

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

API NUMBER: 073 25363

Approval Date: 08/19/2016  
Expiration Date: 02/19/2017

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 06 Twp: 17N Rge: 8W County: KINGFISHER  
SPOT LOCATION:  NE  NW  NE  NW FEET FROM QUARTER: FROM NORTH FROM WEST  
SECTION LINES: 253 1742

Lease Name: GEIS Well No: 31-1H Well will be 253 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

DANNY GEIS  
ROUTE 1 BOX 11  
HITCHCOCK OK 73744

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

Name	Depth	Name	Depth
1 MISS'AN (EX CHESTER)	7950	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 655245

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201603033

Special Orders:

Total Depth: 13466

Ground Elevation: 1141

**Surface Casing: 580**

Depth to base of Treatable Water-Bearing FM: 340

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? 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

Approved Method for disposal of Drilling Fluids:

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

PERMIT NO: 16-31499

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 31 Twp 18N Rge 8W County KINGFISHER

Spot Location of End Point: NW NE NE NW

Feet From: SOUTH 1/4 Section Line: 2477

Feet From: WEST 1/4 Section Line: 2103

Depth of Deviation: 7633

Radius of Turn: 700

Direction: 5

Total Length: 4733

Measured Total Depth: 13466

True Vertical Depth: 8285

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

Notes:

Category

Description

HYDRAULIC FRACTURING

8/19/2016 - 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 - 201603033

8/19/2016 - G64 - (I.O.) 31-18N-8W  
X655245 MSNLC, OTHERS  
SHL NCT 0' FSL, NCT 660' FEL & FWL \*\*  
COMPL. INT. NCT 165' FSL, NCT 165' FNL, NCT 660' FEL & FWL  
NO OP. NAMED  
REC. 8-16-2016 (DUNN)

\*\*SHL S/B 253' FNL, 1742' FWL 6-17N-8W; WILL BE CORRECTED AT HEARING FOR FINAL ORDER PER OPERATOR

SPACING - 655245

8/19/2016 - G64 - (640)(HOR) 31-18N-8W  
EXT 642895 MSNLC  
EXT OTHERS  
POE TO BHL NLT 660' FB  
(COEXIST SP. ORDER #77564 MSSSD, OTHERS)