

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

API NUMBER: 049 25200

Approval Date: 05/16/2018

Expiration Date: 11/16/2018

Directional Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 08 Twp: 1N Rge: 2W

County: GARVIN

SPOT LOCATION: ☐ SE ☐ SE ☐ SW ☐ NW

FEET FROM QUARTER: FROM NORTH FROM WEST

SECTION LINES: 2450 1080

Lease Name: YEARY

Well No: 2-8

Well will be 1080 feet from nearest unit or lease boundary.

Operator Name: CIMAREX ENERGY CO OF COLORADO

Telephone: 9185851100

OTC/OCC Number: 3653 0

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

PAUL DAVID HALE
26506 E. COUNTY ROAD 1550
MAYSVILLE OK 73057

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

Name	Depth	Name	Depth
1 WOODFORD OVERTHRUSTED	6520	6 HUNTON	8800
2 HUNTON OVTHRST	7330	7	
3 SYCAMORE	7528	8	
4 WOODFORD	7800	9	
5 VIOLA	8710	10	

Spacing Orders: 110996
27000
668475

Location Exception Orders: 670237

Increased Density Orders: 668806

Pending CD Numbers:

Special Orders:

Total Depth: 10500

Ground Elevation: 998

Surface Casing: 1100

Depth to base of Treatable Water-Bearing FM: 900

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 located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is BED AQUIFER

Pit Location Formation: GARBER

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-33888
H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

DIRECTIONAL HOLE 1

Sec 08 Twp 1N Rge 2W County GARVIN

Spot Location of End Point: NE NW NE SW

Feet From: SOUTH 1/4 Section Line: 2410

Feet From: WEST 1/4 Section Line: 1750

Measured Total Depth: 10500

True Vertical Depth: 9500

End Point Location from Lease,

Unit, or Property Line: 1750

Notes:

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.

Category	Description
HYDRAULIC FRACTURING	<p>5/15/2018 - G71 - OCC 165:10-3-10 REQUIRES:</p> <p>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;</p> <p>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,</p> <p>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</p>
INCREASED DENSITY - 668806	<p>5/16/2018 - G57 - (F.O.) E2 SW4 8-1N-2W X110996 SCMR 1 WELL CIMAREX ENERGY CO. OF COLORADO 10-4-2017</p>
LOCATION EXCEPTION - 670237	<p>5/16/2018 - G57 - (I.O.) E2 SW4 8-1N-2W X27000 (40) HNTN X110996 (80) SCMR X668475 (40) WTOTD, HTOTD, WDFD, VIOL SHL 2450' FNL, 1080' FWL COMPL. INT.(WTOTD, HTOTD, WDFD, VIOL, HNTN) NCT 165' FNL, NCT 165' FWL NE4 SW4 COMPL. INT. (SCMR) NCT 165' FNL, NCT 165' FWL E2 SW4 CIMAREX ENERGY CO. OF COLORADO 11-20-2017</p>
SPACING - 110996	<p>5/16/2018 - G57 - (80) W2 8-1N-2W SU EXT 109031 SCMR</p>
SPACING - 27000	<p>5/16/2018 - G57 - (40) W2 & SE4 8-1N-2W EST HNTN</p>
SPACING - 668475	<p>5/16/2018 - G57 - (40) NE4 SW4 8-1N-2W NE4 SW4 NCT 330' FB EXT OTHER EXT 439428 HTOTD EXT 462137 VIOL, WTOTD, WDFD EST OTHERS</p>

