

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

API NUMBER: 073 26618

Approval Date: 08/19/2019
Expiration Date: 02/19/2021

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 19 Twp: 18N Rge: 8W

County: KINGFISHER

SPOT LOCATION:

FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 222 200

Lease Name: DORIS 1808

Well No: 19-1MH

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

Operator Name: GASTAR EXPLORATION LLC

Telephone: 7137391800

OTC/OCC Number: 23199 0

GASTAR EXPLORATION LLC
1331 LAMAR STE 650
HOUSTON, TX 77010-3131

DORIS BREHM
1204 REGENCY CT
KINGFISHER OK 73750

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

Name	Depth	Name	Depth
1 MISSISSIPPI LIME	8024	6	
2 WOODFORD	8551	7	
3		8	
4		9	
5		10	

Spacing Orders: 650206

Location Exception Orders: 699838

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 13070

Ground Elevation: 1160

Surface Casing: 470

Depth to base of Treatable Water-Bearing FM: 230

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 located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is BED AQUIFER

Pit Location Formation: CEDAR HILLS

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

PERMIT NO: 19-36863

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

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.

HORIZONTAL HOLE 1

Sec 19 Twp 18N Rge 8W County KINGFISHER

Spot Location of End Point: NW NE NE NE

Feet From: NORTH 1/4 Section Line: 150

Feet From: EAST 1/4 Section Line: 350

Depth of Deviation: 7560

Radius of Turn: 600

Direction: 358

Total Length: 4910

Measured Total Depth: 13070

True Vertical Depth: 8584

End Point Location from Lease,
Unit, or Property Line: 150

Notes:

Category

Description

HYDRAULIC FRACTURING

8/1/2019 - 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

LOCATION EXCEPTION - 699838

8/16/2019 - GB6 - (I.O.) 19-18N-8W
X650206 MSSLM, WDFD
COMPL. INT. NCT 150' FSL, NCT 150' FNL, NCT 660' FWL, NCT 330' FEL
GASTAR EXPLORATION LLC.
7/29/2019

SPACING - 650206

8/16/2019 - GB6 - (640)(HOR) 19-18N-8W
EST MSSLM, WDFD, OTHER
COMPL. INT. (MSSLM, OTHER) NCT 660' FB
COMPL. INT. (WDFD) NCT 165' FSL, NCT 165' FNL, NCT 330' FEL, NCT 330' FWL
(COEXIST SP. ORDER # 77563 MSSSD & SP. ORDER # 79253 OTHER)
CLARIFIES SP. ORDER # 77563 MSSSD = MSSLM

Well Location Plat

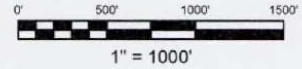
Sec. 19-18N-8W I.M.

073-26618

Operator: GASTAR EXPLORATION LLC
 Lease Name and No.: DORIS 1808 19-1MH
 Footage: 222' FSL - 200' FEL Gr. Elevation: 1160'
 SE/4-SE/4-SE/4-SE/4 Section: 19 Township: 18N Range: 8W I.M.
 County: Kingfisher State of Oklahoma
 Terrain at Loc.: Location fell in a flat open field.



All bearings shown are grid bearings.

