API NUMBER: 047 25113

Oil & Gas

Horizontal Hole

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

Approval Date: 11/03/2017
Expiration Date: 05/03/2018

PERMIT TO DRILL

WELL LOCATION: Sec: 20 Twp: 20N Rge: 8W County: GARFIELD

SPOT LOCATION: NW NE NE NW FEET FROM QUARTER: FROM SOUTH FROM WEST

SECTION LINES: 2361 2170

Lease Name: DIZZY 2008 Well No: 17-1LOH Well will be 283 feet from nearest unit or lease boundary.

Operator GASTAR EXPLORATION INC Telephone: 7137391800 OTC/OCC Number: 23199 0

GASTAR EXPLORATION INC 1331 LAMAR STE 650

HOUSTON. TX 77010-3131

FAYETTA & EDSEL DENNING 3450 NORTH COMMERCE, APT. 1301

ARDMORE OK 73401

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

Name Depth Name Depth MISSISSIPPIAN 1 7334 6 2 WOODFORD 7949 7 3 8 4 9 10 624636 Spacing Orders: Location Exception Orders: Increased Density Orders:

Pending CD Numbers: 201706462 Special Orders:

Total Depth: 13130 Ground Elevation: 1254 Surface Casing: 680 Depth to base of Treatable Water-Bearing FM: 440

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: 8000 Average: 5000

Is depth to top of ground water greater than 10ft below base of pit? $\quad \mbox{Y}$

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

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 17-33259

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

HORIZONTAL HOLE 1

Sec 17 Twp 20N Rge 8W County GARFIELD

Spot Location of End Point: NW NE NE NW
Feet From: NORTH 1/4 Section Line: 150
Feet From: WEST 1/4 Section Line: 2200

Depth of Deviation: 6978 Radius of Turn: 750

Direction: 2

Total Length: 4974

Measured Total Depth: 13130

True Vertical Depth: 7949

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

Notes:

Category Description

HYDRAULIC FRACTURING 10/18/2017 - 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:

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

PENDING CD - 201706462 11/2/2017 - G58 - (I.O.) 17-20N-8W

X624636 MSSP. WDFD

COMPL. INT. NCT 150' FSL, NCT 150' FNL, NCT 330' FEL & FWL

NO OP. NAMED

REC 10/17/2017 (M. PORTER)

SPACING - 624636 11/2/2017 - G58 - (640)(HOR) 17-20N-8W

EST MSSP, WDFD, OTHERS COMPL. INT. (MSSP) NCT 660' FB COMPL. INT. (WDFD) 330' FB

(SUPERCEDE SP. ORDER # 50456 MRMC, OSGE & ORDER # 188898 MNNG)