

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

API NUMBER: 011 23937

Approval Date: 02/07/2018

Expiration Date: 08/07/2018

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 12 Twp: 16N Rge: 12W

County: BLAINE

SPOT LOCATION: ☐ NW ☐ NW ☐ NE ☐ NE

FEET FROM QUARTER: FROM NORTH FROM EAST

SECTION LINES: 225 1180

Lease Name: SEWELL BIA

Well No: 5H-1312X

Well will be 225 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

JOHN & BETSY KNUDSEN
3125 PRAIRIE ROSE ROAD
OKLAHOMA CITY OK 73120

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	9350	6	
2	WOODFORD	10930	7	
3			8	
4			9	
5			10	

Spacing Orders: 654339

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201800552
201800553
201800554
201800555

Special Orders:

Total Depth: 20344

Ground Elevation: 1578

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 230

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? 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 AP/TE DEPOSIT

Pit Location Formation: TERRACE

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-33814
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 13 Twp 16N Rge 12W County BLAINE

Spot Location of End Point: SW SE SE SE

Feet From: SOUTH 1/4 Section Line: 150

Feet From: EAST 1/4 Section Line: 450

Depth of Deviation: 9824

Radius of Turn: 573

Direction: 175

Total Length: 9620

Measured Total Depth: 20344

True Vertical Depth: 10930

End Point Location from Lease,

Unit, or Property Line: 150

Notes:

Category

Description

DEEP SURFACE CASING

1/25/2018 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR SURFACE CASING

HYDRAULIC FRACTURING

1/25/2018 - 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

INTERMEDIATE CASING

1/25/2018 - 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 - 201800552

1/31/2018 - G75 - (I.O.) 12 & 13-16N-12W
EST MULTIUNIT HORIZONTAL WELL
X654339 MSSP, WDFD
(WDFD ADJACENT COMMON SOURCE OF SUPPLY TO MSSP)
50% 12-16N-12W
50% 13-16N-12W
NO OP. NAMED
REC 2-5-2018 (JOHNSON)

PENDING CD - 201800553

1/31/2018 - G75 - (I.O.) 12 & 13-16N-12W
X654339 MSSP, WDFD
COMPL. INT. (12-16N-12W) NCT 150' FNL, NCT 0' FSL, NCT 350' FEL
COMPL. INT. (13-16N-12W) NCT 0' FNL, NCT 150' FSL, NCT 350' FEL
NO OP. NAMED
REC 2-5-2018 (JOHNSON)

PENDING CD - 201800554

1/31/2018 - G75 - 12-16N-12W
X654339 MSSP
4 WELLS
NO OP. NAMED
REC 2-5-2018 (JOHNSON)

PENDING CD - 201800555

1/31/2018 - G75 - 13-16N-12W
X654339 MSSP
4 WELLS
NO OP. NAMED
REC 2-5-2018 (JOHNSON)

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

011 23937 SEWELL BIA 5H-1312X

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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
SPACING - 654339	1/31/2018 - G75 - (640)(HOR) 12 & 13-16N-12W EXT 645048 MSSP, WDFD, OTHER COMPL. INT. (MSSP) NLT 660' FB COMPL. INT. (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL (COEXIST SP. ORDER # 221573/434805 CSTR S2 & ORDER # 518906 CSTR N2 12-16N-12W; ORDER # 221573 CSTR 13-16N-12W)

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Office of the Conservation Division as to when Surface Casing will be run.

