

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

APPL NUMBER: 093 25260

Approval Date: 09/09/2021
Expiration Date: 03/09/2023

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Section: 16 Township: 20N Range: 14W County: MAJOR

SPOT LOCATION: ☐ ☐ SW ☐ SW ☐ SW FEET FROM QUARTER: FROM SOUTH FROM WEST
SECTION LINES: 278 200

Lease Name: OKLAHOMA Well No: 16-20-1JH Well will be 200 feet from nearest pit or lease boundary.
Operator Name: COMANCHE EXPLORATION CO LLC Telephone: 4057555900 OTC/OC Number: 20631 0

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

COMMISSIONERS OF THE LAND OFFICE
204 N ROBINSON
SUITE 900
OKLAHOMA CITY OK 73102

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

Name	Code	Depth
1 MISSISSIPPIAN	359MSSP	7928

Spacing Orders: 712921

Location Exception Orders: No Exception

Increased Density Orders: No Density

Pending CD Numbers: 202000481

Working Interest owners' notified: ***

Special Orders: No Special

Total Depth: 14265 Ground Elevation: 1756

Surface Casing: 800

Depth to base of Treatable Water-Bearing FM: 400

Deep surface casing has been approved

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

Approved Method for disposal of Drilling Fluids:

One time land application -- (REQUIRES PERMIT)

PERMIT NO: 21-37756

H. (Other)

SEE MEMO

PIT 1 INFORMATION

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

Cancel Per Operator Request
CKL 3/18/2022

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

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.

HORIZONTAL HOLE 1

Section: 20	Township: 20N	Range: 14W	Meridian: IM	Total Length: 5413
	County: MAJOR			Measured Total Depth: 14265
Spot Location of End Point: SW	SE	SE	SE	True Vertical Depth: 8947
Feet From: SOUTH		1/4 Section Line: 135		End Point Location from
Feet From: EAST		1/4 Section Line: 360		Lease, Unit, or Property Line: 135

NOTES:

Category	Description
DEEP SURFACE CASING	[8/17/2021 - 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	<p>[8/17/2021 - GC2] - OCC 165:10-3-10 REQUIRES:</p> <p>1) NOTICE SHALL BE GIVEN AT LEAST 5 BUSINESS DAYS PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS ON A HORIZONTAL WELL TO OPERATORS PRODUCING WELLS WITHIN 1 MILE OF THE COMPLETION INTERVAL OF THE SUBJECT WELL. THE NOTICE TO SUCH OPERATORS SHALL CONTAIN THE INFORMATION IN FORM 6000NOO. IF THE HYDRAULIC FRACTURING OPERATIONS SCHEDULE CHANGES AFTER NOTICE HAS BEEN PROVIDED, RESULTING IN A DELAY OF OPERATIONS OF MORE THAN 5 DAYS FROM THE INITIAL NOTICE, NEW NOTICE IS REQUIRED TO BE GIVEN;</p> <p>2) NOTICE WILL BE GIVEN TO THE OCC CENTRAL OFFICE AND LOCAL DISTRICT OFFICES AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS. FORM 6000NHF SHALL BE USED AND IS FOUND AT THIS LINK: OCCEWEB.COM/OG/OGFORMS.HTML; AND,</p> <p>3) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS IS TO BE REPORTED TO FRACFOCUS WITHIN 60 DAYS AFTER THE CONCLUSION OF HYDRAULIC FRACTURING OPERATIONS, FOUND AT FRACFOCUS.ORG</p>
INTERMEDIATE CASING	[8/20/2021 - 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	[8/17/2021 - GC2] - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT
NPT	[8/23/2021 - GB1] - NPT TO CORRECT PARAGRAPH 7 OF #712921 TO MENTION COEXIST W/ #160754 MSSLM, CSTR; DRAFT SUBMITTED AND REVIEWED BY BOB MCCOY 9/9/21
PENDING CD - 202000481	<p>[8/23/2021 - GB1] - (I.O.) 20-20N-14W</p> <p>X712921 MSSP</p> <p>COMPL. INT. NCT 165' FNL, NCT 165' FSL, NCT 330' FEL</p> <p>NO OP NAMED</p> <p>REC 8/24/21 (HUBER)</p>
SPACING - 712921	<p>[8/23/2021 - GB1] - (640)(HOR) 20-20N-14W</p> <p>EST MSSP</p> <p>COMPL INT NLT 660' FB</p> <p>*** NPT WILL BE FILED TO MENTION (COEXIST SP # 160754 MSSLM, CSTR) IN ORDER SECTION PER ATTORNEY FOR OPR</p>



