

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

API NUMBER: 045 23494 A

Approval Date: 07/16/2014
Expiration Date: 01/16/2015

Horizontal Hole Oil & Gas

Amend reason: OCC CORRECTION: CORRECT COUNTY ON BHL
AND FORMATIONS

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 18 Twp: 16N Rge: 23W

County: ELLIS

SPOT LOCATION: ☐ SW ☐ SE ☐ SE ☐ SE

FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 115 574

Lease Name: ODWC 19-16-23

Well No: 1H

Well will be 115 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

DEPARTMENT OF WILDLIFE CONSERVATION
P O BOX 53465
OKLAHOMA CITY OK 73152

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

	Name	Depth	Name	Depth
1	TONKAWA	8231	6	
2			7	
3			8	
4			9	
5			10	

Spacing Orders: 585540

Location Exception Orders: 627456

Increased Density Orders: 613933

Pending CD Numbers:

Special Orders:

Total Depth: 13000

Ground Elevation: 2036

Surface Casing: 490

Depth to base of Treatable Water-Bearing FM: 440

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: No

PIT 1 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

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: C

Liner not required for Category: C

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)

PERMIT NO: 14-27559

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: CLOSED Closed System Means Steel Pits

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: C

Liner not required for Category: C

Pit Location is BED AQUIFER

Pit Location Formation: RUSH SPRINGS

HORIZONTAL HOLE 1

Sec 19 Twp 16N Rge 23W County ROGER MILLS

Spot Location of End Point: E2 SW SE SE

Feet From: SOUTH 1/4 Section Line: 330

Feet From: EAST 1/4 Section Line: 700

Depth of Deviation: 7917

Radius of Turn: 573

Direction: 180

Total Length: 4341

Measured Total Depth: 13000

True Vertical Depth: 8526

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

Notes:

Category

Description

INCREASED DENSITY- 613933

7/16/2014 - G72 - 19-16N-23W
X 585540 TIKW
2 WELLS
APACHE CORPORATION;
7/17/2013

LOCATION EXCEPTION - 627456

7/16/2014 - G72 - 19-16N-23W (I.O.)
X 585541 TNKW;
SHL 125 FSL 600 FEL (18-16N-23W);
COMP INT NCT 300 FNL NCT 300 FSL NCT 500 FEL;
APACHE CORPORATION;
7/3/2014
SHL TO BE CORRECTED AT FINAL HEARING

MEMO

7/9/2014 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS (REQUIRED - CANADIAN RIVER),
PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

SPACING - 585540

7/16/2014 - G72 - (640 HORZ) 19-16N-23W
EST DGLTK, TNKW
EXIST CONCURRENTLY WITH PRODUCING NON-HORIZONTAL
DRILLING AND SPACING UNITS/SUPERCEDING EXISTING NON-DEVELOPED NON-HORIZONTAL
DRILLING AND SPACING UNITS

This permit does not address the right of entry or settlement of surface damages.

045 23494 ODWC 19-16-23 1H

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.

HTL 045-23444

Well Location Plat

S.H.L. Sec. 18-16N-23W I.M.

B.H.L. Sec. 19-16N-23W I.M.

Operator: APACHE CORPORATION

Lease Name and No. : ODWC 19-16-23 1H

Footage : 115' FSL - 574' FEL PAD ELEVATION : 2036' (NAVD 88) Good Site? YES

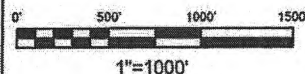
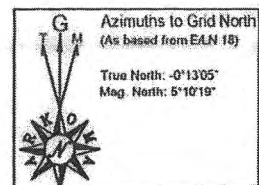
Section: 18 Township: 16N Range: 23W I.M.

County : Ellis State of Oklahoma Alternate Loc. : N/A

Terrain at Loc. : Stake fell on Existing Pad, 25' due East of conductor pipe.

Accessibility : From the West

Directions : From the town of Roll, OK, at the intersection of Highway 283 and Highway 47 go North 8.2 miles on Highway 283, then go East 3.1 miles on to "EW 770 Road" to a County/Lease Rd. and go South 2.1 miles to the North line of Section 18-16N-23W which is approx. 2000 feet East of the Northwest Corner of Section 18-16N-23W.

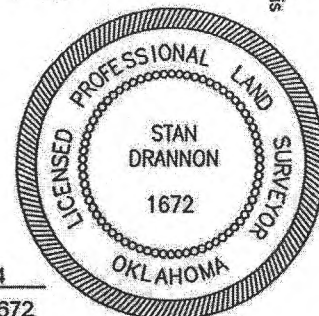


GPS DATUM
NAD - 27
OK NORTH ZONE

Surface Hole Loc.:
Lat: 35.854256
Lon: -99.674410
Lat: 35°51'15.32"N
Lon: 99°40'27.87"W
X: 1503812
Y: 315234

