

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

API NUMBER: 051 24126

Approval Date: 04/12/2017

Expiration Date: 10/12/2017

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 10 Twp: 10N Rge: 8W

County: GRADY

SPOT LOCATION: NW NW NW NW

FEET FROM QUARTER: FROM NORTH FROM WEST

SECTION LINES: 225 175

Lease Name: WILLARD

Well No: 1-9H

Well will be 175 feet from nearest unit or lease boundary.

Operator Name: CIMAREX ENERGY CO

Telephone: 9185851100

OTC/OCC Number: 21194 0

CIMAREX ENERGY CO
202 S CHEYENNE AVE STE 1000
TULSA, OK 74103-3001

JW & NANCY BARBER
417 COUNTY ROAD 1140
MINCO OK 73059

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

	Name	Depth	Name	Depth
1	MISSISSIPPI LIME	12033	6	
2	WOODFORD	12306	7	
3	HUNTON	12439	8	
4			9	
5			10	

Spacing Orders: 561042
98732
101031
107705

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201701390

Special Orders:

Total Depth: 17511

Ground Elevation: 1387

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 240

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: 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: DOG CREEK

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

PERMIT NO: 17-32247

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

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.

HORIZONTAL HOLE 1

Sec 09 Twp 10N Rge 8W County GRADY

Spot Location of End Point: SE SW SW SW

Feet From: NORTH 1/4 Section Line: 165

Feet From: EAST 1/4 Section Line: 380

Depth of Deviation: 11882

Radius of Turn: 488

Direction: 183

Total Length: 4862

Measured Total Depth: 17511

True Vertical Depth: 12439

End Point Location from Lease,
Unit, or Property Line: 165

Notes:

Category	Description
DEEP SURFACE CASING	4/11/2017 - 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	4/11/2017 - 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
PENDING CD - 201701387	4/12/2017 - G60 - (I.O.) 9-10N-8W X101031 HNTN X561042 WDFD X98732/107705 MSSLM COMPL. INT. NCT 150' FNL, NCT 150' FSL, NCT 330' FEL NO OP. NAMED REC. 3/27/17 (MCKEOWN)
SPACING - 101031	4/12/2017 - G60 - (640) 10-10N-8W VAC 99107 HNTN, OTHERS EXT 82467/80664 HNTN OTHERS
SPACING - 107705	4/12/2017 - G60 - (640) 10-10N-8W CONFIRM 98732 MSSLM
SPACING - 561042	4/12/2017 - G60 - (640) 9-10N-8W EXT OTHERS EST WDFD
SPACING - 98732	4/12/2017 - G60 - (640) 10-10N-8W EST MSSLM, OTHERS

