

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

API NUMBER: 017 24953

Approval Date: 12/08/2016  
Expiration Date: 06/08/2017

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 34 Twp: 13N Rge: 9W

County: CANADIAN

SPOT LOCATION:  SE  NW  NW  NW

FEET FROM QUARTER: FROM NORTH FROM WEST

SECTION LINES: 480 360

Lease Name: CLYDE

Well No: 2-34H

Well will be 360 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

DAN WEDMAN  
3445 NORTH REDROCK ROAD  
CALUMET OK 73014

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	11670	6	
2	WOODFORD	12100	7	
3	HUNTON	12300	8	
4			9	
5			10	

Spacing Orders: 616928  
571290

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201605347  
201605350  
201605343

Special Orders:

Total Depth: 17646

Ground Elevation: 1480

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 250

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: MARLOW

Approved Method for disposal of Drilling Fluids:

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 16-31895  
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 34 Twp 13N Rge 9W County CANADIAN

Spot Location of End Point: SW SW SW SW

Feet From: SOUTH 1/4 Section Line: 150

Feet From: WEST 1/4 Section Line: 132

Depth of Deviation: 11866

Radius of Turn: 478

Direction: 180

Total Length: 5029

Measured Total Depth: 17646

True Vertical Depth: 12344

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

Notes:

Category	Description
DEEP SURFACE CASING	12/7/2016 - 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	12/7/2016 - 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 <a href="http://fracfocus.org/">HTTP://FRACFOCUS.ORG/</a> 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 - 201605343	12/8/2016 - G60 - (I.O.) 34-13N-9W X571290 WDFD, HNTN X616928 MSSP COMPL. INT. NCT 500' FNL, NCT 52' FWL, NCT 150' FSL, NCT 52' FWL ** NO OP. NAMED 12/5/16 (MCKEOWN)  ** 52' FWL CHANGED TO 90' FWL AT THE HEARING
PENDING CD - 201605347	12/8/2016 - G60 - 34-13N-9W X571290 WDFD 2 WELLS NO OP. NAMED REC. 12/5/16 (MCKEOWN)
PENDING CD - 201605350	12/8/2016 - G60 - (I.O.) 34-13N-9W 165:10-3-28 WDFD (CLYDE) MAY BE CLOSER THAN 600' FROM CLYDE 1-34H & CLYDE 3-34H CIMAREX ENERGY CO. REC. 12/5/16 (MCKEOWN)
SPACING - 571290	12/8/2016 - G60 - (640) 34-13N-9W EXT 444034 CSTR (VAC BY 616928) EXT 567547 WDFD, HNTN
SPACING - 616928	12/8/2016 - G60 - (640) 34-13N-9W VAC 571290 CSTR EST 579550 MSSP

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**TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA**

