API NUMBER: 073 25560

Horizontal Hole Oil & Gas

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

Approval Date: 03/15/2017
Expiration Date: 09/15/2017

PERMIT TO DRILL

WELL LOCATION: Sec: 33 Twp: 18N Rge: 6W County: KINGFISHER

SPOT LOCATION: NE NW NE NW FEET FROM QUARTER: FROM **NORTH** FROM **WEST**
SECTION LINES: **282** **1752**

Lease Name: OHM **Well No: 28-1H** **Well will be 282 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

ROCKY OHM
20490 EAST 700 ROAD
DOVER OK 73734

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

	Name	Depth		Name	Depth
1	MISS'AN (EX CHESTER)	7050	6		
2			7		
3			8		
4			9		
5			10		

Spacing Orders: 661889 Location Exception Orders: Increased Density Orders:

Pending CD Numbers: 201605185 Special Orders:

Total Depth: 12524 Ground Elevation: 1112 **Surface Casing: 350** Depth to base of Treatable Water-Bearing FM: 110

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 AP/TE DEPOSIT
Pit Location Formation: TERRACE

Approved Method for disposal of Drilling Fluids:

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 17-32286
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 28 Twp 18N Rge 6W County KINGFISHER

Spot Location of End Point: NW NE NE NW

Feet From: NORTH 1/4 Section Line: 165

Feet From: WEST 1/4 Section Line: 2200

Depth of Deviation: 6687

Radius of Turn: 573

Direction: 2

Total Length: 4937

Measured Total Depth: 12524

True Vertical Depth: 7260

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

Notes:

Category	Description
HYDRAULIC FRACTURING	3/13/2017 - 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/ 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 - 201605185	3/15/2017 - G60 - (I.O.) 28-18N-6W X661889 MSNLC COMPL. INT. NCT 165' FSL, NCT 165' FNL, NCT 660' FEL OR NCT 330' FWL NO OP. NAMED REC. 2/21/17 (DUNN)
SPACING - 661889	3/15/2017 - G60 - (640) 28-18N-6W EXT 643348 MSNLC POE TO BHL NLT 660' FB (COEXIST WITH SP. ORDER 53420/62761 MSSLM)

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