

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

API NUMBER: 017 25314

Approval Date: 11/09/2018

Expiration Date: 05/09/2020

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 11 Twp: 12N Rge: 9W

County: CANADIAN

SPOT LOCATION:

FEET FROM QUARTER: FROM NORTH FROM WEST

SECTION LINES: 300 275

Lease Name: MILLER

Well No: 1MH-11

Well will be 275 feet from nearest unit or lease boundary.

Operator Name: CASTELL OPERATING COMPANY LLC

Telephone: 8177172792

OTC/OCC Number: 24151 0

CASTELL OPERATING COMPANY LLC  
5128 APACHE PLUME RD #300  
FORT WORTH, TX 76109-1580

TRAVIS D. JACOBS  
P.O. BOX 113  
CALUMET OK 73014

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

Name	Depth	Name	Depth
1 MISSISSIPPI	11800	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 526447

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201802985  
201802986

Special Orders:

Total Depth: 16846

Ground Elevation: 1497

**Surface Casing: 1500**

Depth to base of Treatable Water-Bearing FM: 280

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: 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

C. Annular Injection -- (REQUIRES PERMIT and surface casing set 200 feet below base of treatable water-bearing formation.)

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 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 11 Twp 12N Rge 9W County CANADIAN

Spot Location of End Point: SE SW SW SW

Feet From: SOUTH 1/4 Section Line: 1

Feet From: WEST 1/4 Section Line: 380

Depth of Deviation: 11203

Radius of Turn: 637

Direction: 178

Total Length: 4643

Measured Total Depth: 16846

True Vertical Depth: 11840

End Point Location from Lease,  
Unit, or Property Line: 1

### Notes:

#### Category

#### Description

DEEP SURFACE CASING

11/2/2018 - 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

11/2/2018 - 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](http://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](http://FRACFOCUS.ORG)

MEMO

11/2/2018 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

PENDING CD - 201802985

11/6/2018 - G56 - 11-12N-9W  
X526447 MISS  
1 WELL  
NO OP NAMED  
REC 10/18/2018 (JACKSON)

