

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

API NUMBER: 045 23549

Approval Date: 12/18/2014  
Expiration Date: 06/18/2015

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 05 Twp: 19N Rge: 25W County: ELLIS  
SPOT LOCATION:  S2  S2  SW  SW FEET FROM QUARTER: FROM SOUTH FROM WEST  
SECTION LINES: 285 660

Lease Name: BRENT IMKE 5-19-25 Well No: 1H Well will be 285 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

T. BRENT IMKE  
ROUTE 2, BOX 71  
SHATTUCK OK 73858

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

Name	Depth	Name	Depth
1 CLEVELAND	8518	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 82943  
614132

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201408505  
201408504

Special Orders:

Total Depth: 13650

Ground Elevation: 2483

**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: OGALLALA

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: 14-29165

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: OGALLALA

HORIZONTAL HOLE 1

Sec 05 Twp 19N Rge 25W County ELLIS
Spot Location of End Point: N2 N2 NW NW
Feet From: NORTH 1/4 Section Line: 200
Feet From: WEST 1/4 Section Line: 660
Depth of Deviation: 8079
Radius of Turn: 780
Direction: 360
Total Length: 4346
Measured Total Depth: 13650
True Vertical Depth: 8859
End Point Location from Lease,
Unit, or Property Line: 200

Notes:

Table with 2 columns: Category, Description. Rows include DEEP SURFACE CASING, MEMO, PENDING CD - 201408504, PENDING CD - 201408505, SPACING - 614132, and SPACING - 82943.

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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.