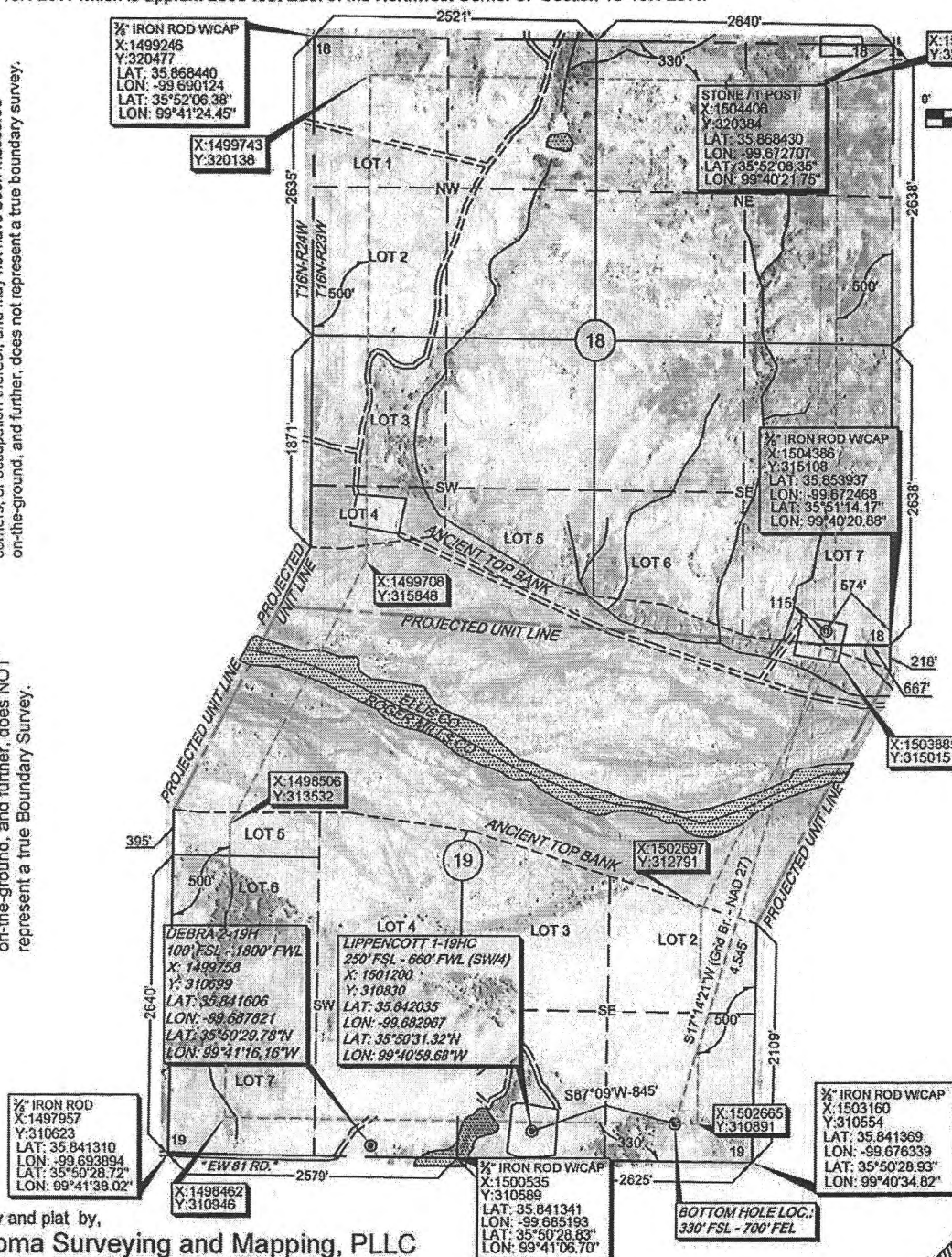
Bottom Hole Loc.:
Lat: 35.842268
Lon: -99.678701
Lat: 35°50'32.17"N
Lon: 99°40'43.32"W
X: 1502465
Y: 310893

Please note that this location was staked on the ground under the supervision of a Licensed Professional Land Surveyor, but the accuracy of this survey is not guaranteed. Please contact Arkoma Surveying and Mapping promptly if any inconsistency is determined. GPS data is observed from RTK - GPS.



Quarter Section distances may be assumed from a Government Survey Plat or assumed at a proportionate distance from opposing section corners, or occupation thereof, and may not have been measured on-the-ground, and further, does not represent a true boundary survey.

NOTE: X and Y data shown hereon for Section Corners may NOT have been surveyed on-the-ground, and further, does NOT represent a true Boundary Survey.



survey and plat by,
Arkoma Surveying and Mapping, PLLC
P.O. Box 238 Wilburton, OK 74578
Ph. 918-465-5711 Fax 918-465-5030

Certificate of Authorization No. 5348
Expires June 30, 2014

Invoice #4321

Date Staked : 01/30/14 By : C.K.
Date Drawn : 02/05/14 By : R.S.
Gen. Revision : 05/02/14 By : R.M.

Certification:

This is to certify that this Well Location Plat represents the results of a survey made on the ground performed under the supervision of the undersigned.

Stan Drannon 05/19/14
STAN DRANNON OK LPLS 1672