

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

API NUMBER: 011 24095

Approval Date: 10/04/2018
Expiration Date: 04/04/2020

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 35 Twp: 15N Rge: 12W County: BLAINE
SPOT LOCATION: SW SW SW SW FEET FROM QUARTER: FROM SOUTH FROM WEST
SECTION LINES: 300 320

Lease Name: VESSELS Well No: 2H-3526X Well will be 300 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

HOOD FAMILY TRUST
P.O. BOX 64
GREENFIELD OK 73034

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

Name	Depth	Name	Depth
1 MISSISSIPPIAN	10750	6	
2 MISSISSIPPI SOLID	11500	7	
3		8	
4		9	
5		10	

Spacing Orders: 641018
582115

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201806901
201806902
201806903
201806904

Special Orders:

Total Depth: 22015 Ground Elevation: 1634 **Surface Casing: 1500** Depth to base of Treatable Water-Bearing FM: 60

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: 10000 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: RUSH SPRINGS

Approved Method for disposal of Drilling Fluids:

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-35242
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 26 Twp 15N Rge 12W County BLAINE

Spot Location of End Point: N2 NW NW NW

Feet From: NORTH 1/4 Section Line: 150

Feet From: WEST 1/4 Section Line: 330

Depth of Deviation: 11575

Radius of Turn: 573

Direction: 1

Total Length: 9540

Measured Total Depth: 22015

True Vertical Depth: 12575

End Point Location from Lease,
Unit, or Property Line: 150

Notes:

Category

Description

DEEP SURFACE CASING

10/3/2018 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR SURFACE CASING

HYDRAULIC FRACTURING

10/3/2018 - 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

INTERMEDIATE CASING

10/3/2018 - G71 - 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

PENDING CD - 201806901

10/3/2018 - G75 - 35-15N-12W
X641018 MSSP
1 WELL
NO OP. NAMED
REC 9-25-2018 (NORRIS)

PENDING CD - 201806902

10/3/2018 - G75 - 26-15N-12W
X582115 MSSSD
1 WELL
NO OP. NAMED
REC 9-25-2018 (NORRIS)

PENDING CD - 201806903

10/3/2018 - G75 - (I.O.) 35 & 26-15N-12W
EST MULTIUNIT HORIZONTAL WELL
X641018 MSSP 35-15N-12W
X582115 MSSSD 35-15N-12W **
50% 35-15N-12W
50% 26-15N-12W
CIMAREX ENERGY CO.
REC 9-25-2018 (NORRIS)

** S/B X582115 MSSSD 26-15N-12W; TO BE CORRECTED IN ORDER SUBMITTED TO OCC FOR REVIEW PER ATTORNEY FOR OPERATOR

Category	Description
PENDING CD - 201806904	<p>10/3/2018 - G75 - (I.O.) 35 & 26-15N-12W X641018 MSSP 35-15N-12W X582115 MSSSD 35-15N-12W ** COMPL. INT. (35-15N-12W) NCT 150' FSL, NCT 0' FNL, NCT 330' FWL COMPL. INT. (26-15N-12W) NCT 0' FSL, NCT 150' FNL, NCT 330' FWL NO OP. NAMED REC 9-25-2018 (NORRIS)</p> <p>** S/B X582115 MSSSD 26-15N-12W; TO BE CORRECTED IN ORDER SUBMITTED TO OCC FOR REVIEW PER ATTORNEY FOR OPERATOR</p>
SPACING - 582115	<p>10/3/2018 - G75 - (640) 26-15N-12W EXT OTHERS EST MSSSD, OTHERS</p>
SPACING - 641018	<p>10/3/2018 - G75 - (640) 35-15N-12W VAC 117120 CSTR, MPLM EXT OTHER EST MSSP</p>

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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.

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

13800 Wireless Way, Okla. City, OK, 73134 (405) 843-4847 * OUT OF STATE (800) 654-3219

Certificate of Authorization No. 1293 LS

API 011-24095

BLAINE

County, Oklahoma

300'FSL - 320'FWL Section 35 Township 15N Range 12W I.M.

X 1870402
Y 274825

X 1865115
Y 274826

X 1867758
Y 274825

BOTTOM HOLE
150'FNL-330'FWL
NAD-27 (US Feet)
35°45'13.4" N
98°27'12.5" W
35.753722108" N
98.453469399" W
X=1865444
Y=274676

X 1865100
Y 272191

X 1870380
Y 272190

X 1865085
Y 269556

X 1867718
Y 269551

X 1870352
Y 269546

X 1870342
Y 266900

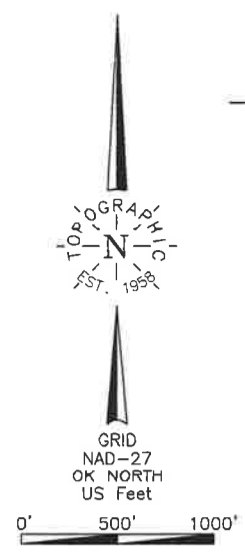
X 1865069
Y 266921

LANDING POINT
850'FSL-330'FWL
NAD-27 (US Feet)
35°43'39.0"N
98°27'12.6"W
35.727512917"N
98.453506039"W
X= 1865389
Y= 265136

X 1865054
Y 264286

X 1867684
Y 264283

X 1870332
Y 264280



Operator: CIMAREX ENERGY CO.
 Lease Name: VESSELS
 Topography & Vegetation: Loc. fell in pasture, pond South of stake
 Well No.: 2H-3526X
ELEVATION: 1634' Gr. at Stake NGVD29
 Reference Stakes or Alternate Location: None
 Good Drill Site? Yes
 Stakes Set None
 Best Accessibility to Location: From South off county road
 Distance & Direction from Hwy Jct or Town: From Jct. St. Hwy. 33 & US Hwy. 281 at Watonga, Ok, go ±7.5 mi. South on US Hwy. 281, then ±1.5 mi. West, then ±0.5 mi. South, then ±2.0 mi. West to the SW Cor. of Sec. 35-T15N-R12W

NOTE:
The information shown herein is for construction purposes ONLY.

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

DATUM: NAD-27
 LAT: 35°43'33.6"N
 LONG: 98°27'12.8"W
 STATE PLANE COORDINATES: (US Feet)
 ZONE: OK NORTH
 X: 1865376
 Y: 264586

Date of Drawing: Sept. 4, 2018
 Invoice # 301320 Date Staked: Aug. 27, 2018 AC/TR

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 Lic. No. 1433

