
							SECTION LINES:		1188		644	
Lease Name: (RELL	NFR 14	กล				W	ell No:	3-1MH			

Well No: 3-1MH Well will be 644 feet from nearest unit or lease boundary.

Operator MARATHON OIL COMPANY Telephone: 4057285228 OTC/OCC Number: 1363 0

MARATHON OIL COMPANY

PO BOX 68

HOUSTON, TX 77001-0068

NEAL R. GOODWIN, TRUSTEE 4909 SOUTH W STREET

FORT SMITH AR 72903

 $Formation(s) \hspace{0.5cm} (Permit\ Valid\ for\ Listed\ Formations\ Only):$

	Name	Depth		Name		Depth
1	MISSISSIPPIAN	9000	6			
2			7			
3			8			
4			9			
5			10			
Spacing Orders:	647318	Location Exception Orders:	703837		Increased Density Orders	: 705100

Pending CD Numbers: Special Orders:

Total Depth: 12831 Ground Elevation: 1207 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 360

Deep surface casing has been approved

Under Federal Jurisdiction: No Fresh Water Supply Well Drilled: No Surface Water used to Drill: Yes

PIT 1 INFORMATION Approved Method for disposal of Drilling Fluids:

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED
Chlorides Max: 5000 Average: 3000

Is depth to top of ground water greater than 10ft below base of pit? $\quad \mbox{Y}$

Within 1 mile of municipal water well? N
Wellhead Protection Area? N

Pit is not located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is NON HSA

Pit Location Formation: CHICKASHA

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 19-37138

H. SEE MEMO

PIT 2 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: OIL BASED
Chlorides Max: 300000 Average: 200000

Is depth to top of ground water greater than 10ft below base of pit? Y

Within 1 mile of municipal water well? N
Wellhead Protection Area? N

Pit is not located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C
Pit Location is NON HSA

Pit Location Formation: CHICKASHA

HORIZONTAL HOLE 1

Sec 01 Twp 14N Rge 8W County CANADIAN

Spot Location of End Point: NW NE NW NE Feet From: NORTH 1/4 Section Line: 50

Feet From: EAST 1/4 Section Line: 1870

Depth of Deviation: 8523
Radius of Turn: 477
Direction: 343
Total Length: 3559

Measured Total Depth: 12831

True Vertical Depth: 9007

End Point Location from Lease,
Unit, or Property Line: 50

Notes:

Category Description

DEEP SURFACE CASING 12/9/2019 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY OF ANY LOSS OF

CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR

SURFACE CASING

HYDRAULIC FRACTURING 12/9/2019 - G71 - OCC 165:10-3-10 REQUIRES:

1) PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH

WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE;

2) WITH NOTICE ALSO GIVEN 48 HOURS IN ADVANCE OF HYDRAULIC FRACTURING ALL WELLS TO BOTH THE OCC CENTRAL OFFICE AND LOCAL DISTRICT OFFICES, USING THE

"FRAC NOTICE FORM" FOUND AT THE FOLLOWING LINK:

OCCEWEB.COM/OG/OGFORMS.HTML; AND,

3) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS

TO BE REPORTED TO FRACFOCUS WITHIN 60 DAYS AFTER THE CONCLUSION THE HYDRAULIC FRACTURING OPERATIONS, USING THE FOLLOWING LINK: FRACFOCUS.ORG

INCREASED DENSITY - 705100 (201904486)

12/12/2019 - GC2 - 1-14N-8W

X647318 MSSP 2 WELLS

MARATHON OIL COMPANY

11-12-2019

INTERMEDIATE CASING 12/9/2019 - G71 - DUE TO THE KNOWN POTENTIAL RISK OF ENCOUNTERING AN OVER-

PRESSURED ZONE IN THE MORROW SERIES IN THIS AREA, THE TECHNICAL MANAGER RECOMMENDS SETTING AN INTERMEDIATE STRING OF CASING IMMEDIATELY ABOVE THE

MORROW SERIES

LOCATION EXCEPTION - 703837 12/12/2019 - GC2 - (I.O.) 1-14N-8W

(201904484) X647318 MSSP

COMPL. INT. NCT 150' FNL, NCT 150' FSL, NCT 1,650' FEL

MARATHON OIL COMPANY

10-17-2019

MEMO 12/9/2019 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 -

OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

SPACING - 647318 12/12/2019 - GC2 - (640)(HOR) 1-14N-8W

EXT 633940 MSSP

EST OTHER COMPL. INT. NLT 660' FB

(EXIST CONCURRENTLY NON-HORIZONTAL DRILLING AND SPACING UNITS)