

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

API NUMBER: 093 25240

Approval Date: 11/25/2019

Expiration Date: 05/25/2021

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 13 Twp: 20N Rge: 15W

County: MAJOR

SPOT LOCATION:

FEET FROM QUARTER: FROM NORTH FROM EAST

SECTION LINES: 510 1980

Lease Name: GEORGE

Well No: 13-12-1H

Well will be 510 feet from nearest unit or lease boundary.

Operator Name: COMANCHE EXPLORATION CO LLC

Telephone: 4057555900

OTC/OCC Number: 20631 0

COMANCHE EXPLORATION CO LLC
6520 N WESTERN AVE STE 300
OKLAHOMA CITY, OK 73116-7334

GEORGE LOUIS WALTERS
19611 PINEY PLACE COURT
HOUSTON OK 77094

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

Name	Depth	Name	Depth
1 MISS'AN LM	8975	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 141045

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201904301
201904302

Special Orders:

Total Depth: 14321

Ground Elevation: 1779

Surface Casing: 800

Depth to base of Treatable Water-Bearing FM: 430

Deep surface casing has been approved

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: No

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 AP/TE DEPOSIT

Pit Location Formation: TERRACE

D. One time land application -- (REQUIRES PERMIT)

PERMIT NO: 19-37089

H. SEE MEMO

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

The duration of this permit is 18 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 AP/TE DEPOSIT

Pit Location Formation: TERRACE

HORIZONTAL HOLE 1

Sec 12 Twp 20N Rge 15W County MAJOR

Spot Location of End Point: N2 N2 NE NW

Feet From: NORTH 1/4 Section Line: 135

Feet From: EAST 1/4 Section Line: 1980

Depth of Deviation: 8450

Radius of Turn: 427

Direction: 360

Total Length: 5200

Measured Total Depth: 14321

True Vertical Depth: 9100

End Point Location from Lease,
Unit, or Property Line: 135

Notes:

Category

Description

DEEP SURFACE CASING

11/13/2019 - GC2 - 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

11/13/2019 - GC2 - 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

INTERMEDIATE CASING

11/13/2019 - GC2 - 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

11/13/2019 - GC2 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

PENDING CD - 201904301

11/25/2019 - GC2 - 12-20N-15W
X141045 MPLM
1 WELL
NO OP. NAMED
REC. 10-30-2019 (DENTON)

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

093 25240 GEORGE 13-12-1H

The duration of this permit is 18 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.

PENDING CD - 201904302

11/25/2019 - GC2 - (I.O.) 12-20N-15W
X141045 MPLM
COMPL. INT. NCT 165' FNL, NCT 165' FSL, NCT 560' FEL
NO OP. NAMED
REC. 10-30-2019 (DENTON)

SPACING - 141045

11/25/2019 - GC2 - (640) 12-20N-15W
EXT 125423 MPLM
EXT OTHER

This permit does not address the right of entry or settlement of surface damages.
The duration of this permit is 18 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.

API: 093-25240

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

13800 Wireless Way, Okla. City, OK. 73134 • LOCAL (405) 843-4847 • OUT OF STATE (800) 654-3219
Certificate of Authorization No. 1293 LS

