

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

API NUMBER: 045 23563

Approval Date: 01/21/2015
Expiration Date: 07/21/2015

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 12 Twp: 18N Rge: 25W County: ELLIS
SPOT LOCATION: SE NW NE NE FEET FROM QUARTER: FROM NORTH FROM EAST
SECTION LINES: 380 880

Lease Name: THELMA MAE 12-18-25 Well No: 1H Well will be 380 feet from nearest unit or lease boundary.

Operator Name: CHESAPEAKE OPERATING LLC Telephone: 4059358143; 4059358 OTC/OCC Number: 17441 0

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

KENNETH K. & CHARLENE K. KNOWLES
HCR 63, BOX 6
ARNETT OK 73832

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

Name	Depth	Name	Depth
1 DOUGLAS	5877	6	
2 COTTAGE GROVE	8847	7	
3 CLEVELAND	8887	8	
4 MARMATON	9082	9	
5		10	

Spacing Orders: 100886 Location Exception Orders: 634441 Increased Density Orders: 634440
596921

Pending CD Numbers:

Special Orders:

Total Depth: 14000 Ground Elevation: 2312 **Surface Casing: 1500** Depth to base of Treatable Water-Bearing FM: 480

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 located in a Hydrologically Sensitive Area.

Category of Pit: 1B

Liner required for Category: 1B

Pit Location is AP/TE DEPOSIT
Pit Location Formation: TERRACE

Approved Method for disposal of Drilling Fluids:

- A. Evaporation/dewater and backfilling of reserve pit.
- D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 15-29423
- 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: 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 located in a Hydrologically Sensitive Area.

Category of Pit: 3
Liner required for Category: 3
Pit Location is AP/TE DEPOSIT
Pit Location Formation: TERRACE

HORIZONTAL HOLE 1

Sec 12 Twp 18N Rge 25W County ELLIS
Spot Location of End Point: SW SE SW SE
Feet From: SOUTH 1/4 Section Line: 200
Feet From: EAST 1/4 Section Line: 1800
Depth of Deviation: 8455
Radius of Turn: 780
Direction: 191
Total Length: 4320
Measured Total Depth: 14000
True Vertical Depth: 9235
End Point Location from Lease,
Unit, or Property Line: 200

Notes:

Table with 2 columns: Category, Description. Contains notes on DEEP SURFACE CASING, INCREASED DENSITY, LOCATION EXCEPTION, MEMO, and SPACING.

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Category

Description

SPACING - 596921

1/20/2015 - G75 - (640)(HOR) 12-18N-25W
EXT 580292 MRMN
POE TO BHL NLT 660' FB
(SUPERSEDE NON-PRODUCING NON-HORIZONTAL SPACING UNITS; COEXIST WITH
PRODUCING NON-HORIZONTAL SPACING UNITS)

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