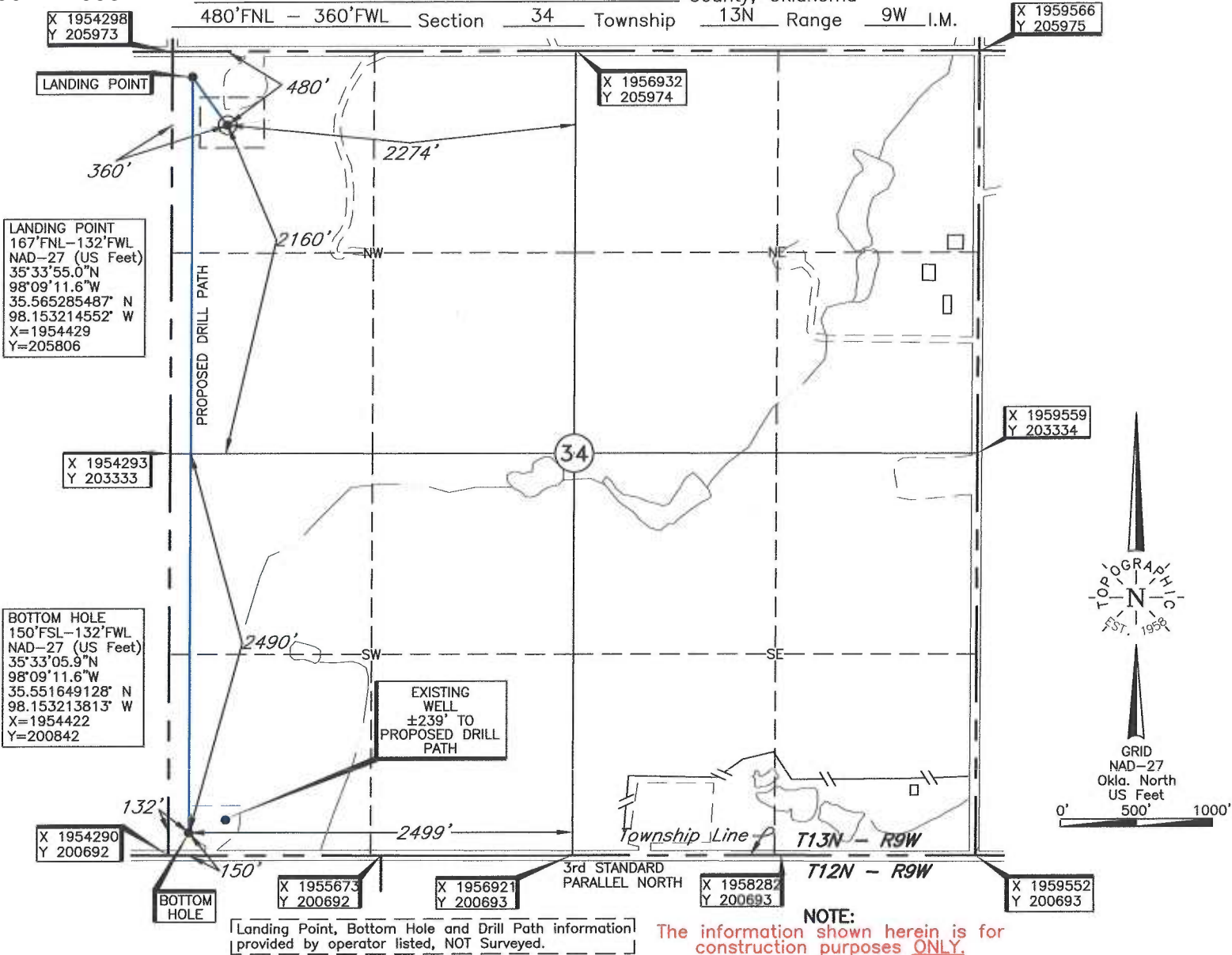
6709 NORTH CLASSEN BLVD., OKLA. CITY, OKLA. 73116 \* LOCAL (405) 843-4847 \* OUT OF STATE (800) 654-3219  
 Certificate of Authorization No. 1293. LS

3501724953

CANADIAN

County, Oklahoma

480'FNL - 360'FWL Section 34 Township 13N Range 9W I.M.



Operator: CIMAREX ENERGY CO.

Lease Name: CLYDE

Well No.: 2-34H

**ELEVATION:**  
 1480' Gr. at Stake NGVD29

Topography & Vegetation Loc. fell in terraced wheat field, ±254' SW of existing well

Good Drill Site? Yes Reference Stakes or Alternate Location Stakes Set None

Best Accessibility to Location From North off county road

Distance & Direction from Hwy Jct or Town From Calumet, OK, go ±2.5 mi. South on US. Hwy. 270, then ±2.2 mi. West to the NW Cor. of Sec. 34-T13N-R9W

DATUM: NAD-27  
 LAT: 35°33'51.9"N  
 LONG: 98°09'08.8"W  
 LAT: 35.564427004° N  
 LONG: 98.152448050° W  
 STATE PLANE COORDINATES: (US Feet)  
 ZONE: OK NORTH  
 X: 1954657  
 Y: 205493

Date of Drawing: Nov. 30, 2016  
 Invoice # 268192 Date Staked: Nov. 22, 2016 AC

**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



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