

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

API NUMBER: 011 23914

Approval Date: 01/05/2018

Expiration Date: 07/05/2018

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 21 Twp: 14N Rge: 12W

County: BLAINE

SPOT LOCATION:

FEET FROM QUARTER: FROM NORTH FROM WEST

SECTION LINES: 235 250

Lease Name: ROWDY LUCY 21-28

Well No: 1XH

Well will be 235 feet from nearest unit or lease boundary.

Operator  
Name: APACHE CORPORATION

Telephone: 7132966000; 9184914

OTC/OCC Number: 6778 0

APACHE CORPORATION  
2000 POST OAK BLVD STE 100  
HOUSTON, TX 77056-4497

MARK STEVEN HELM  
P.O. BOX 423  
GEARY OK 73040

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	12713	6	
2	WOODFORD	13485	7	
3			8	
4			9	
5			10	

Spacing Orders: 669677

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201707131  
201707132

Special Orders:

Total Depth: 23500

Ground Elevation: 1700

**Surface Casing: 1500**

Depth to base of Treatable Water-Bearing FM: 180

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: No

**PIT 1 INFORMATION**

Approved Method for disposal of Drilling Fluids:

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

D. One time land application -- (REQUIRES PERMIT)

PERMIT NO: 17-33607

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 28 Twp 14N Rge 12W County BLAINE

Spot Location of End Point: SE SW SW SW

Feet From: SOUTH 1/4 Section Line: 165

Feet From: WEST 1/4 Section Line: 350

Depth of Deviation: 12238

Radius of Turn: 1000

Direction: 179

Total Length: 10191

Measured Total Depth: 24000

True Vertical Depth: 13485

End Point Location from Lease,  
Unit, or Property Line: 165

### Notes:

#### Category

#### Description

#### DEEP SURFACE CASING

1/2/2018 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING

#### HYDRAULIC FRACTURING

1/2/2018 - G71 - OCC 165:10-3-10 REQUIRES:

1) PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE;

2) WITH NOTICE ALSO GIVEN 48 HOURS IN ADVANCE OF HYDRAULIC FRACTURING ALL WELLS TO BOTH THE OCC CENTRAL OFFICE AND LOCAL DISTRICT OFFICES, USING THE "FRAC NOTICE FORM" FOUND AT THE FOLLOWING LINK: [OCCEWEB.COM/OG/OGFORMS.HTML](http://OCCEWEB.COM/OG/OGFORMS.HTML); AND,

3) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS TO BE REPORTED TO FRACFOCUS WITHIN 60 DAYS AFTER THE CONCLUSION THE HYDRAULIC FRACTURING OPERATIONS, USING THE FOLLOWING LINK: [FRACFOCUS.ORG](http://FRACFOCUS.ORG)

#### INTERMEDIATE CASING

1/2/2018 - G71 - DUE TO THE KNOWN POTENTIAL RISK OF ENCOUNTERING AN OVER-PRESSURED ZONE IN THE MORROW SERIES IN THIS AREA, THE TECHNICAL MANAGER RECOMMENDS SETTING AN INTERMEDIATE STRING OF CASING IMMEDIATELY ABOVE THE MORROW SERIES

#### MEMO

1/2/2018 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

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.

011 23914 ROWDY LUCY 21-28 1XH

Category	Description
PENDING CD - 201707131	<p>1/2/2018 - G57 - (I.O.) 21 &amp; 28-14N-12W  EST MULTIUNIT HORIZONTAL WELL  X669677 MSSP, WDFD  (WDFD ASSOCIATED COMMON SOURCE OF SUPPLY TO MSSP)  APACHE CORPORATION  50% 21-14N-12W  50% 28-14N-12W  NO OP. NAMED  REC 12-7-2017 (JOHNSON AFFIRMED BY MACGUIGAN)</p>
PENDING CD - 201707132	<p>1/2/2018 - G57 - (I.O.) 21 &amp; 28-14N-12W  X669677 MSSP, WDFD  SHL (21-14N-12W) 235' FNL, 350' FWL **  COMPL. INT. (21-14N-12W) NCT 165' FNL, NCT 0' FSL, NCT 330' FWL  COMPL. INT. (28-14N-12W) NCT 0' FNL, NCT 165' FSL, NCT 330' FWL  NO OP. NAMED  REC 12-7-2017 (JOHNSON AFFIRMED BY MACGUIGAN)</p> <p>**S/B SHL (21-14N-12W) 235' FNL, 250' FWL; WILL BE CORRECTED AT HEARING FOR FINAL ORDER PER ATTORNEY FOR OPERATOR</p>
SPACING - 669677	<p>1/2/2018 - G57 - (640)(HOR) 21 &amp; 28-14N-12W  VAC 102663/17747 CSTR, MSSLM, OTHER 21-14N-12W  VAC 115876 CSTR, MSSLM, OTHER 28-14N-12W  EXT 656898 MSSP, WDFD, OTHER  POE TO BHL (MSSP) NCT 660' FB  POE TO BHL (WDFD) NCT 165' FNL &amp; FSL, NCT 330' FEL &amp; FWL</p>

