

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

API NUMBER: 045 23330

Approval Date: 04/03/2013
Expiration Date: 10/03/2013

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 21 Twp: 20N Rge: 26W County: ELLIS
SPOT LOCATION: NW NE NE NW FEET FROM QUARTER: FROM NORTH FROM WEST
SECTION LINES: 270 2100

Lease Name: JOHNNIE LENORA 21-20-26 Well No: 1H Well will be 270 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

APPEL INC.
P.O. BOX 704
SHATTUCK OK 73858

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

	Name	Depth	Name	Depth
1	DOUGLAS	6428	6	
2	TONKAWA	6815	7	
3	COTTAGE GROVE	7365	8	
4	CLEVELAND	7890	9	
5			10	

Spacing Orders: 132531 Location Exception Orders: 609107 Increased Density Orders: 609105
607308

Pending CD Numbers:

Special Orders:

Total Depth: 13500 Ground Elevation: 2383 **Surface Casing: 820** Depth to base of Treatable Water-Bearing FM: 570

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) PERMIT NO: 13-23001
- 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: 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 S2 SE SW
Feet From: SOUTH 1/4 Section Line: 330
Feet From: WEST 1/4 Section Line: 1980
Depth of Deviation: 7954
Radius of Turn: 361
Direction: 360
Total Length: 4454
Measured Total Depth: 13500
True Vertical Depth: 8315
End Point Location from Lease,
Unit, or Property Line: 330

Notes:

Table with 2 columns: Category and Description. Contains notes such as 'INCREASED DENSITY - 609105', 'LOCATION EXCEPTION - 609107', 'MEMO', 'SPACING - 132531', and 'SPACING - 607308'.

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