

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

API NUMBER: 129 23867

Approval Date: 09/05/2013
Expiration Date: 03/05/2014

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 33 Twp: 16N Rge: 23W County: ROGER MILLS
SPOT LOCATION: NW NE NE NE FEET FROM QUARTER: FROM NORTH FROM EAST
SECTION LINES: 250 577

Lease Name: HARPER 33-16-23 Well No: 1H Well will be 250 feet from nearest unit or lease boundary.
Operator Name: APACHE CORPORATION Telephone: 9184914900 OTC/OCC Number: 6778 0

APACHE CORPORATION
6120 S YALE AVE STE 1500
TULSA, OK 74136-4224

GARY LEEDY TRUST
8347 N. 1920 RD.
LEEDEY OK 73654

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

Name	Depth	Name	Depth
1 TONKAWA	8407	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 219969 Location Exception Orders: 614572 Increased Density Orders: 614622

Pending CD Numbers:

Special Orders:

Total Depth: 13300 Ground Elevation: 2047 **Surface Casing: 590** Depth to base of Treatable Water-Bearing FM: 470

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: 8000 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: RUSH SPRINGS

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: 13-24246

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: RUSH SPRINGS

HORIZONTAL HOLE 1

Sec 33 Twp 16N Rge 23W County ROGER MILLS
Spot Location of End Point: S2 S2 SE SE
Feet From: SOUTH 1/4 Section Line: 200
Feet From: EAST 1/4 Section Line: 660
Depth of Deviation: 7853
Radius of Turn: 573
Direction: 181
Total Length: 4834
Measured Total Depth: 13300
True Vertical Depth: 8426
End Point Location from Lease,
Unit, or Property Line: 200

Notes:

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

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