

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

API NUMBER: 017 25257

Approval Date: 08/08/2018

Expiration Date: 02/08/2019

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 16 Twp: 14N Rge: 10W County: CANADIAN
SPOT LOCATION: FEET FROM QUARTER: FROM NORTH FROM EAST
SECTION LINES: 207 610

Lease Name: ICE BIA Well No: 2H-1621X Well will be 207 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

CAROL ADAMSON
117 SOUTHWEST BLVD
GEARY OK 73040

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

	Name	Depth	Name	Depth
1	WOODFORD	12100	6	
2			7	
3			8	
4			9	
5			10	

Spacing Orders: 541682
548203

Location Exception Orders:

Increased Density Orders: 680246
680245

Pending CD Numbers: 201804300
201804305
201804299

Special Orders:

Total Depth: 21969 Ground Elevation: 1410 Surface Casing: 350 Depth to base of Treatable Water-Bearing FM: 120

Under Federal Jurisdiction: Yes

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? Y

Wellhead Protection Area? Y

Pit is located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is ALLUVIAL

Pit Location Formation: ALLUVIUM

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-34200
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 21 Twp 14N Rge 10W County CANADIAN

Spot Location of End Point: S2 SE SE SE

Feet From: SOUTH 1/4 Section Line: 150

Feet From: EAST 1/4 Section Line: 330

Depth of Deviation: 11562

Radius of Turn: 477

Direction: 178

Total Length: 9657

Measured Total Depth: 21969

True Vertical Depth: 12100

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

Notes:

Category

Description

HYDRAULIC FRACTURING

7/10/2018 - 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

INCREASED DENSITY - 680245

7/19/2018 - G57 - (F.O.) 16-14N-10W
X541682 WDFD
1 WELL
CIMAREX ENERGY CO.
7-16-2018

INCREASED DENSITY - 680246

7/19/2018 - G57 - (F.O.) 21-14N-10W
X548203 WDFD
1 WELL
CIMAREX ENERGY CO.
7-16-2018

INTERMEDIATE CASING

7/10/2018 - 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 - 201804299

7/19/2018 - G57 - (I.O.) 16 & 21-14N-10W
EST MULTIUNIT HORIZONTAL WELL
X541682 WDFD 16-14N-10W
X548203 WDFD 21-14N-10W
50% 16-14N-10W
50% 21-14N-10W
CIMAREX ENERGY CO.
REC 6-18-2018 (DUNN)

PENDING CD - 201804300

7/19/2018 - G57 - (I.O.) 16 & 21-14N-10W
X541682 WDFD 16-14N-10W
X548203 WDFD 21-14N-10W
COMPL. INT. (16-14N-10W) NCT 150' FNL, NCT 0' FSL, NCT 250' FEL
COMPL. INT. (21-14N-10W) NCT 0' FNL, NCT 150' FSL, NCT 250' FEL
NO OP. NAMED
REC 6-18-2018 (DUNN)

This permit does not address the right of entry or settlement of surface damages.

017 25257 ICE BIA 2H-1621X

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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.

Category	Description
PENDING CD - 201804305	7/19/2018 - G57 - (I.O.) 16 & 21-14N-10W X541682 WDFD 16-14N-10W X548302 WDFD 21-14N-10W X165:10-3-28(C)(2)(B) WDFD (ICE BIA 2H-1621X) MAY BE CLOSER THAN 600' FROM THE ICE 1-16H, ADAMSON 1-9H, FINCH 1-21H CIMAREX ENERGY CO. REC 6-18-2018 (DUNN)
PUBLIC WATER SUPPLY WELL	7/10/2018 - G71 - GEARY - 1 PWS/WPA, NW/4 1014N-10W
SPACING - 541682	7/19/2018 - G57 - (640) 16-14N-10W EXT OTHERS EST WDFD
SPACING - 548203	7/19/2018 - G57 - (640) 21-14N-10W EXT 541682 WDFD

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13800 WIRELESS WAY, OKLA. CITY, OKLA. 73134 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219
Certificate of Authorization No. 1293 LS

CANADIAN

207'FNL-610'FEL Section 16 Township 14N Range 10W I.M.

