API NUMBER: 011 23799

Oil & Gas

Horizontal Hole

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

Approval Date: 05/10/2017
Expiration Date: 11/10/2017

PERMIT TO DRILL

EAST

WELL LOCATION:	Sec:	13	Twp:	14N	Rge:	12W	County	: BLA	INE	
SPOT LOCATION:	NW	SE	SE		SE		FEET FROM QUARTER:	FROM	SOUTH	FRO
							SECTION LINES:		450	

Lease Name: OLD BEAR WOMAN BIA Well No: 1-13H Well will be 395 feet from nearest unit or lease boundary.

Operator MARATHON OIL COMPANY Telephone: 7132962003 OTC/OCC Number: 1363 0 Name:

MARATHON OIL COMPANY 5555 SAN FELIPE ST

HOUSTON, TX 77056-2701

CONCHO AGENCY-HEIRS OLD BEAR WOMAN

P. O. BOX 68

EL RENO OK 73036

Formation(s) (Permit Valid for Listed Formations Only):

	name	Depth	Name	Depth
1	MISS'AN LM	12613 6		
2		7		
3		8		
4		9		
5		10		
Spacing Orders:	579985	Location Exception Orders:		Increased Density Orders:

Pending CD Numbers: 201702185 Special Orders:

Total Depth: 17535 Ground Elevation: 1616 **Surface Casing: 1500** Depth to base of Treatable Water-Bearing FM: 100

Under Federal Jurisdiction: Yes 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: 8000 Average: 5000

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 located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is BED AQUIFER

Pit Location Formation: MARLOW

E. Haul to Commercial pit facility: Sec. 31 Twn. 12N Rng. 8W Cnty. 17 Order No: 587498

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 located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C
Pit Location is BED AQUIFER
Pit Location Formation: MARLOW

## **HORIZONTAL HOLE 1**

Sec 13 Twp 14N Rge 12W County BLAINE NE Spot Location of End Point: NW NE NE Feet From: NORTH 1/4 Section Line: 150 Feet From: **EAST** 1/4 Section Line: 342

Depth of Deviation: 12151 Radius of Turn: 462

Direction: 1

Total Length: 4658

Measured Total Depth: 17535

True Vertical Depth: 12870

End Point Location from Lease,
Unit, or Property Line: 150

Notes:

Category Description

DEEP SURFACE CASING 5/4/2017 - 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 5/4/2017 - G71 - OCC 165:10-3-10 REQUIRES: 1) THE CHEMICAL DISCLOSURE OF HYDRAULIC

FRACTURING INGREDIENTS FOR ALL WELLS BE REPORTED TO FRACFOCUS USING THE FOLLOWING LINK HTTP://FRACFOCUS.ORG/ WITH NOTICE GIVEN 48 HOURS IN ADVANCE OF FRACTURING TO THE LOCAL OCC DISTRICT OFFICE; AND, 2) PRIOR TO COMMENCEMENT OF FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE ALSO GIVEN FIVE BUSINESS

DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME

COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE

INTERMEDIATE CASING 5/4/2017 - 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

MEMO 5/4/2017 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 -

OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

PENDING CD - 201702185 5/5/2017 - G60 - (I.O.) 13-14N-12W

X579985 MPLM

COMPL. INT. NCT 165' FNL, NCT 165' FSL, NCT 330' FEL

NO OP. NAMED REC. 5/8/17 (DUNN)

SPACING - 579985 5/5/2017 - G60 - (640) 13-14N-12W

EXT 107747 MPLM EXT OTHER

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA 6709 NORTH CLASSEN BLVD., OKLA CITY, OKLA. 73116 \* LOCAL (405) 843-4847 \* OUT OF STATE (800) 654-3219

Certificate of Authorization No. 1290 LS 3501123799 Lounty, Uklahoma 450'FSL - 395'FEL 13 Township 14N Range 12W I.M. Section \_\_ 34211 2294 X 1875546 Y 253727 X 1872910 1870258 LAST TAKE POINT 165 FNL - 342 FEL SECTION 13 NAD-27 N 35' 41' 45.0" W 98' 25' 13.0" N 35.695834923' W 98.420274314' X= 1875203 Y= 253.60 253704 ( BOTTOM HOLE @17640.01' MO 150'FNL - 342'FEL SECTION 13 NAD - 27 35'41'45.2"N 98'25'13.0"W 98'25'13.0"W 11 11 PATH BEARINGS) 11 35.695876426°N = 253560 98.420273200'W X= 1875203 UPON GEODETIC Y= 253576 2485 RIZW PROPOSED QGR4A Q-N-1 PROPOSED DRILL PATH 714/ BASED UPON GEODETIC (BASED BEARINGS CST 1998 LANDING POINT @13069.58' MD 552'FSL-342'FEL X 1875534 Y 251092 1870254 251068 SECTION 13 NAD-27 35'41'00.0"N 98'25'13.0"W GRID KICK OFF POINT @12319.58' MD 75'FSL-342'FEL SECTION 13 NAD-27 NAD-27 OKLA. NORTH U.S. FEET 35.683327773'N 98.420273215'W Scole: 35°40'55.3"N 98°25'13.0"W 2185 1875183 249008 0 1000' 35.682016079°N 98.420273224'W X= 1875181 Y= 248530 REFERENCE STAKE 225' NORTH ELEV. 1623' REFERENCE 395 STAKE 300' EAST ELEV. 1610' PROPOSED PAD 2241'+ LANDING POINT X 1872887 450 248445 KICK OFF POINT X 1875523 Y 248457 X 1870251 Y 248433 -NOTE-BOTTOM HOLE, LANDING POINT, KICK OFF POINT, LAST TAKE POINT AND DRILL PATH INFORMATION PROVIDED BY The information shown herein is for construction purposes ONLY. OPERATOR LISTED, NOT SURVEYED. Operator: MARATHON OIL COMPANY **ELEVATION:** Lease Name: OLD BEAR WOMAN BIA Well No.: 1-13H 1616' Gr. at Stake Topography & Vegetation Location fell in terraced pasture and brush. Reference Stakes Set 225' N. - Elev. 1623' & 300' E. - Elev. 1610' from Turtle Woman BIA 1-18H Good Drill Site? Yes Best Accessibility to Location From county road east of well location. Distance & Direction from Hwy Jct or Town From Geory, Ok., go ±0.5 miles North, then ±5.7 miles West, then ±3 miles North to the Southeast Corner of Section 13, T14N - R12W. Was approximately May 02, 2017 Date of Drawing: \_ Invoice # 275751 Date Staked: JGW NAD-27July 22, 2016 LAT: 35'40'59.0"N LONG: 98'25'13.6"W **CERTIFICATE:** 

LAT: 35'40'59.0"N
LONG: 98'25'13.6"W
LAT: 35.683044974'N
LONG: 98.420452010'W
STATE PLANE
COORDINATES: (US Feet)
ZONE: OK NORTH
X: 1875130

248905

I. Thomas L. Howell an Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma do hereby certify to the information shown herein.

Oklahoma Reg. No. 1433

