

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

API NUMBER: 017 25110

Approval Date: 11/15/2017

Expiration Date: 05/15/2018

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 31 Twp: 11N Rge: 8W

County: CANADIAN

SPOT LOCATION: ☐ NW ☐ NE ☐ NW ☐ NE

FEET FROM QUARTER: FROM NORTH FROM EAST

SECTION LINES: 270 1670

Lease Name: SHELLY

Well No: 9H-3106X

Well will be 270 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

AARON & CARLA LOUISE KOERNER
504 COUNTY STREET 2790
MINCO OK 73059

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

	Name	Depth	Name	Depth
1	MISSISSIPPI LIME	12006	6	
2	MISSISSIPPIAN	12268	7	
3	WOODFORD	12583	8	
4			9	
5			10	

Spacing Orders: 663653
560154
138217

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201706447
201706446
201706449
201706442
201706443

Special Orders:

Total Depth: 22964

Ground Elevation: 1365

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 350

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 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

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 17-33207
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 06 Twp 10N Rge 8W County GRADY

Spot Location of End Point: SW SW SE SE

Feet From: SOUTH 1/4 Section Line: 150

Feet From: EAST 1/4 Section Line: 1024

Depth of Deviation: 12031

Radius of Turn: 760

Direction: 177

Total Length: 9739

Measured Total Depth: 22964

True Vertical Depth: 12583

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

Notes:

Category

Description

DEEP SURFACE CASING

11/3/2017 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING

HYDRAULIC FRACTURING

11/3/2017 - 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

PENDING CD - 201706442

11/14/2017 - G60 - (E.O.) 31-11N-8W & 6-10N-8W
EST MULTIUNIT HORIZONTAL WELL
X663653 (31-11N-8W) MSSP, WDFD
X138217 (6-10N-8W) MSSLM
X560154 (6-10N-8W) WDFD
(MSSP AND MSSLM ARE ASSOCIATED COMMON SOURCES OF SUPPLY TO WDFD)
50% 31-11N-8W
50% 6-10N-8W
CIMAREX ENERGY, CO.
REC. 10/31/17 (JOHNSON)

PENDING CD - 201706443

11/14/2017 - G60 - (E.O.) 31-11N-8W & 6-10N-8W
X663653 (31-11N-8W) MSSP, WDFD
X138217 (6-10N-8W) MSSLM
X560154 (6-10N-8W) WDFD
COMPL. INT. (31-11N-8W) NCT 150' FNL, NCT 0' FSL, NCT 600' FWL
COMPL. INT. (6-10N-8W) NCT 0' FNL, NCT 150' FSL, NCT 600' FWL
CIMAREX ENERGY, CO.
REC. 10/31/17 (JOHNSON)

PENDING CD - 201706446

11/14/2017 - G60 - 6-11N-8W
X663653 WDFD
8 WELLS
NO OP. NAMED
REC. 10/31/17 (JOHNSON)

PENDING CD - 201706447

11/14/2017 - G60 - 31-11N-8W
X663653 WDFD
8 WELLS
NO OP. NAMED
REC. 10/31/17 (JOHNSON)

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

017 25110 SHELLY 9H-3106X

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
PENDING CD - 201706449	11/14/2017 - G60 - (E.O.) 31-11N-8W & 6-10N-8W X165:10-3-28(C)(2)(B) WDFD MAY BE CLOSER THAN 600' TO ANY OF THE SHELLY 1H-3106X, SHELLY 2H-3106X, SHELLY 3H-3106X, SHELLY 4H-3106X, SHELLY 5H-3106X, SHELLY 6H-3106X, SHELLY 7H-3106X, SHELLY 8H-3106X, SHELLY 9H-3106X WELLS NO OP. NAMED REC. 10/2/17 (JOHNSON)
SPACING - 138217	11/14/2017 - G60 - (640) 6-10N-8W EXT OTHERS EXT 98732 MSSLM, OTHERS
SPACING - 560154	11/14/2017 - G60 - (640) 6-10N-8W EXT 144223 WDFD, OTHER EXT OTHER EST OTHER
SPACING - 663653	11/14/2017 - G60 - (640)(HOR) 31-11N-8W VAC 138217 MSSLM, CSTR VAC 144223 WDFD EST MSSP, WDFD POE TO BHL (MSSP) NCT 660' FB POE TO BHL (WDFD) NCT 165' FNL/FSL, NCT 330' FEL/FWL