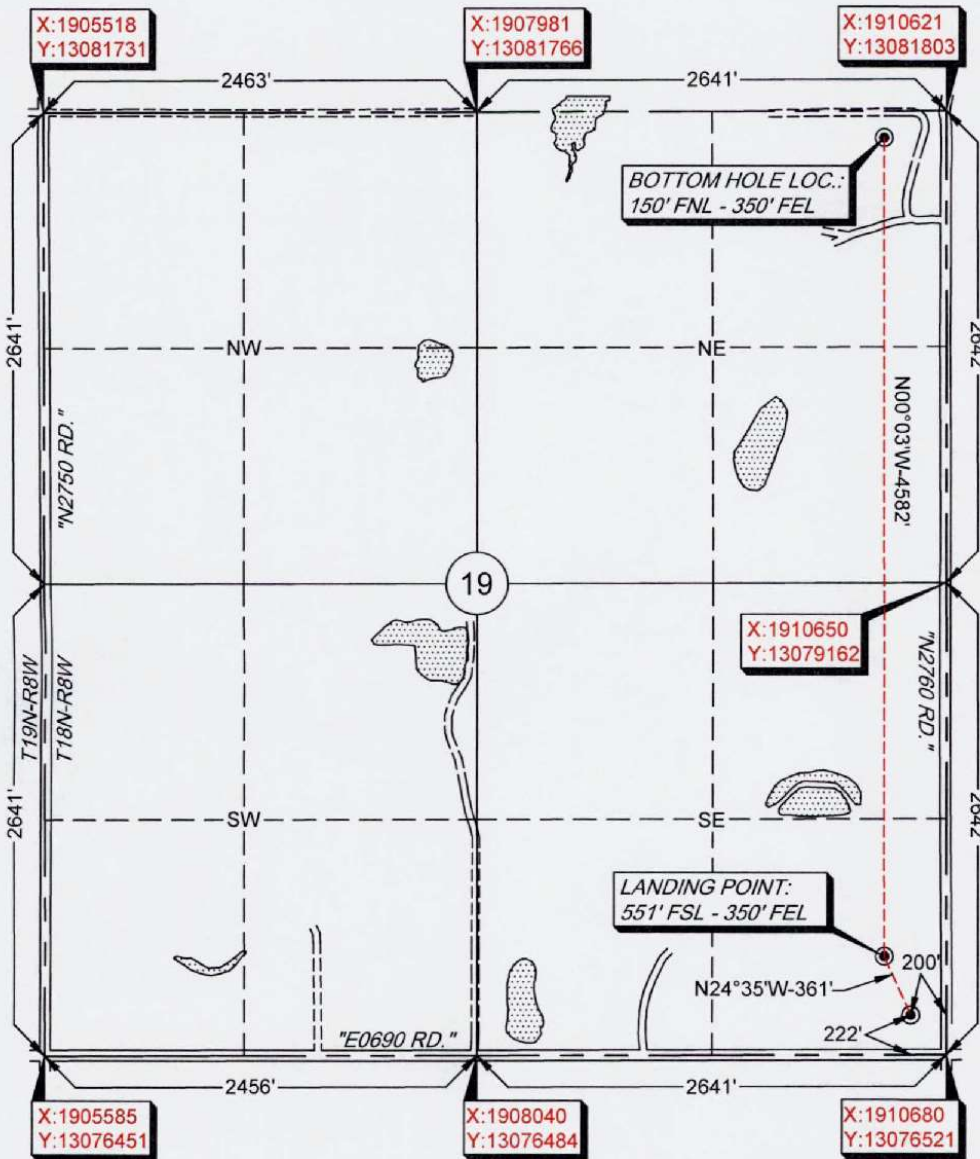


GPS DATUM
 NAD 83
 NAD 27
 UTM - ZONE 14

Surface Hole Loc.:
 Lat: 36°00'54.17"N
 Lon: 98°05'12.80"W
 Lat: 36.01500755
 Lon: -98.08654801
 X:1910477
 Y:13076740

Landing Point:
 Lat: 36°00'57.41"N
 Lon: 98°05'14.63"W
 Lat: 36.01590952
 Lon: -98.08705718
 X:1910324
 Y:13077067

Bottom Hole Loc.:
 Lat: 36°01'42.73"N
 Lon: 98°05'14.73"W
 Lat: 36.02849819
 Lon: -98.08708536
 X:1910273
 Y:13081648



-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.

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.

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, 2020

Invoice #8739-A-ALT
 Date Staked: 07/19/19 By: D.K.
 Date Drawn: 07/22/19 By: C.K.
 Rev. Lease Name: 07/26/19 By: R.S.
 Rev. Lease Name: 07/29/19 By: R.M.

Lance G. Mathis
 LANCE G. MATHIS
 07/29/19
 OK LPLS 1664

