

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

API NUMBER: 017 25182

Approval Date: 02/26/2018
Expiration Date: 08/26/2018

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 32 Twp: 11N Rge: 7W County: CANADIAN
SPOT LOCATION: FEET FROM QUARTER: FROM NORTH FROM EAST
SECTION LINES: 330 1182

Lease Name: JD HOPPINS COTCH Well No: 1-32H Well will be 320 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

RAYMOND L. PAPPE TRUST
10120 S. SHARTEL DRIVE
OKLAHOMA CITY OK 73139

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

Name	Depth	Name	Depth
1 WOODFORD	11150	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: No Spacing

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201800975
201800977

Special Orders:

Total Depth: 15868 Ground Elevation: 1322 **Surface Casing: 1500** Depth to base of Treatable Water-Bearing FM: 350

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

PIT 1 INFORMATION

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

Approved Method for disposal of Drilling Fluids:

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-33939
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 32 Twp 11N Rge 7W County CANADIAN

Spot Location of End Point: SW SW SW SE

Feet From: SOUTH 1/4 Section Line: 150

Feet From: EAST 1/4 Section Line: 2320

Depth of Deviation: 10437

Radius of Turn: 382

Direction: 185

Total Length: 4831

Measured Total Depth: 15868

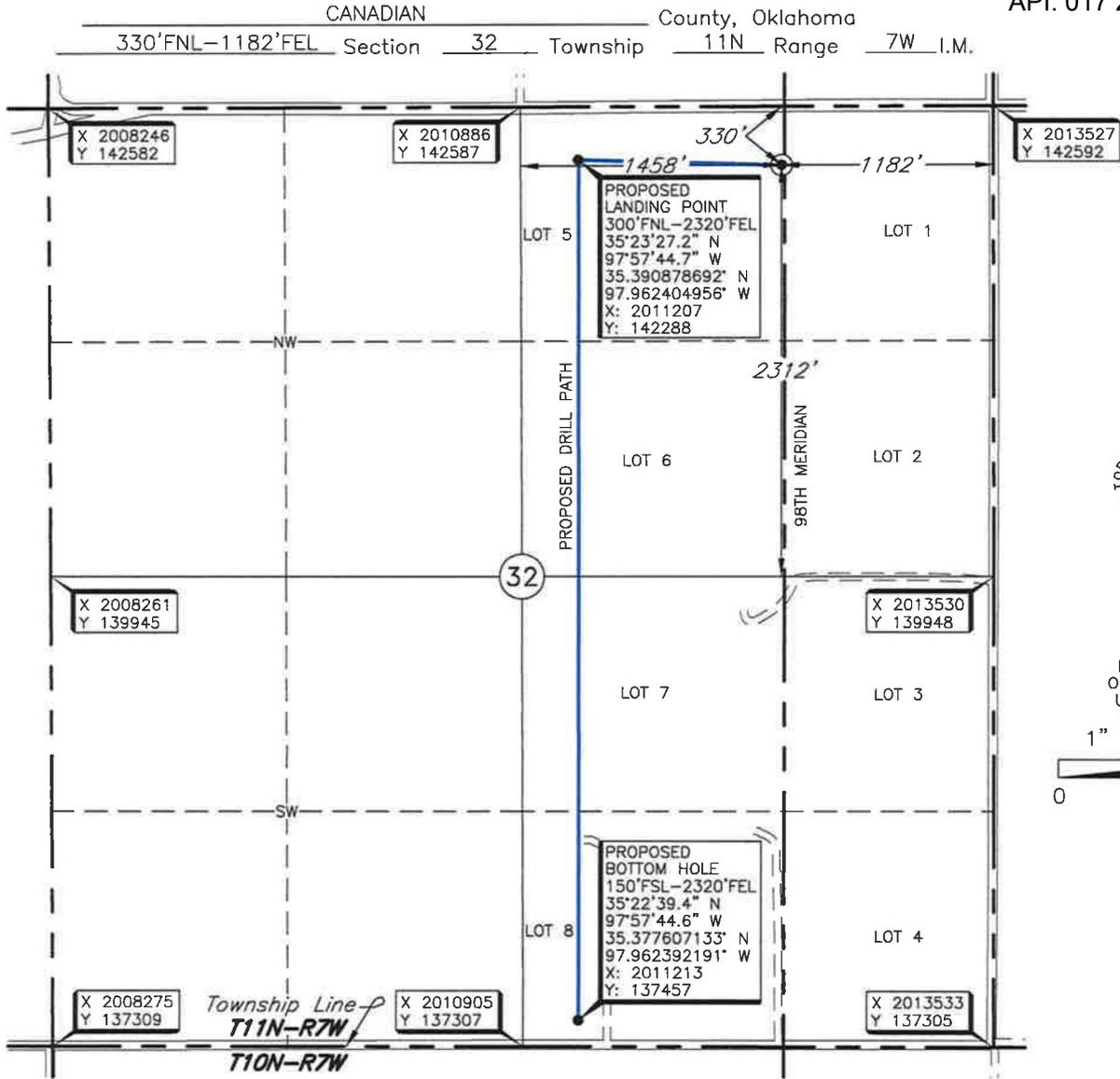
True Vertical Depth: 11203

End Point Location from Lease,
Unit, or Property Line: 330

Notes:

Category	Description
DEEP SURFACE CASING	2/26/2018 - 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	2/26/2018 - 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 ; 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
PENDING CD - 201800975	2/26/2018 - G57 - (640)(HOR) 32-11N-7W EST WDFD, OTHERS POE TO BHL NCT 165' FNL & FSL, NCT 330' FEL & FWL REC 2-20-2018 (JOHNSON)
PENDING CD - 201800977	2/26/2018 - G57 - (I.O.) 32-11N-7W X201800975 WDFD COMPL. INT. NCT 150' FNL, NCT 150' FSL, NCT 2200' FEL NO OP. NAMED REC 2-20-2018 (JOHNSON)

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Operator: CIMAREX ENERGY CO.
 Lease Name: JD HOPPINS COTCH

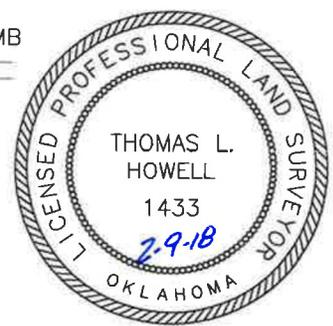
Well No.: 1-32H
ELEVATION:
1322' Gr. at Stake (NGVD 29)

Topography & Vegetation Loc. fell in wheat field
 Good Drill Site? Yes Reference Stakes or Alternate Location Stakes Set None
 Best Accessibility to Location From North off county road
 Distance & Direction From Union City, Oklahoma, go ± 1 mile West to the Northeast Corner of Section 32, T11N-R7W.

DATUM: NAD-27 Date of Drawing: Feb. 8, 2018
 LAT: 35°23'26.9" N Invoice # 288151A Date Staked: Feb. 5, 2018 NMB
 LONG: 97°57'30.9" W
 LAT: 35.390800721° N
 LONG: 97.958587207° W

STATE PLANE COORDINATES (US FEET):
 ZONE: OK NORTH
 X: 2012345
 Y: 142260

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



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