

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

API NUMBER: 117 23587

Approval Date: 03/25/2014  
Expiration Date: 09/25/2014

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 31 Twp: 23N Rge: 5E County: PAWNEE  
SPOT LOCATION:  SE  NW  SW  SE FEET FROM QUARTER: FROM SOUTH FROM EAST  
SECTION LINES: 700 2265

Lease Name: BRUNS Well No: 1-6H Well will be 700 feet from nearest unit or lease boundary.  
Operator Name: CUMMINGS OIL COMPANY Telephone: 4059481818; 4059481 OTC/OCC Number: 5481 0

CUMMINGS OIL COMPANY  
5400 NW GRAND BLVD STE 100  
OKLAHOMA CITY, OK 73112-6113

PAWCO, LLC  
1819 DORCHESER PLACE  
OKLAHOMA CITY OK 73120

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

Name	Depth	Name	Depth
1	MISSISSIPPI	3530	6
2			7
3			8
4			9
5			10

Spacing Orders: 620740

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201401028

Special Orders:

Total Depth: 8155

Ground Elevation: 994

**Surface Casing: 400**

Depth to base of Treatable Water-Bearing FM: 290

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: 5000 Average: 3000

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: 2

Liner not required for Category: 2

Pit Location is BED AQUIFER

Pit Location Formation: OSCAR

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

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 06 Twp 22N Rge 5E County PAWNEE

Spot Location of End Point: E2 E2 SE SW

Feet From: SOUTH 1/4 Section Line: 660

Feet From: WEST 1/4 Section Line: 2580

Depth of Deviation: 3000

Radius of Turn: 650

Direction: 186

Total Length: 4134

Measured Total Depth: 8155

True Vertical Depth: 3650

End Point Location from Lease,  
Unit, or Property Line: 660

Notes:

Category	Description
PENDING CD - 201401028	3/24/2014 - G75 - (I.O.) 6-22N-5E X620740 MISS, OTHER COMPL. INT NCT 165 FNL, NCT 165 FSL, NCT 660 FWL NO OP. NAMED REC 3-10-2014 (LEAVITT)
SPACING - 620740	3/24/2014 - G75 - (640)(HOR) 6-22N-5E EXT 612938 MISS, OTHERS POE TO BHL NLT 660' FB