

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

API NUMBER: 017 25262

Approval Date: 08/30/2018

Expiration Date: 02/28/2019

Horizontal Hole

Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 20 Twp: 12N Rge: 7W

County: CANADIAN

SPOT LOCATION: ☐ NE ☐ SE ☐ SE ☐ SE

FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 600 320

Lease Name: TOMAHAWK 20-17-12-7

Well No: 1HX

Well will be 320 feet from nearest unit or lease boundary.

Operator Name: JONES ENERGY LLC

Telephone: 5123282953

OTC/OCC Number: 21043 0

JONES ENERGY LLC
807 LAS CIMAS PKWY STE 350
AUSTIN, TX 78746-6193

TOMAHAWK DOWNHOLE LLC
116 SPRINNER DRIVE
BROUSSARD LA 70518

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	9940	6	
2			7	
3			8	
4			9	
5			10	

Spacing Orders: 661894

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201804491
201806358
201806356
201806354

Special Orders:

Total Depth: 19940

Ground Elevation: 1395

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 380

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: Yes

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: 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: C

Liner not required for Category: C

Pit Location is NON HSA

Pit Location Formation: DOG CREEK

D. One time land application -- (REQUIRES PERMIT)
H. SEE MEMO

PERMIT NO: 18-34709

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 not located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is NON HSA

Pit Location Formation: DOG CREEK

HORIZONTAL HOLE 1

Sec 17 Twp 12N Rge 7W County CANADIAN

Spot Location of End Point: N2 NE NE NE

Feet From: NORTH 1/4 Section Line: 165

Feet From: EAST 1/4 Section Line: 330

Depth of Deviation: 8984

Radius of Turn: 477

Direction: 359

Total Length: 10207

Measured Total Depth: 19940

True Vertical Depth: 9940

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

Notes:

Category

Description

DEEP SURFACE CASING

8/20/2018 - 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

8/20/2018 - 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; 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

MEMO

8/20/2018 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

PENDING CD - 201804491

8/30/2018 - G58 - (640)(HOR) 17-12N-7W
EXT 661894 MSSP, OTHERS
POE TO BHL NLT 660' FB
(COEXIST SP. ORDER 147489 MSSP; SP. ORDER 146122 MSSP)
REC 6/26/2018 (MILLER)

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.

017 25262 TOMAHAWK 20-17-12-7 1HX

Category	Description
PENDING CD - 201806354	8/30/2018 - G58 - (I.O.) 20 & 17-12N-7W EST MULTIUNIT HORIZONTAL WELL X201804491 MSSP X661894 MSSP 50% 20-12N-7W 50% 17-12N-7W NO OP. NAMED REC 8/28/2018 (JACKSON)
PENDING CD - 201806356	8/30/2018 - G58 - (I.O.) 20 & 17-12N-7W X201804491 MSSP 17-12N-7W X661894 MSSP 20-12N-7W SHL NCT 600' FSL, NCT 320' FEL OF 20-12N-7W COMPL. INT. 20-12N-7W NCT 165' FSL, NCT 0' FNL, NCT 330' FEL COMPL. INT. 17-12N-7W NCT 0' FSL, NCT 165' FNL, NCT 330' FEL NO OP. NAMED REC 8/28/2018 (JACKSON)
PENDING CD - 201806358	8/30/2018 - G58 - 20-12N-7W X661894 MSSP 2 WELLS NO OP. NAMED REC 8/28/2018 (JACKSON)
SPACING - 661894	8/30/2018 - G58 - (640)(HOR) 20-12N-7W EST MSSP, OTHERS POE TO BHL NLT 660' FB (COEXIST SP. ORDER 147489 MSSP)

JONES Well Location Plat

S.H.L. Sec. 20-12N-7W I.M.
B.H.L. Sec. 17-12N-7W I.M.

Operator: JONES ENERGY, LTD.

Lease Name and No.: TOMAHAWK 20-17-12-7 1HX

Footage: 600' FSL - 320' FEL Gr. Elevation: 1395'

Section: 20 Township: 12N Range: 7W I.M.

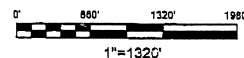
County: Canadian State of Oklahoma

Terrain at Loc.: Location fell in wide open pasture, with elevation dropping to the North and West of location.

017-25262



All bearings shown
are geodetic bearings
unless noted.

