

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

API NUMBER: 017 24721

Approval Date: 11/25/2014
Expiration Date: 05/25/2015

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 09 Twp: 13N Rge: 9W County: CANADIAN
SPOT LOCATION: SW SE SE SW FEET FROM QUARTER: FROM SOUTH FROM WEST
SECTION LINES: 275 2205

Lease Name: HALEY 9-13-9 Well No: 8H Well will be 275 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

MICHAEL RAY CROWLY
PO BOX 313
CALUMET OK 73014

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

Name	Depth	Name	Depth
1 WOODFORD	11700	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 455168 Location Exception Orders: 628818 Increased Density Orders: 629331

Pending CD Numbers: 201408178 Special Orders:

Total Depth: 16633 Ground Elevation: 1403 **Surface Casing: 1500** Depth to base of Treatable Water-Bearing FM: 150

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: 100000 Average: 5000

Is depth to top of ground water greater than 10ft below base of pit? Y

Within 1 mile of municipal water well? Y

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: 14-28728
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 13N Rge 9W County CANADIAN

Spot Location of End Point: NE NE NE NW

Feet From: NORTH 1/4 Section Line: 150

Feet From: WEST 1/4 Section Line: 2500

Depth of Deviation: 11505

Radius of Turn: 223

Direction: 1

Total Length: 4780

Measured Total Depth: 16633

True Vertical Depth: 11950

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

Notes:

Category	Description
DEEP SURFACE CASING	11/25/2014 - G71 - APPROVED CONTINGENT ON NOTIFYING OCC FIELD STAFF IMMEDIATELY OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING
INCREASED DENSITY - 629331	11/25/2014 - G91 - 9-13N-9W X455168 WDFD 4 WELLS CIMAREX ENERGY, CO. 8-18-2014
LOCATION EXCEPTION - 628818	11/25/2014 - G91 - (I.O.) 9-13N-9W X455168 WDFD, OTHERS SHL NCT 170 FNL, NCT 2755 FWL ** COMPL. INT. NCT 150 FNL, NCT 150 FSL, NCT 2675 FWL ** CIMAREX ENERGY, CO. 8-5-2014 ** SHL AND COMPLETION INTERVAL WILL BE CORRECTED IN FINAL ORDER PER OPERATOR**
PENDING CD - 201408178	11/25/2014 - G91 - (E.O.) 9-13N-9W X165:10-3-28(C) WDFD (HALEY 9-13-9 8H) MAY BE LESS THAN 600' FROM EXISTING AND/OR PROPOSED CIMAREX ENERGY CO. REC. 11-14-2014 (MCKEOWN)
SPACING - 455168	11/25/2014 - G91 - (640) 9-13N-9W EXT 437237 WDFD, OTHERS EXT OTHERS

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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.

CIMAREX Well Location Plat

Sec. 9-13N-9W I.M.

Operator: CIMAREX ENERGY COMPANY

Lease Name and No. : HALEY 9-13N-9W 8H

Footage : 275' FSL - 2205' FWL GR. ELEVATION : 1403' Good Site? YES

Section: 9 Township: 13N Range: 9W I.M.

County : Canadian State of Oklahoma

Terrain at Loc. : Location fell in pasture.

Accessibility : From the South.

Directions : From Calumet, OK, go +/- 3.0 miles Northwest on State Highway 270, go 900'

South on "N. Ranch Road", then go 1.0 mile West on "NW Memorial Road" to the Southwest

Corner of Section 9-13N-9W.

017-24721



1"=1000'
GPS DATUM
NAD 83
OK NORTH ZONE
NAD 27
OK NORTH ZONE
BASIS OF BEARING:
GRID NORTH - NAD 83
STATE PLANE - OK NORTH ZONE

