

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

API NUMBER: 045 23427

Approval Date: 01/22/2014  
Expiration Date: 07/22/2014

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 14 Twp: 16N Rge: 23W County: ELLIS  
SPOT LOCATION:  N2  N2  NE  NE FEET FROM QUARTER: FROM NORTH FROM EAST  
SECTION LINES: 100 660

Lease Name: GRAND 14-16-23 Well No: 3H Well will be 100 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 DEPARTMENT OF WILDLIFE  
CONSERVATION  
P.O. BOX 53465  
OKLAHOMA CITY OK 73105

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

	Name	Depth	Name	Depth
1	TONKAWA	8266	6	
2			7	
3			8	
4			9	
5			10	

Spacing Orders: 66170 Location Exception Orders: 618604 Increased Density Orders: 618688

Pending CD Numbers:

Special Orders:

Total Depth: 13100 Ground Elevation: 2134 **Surface Casing: 700** Depth to base of Treatable Water-Bearing FM: 480

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: 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: 14-26293

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 14 Twp 16N Rge 23W County ELLIS
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: 7803
Radius of Turn: 573
Direction: 182
Total Length: 4818
Measured Total Depth: 13100
True Vertical Depth: 8417
End Point Location from Lease,
Unit, or Property Line: 200

Notes:

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

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