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

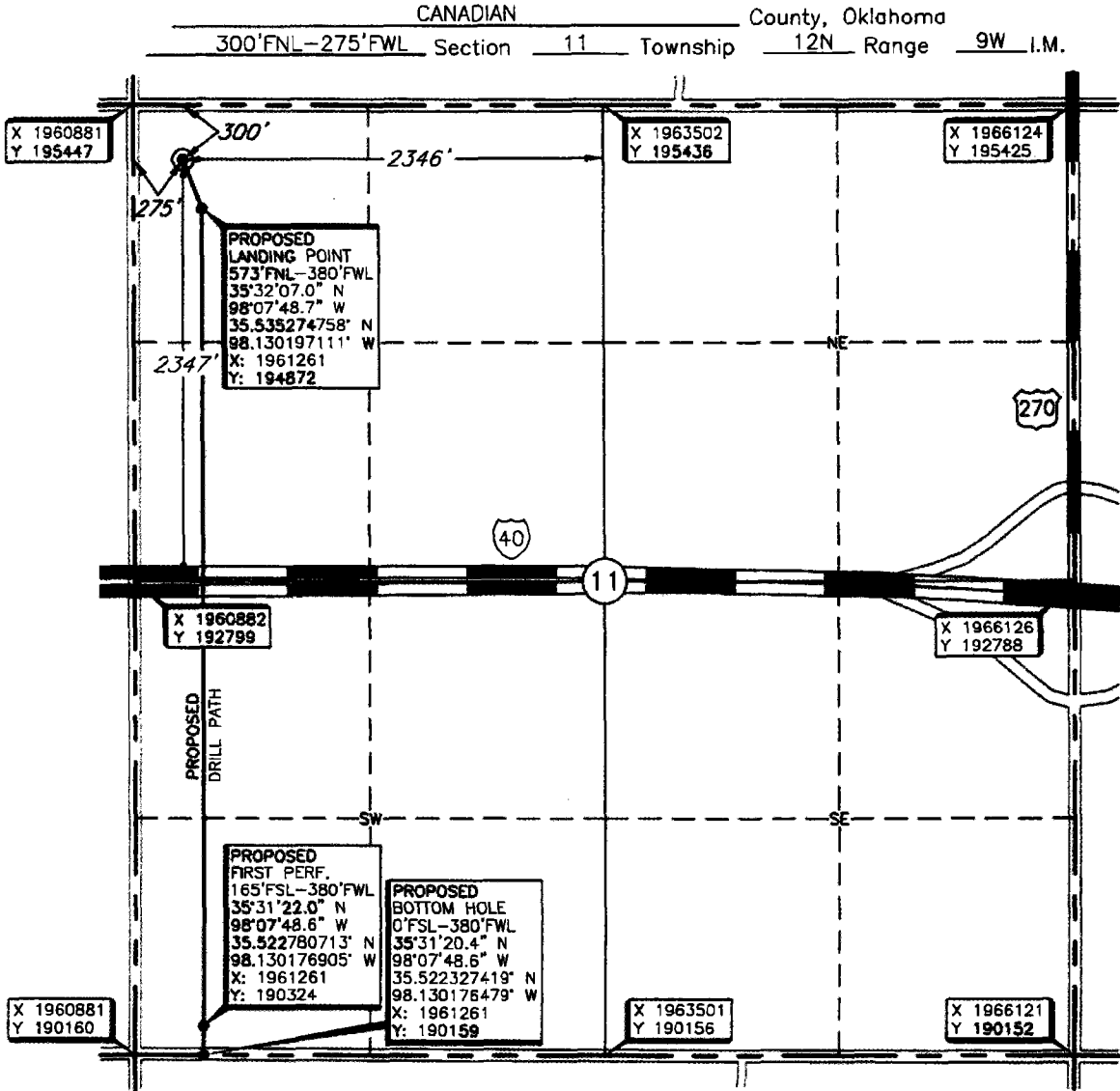
The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.

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 25314 MILLER 1MH-11

Category	Description
PENDING CD - 201802986	11/6/2018 - G56 - (I.O.) 11-12N-9W X526447 MISS COMPL INT NCT 165' FNL, NCT 165' FSL, NCT 300' FWL NO OP NAMED REC 10/18/2018 (JACKSON)
SPACING - 526447	11/6/2018 - G56 - (640) 11-12N-9W EXT 204198 MISS, OTHERS

**TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA**  
13800 WIRELESS WAY, OKLA. CITY, OKLA. 73134 • LOCAL (405) 843-4847 • OUT OF STATE (800) 654-3219  
Certificate of Authorization No. 1293 LS



LANDING POINT, FIRST PERF., BOTTOM HOLE,  
AND DRILL PATH INFORMATION PROVIDED BY  
OPERATOR LISTED, NOT SURVEYED.

THE INFORMATION SHOWN HEREIN IS  
FOR CONSTRUCTION PURPOSES ONLY.

Operator: CASTELL OIL COMPANY, LLC.  
Lease Name: MILLER

Well No.: 1MH-11

**ELEVATION:**  
1497' Gr. at Stake

Topography & Vegetation Location fell in wheat field with terraces

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

Best Accessibility to Location From West off county road

Distance & Direction From the junction of I-40 & US Hwy 270, go ±1 mile West on I-40, then ±0.5 mile North to the Northwest Corner of Section 11, T12N-R9W.

DATUM: NAD-27  
LAT: 35°32'09.7" N  
LONG: 98°07'50.0" W  
LAT: 35.536025621° N  
LONG: 98.130551779° W  
STATE PLANE  
COORDINATES (US FEET):  
ZONE: OK NORTH  
X: 1961156  
Y: 195146

Date of Drawing: Oct. 16, 2018  
Invoice # 304747 Date Staked: Oct. 11, 2018 NB

**CERTIFICATE:**

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.

Thomas L. Howell  
Oklahoma Reg. No. 1433

