

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

API NUMBER: 045 23422

Approval Date: 01/02/2014

Expiration Date: 07/02/2014

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 32 Twp: 20N Rge: 25W

County: ELLIS

SPOT LOCATION:

FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 240 2030

Lease Name: LA HOOVER 32-20-25

Well No: 1H

Well will be 240 feet from nearest unit or lease boundary.

Operator Name: CHESAPEAKE OPERATING INC

Telephone: 4059358143

OTC/OCC Number: 17441 0

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

LOIS ANN SHULTZ
P.O. BOX 347
BOOKER TX 79005

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

| | Name | Depth | Name | Depth |
|---|---------------|-------|------|-------|
| 1 | DOUGLAS | 7700 | 6 | |
| 2 | TONKAWA | 7900 | 7 | |
| 3 | COTTAGE GROVE | 8100 | 8 | |
| 4 | CLEVELAND | 8496 | 9 | |
| 5 | | | 10 | |

Spacing Orders: 606091
65115

Location Exception Orders: 612531

Increased Density Orders: 612530

Pending CD Numbers:

Special Orders:

Total Depth: 13600

Ground Elevation: 2488

Surface Casing: 840

Depth to base of Treatable Water-Bearing FM: 590

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: 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: 1B

Liner required for Category: 1B

Pit Location is BED AQUIFER

Pit Location Formation: OGALLALA

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

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

PERMIT NO: 13-26044

H. SEE MEMO

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: 200000

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: 3

Liner required for Category: 3

Pit Location is BED AQUIFER

Pit Location Formation: OGALLALA

HORIZONTAL HOLE 1

Sec 32 Twp 20N Rge 25W County ELLIS

Spot Location of End Point: NE NW NW NE

Feet From: NORTH 1/4 Section Line: 200

Feet From: EAST 1/4 Section Line: 2030

Depth of Deviation: 8057

Radius of Turn: 780

Direction: 360

Total Length: 4451

Measured Total Depth: 13600

True Vertical Depth: 8837

End Point Location from Lease,
Unit, or Property Line: 200

Notes:

Category

Description

INCREASED DENSITY - 612530

1/2/2014 - G30 - 32-20N-25W
X35115/606091 CLVD
2 WELLS
CHESAPEAKE OPERATING, INC.
6/10/13

LOCATION EXCEPTION - 612531

1/2/2014 - G30 - (I.O.) 32-20N-25W
X606091 CLVD, DLGS, TNKW, CGGV
COMP. INT. NCT 330 FNL, NCT 330 FSL, NCT 1320 FEL
CHESAPEAKE OPERATING, INC.
6/10/13

MEMO

12/23/2013 - G71 - PITS 1 & 2 - PITS 1 & 2 - CONCRETE LINED PIT PER OPERATOR REQUEST,
PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

SPACING - 606091

1/2/2014 - G30 - 32-20N-25W
CLARIFIY 65115 TOP CLEVELAND @ 8508', BASE CLEVELAND @ 9260'

SPACING - 65115

1/2/2014 - G30 - (640) 32-20N-25W
EXT 64184 DGLS, TNKW, CGGV, CLVD, OTHERS

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045 23422 LA HOOVER 32-20-25 1H