

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

API NUMBER: 129 23882

Approval Date: 10/14/2013  
Expiration Date: 04/14/2014

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 27 Twp: 16N Rge: 23W County: ROGER MILLS  
SPOT LOCATION:  SW  SW  SW  SE FEET FROM QUARTER: FROM SOUTH FROM EAST  
SECTION LINES: 240 2520

Lease Name: LH RANCHES 27-16-23 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

GARY D. AND MARIENE LEEDY  
ROUTE 1 BOX 22A  
LEEDY OK 73654

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

Name	Depth	Name	Depth
1 WABAUNSEE	5680	6	
2 TONKAWA	8600	7	
3		8	
4		9	
5		10	

Spacing Orders: 208270 Location Exception Orders: 615781 Increased Density Orders: 615780

Pending CD Numbers: Special Orders:

Total Depth: 14000 Ground Elevation: 2165 Surface Casing: 720 Depth to base of Treatable Water-Bearing FM: 470

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: CLOUD CHIEF

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: 13-24562

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: CLOUD CHIEF

HORIZONTAL HOLE 1

Sec 27 Twp 16N Rge 23W County ROGER MILLS

Spot Location of End Point: NE NE NE NW

Feet From: NORTH 1/4 Section Line: 200

Feet From: WEST 1/4 Section Line: 2520

Depth of Deviation: 8178

Radius of Turn: 361

Direction: 360

Total Length: 4730

Measured Total Depth: 14000

True Vertical Depth: 8600

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

Notes:

Table with 2 columns: Category and Description. Contains notes about INCREASED DENSITY, LOCATION EXCEPTION, MEMO, and SPACING.

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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.