SCALE: 1" = 2000'
0' 1000' 2000'

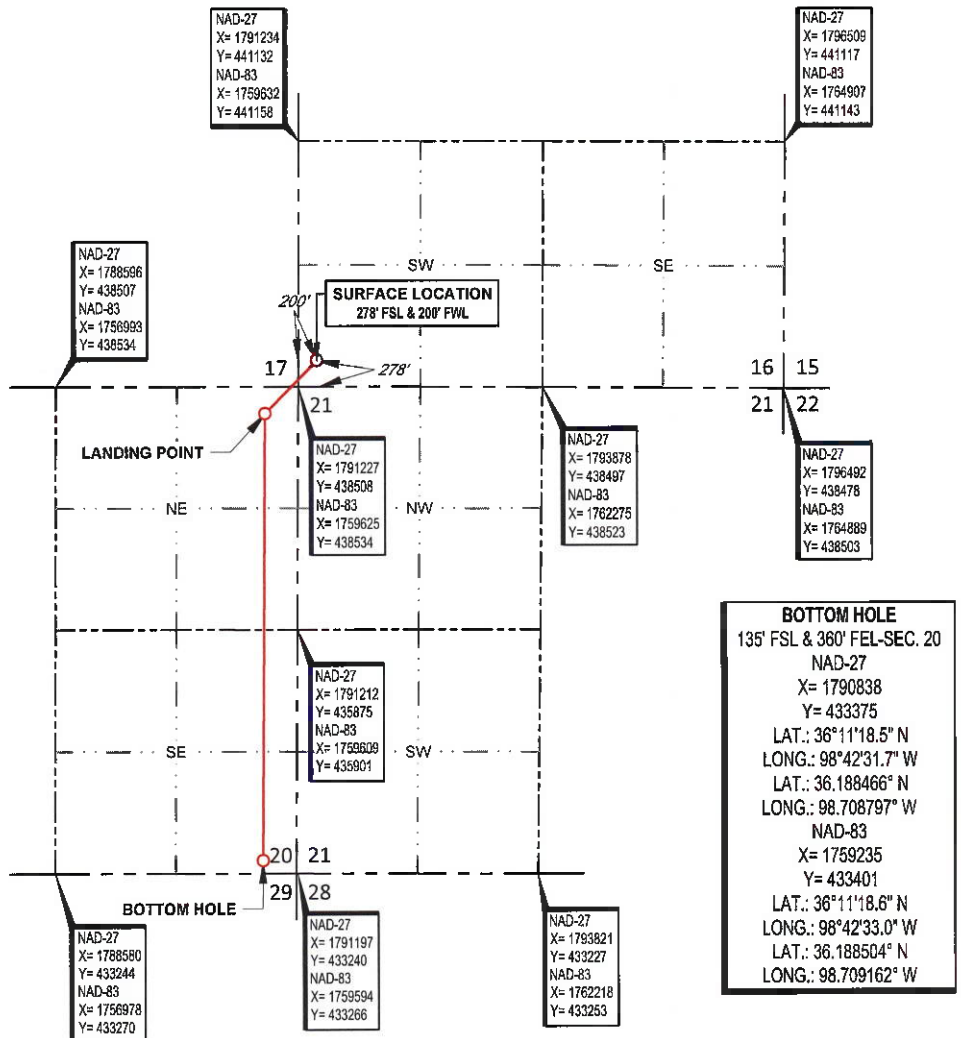
WELL LOCATION
OKLAHOMA 16-20-1JH
COMANCHE EXPLORATION CO. LLC.
SECTION 16, TOWNSHIP 20N, RANGE 14W, I.M.
MAJOR COUNTY, OKLAHOMA