# Apache Well Location Plat

Operator : APACHE CORPORATION  
 Lease Name and No. : ROWDY LUCY 21-28-1XH  
 Surface Footage : 235' FNL - 250' FWL GR. ELEVATION : 1700' (NAVD 88)  
 Section 21 and 28 Township 14 N, Range 12 W.I.M.  
 County : BLAINE State : Oklahoma



Surface Sec. 21-14N-12W.I.M  
 BHL Sec. 28-14N-12W.I.M

Datum: NAD 27  
 Units: US Survey Feet  
 North: Grid  
 Coordinates: State Plane  
 Zone: 3501  
 State: Oklahoma  
 Region: North

Found Bent 1/2" Iron Pin  
 N= 248505  
 E=1854435  
 Lat: 35°40'54.054"  
 Long: -98°29'24.450"  
 Lat: 35.68186°  
 Long: -98.49013°

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  
 Anti-Collision Data Shown Hereon:  
 Blue Box: Found and Shot On Ground  
 Red Box: Placed by OCC Information

Found 1/2" Iron Pin  
 N= 248460  
 E=1856722  
 Lat: 35°40'54.154"  
 Long: -98°28'20.354"  
 Lat: 35.68171°  
 Long: -98.47232°

SURFACE TO  
 LANDING POINT  
 N 55°07'16" E  
 122'

SURFACE HOLE LOC.  
 235' FNL - 250' FWL

LANDING POINT LOC.  
 185' FNL - 350' FWL

Devon Energy Production  
 Section 1 181  
 240' FNL - 2436' FEL  
 OCC STATUS AC

Cotton Petroleum  
 Saylor 1  
 1325' FNL - 2534' FNL  
 OCC STATUS PA

Surface Hole Loc. :  
 Lat: 35°40'51.736"  
 Long: -98°29'21.406"  
 Lat: 35.68104°  
 Long: -98.48928°  
 N= 248269  
 E=1854685

Landing Point  
 Lat: 35°40'52.430"  
 Long: -98°29'20.198"  
 Lat: 35.68123°  
 Long: -98.48894°  
 N= 248339  
 E=1854785

Bottom Hole Location  
 Lat: 35°39'11.636"  
 Long: -98°29'19.696"  
 Lat: 35.65323°  
 Long: -98.48880°  
 N= 238148  
 E=1854775

Found 1/2" Iron Pin W/CTA 973" Cap  
 N= 243253  
 E=1854434  
 Lat: 35°40'02.109"  
 Long: -98°29'24.137"  
 Lat: 35.66725°  
 Long: -98.49004°

Found Bent 1/2" Iron Pin  
 N= 243218  
 E=1850702  
 Lat: 35°40'02.022"  
 Long: -98°28'20.266"  
 Lat: 35.66723°  
 Long: -98.47230°

Apache Corporation  
 Section 1 28  
 1815' FNL - 1815' FEL  
 OCC STATUS AC

Multistep Fuel Corporation  
 Williams 1-28  
 1080' FNL - 1086' FNL  
 OCC STATUS PA

Greenfield Exploration  
 Section 1-28  
 1003' FNL - 1440' FEL  
 OCC STATUS AC

Found 1/2" Iron Pin W/ CAP  
 N= 237965  
 E=1854424  
 Lat: 35°39'10.007"  
 Long: -98°29'23.530"  
 Lat: 35.65278°  
 Long: -98.48998°

Apache Corporation  
 Section 1-28  
 550' FNL - 650' FSL  
 OCC STATUS AC

Found Mag Nail  
 N= 237949  
 E=1858684  
 Lat: 35°39'09.914"  
 Long: -98°28'20.204"  
 Lat: 35.65275°  
 Long: -98.47228°

Quarter Section distance 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.

Survey and Plat by:  
 Jividen's Land Survey Co., Inc.  
 1210 19th Street / P.O. Box 943  
 Woodward, Oklahoma 73801  
 Ph: 580-256-7174 Fax: 1-844-273-1884  
 Certificate of Authorization No. 2064  
 Expires June 30, 2019  
 Invoice # 20454  
 Date Staked 10-05-2017 by A.L.  
 Date Drawn 10-10-2017 by D.W.K.  
 PAGE 1 OF 6 JOB 231-17

We do hereby certify that this survey was done in accordance to records, maps and other information as provided to us by the client herein named and that great care was taken in the actual staking of this well and the determination of any obstacles thereupon. However, the accuracy of this survey is not guaranteed and if there appears to be any discrepancy, please notify us immediately.

