

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

API NUMBER: 045 23338

Approval Date: 04/11/2013
Expiration Date: 10/11/2013

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 21 Twp: 20N Rge: 26W County: ELLIS
SPOT LOCATION: S2 S2 SW SE FEET FROM QUARTER: FROM SOUTH FROM EAST
SECTION LINES: 250 1980

Lease Name: CULLY 21-20-26 Well No: 1H Well will be 250 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

GRAYSON F. KELLN
RR 2, BOX 97 A
SHATTUCK OK 73858

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

	Name	Depth	Name	Depth
1	DOUGLAS	7000	6	
2	TONKAWA	7150	7	
3	COTTAGE GROVE	7600	8	
4	CLEVELAND	8182	9	
5			10	

Spacing Orders: 132531 Location Exception Orders: 609106 Increased Density Orders: 609105

Pending CD Numbers:

Special Orders:

Total Depth: 13100 Ground Elevation: 2437 **Surface Casing: 860** Depth to base of Treatable Water-Bearing FM: 610

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)

H. SEE MEMO

PERMIT NO: 13-23071

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 21 Twp 20N Rge 26W County ELLIS
Spot Location of End Point: C N2 NW NE
Feet From: NORTH 1/4 Section Line: 330
Feet From: EAST 1/4 Section Line: 1980
Depth of Deviation: 7518
Radius of Turn: 780
Direction: 360
Total Length: 4490
Measured Total Depth: 13100
True Vertical Depth: 8298
End Point Location from Lease,
Unit, or Property Line: 330

Notes:

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

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