

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

API NUMBER: 017 24962

Approval Date: 12/13/2016  
Expiration Date: 06/13/2017

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 20 Twp: 14N Rge: 7W County: CANADIAN  
SPOT LOCATION:  N2  NE  NW  NW FEET FROM QUARTER: FROM NORTH FROM WEST  
SECTION LINES: 265 990

Lease Name: BRODERSON 1407 Well No: 1-20MH Well will be 265 feet from nearest unit or lease boundary.  
Operator Name: MARATHON OIL COMPANY Telephone: 7132962003 OTC/OCC Number: 1363 0

MARATHON OIL COMPANY  
5555 SAN FELIPE ST  
HOUSTON, TX 77056-2701

ALLEN A. BRODERSON  
16260 N. COUNTRY CLUB ROAD  
OKARCHE OK 73762

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

Name	Depth	Name	Depth
1	MISSISSIPPIAN	9100	6
2			7
3			8
4			9
5			10

Spacing Orders: 638343

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201605002  
201605878

Special Orders:

Total Depth: 14253

Ground Elevation: 1231

**Surface Casing: 1500**

Depth to base of Treatable Water-Bearing FM: 320

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? 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

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

H. SEE MEMO

This permit does not address the right of entry or settlement of surface damages.

The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.

Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

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 20 Twp 14N Rge 7W County CANADIAN

Spot Location of End Point: S2 SW SW SW

Feet From: SOUTH 1/4 Section Line: 50

Feet From: WEST 1/4 Section Line: 330

Depth of Deviation: 8638

Radius of Turn: 750

Direction: 185

Total Length: 4437

Measured Total Depth: 14253

True Vertical Depth: 9368

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

Notes:

Category

Description

DEEP SURFACE CASING

12/1/2016 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR SURFACE CASING

HYDRAULIC FRACTURING

12/1/2016 - 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/](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.

MEMO

12/1/2016 - G71 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST; PIT 2 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT

PENDING CD - 201605002

12/2/2016 - G75 - (E.O.) 20-14N-7W  
X638343 MSSP  
COMPL. INT. NCT 165' FNL, NCT 165' FSL, NCT 330' FWL  
MARATHON OIL CO.  
REC 12-12-2016 (DECKER)

PENDING CD - 201605878

12/13/2016 - G75 - AMD 638343 TO VAC 130883 MISS W2, SE4 & COEXIST 130883 MISS NE4  
HEARING 1-9-2017 (OK'D PER MCCOY)

This permit does not address the right of entry or settlement of surface damages.

The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.

Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

017 24962 BRODERSON 1407 1-20MH

Category

Description

SPACING - 638343

12/2/2016 - G75 - (640)(HOR) 20-14N-7W  
VAC OTHER  
VAC 138432/139327 MCSTR W2 & SE4  
VAC 130883 MISS  
EST MSSP, OTHERS  
COMPL. INT. NLT 660' FB  
(COEXIST SP. ORDER # 138432/139327 MCSTR NE4)

This permit does not address the right of entry or settlement of surface damages.  
The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.  
Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