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

BLAINE

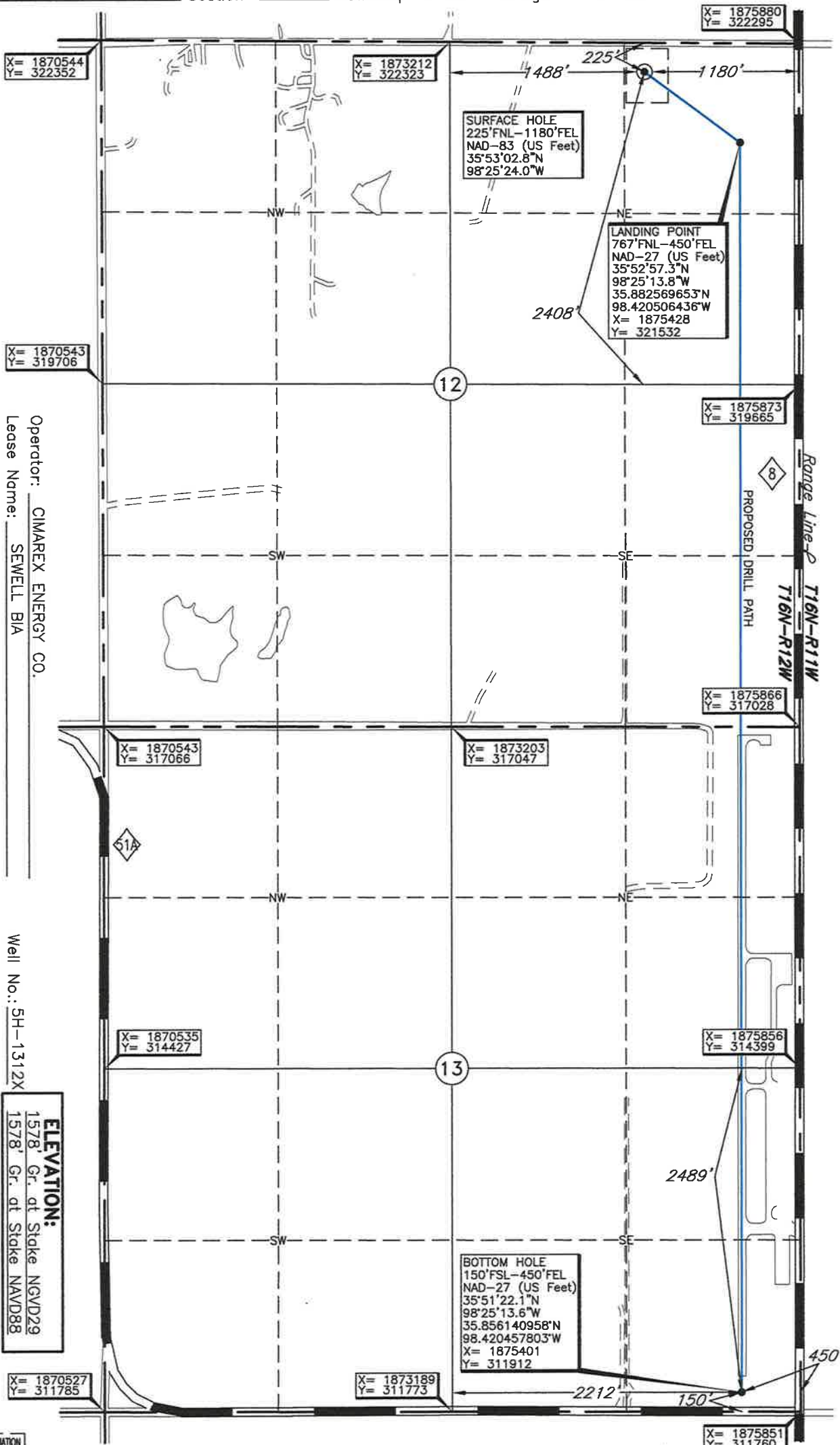
County, Oklahoma

API 011-23937

225'FNL-1180'FEL Section 12 Township 16N Range 12W I.M.



NOTE:
The information shown herein is for construction purposes ONLY.



Operator: CIMAREX ENERGY CO.
Lease Name: SEWELL BIA

Topography & Vegetation Loc. fell in level field

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 the junction of St. Hwy 8 N & St. Hwy 33/St. Hwy 3/US Hwy 281 E-W at Watonga, Oklahoma, go ± 3 miles North on St. Hwy 8 to the Northeast Corner of Section 12, T16N-R12W.

ELEVATION:
1578' Gr. at Stake NGVD29
1578' Gr. at Stake NAVD88

LANDING POINT, BOTTOM HOLE, AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED.

Revision ☒ A

Date of Drawing: July 21, 2017

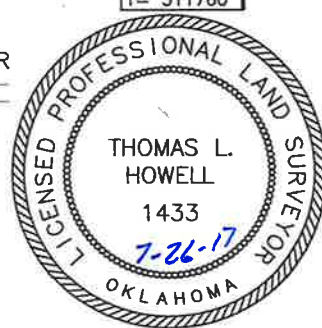
Invoice # 277407E Date Staked: July 19, 2017

TR

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



DATUM: NAD-27
LAT: 35°53'02.7"N
LONG: 98°25'22.7"W
LAT: 35.884071909°N
LONG: 98.422973355°W
STATE PLANE COORDINATES: (US Feet)
ZONE: OK NORTH
X: 1874700
Y: 322082