

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

API NUMBER: 011 23687

Approval Date: 11/22/2016
Expiration Date: 05/22/2017

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 18 Twp: 16N Rge: 12W County: BLAINE
SPOT LOCATION: SE SE SW SE FEET FROM QUARTER: FROM SOUTH FROM EAST
SECTION LINES: 235 1450

Lease Name: FJ Well No: 1H-1807X Well will be 235 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

ROXANNA MARSHALL
ROUTE 1, BOX 390
FAY OK 73646

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	9563	6	
2	MISSISSIPPI SOLID	10700	7	
3	WOODFORD	11293	8	
4	HUNTON	11440	9	
5			10	

Spacing Orders: No Spacing

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201604664
201604663
201604662

Special Orders:

Total Depth: 21243 Ground Elevation: 1593 **Surface Casing: 360** Depth to base of Treatable Water-Bearing FM: 110

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: 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

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 16-31856
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 07 Twp 16N Rge 12W County BLAINE

Spot Location of End Point: NE NE NW NE

Feet From: NORTH 1/4 Section Line: 150

Feet From: EAST 1/4 Section Line: 1584

Depth of Deviation: 10550

Radius of Turn: 521

Direction: 359

Total Length: 9875

Measured Total Depth: 21243

True Vertical Depth: 11440

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

Notes:

Category	Description
HYDRAULIC FRACTURING	11/18/2016 - 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 HTTP://FRACFOCUS.ORG/ 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.
INTERMEDIATE CASING	11/18/2016 - 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 - 201604662	11/21/2016 - G75 - (640)(HOR) 7 & 18-16N-12W EXT 655998 MSSP 7-16N-12W EXT 655998 MSSSD 18-16N-12W EXT 655998 WDFD, HNTN 7 & 18-16N-12W COMPL. INT. (MSSP, MSSSD, HNTN) NLT 660' FB COMPL. INT. (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL (COEXIST SP. ORDER # 213536 CSTR 7-16N-12W & ORDER # 524854 MISS, HNTN 18-16N-12W) REC 11-7-2016 (MCKEOWN)
PENDING CD - 201604663	11/21/2016 - G75 - (I.O.) 7 & 18-16N-12W EST MULTIUNIT HORIZONTAL WELL X201604662 MSSP, WDFD, HNTN 7-16N-12W X201604662 MSSSD, WDFD, HNTN 18-16N-12W (MSSP, MSSSD, HNTN ASSOCIATED COMMON SOURCES OF SUPPLY TO WDFD) 50% 7-16N-12W 50% 18-16N-12W NO OP. NAMED REC 11-7-2016 (MCKEOWN)
PENDING CD - 201604664	11/21/2016 - G75 - (I.O.) 7 & 18-16N-12W X201604662 MSSP, WDFD, HNTN 7-16N-12W X201604662 MSSSD, WDFD, HNTN 18-16N-12W SHL (18-16N-12W) NCT 150' FSL, NCT 1584' FEL ** COMPL. INT. (18-16N-12W) NCT 150' FSL, NCT 0' FNL, NCT 1400' FEL COMPL. INT. (7-16N-12W) NCT 0' FSL, NCT 150' FNL, NCT 1400' FEL NO OP. NAMED REC 11-7-2016 (MCKEOWN)

** ITD HAS SHL AS 1450' FEL 18-16N-12W; TO BE CORRECTED AT HEARING FOR FINAL ORDER LOCATION EXCEPTION PER OPERATOR

CIMAREX Well Location Plat

S.H.L. Sec. 18-16N-12W I.M.
B.H.L. Sec. 7-16N-12W I.M.

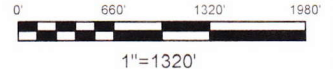
Operator: CIMAREX ENERGY COMPANY
Lease Name and No. : FJ 1H-1807X
Footage : 235' FSL - 1450' FEL GR. ELEVATION : 1593' Good Site? YES
Section: 18 Township: 16N Range: 12W I.M.
County : Blaine State of Oklahoma
Alternate Loc.: N/A

API 011-23687

Terrain at Loc. : Location fell in an open, sloping and cultivated field, 150' West of an existing North-South fence and 220' North of an existing East-West Fence.

Accessibility : From the South.

Directions : From the intersection of US Highway 270 and State Highway 8 in Watonga, OK, go 6 miles West on US Highway 270 then 1.0 mile North on "NS 251 RD." to the Southwest Corner of Section 18-16N-12W.