LEGEND

--- SECTION LINE
--- QUARTER SECTION LINE
--- 16TH LINE
--- PROPOSED WELL BORE

SURFACE LOCATION
278' FSL & 200' FWL-SEC. 16
NAD-27
X= 1791428
Y= 438785
LAT.: 36°12'12.0" N
LONG.: 98°42'24.9" W
LAT.: 36.203338° N
LONG.: 98.706930° W
ELEV.: 1756' (NGVD29)
NAD-83
X= 1759825
Y= 438811
LAT.: 36°12'12.2" N
LONG.: 98°42'26.3" W
LAT.: 36.203376° N
LONG.: 98.707295° W
ELEV.: 1756' (NAVD88)

LANDING POINT
300' FNL & 360' FEL-SEC. 20
NAD-27
X= 1790865
Y= 438208
LAT.: 36°12'06.3" N
LONG.: 98°42'31.8" W
LAT.: 36.201742° N
LONG.: 98.708823° W
NAD-83
X= 1759263
Y= 438234
LAT.: 36°12'06.4" N
LONG.: 98°42'33.1" W
LAT.: 36.201780° N
LONG.: 98.709188° W



SURVEYOR'S CERTIFICATE:

I, DAN W. ROGERS, AN OKLAHOMA LICENSED LAND SURVEYOR AND AN AUTHORIZED AGENT OF TOPOGRAPHIC LAND SURVEYORS, DO HEREBY CERTIFY TO THE INFORMATION SHOWN HEREIN.

DAN W. ROGERS, P.L.S. No. 1200
Authorized Agent of Topographic Land Surveyors

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
13800 WIRELESS WAY • OKLAHOMA CITY, OKLAHOMA 73134
TELEPHONE: (405) 843-4847 OR (800) 654-3219
CERTIFICATE OF AUTHORIZATION NO. 1292 LS
WWW.TOPOGRAPHIC.COM

LEASE NAME & WELL NO. OKLAHOMA 16-20-1JH
SECTION 16 TWP 20N RGE 14W MERIDIAN I.M.
COUNTY MAJOR STATE OKLAHOMA
DESCRIPTION 278' FSL & 200' FWL

OKLAHOMA 16-20-1JH	REVISION:		NOTES:
	INT	DATE	
DATE: 07/30/2021			1. ORIGINAL DOCUMENT SIZE: 8.5" X 14" 2. ALL BEARINGS SHOWN HEREON ARE GRID OKLAHOMA COORDINATE SYSTEM OF 1983 NORTH ZONE ACCORDING TO THE RESULT OF STATIC GPS OBSERVATION PROCESSED THROUGH OPUS ON THE CONTROL POINT OCCUPIED WHILE MEASURING SAID LINES, OPUS RESULTS ARE CORRELATED TO OKLAHOMA COORDINATE SYSTEM THROUGH NORTH ZONE AND THE NORTH AMERICAN VERTICAL DATUM OF 1988. 3. OKLAHOMA COORDINATE SYSTEM OF 1927 AND NATIONAL GEOGRAPHIC VERTICAL DATUM OF 1929 INFORMATION CONVERTED FROM OKLAHOMA COORDINATE SYSTEM OF 1983 AND NORTH AMERICAN VERTICAL DATUM OF 1988. 4. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT LOCATION IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY COMANCHE EXPLORATION CO. LLC. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN ADJOINING THIS EASEMENT LOCATION, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY. 5. THE INFORMATION SHOWN HEREIN IS FOR CONSTRUCTION PURPOSES ONLY.
FILE:LO_OKLAHOMA_16-20-1JH			
DRAWN BY: KEU			
SHEET: 1 OF 2			