

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

API NUMBER: 045 23374

Approval Date: 07/19/2013
Expiration Date: 01/19/2014

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 12 Twp: 16N Rge: 24W County: ELLIS
SPOT LOCATION: SE SE SW SE FEET FROM QUARTER: FROM SOUTH FROM EAST
SECTION LINES: 250 1480

Lease Name: DUNN Well No: 2-12H 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

OKLAHOMA DEPT. OF WILDLIFE
P. O. BOX 53465
OKLAHOMA CITY OK 73152

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

Name	Depth	Name	Depth
1 TONKAWA	8212	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 584630

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201304071
201304070

Special Orders:

Total Depth: 13000

Ground Elevation: 2152

Surface Casing: 550

Depth to base of Treatable Water-Bearing FM: 500

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: 90000 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: 13-23565

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 12 Twp 16N Rge 24W County ELLIS
Spot Location of End Point: C N2 NW NE
Feet From: NORTH 1/4 Section Line: 330
Feet From: EAST 1/4 Section Line: 1980
Depth of Deviation: 7754
Radius of Turn: 573
Direction: 354
Total Length: 4698
Measured Total Depth: 13000
True Vertical Depth: 8262
End Point Location from Lease,
Unit, or Property Line: 330

Notes:

Table with 2 columns: Category, Description. Contains notes for MEMO, PENDING CD - 201304070, PENDING CD - 201304071, and SPACING - 584630.

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