MAJOR

County, Oklahoma

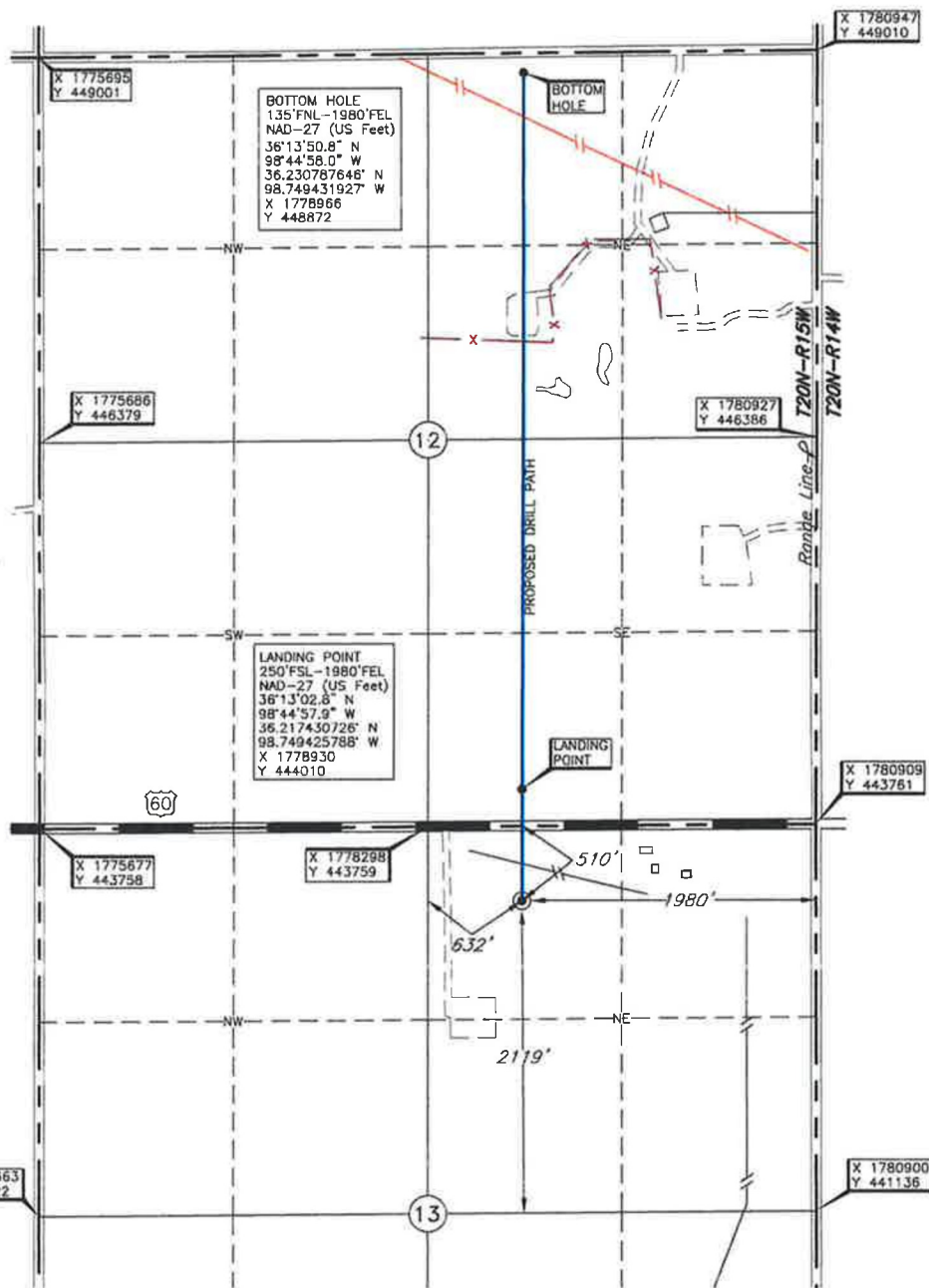
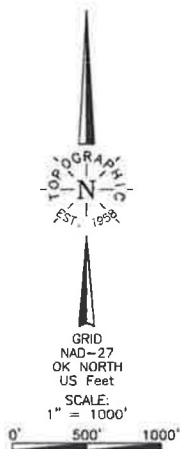
510'FNL-1980'FEL

Section 13

Township 20N

Range 15W

I.M.

LANDING POINT, BOTTOM HOLE, AND DRILL PATH INFORMATION
PROVIDED BY OPERATOR LISTED, NOT SURVEYED.THE INFORMATION SHOWN HEREIN IS
FOR CONSTRUCTION PURPOSES ONLY.Operator: COMANCHE EXPLORATION CO, LLCLease Name: GEORGEWell No.: 13-12-1H

ELEVATION:

1779' Gr. at StakeTopography & Vegetation Location fell in grass rolling grass pasture, sand hills; ±246' SW of NW-SE pipelineGood Drill Site? YesReference Stakes or Alternate Location
Stakes Set NoneBest Accessibility to Location From North off US. Hwy. 60

Distance & Direction

from Hwy Jct or Town From Chester, Okla., go ±10 miles East to the NE Cor. of Sec.13-T20N-R15W

This information was gathered with a GPS receiver with ±1 foot horiz./vert. accuracy

DATUM: NAD-27
LAT: 36°12'55.2"N
LONG: 98°44'57.9"W
LAT: 36.215342757° N
LONG: 98.749417537° W
STATE PLANE
COORDINATES: (US Feet)
ZONE: OK NORTH
X: 1778927
Y: 443250

Project # 128581 Date of Drawing: Aug. 01, 2019
Date Staked: July 31, 2019

LC

CERTIFICATE:

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

Oklahoma Lic. No. 1433