

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

API NUMBER: 073 25477

Approval Date: 12/28/2016  
Expiration Date: 06/28/2017

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 33 Twp: 18N Rge: 7W County: KINGFISHER  
SPOT LOCATION:  NW  NE  NE  NW FEET FROM QUARTER: FROM NORTH FROM WEST  
SECTION LINES: 148 2171

Lease Name: BRADBURY Well No: 28-1H Well will be 148 feet from nearest unit or lease boundary.  
Operator Name: GASTAR EXPLORATION INC Telephone: 7137391800 OTC/OCC Number: 23199 0

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

MARILYN M PICKLE, TRUSTEE  
16426 EAST 680 ROAD  
DOVER OK 73734

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

	Name	Depth	Name	Depth
1	MISSISSIPPI LIME	7432	6	
2	WOODFORD	7923	7	
3			8	
4			9	
5			10	

Spacing Orders: 643241

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201605089

Special Orders:

Total Depth: 15136

Ground Elevation: 1056

**Surface Casing: 540**

Depth to base of Treatable Water-Bearing FM: 240

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: 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? Y

Wellhead Protection Area? Y

Pit is located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is AP/TE DEPOSIT

Pit Location Formation: TERRACE

Approved Method for disposal of Drilling Fluids:

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

PERMIT NO: 16-31738

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 21 Twp 18N Rge 7W County KINGFISHER

Spot Location of End Point: NW NW NE SW

Feet From: SOUTH 1/4 Section Line: 2475

Feet From: WEST 1/4 Section Line: 1455

Depth of Deviation: 6903

Radius of Turn: 509

Direction: 359

Total Length: 7433

Measured Total Depth: 15136

True Vertical Depth: 7955

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

Notes:

Category

Description

FORMATION

12/28/2016 - G60 - REMOVED HUNTON PER OPERATOR

HYDRAULIC FRACTURING

12/23/2016 - G71 - OCC 165:10-3-10 REQUIRES: 1) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS BE REPORTED TO FRACFOCUS USING THE FOLLOWING LINK [HTTP://FRACFOCUS.ORG/](http://fracfocus.org/) WITH NOTICE GIVEN 48 HOURS IN ADVANCE OF FRACTURING TO THE LOCAL OCC DISTRICT OFFICE; AND, 2) PRIOR TO COMMENCEMENT OF FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE ALSO GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE.

PENDING CD - 201605089

12/28/2016 - G60 - (I.O.) SW4 21 & W2 28-18N-7W  
X643241 MSSLM, WDFD  
SHL 0' FSL, NCT 330' FEL W2 28-18N-7W \*\*  
COMPL. INT. (28-18N-7W) NCT 165' FSL, NCT 330' FEL OR FWL  
COMPL. INT. (21-18N-7W) NCT 165' FNL, NCT 330' FEL OR FWL  
NO OP. NAMED  
REC. 12/20/16 (M. PORTER)

\*\*SHL WILL BE CORRECTED AT HEARING FOR FINAL ORDER LOCATION EXCEPTION PER OPERATOR

PUBLIC WATER SUPPLY WELLS

12/23/2016 - G71 - KINGFISHER - 5 PWS/WPA, 2 - NW/4 33-18N-7W, 2 - SW/4 33-18N-7N, & 1 - NW/4 4-17N-7W

SPACING - 643241

12/28/2016 - G60 - (480)(HOR) SW4 21-18N-7W & W2 28-18N-7W  
EST MSSLM, WDFD  
COMPL. INT. (MSSLM) NCT 660' FB  
COMPL. INT. (WDFD) NCT 165' FNL/FSL, NCT 330' FEL/FWL  
(COEXIST WITH SP. ORDER 80622 MSSSD, OTHER N2 NW4 28; SP. ORDER 69776 MSSSD W2 SW4 21)

SURFACE CASING

12/23/2016 - G71 - MIN. 300' PER ORDERS 23720/41036/42410