

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

API NUMBER: 093 25044

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

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 31 Twp: 23N Rge: 14W County: MAJOR
SPOT LOCATION: SE SW SE SE FEET FROM QUARTER: FROM SOUTH FROM EAST
SECTION LINES: 210 890

Lease Name: CAULDER 31-23-14 Well No: 1H Well will be 210 feet from nearest unit or lease boundary.

Operator Name: CHESAPEAKE OPERATING LLC Telephone: 4059353425; 4059358 OTC/OCC Number: 17441 0

CHESAPEAKE OPERATING LLC
PO BOX 18496
OKLAHOMA CITY, OK 73154-0496

WAYNE AND DONA CAULDER
PO BOX 835
HENNESSEY OK 73742

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

Name	Depth	Name	Depth
1 MISSISSIPPI LIME	7150	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: No Spacing

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201605164
201605165

Special Orders:

Total Depth: 12350 Ground Elevation: 1337 **Surface Casing: 1500** Depth to base of Treatable Water-Bearing FM: 560

Under Federal Jurisdiction: No Fresh Water Supply Well Drilled: No Surface Water used to Drill: No

PIT 1 INFORMATION

Type of Pit System: ON SITE
Type of Mud System: WATER BASED
Chlorides Max: 25000 Average: 8000
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: 2

Liner not required for Category: 2

Pit Location is NON HSA

Pit Location Formation: FLOWERPOT

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

D. One time land application -- (REQUIRES PERMIT)

H. SEE MEMO

PERMIT NO: 16-31827

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.

PIT 2 INFORMATION

Type of Pit System: ON SITE
Type of Mud System: OIL BASED
Chlorides Max: 300000 Average: 160000
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: 3
Liner required for Category: 3
Pit Location is NON HSA
Pit Location Formation: FLOWERPOT

HORIZONTAL HOLE 1

Sec 31 Twp 23N Rge 14W County MAJOR
Spot Location of End Point: NW NE NE NE
Feet From: NORTH 1/4 Section Line: 50
Feet From: EAST 1/4 Section Line: 430
Depth of Deviation: 6939
Radius of Turn: 500
Direction: 5
Total Length: 4625
Measured Total Depth: 12350
True Vertical Depth: 7300
End Point Location from Lease,
Unit, or Property Line: 50

Notes:

Table with 2 columns: Category, Description. Rows include DEEP SURFACE CASING, HYDRAULIC FRACTURING, MEMO, PENDING CD - 201605164, and PENDING CD - 201605165.

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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.