GPS DATUM
NAD - 27
NAD - 83
OK NORTH ZONE

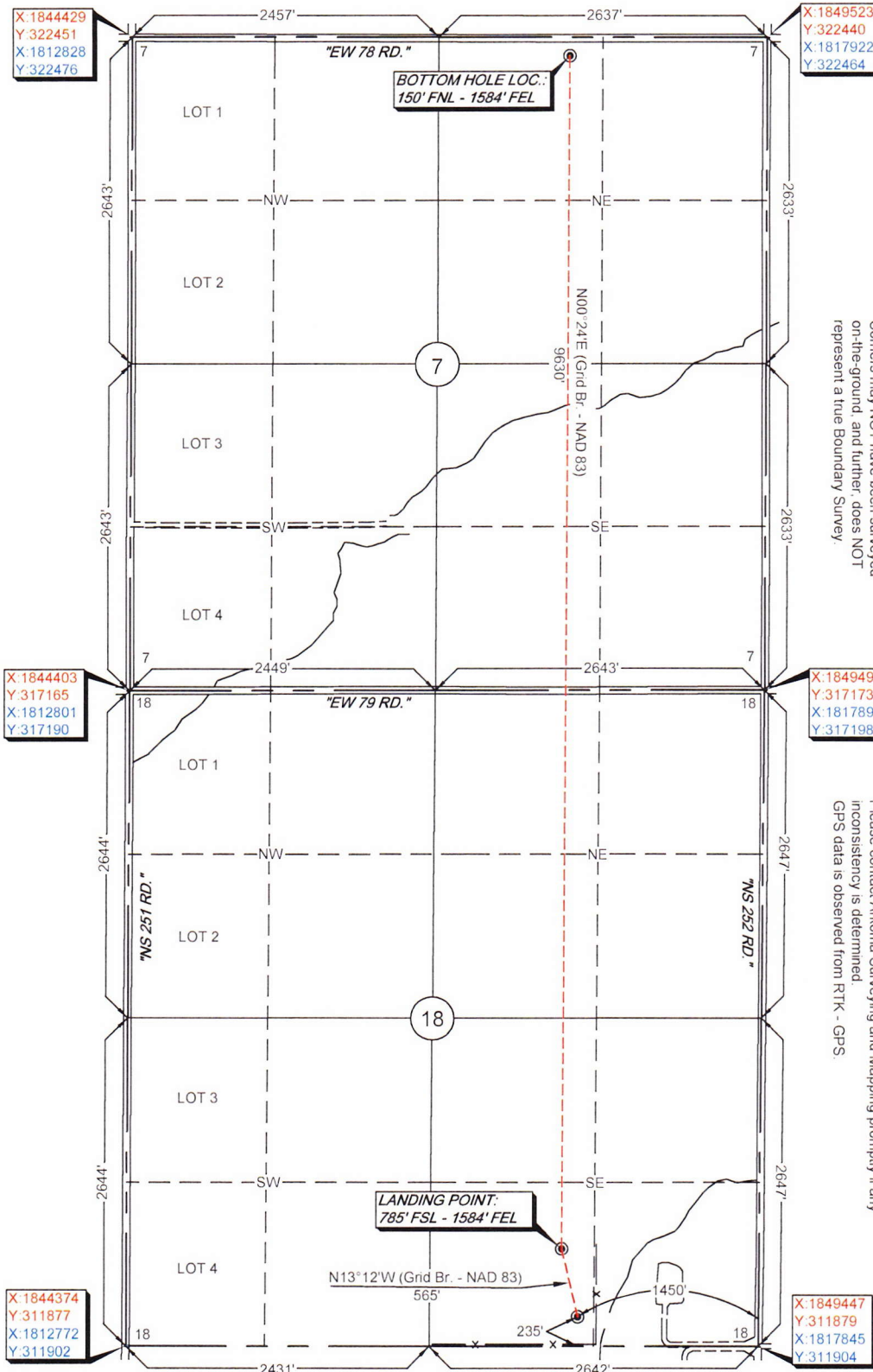
Surface Hole Loc.:
Lat: 35°51'22.80"N
Lon: 98°30'46.53"W
Lat: 35°51'22.96"N
Lon: 98°30'47.81"W
X: 1847999
Y: 312113
X: 1816397
Y: 312138

Landing Point:
Lat: 35°51'28.24"N
Lon: 98°30'48.14"W
Lat: 35°51'28.39"N
Lon: 98°30'49.41"W
X: 1847870
Y: 312663
X: 1816268
Y: 312688

Bottom Hole Loc.:
Lat: 35°53'03.48"N
Lon: 98°30'47.92"W
Lat: 35°53'03.63"N
Lon: 98°30'49.20"W
X: 1847938
Y: 322293
X: 1816337
Y: 322318

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.

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.



Quarter Section distances may be assumed from a Government Survey Plat or assumed at a proportionate distance from opposing section corners, or occupation thereof, and may not have been measured on-the-ground, and further, does not represent a true boundary survey.

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, 2018
Invoice #6605-A
Date Staked : 10/13/16 By : D.A.
Date Drawn : 10/14/16 By : J.H.
Revise Lse. Nm. : 10/17/16 By : R.M.
Add Landing Point : 11/19/16 By : R.S.

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.


LANCE G. MATHIS 11/21/16
OK LPLS 1664