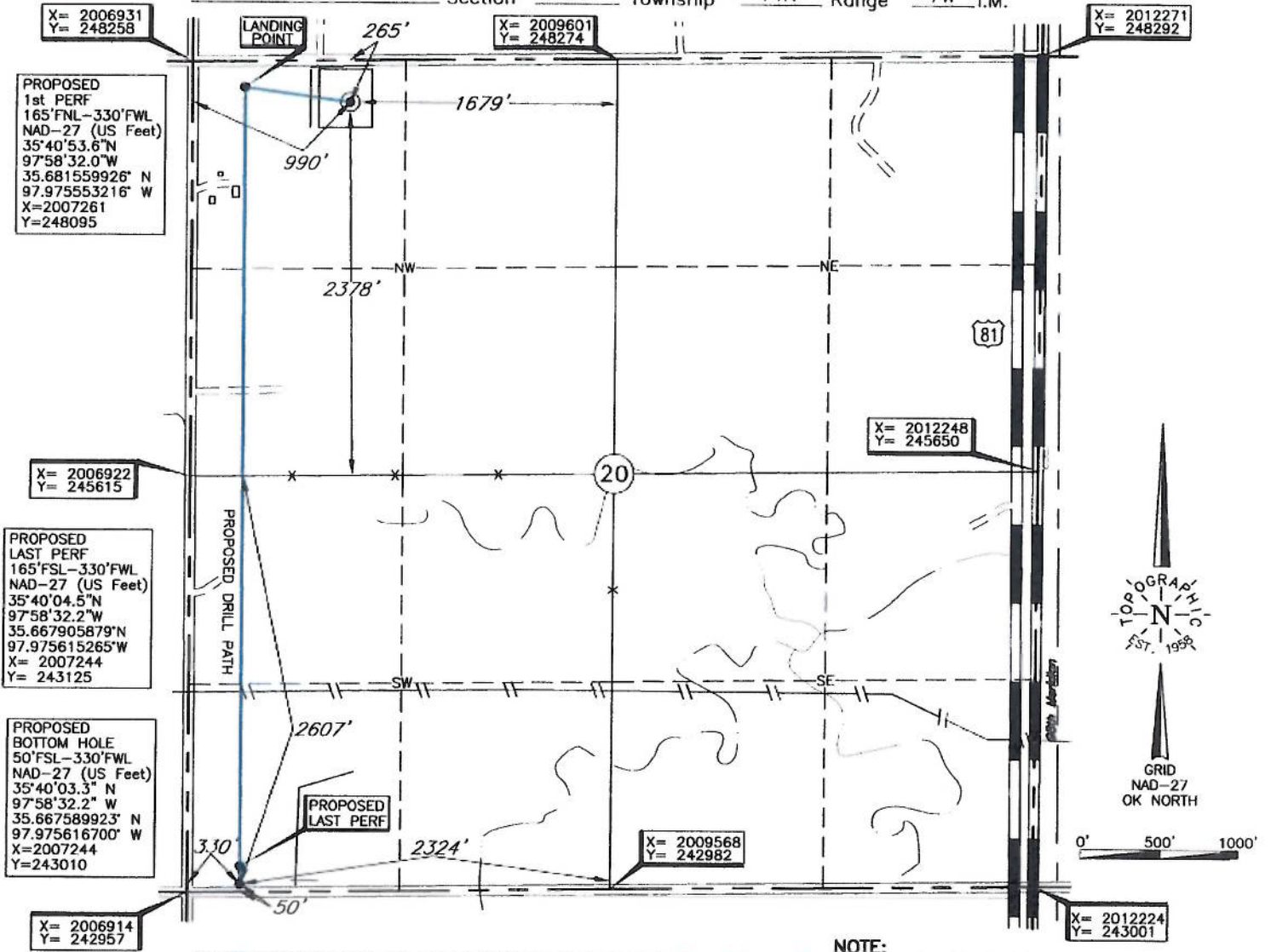
**TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA**

6709 NORTH CLASSEN BLVD., OKLA. CITY, OKLA. 73116 \* LOCAL (405) 843-4847 \* OUT OF STATE (800) 654-3219  
 Certificate of Authorization No. 1293 LS

CANADIAN

County, Oklahoma

265'FNL - 990'FWL Section 20 Township 14N Range 7W I.M.



1ST PERF, LAST PERF, BOTTOM HOLE AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED.

**NOTE:**  
 The information shown herein is for construction purposes ONLY.

Operator: MARATHON OIL COMPANY

Lease Name: BRODERSON 1407

Well No.: 1-20MH

**ELEVATION:**

1231' Gr. at Stake NGVD29

Topography & Vegetation Loc. fell in wheat field; ±231' South of power line; ±224' South of water line

Good Drill Site? Yes Reference Stakes or Alternate Location  
 Stakes Set None

Best Accessibility to Location From North off county road

Distance & Direction  
 from Hwy Jct or Town From Jct. US Hwy. 81 and St. Hwy. 3 South of Kingfisher, OK, go ±0.75 mi. South on US Hwy. 81 to the NE Cor. of Sec. 20-T14N-R7W

Date of Drawing: Nov. 21, 2016

Invoice # 268061A Date Staked: Nov. 15, 2016

TR

This information was gathered with a GPS receiver with ±1 foot Horiz./Vert. accuracy.  
 DATUM: NAD-27  
 LAT: 35°40'52.7"N  
 LONG: 97°58'24.0"W  
 LAT: 35.681295205° N  
 LONG: 97.973332424° W  
 STATE PLANE  
 COORDINATES: (US Feet)  
 ZONE: OK NORTH  
 X: 2007921  
 Y: 247999

**CERTIFICATE:**

I, T. Wayne Fisch an Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the information shown herein

T. Wayne Fisch  
 Oklahoma Lic. No. 1378

