

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

API NUMBER: 143 24326

Approval Date: 09/11/2019  
Expiration Date: 03/11/2021

Directional Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 17 Twp: 21N Rge: 13E County: TULSA  
SPOT LOCATION: ☐ NE ☐ SW ☐ SW ☐ SE FEET FROM QUARTER: FROM SOUTH FROM EAST  
SECTION LINES: 425 2200

Lease Name: BCU Well No: 22-30H Well will be 425 feet from nearest unit or lease boundary.  
Operator Name: GRAND RESOURCES INC Telephone: 9183924413 OTC/OCC Number: 8702 0

GRAND RESOURCES INC  
2448 E 81ST ST STE 4040  
TULSA, OK 74137-4246

GRAND LAND LLC  
2448 EAST 81ST STREET SUITE 4040  
TULSA OK 74137

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

	Name	Depth	Name	Depth
1	BARTLESVILLE	1075	6	
2	TUCKER	1258	7	
3			8	
4			9	
5			10	

Spacing Orders: 43332

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 2285 Ground Elevation: 638 Surface Casing: 100 Depth to base of Treatable Water-Bearing FM: 50

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: 5000 Average: 3000

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 not located in a Hydrologically Sensitive Area.

Category of Pit: 2

Liner not required for Category: 2

Pit Location is NON HSA

Pit Location Formation: SEMINOLE

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

DIRECTIONAL HOLE 1

Sec 17 Twp 21N Rge 13E County TULSA

Spot Location of End Point: NW NE SE SW

Feet From: NORTH 1/4 Section Line: 1160

Feet From: EAST 1/4 Section Line: 400

Measured Total Depth: 2285

True Vertical Depth: 1280

End Point Location from Lease,

Unit, or Property Line: 1160

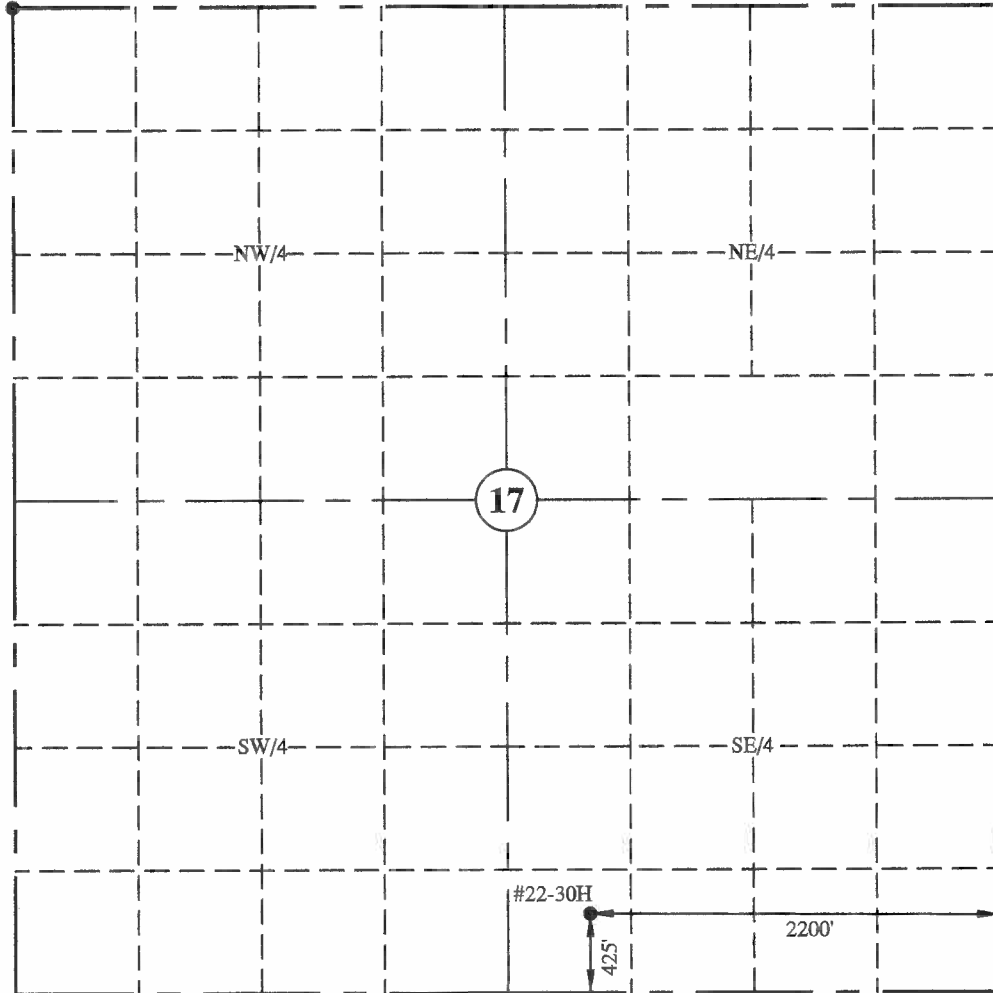
Notes:

This permit does not address the right of entry or settlement of surface damages.  
The duration of this permit is 18 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.

Category	Description
HYDRAULIC FRACTURING	<p>8/1/2019 - G71 - OCC 165:10-3-10 REQUIRES:</p> <p>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;</p> <p>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: <a href="http://OCCWEB.COM/OG/OGFORMS.HTML">OCCWEB.COM/OG/OGFORMS.HTML</a>; AND,</p> <p>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: <a href="http://FRACFOCUS.ORG">FRACFOCUS.ORG</a></p>
SPACING - 43332	<p>9/9/2019 - GC2 - (UNIT) N2, SW4, W2 SE4 17-21N-13E EST BIRD CREEK UNIT FOR BRVL, TCKR</p>

**WELL LOCATION PLAT**

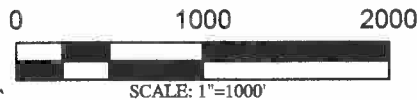
COMPANY: GRAND RESOURCES, INC LEASE: BIRD CREEK WELL NO. 22-30H  
 QUARTER: SOUTHEAST SECTION: 17 TOWNSHIP: 21 NORTH RANGE: 13 EAST MERIDIAN: INDIAN  
 COUNTY: TULSA STATE: OKLAHOMA LOCATION: 425' FSL 2200' FEL ELEVATION: 638.5 (NAD 88)  
 LATITUDE: 36°17'39.174"N LONGITUDE: 95°56'43.069"W ACCURACY  $\pm 2-3$  METERS STAKED: 07-09-19

**SURVEY NOTES**

DISTANCES SHOWN ARE BASED ON THE QUARTER SECTION BEING 2640 FEET. ACTUAL SECTION LINE DISTANCES HAVE NOT BEEN MEASURED. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY. THIS LOCATION HAS BEEN CAREFULLY STAKED, UTILIZING THE BEST AVAILABLE SURVEY RECORDS, MAPS, PHOTOGRAPHS AND EQUIPMENT. HOWEVER, ITS EXACT POSITION IS NOT GUARANTEED.

**CERTIFICATE OF SURVEY**

I HEREBY CERTIFY THAT A SURVEY WAS MADE UNDER MY SUPERVISION OF THE ABOVE DESCRIBED WELL LOCATION AND THAT THIS PLAT IS A TRUE AND CORRECT REPRESENTATION OF SAID SURVEY.



MARK RIEDEL LS#1902

**ALTMAN & OSAGE  
SURVEYING LLC.**  
 107 N. 4TH ST. STE 213  
 PONCA CITY, OK  
 918-287-4029  
 CA # 7862

**GRAND RESOURCES INC**  
 2448 EAST 81ST STREET, STE 4040  
 TULSA, OK 74137  
 WELL LOCATION IN  
 OSAGE COUNTY, OKLAHOMA

SURVEYED BY: MJR
DRAWN BY: MJR
CHECKED BY: MJR
LAST ON SITE: 07/09/19
DATE 07/10/19
JOB NO: 19-0024
SHEET 1 OF 1