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

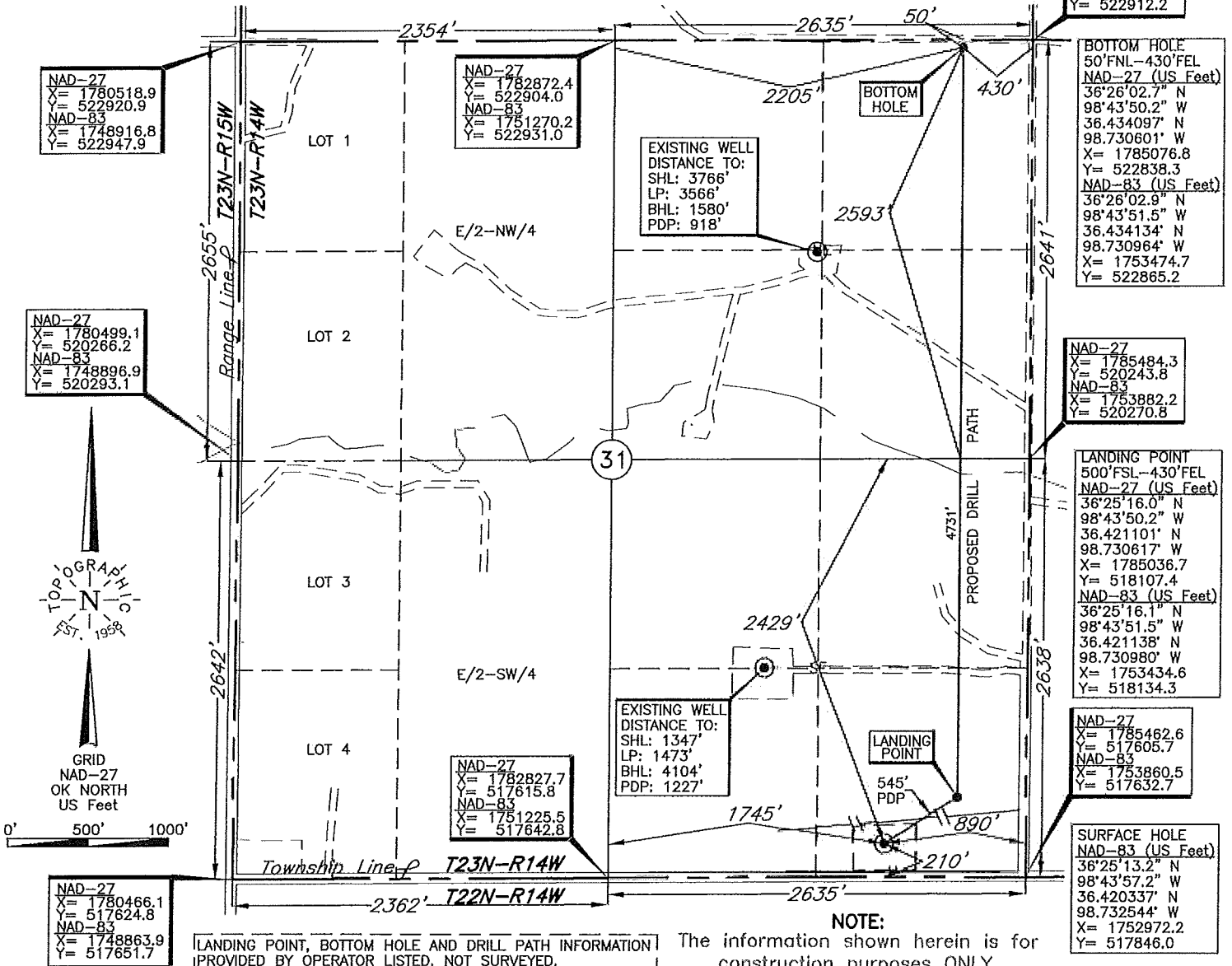
6709 NORTH CLASSEN BLVD., OKLA. CITY, OKLA. 73116 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219
Certificate of Authorization No. 1293 LS

MAJOR

County, Oklahoma

API: 093 25044

210'FSL - 890'FEL Section 31 Township 23N Range 14W I.M.



NOTE:

The information shown herein is for construction purposes ONLY.

ELEVATION:

1337' Gr. at Stake NAVD88
1337' Gr. at Stake NGVD29

Operator: CHESAPEAKE OPERATING, L.L.C.

Lease Name: CAULDER 31-23-14

Well No.: 1H

Topography & Vegetation Loc. fell in tall weed pasture, ±136' North to pipeline, ±170' South to water line, ±176' South to fence

Good Drill Site? Yes Reference Stakes or Alternate Location Stakes Set None

Best Accessibility to Location From South off county road

Distance & Direction from Hwy Jct or Town From Jct. US Hwy. 412 and US Hwy. 281, South of Waynoka, OK, go ±8.0 mi. East on US Hwy. 412, then ±0.6 mi. North on county road, then ±1.0. mi. East to the SE Cor. of Sec. 31-T23N-R14W

Date of Drawing: Sep. 26, 2016

Invoice # 265422 Date Staked: Sep. 19, 2016

AC

This information was gathered with a GPS receiver with ±1 foot Horiz./Vert. accuracy

DATUM: NAD-27
LAT: 36°25'13.1"N
LONG: 98°43'55.9"W
LAT: 36.420300° N
LONG: 98.732181° W
STATE PLANE COORDINATES: (US Feet)
ZONE: OK NORTH
X: 1784574.3
Y: 517819.1

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

