

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

API NUMBER: 007 25618

Approval Date: 06/18/2013  
Expiration Date: 12/18/2013

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 08 Twp: 3N Rge: 23ECM County: BEAVER

SPOT LOCATION:  SE  SE  SW  SW FEET FROM QUARTER: FROM SOUTH FROM WEST  
SECTION LINES: 250 1050

Lease Name: CALDWELL TRUSTS Well No: 1-17XLH Well will be 250 feet from nearest unit or lease boundary.

Operator Name: CABOT OIL & GAS CORPORATION Telephone: 2818482620 OTC/OCC Number: 18246 0

CABOT OIL & GAS CORPORATION  
840 GESSNER RD STE 1200  
HOUSTON, TX 77024-4142

LEON FLOYD SPANGLER  
ROUTE BOX  
BEAVER OK 73932

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

Name	Depth	Name	Depth
1 MARMATON	6015	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 601146

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201303066

Special Orders:

Total Depth: 16700

Ground Elevation: 2635

**Surface Casing: 1700**

Depth to base of Treatable Water-Bearing FM: 310

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: Yes

Surface Water used to Drill: No

PIT 1 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED

Chlorides Max: 60000 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: C

Liner not required for Category: C

Pit Location is BED AQUIFER

Pit Location Formation: OGALLALA

Approved Method for disposal of Drilling Fluids:

D. One time land application -- (REQUIRES PERMIT)

PERMIT NO: 13-23107

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR OPTION

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.

HORIZONTAL HOLE 1

Sec 20 Twp 3N Rge 23E County BEAVER

Spot Location of End Point: W2 SE SW SW

Feet From: SOUTH 1/4 Section Line: 330

Feet From: WEST 1/4 Section Line: 750

Depth of Deviation: 5001

Radius of Turn: 1178

Direction: 180

Total Length: 9569

Measured Total Depth: 16700

True Vertical Depth: 6178

End Point Location from Lease,  
Unit, or Property Line: 330

Notes:

Category	Description
DEEP SURFACE CASING	6/17/2013 - G71 - APPROVED CONTINGENT ON NOTIFYING OCC FIELD STAFF IMMEDIATELY OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING
PENDING CD - 201303066	6/17/2013 - G30 - W2 17 & W2 20-3N-23ECM X601146 MRMN COMP. INT. NCT 330 FNL, NCT 660 FSL, NCT 330 FSL OF W2 17 & W2 20 NO OP. NAMED REC 6/6/13 (M.PORTER)
SPACING - 601146	6/17/2013 - G30 - (640 HOR) W2 17 & W2 20-3N-23ECM EXT 586461/597829 MRMN POE TO BHL: NCT 660' FB (SUPERSEDE NON-DEVELOPED NON-HORIZONTAL SPACING UNITS)

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007 25618 CALDWELL TRUSTS 1-17XLH