

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

API NUMBER: 149 21717

Approval Date: 01/21/2015

Expiration Date: 07/21/2015

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 16 Twp: 11N Rge: 17W

County: WASHITA

SPOT LOCATION:

FEET FROM QUARTER: FROM NORTH FROM WEST

SECTION LINES: 260 660

Lease Name: STEHR 16-11-17

Well No: 2H

Well will be 260 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

KAREN SUE MCGURK  
23101 CHANAL VALLEY DRIVE, APT 10  
LITTLE ROCK AR 72223

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

	Name	Depth	Name	Depth
1	MISSOURIAN GRANITE WASH	9700	6	
2	DES MOINES GRANITE WASH	11800	7	
3			8	
4			9	
5			10	

Spacing Orders: 159617

Location Exception Orders: 633714

Increased Density Orders: 633713

Pending CD Numbers:

Special Orders:

Total Depth: 17300

Ground Elevation: 1636

**Surface Casing: 1500**

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: 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 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)

PERMIT NO: 15-29388

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 BED AQUIFER

Pit Location Formation: CLOUD CHIEF

## HORIZONTAL HOLE 1

Sec 16 Twp 11N Rge 17W County WASHITA

Spot Location of End Point: S2 S2 SW SW

Feet From: SOUTH 1/4 Section Line: 200

Feet From: WEST 1/4 Section Line: 660

Depth of Deviation: 11451

Radius of Turn: 780

Direction: 180

Total Length: 4624

Measured Total Depth: 17300

True Vertical Depth: 12231

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

### Notes:

#### Category

#### Description

DEEP SURFACE CASING

1/13/2015 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR SURFACE CASING

INCREASED DENSITY - 633713

1/20/2015 - G75 - 16-11N-17W  
X159617 DMSGW  
1 WELL  
CHESAPEAKE OP., L.L.C.  
12-2-2014

LOCATION EXCEPTION - 633714

1/20/2015 - G75 - (I.O.) 16-11N-17W  
X159617 MOGW, DMSGW  
COMPL. INT. NCT 300 FNL, NCT 300 FSL, NCT 500 FWL  
CHESAPEAKE OP., L.L.C.  
12-2-2014

MEMO

1/13/2015 - G71 - PIT 1 & 2 - CONCRETE-LINED PIT PER OPERATOR REQUEST; PIT 2 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT

SPACING - 159617

1/20/2015 - G75 - (640) 16-11N-17W  
EST MOGW, DMSGW, OTHERS

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149 21717 STEHR 16-11-17 2H