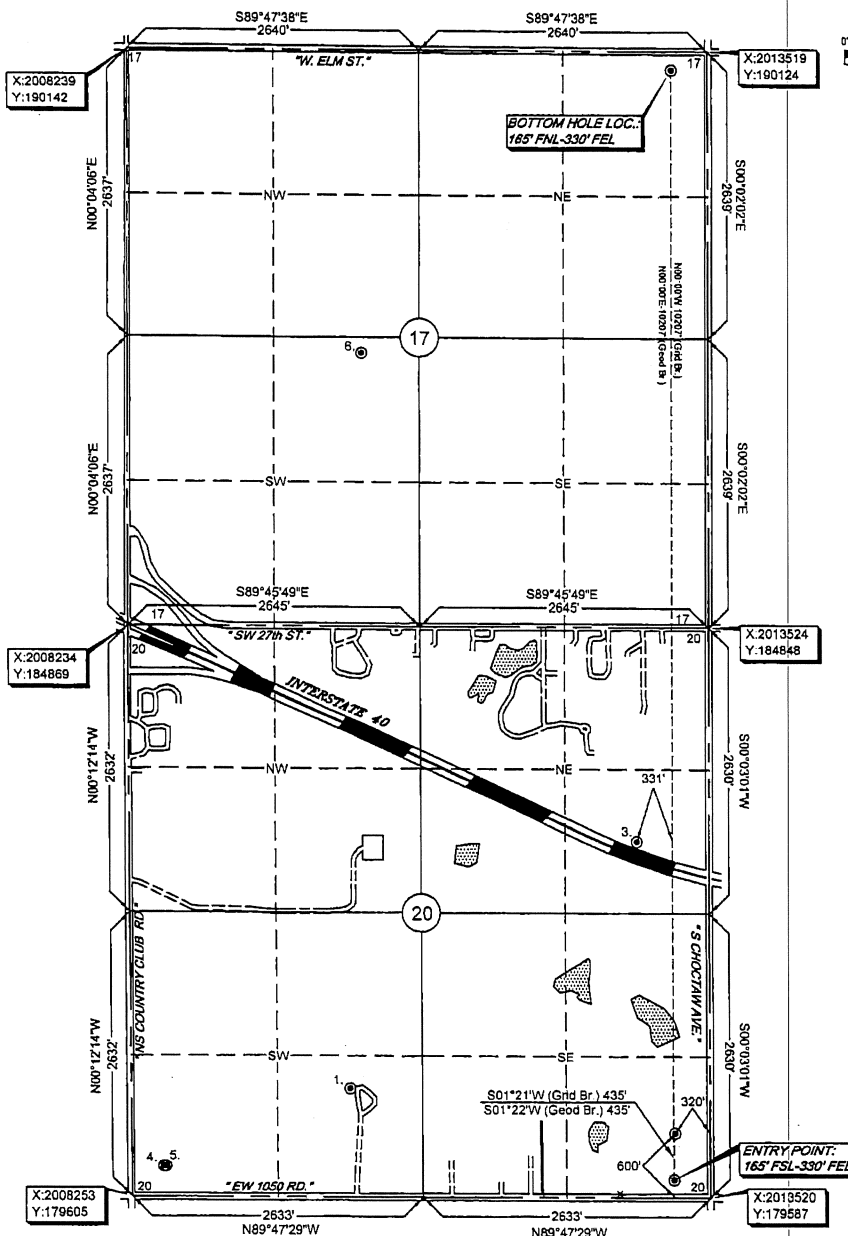


GPS DATUM
NAD 27
OK NORTH ZONE

Surface Hole Loc.:
Lat: 35°29'42.00"N
Lon: 97°57'20.37"W
X: 2013200
Y: 180188

Entry Point:
Lat: 35°29'37.70"N
Lon: 97°57'20.50"W
X: 2013190
Y: 179753

Bottom Hole Loc.:
Lat: 35°31'18.65"N
Lon: 97°57'20.45"W
X: 2013190
Y: 189960



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.

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. 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.

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, 2018

Invoice #7236-A-A

Date Staked: 10/12/17 By: J.L.

Date Drawn: 10/19/17 By: K.B.

Revise LP & BHL: 02/05/18 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.

Lance G. Mathis
LANCE G. MATHIS

02/06/18

OK LPLS 1664