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

6709 NORTH CLASSEN BLVD., OKLA. CITY, OKLA. 73116 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219

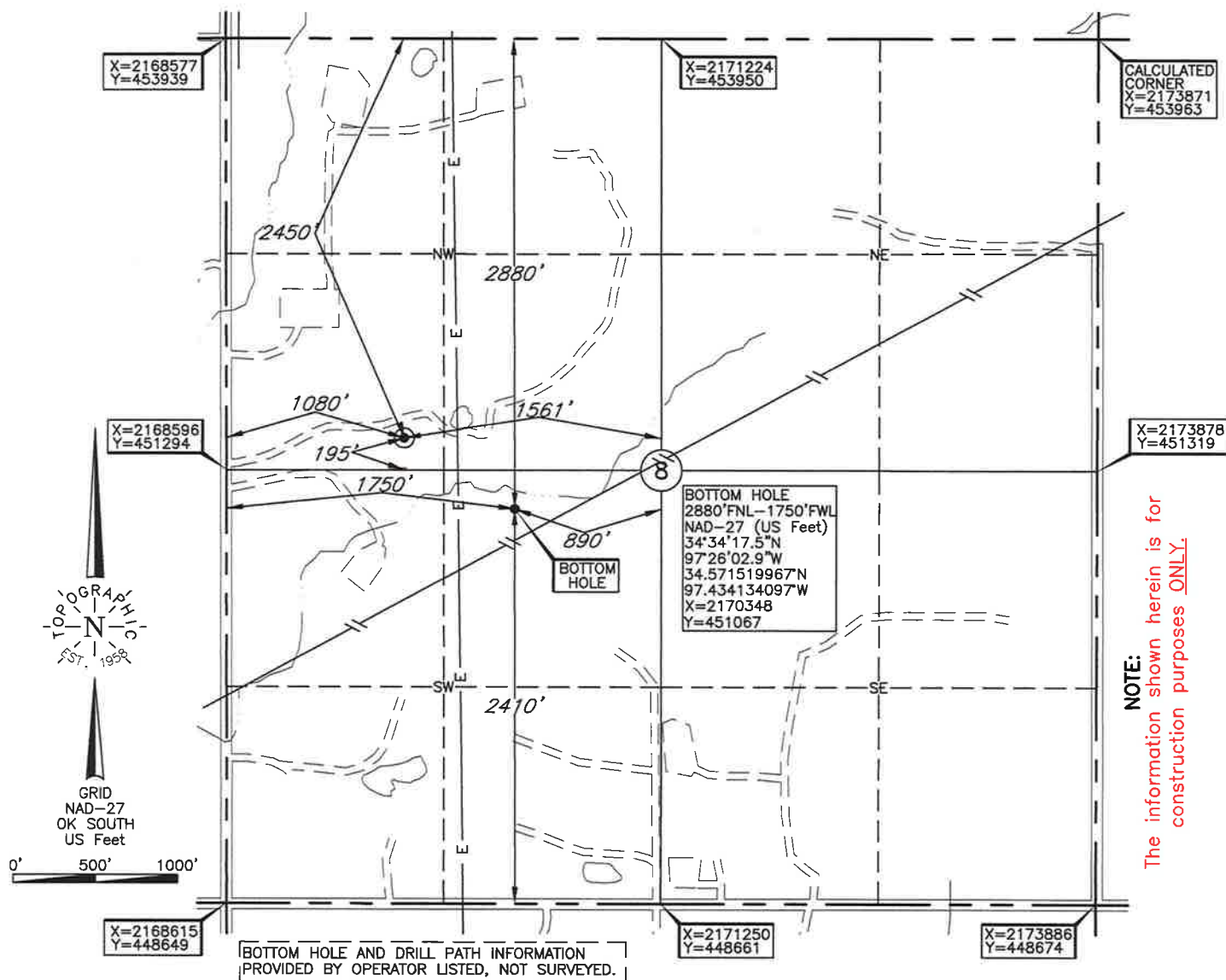
Certificate of Authorization No. 1293 LS

GARVIN

County, Oklahoma

API: 049 25200

2450'FNL - 1080'FWL Section 8 Township 1N Range 2W I.M.



Operator: CIMAREX ENERGY CO.

Lease Name: YEARY

Well No.: 2-8

ELEVATION:

998' Gr. at Stake NGVD29

Topography & Vegetation Loc. fell in grass pasture, ±185' North of E-W fence

Good Drill Site? Yes

Reference Stakes or Alternate Location
Stakes Set None

Best Accessibility to Location From West off county road

Distance & Direction

from Hwy Jct or Town From Pernell, OK, go ±4.0 mi. East, then ±1.0 mi. North to
the NW Cor. of Sec. 8-T1N-R2W

Date of Drawing: Jul. 07, 2017

Invoice # 278419 Date Staked: Jul. 05, 2017

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.

DATUM: NAD-27
LAT: 34°34'21.7"N
LONG: 97°26'10.9"W
LAT: 34.572704784° N
LONG: 97.436362313° W
STATE PLANE
COORDINATES: (US Feet)
ZONE: OK SOUTH
X: 2169675
Y: 451494