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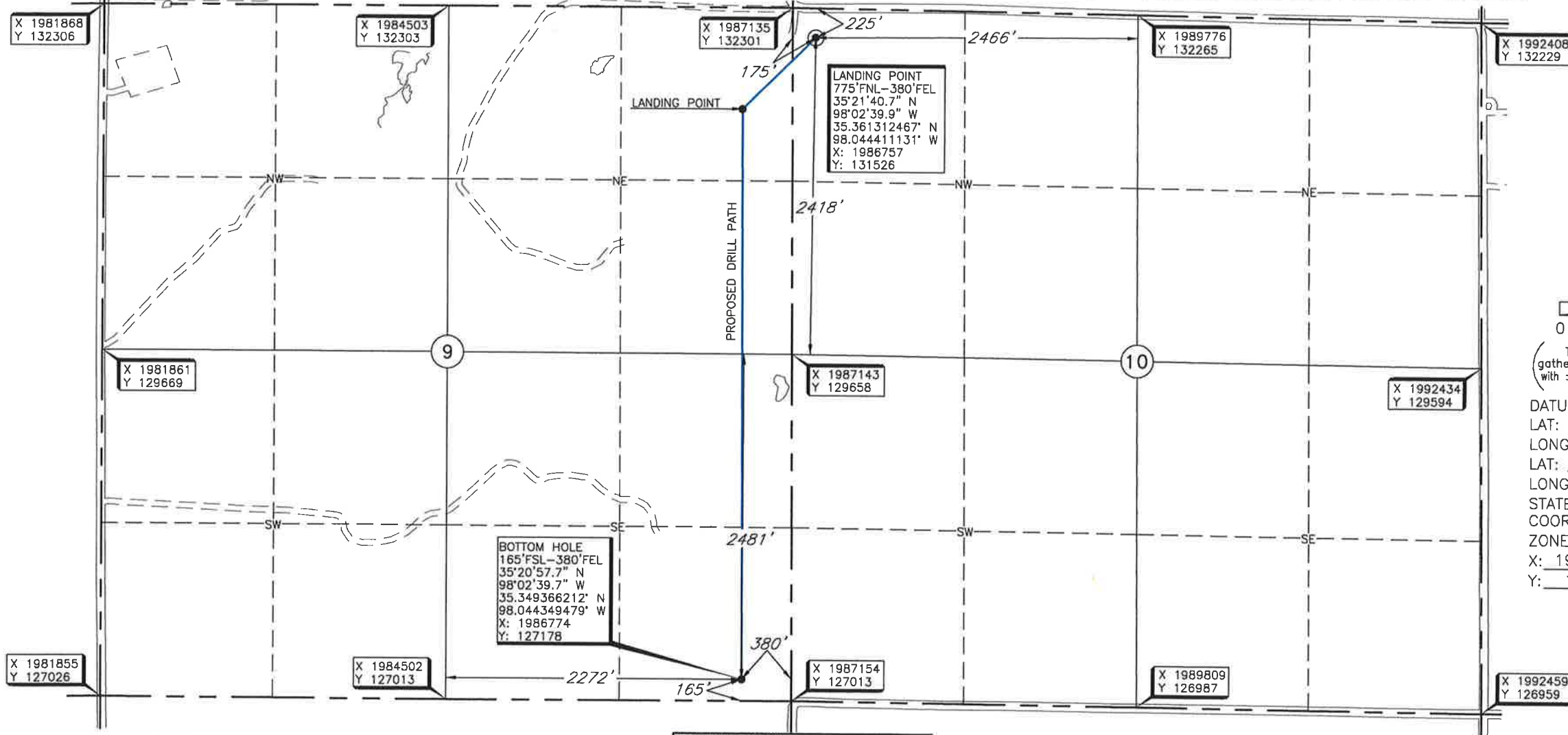
NOTE:

The information shown herein is for construction purposes ONLY.

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
GRADY

225'FNL - 175'FWL Section 10 Township 10N Range 8W I.M., County, Oklahoma

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



LANDING POINT
775'FNL-380'FEL
35°21'40.7" N
98°02'39.9" W
35.361312467' N
98.044411131' W
X: 1986757
Y: 131526

BOTTOM HOLE
165'FSL-380'FEL
35°20'57.7" N
98°02'39.7" W
35.349366212' N
98.044349479' W
X: 1986774
Y: 127178



GRID
NAD-27
OK NORTH
US FEET
Scale:
1" = 1000'



This information was gathered with a GPS receiver with ±1 foot Horiz./Vert. accuracy.

DATUM: NAD-27
LAT: 35°21'46.1"N
LONG: 98°02'33.2"W
LAT: 35.362816628° N
LONG: 98.042556934° W
STATE PLANE
COORDINATES (US FEET):
ZONE: OK NORTH
X: 1987310
Y: 132073

Operator: CIMAREX ENERGY CO.
Lease Name: WILLARD
Topography & Vegetation Location fell in rolling pasture with trees.

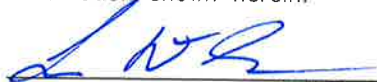
Well No.: 1-9H
ELEVATION:
1387' Gr. at Stake NGVD-29

Date Drawn: Feb. 10, 2017
Invoice # 269551A Date Staked: Feb. 02, 2017 JGW

Good Drill Site? Yes Reference Stakes or Alternate Location Stakes Set None
Best Accessibility to Location From County Road north of well location.
Distance & Direction from Hwy Jct or Town From the Jct. of U.S. Hwy. 81 & St. Hwy. 152 north of Minco, OK., go ±4.5 miles west on St. Hwy. 152-81, the north ±2.0 mile, then west ±1.0 miles to the Northwest Corner of Section 10, T10N-R8W.

CERTIFICATE:

I, Lee K. Goss an 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. 1778

