

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

API NUMBER: 045 23301

Approval Date: 01/29/2013
Expiration Date: 07/29/2013

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 02 Twp: 19N Rge: 25W County: ELLIS
SPOT LOCATION: SE SW SE SW FEET FROM QUARTER: FROM SOUTH FROM WEST
SECTION LINES: 230 1760

Lease Name: RW KNOWLES 2-19-25 Well No: 1H Well will be 230 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

RANDY WAYNE KNOWLES
ROUTE 2 BOX 114
ARNETT OK 73832

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

	Name	Depth	Name	Depth
1	TONKAWA	7500	6	
2	COTTAGE GROVE	8000	7	
3	CLEVELAND	8550	8	
4	MARMATON	8700	9	
5			10	

Spacing Orders: 204648
585108

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201207923
201207913

Special Orders:

Total Depth: 13900

Ground Elevation: 2398

Surface Casing: 890

Depth to base of Treatable Water-Bearing FM: 640

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: 12-22253

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 02 Twp 19N Rge 25W County ELLIS
Spot Location of End Point: C N2 NE NW
Feet From: NORTH 1/4 Section Line: 330
Feet From: WEST 1/4 Section Line: 1980
Depth of Deviation: 8310
Radius of Turn: 361
Direction: 360
Total Length: 4498
Measured Total Depth: 13900
True Vertical Depth: 8700
End Point Location from Lease,
Unit, or Property Line: 330

Notes:

Table with 2 columns: Category, Description. Contains notes for MEMO, PENDING CD - 201207913, PENDING CD - 201207923, SPACING - 204648, and SPACING - 585108.

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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.