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

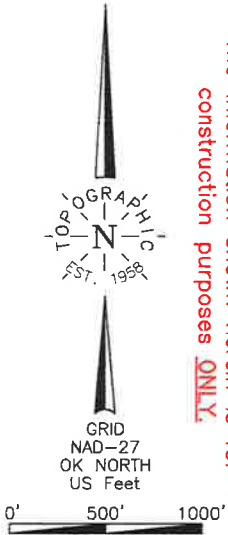
3501705110

CANADIAN/GRADY

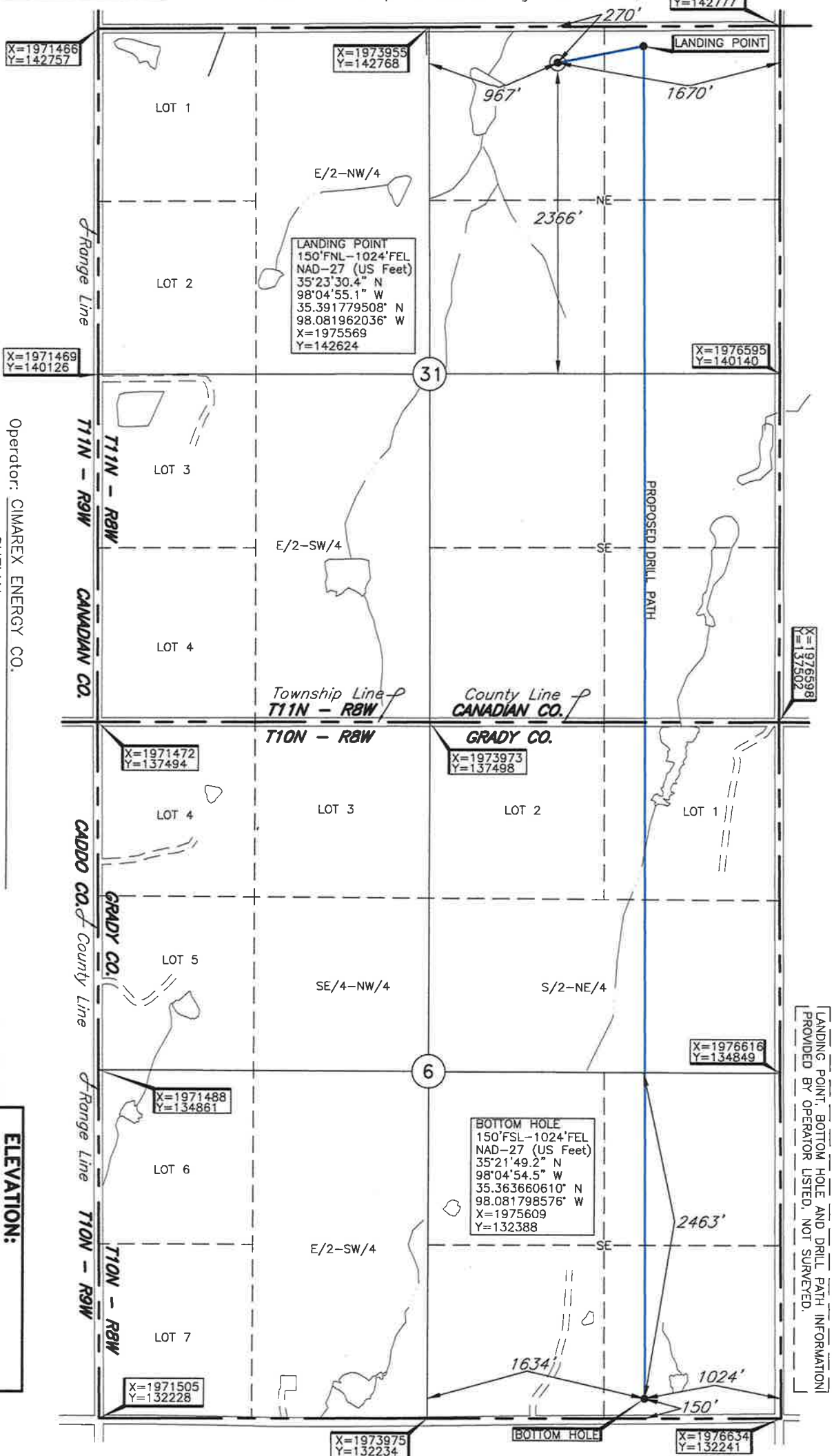
County, Oklahoma

270'FNL - 1670'FEL Section 31 Township 11N Range 8W I.M.

X=1976593
Y=142777



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



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

Operator: CIMAREX ENERGY CO.
Lease Name: SHELLY
Topography & Vegetation Loc. fell on level pad
Well No.: 9H-3106X
ELEVATION: 1374' Gr. at Level Pad NGVD29
Good Drill Site? Yes
Reference Stakes or Alternate Location
Stakes Set None
Best Accessibility to Location From North off county road
Distance & Direction From Caddo-Canadian Line on St. Hwy. 37, go ± 0.5 mi. North on St. Hwy. 37, then ± 1.0 mi. East, then ± 0.5 mi. South, then ± 2.0 mi. East, then ± 1.0 mi. North to the NE Cor. of Sec. 31-T11N-R8W

Date of Drawing: Nov. 8, 2017

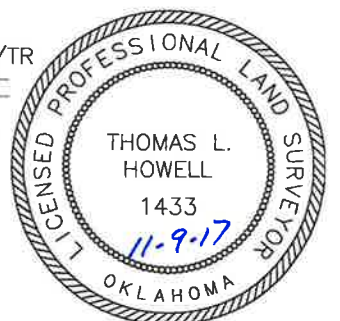
Invoice # 283843A Date Staked: Nov. 8, 2017

AC/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°23'29.2"N
LONG: 98°05'02.9"W
LAT: 35.391442852°N
LONG: 98.084127379°W
STATE PLANE
COORDINATES: (US Feet)
ZONE: OK NORTH
X: 1974923
Y: 142502