

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

API NUMBER: 073 25809

Approval Date: 10/30/2017

Expiration Date: 04/30/2018

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 34 Twp: 20N Rge: 7W

County: KINGFISHER

SPOT LOCATION: ☐ SW ☐ SE ☐ SW ☐ SE

FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 163 1796

Lease Name: BROADHEAD 2007

Well No: 34-1LOH

Well will be 163 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

FRED & LOUISE BROWN FAMILY LLC  
6713 NW 119TH STREET  
OKLAHOMA CITY OK 73162

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	6955	6	
2	WOODFORD	7439	7	
3			8	
4			9	
5			10	

Spacing Orders: No Spacing

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201700351  
201705848

Special Orders:

Total Depth: 12670

Ground Elevation: 1108

**Surface Casing: 600**

Depth to base of Treatable Water-Bearing FM: 360

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: 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 ALLUVIAL

Pit Location Formation: ALLUVIUM

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 17-33182  
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 34 Twp 20N Rge 7W County GARFIELD

Spot Location of End Point: N2 N2 NW NE

Feet From: NORTH 1/4 Section Line: 150

Feet From: EAST 1/4 Section Line: 1980

Depth of Deviation: 6667

Radius of Turn: 750

Direction: 358

Total Length: 4825

Measured Total Depth: 12670

True Vertical Depth: 7439

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

## Notes:

### Category

### Description

HYDRAULIC FRACTURING

10/17/2017 - G57 - 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: [OCCWEB.COM/OG/OGFORMS.HTML](http://OCCWEB.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)

PENDING CD - 201700351

10/18/2017 - G58 - (640) (HOR) 34-20N-7W  
EXT 649454 MSSP, WDFD, OTHERS  
COMPL. INT. (WDFD) NCT 165' FNL & FSL, 330' FWL & FEL  
COMPL. INT. (MSSP) NCT 660' FB  
(COEXIST SP. ORDER # 56529 MSSSD N2, SE4; ORDER # 56529/191579 MSSSD SW4 & ORDER # 60370/65632 MNNG)  
REC 10/10/2017 (P. PORTER)

PENDING CD - 201705848

10/18/2017 - G58 - (I.O.) 34-20N-7W  
X201700351 MSSP, WDFD  
COMPL. INT. NCT 150' FSL, NCT 150' FNL, NCT 660' FWL OR FEL  
NO OP. NAMED  
REC 10/10/2017 (P. PORTER)

SURFACE LOCATION

10/30/2017 - G58 - 163' FSL, 1796' FEL SE4 34-20N-7W PER STAKING PLAT