

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

API NUMBER: 045 23470

Approval Date: 05/05/2014

Expiration Date: 11/05/2014

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 10 Twp: 16N Rge: 23W

County: ELLIS

SPOT LOCATION:

FEET FROM QUARTER: FROM NORTH FROM EAST

SECTION LINES: 200 660

Lease Name: INSELMAN 10-16-23

Well No: 4H

Well will be 200 feet from nearest unit or lease boundary.

Operator Name: APACHE CORPORATION

Telephone: 9184914900; 9184914

OTC/OCC Number: 6778 0

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

R.V.R. INC. C/O QUINLIN INSELMAN
400 S. ECHO
HOLDENVILLE OK 74848

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

	Name	Depth	Name	Depth
1	TONKAWA	8381	6	
2			7	
3			8	
4			9	
5			10	

Spacing Orders: 66170
61723

Location Exception Orders: 622218

Increased Density Orders: 621055

Pending CD Numbers:

Special Orders:

Total Depth: 13200

Ground Elevation: 2303

Surface Casing: 760

Depth to base of Treatable Water-Bearing FM: 510

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)

PERMIT NO: 14-26918

H. SEE MEMO

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 10 Twp 16N Rge 23W County ELLIS

Spot Location of End Point: C S2 SE SE

Feet From: SOUTH 1/4 Section Line: 330

Feet From: EAST 1/4 Section Line: 660

Depth of Deviation: 7927

Radius of Turn: 573

Direction: 180

Total Length: 4373

Measured Total Depth: 13200

True Vertical Depth: 8544

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

Notes:

Category

Description

INCREASED DENSITY - 621055

5/5/2014 - G75 - 10-16N-23W
X66170 TNKW
2 WELLS
APACHE CORP.
1-29-2014

LOCATION EXCEPTION - 622218

5/5/2014 - G75 - (I.O.) 10-16N-23W
X66170 TNKW
SHL NCT 200 FNL, NCT 500 FEL
FIRST PERF NCT 300 FNL, NCT 500 FEL
LAST PERF NCT 300 FSL, NCT 500 FEL
APACHE CORP.
3-4-2014

MEMO

4/18/2014 - G71 - PIT 1 & 2 - CONCRETE-LINED PIT PER OPERATOR REQUEST; PIT 2 - OBM TO
VENDOR, OBM CUTTINGS PER DISTRICT

SPACING - 61723

5/5/2014 - G75 - (640) 10-16N-23W
EXT 61184 TNKW

SPACING - 66170

5/5/2014 - G75 - (640) 10-16N-23W
CONSOL/EXT 61184/61723/VAR/65653 & 63358/65421 TNKW

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045 23470 INSELMAN 10-16-23 4H

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