Surface Hole Loc.:
Lat: 35.61008670
Lon: -98.16455216
X: 1919585
Y: 222117

Surface Hole Loc.:
Lat: 35.61001787
Lon: -98.16421781
X: 1951183
Y: 222093

Landing Point Loc.:
Lat: 35.61137813
Lon: -98.16445638
X: 1919815
Y: 222594

Landing Point Loc.:
Lat: 35.61132623
Lon: -98.16412056
X: 1951213
Y: 222570

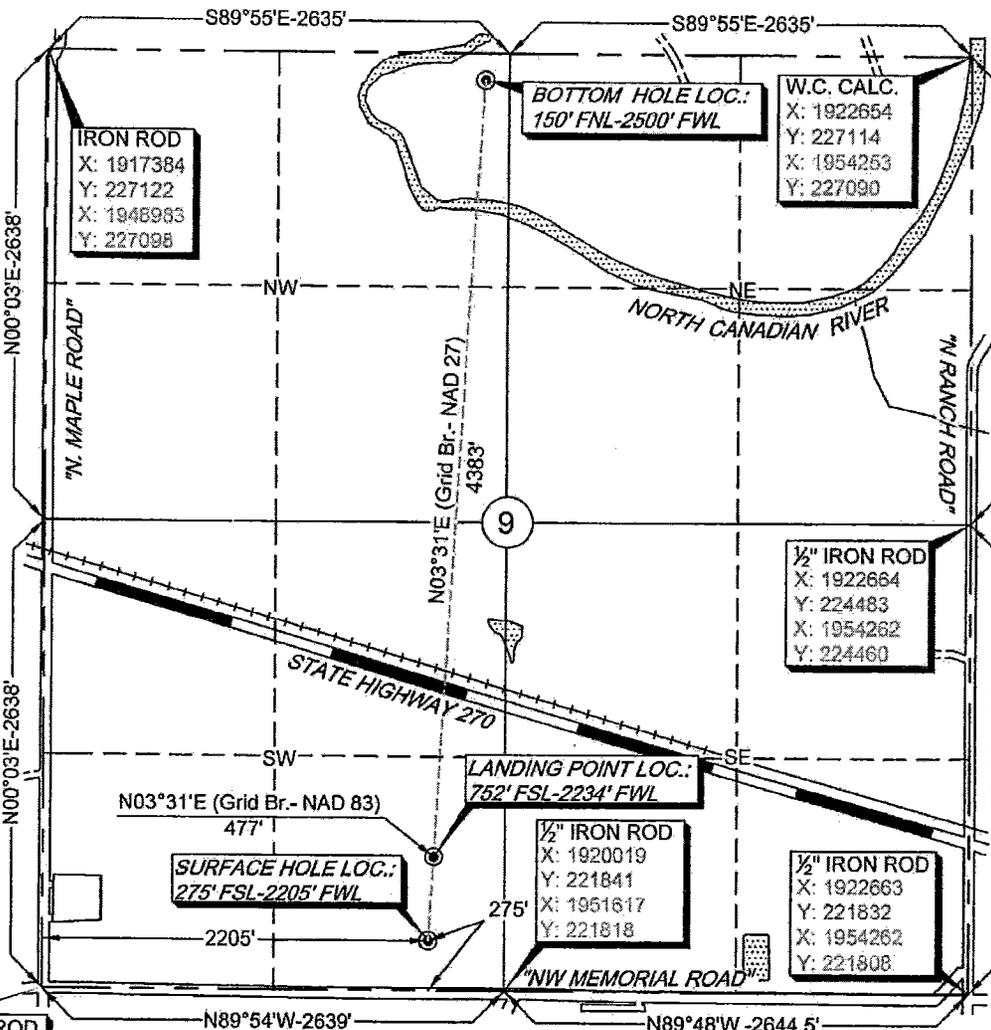
Bottom Hole Loc.:
Lat: 35.62339413
Lon: -98.16357499
X: 1919884
Y: 226988

Bottom Hole Loc.:
Lat: 35.62334692
Lon: -98.16323982
X: 1951482
Y: 226944

BASIS OF ELEVATION:
Topo Elev.=1376' @
E/4 Cor. Section 9, T13N-R9W
Tied with
Topo Elev.=1452' @
SW Cor. Section 7, T13N-R9W

NOTE: X and Y data shown hereon for Section Corners may NOT have been surveyed on-the-ground, and further, does NOT represent a true Boundary Survey.

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IRON ROD
X: 1917380
Y: 221846
X: 1948979
Y: 221822

Please note that this location was staked on the ground under the supervision of a Licensed Professional Land Surveyor, but the accuracy of this survey is not guaranteed. Please contact Arkoma Surveying and Mapping promptly if any inconsistency is determined. GPS data is observed from RTK - GPS.

survey and plat by,
Arkoma Surveying and Mapping, PLLC
P.O. Box 238 Wilburton, OK 74578
Ph. 918-465-5711 Fax 918-465-5030
Certificate of Authorization No. 5348
Expires June 30, 2016
Invoice #4717-B
Date Staked : 06/25/14 By: J.W.
Date Drawn : 07/03/14 By: R.M.
Add L.P. : 07/11/14 By: E.D.
Rev. Lease Name: 07/29/14 By: J.H.

Certification:

This is to certify that this Well Location Plat represents the results of a survey made on the ground performed under the supervision of the undersigned.

Stan Drannon 7/30/14
STAN DRANNON OK LPLS 1672



