| PI NUMBER: 093 25108 orizontal Hole Oil & Gas | OKLAHOMA CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION P.O. BOX 52000 OKLAHOMA CITY, OK 73152-2000 (Rule 165:10-3-1) <u>PERMIT TO DRILL</u> | | | Approval Date: Expiration Date: | 12/01/2017 06/01/2018 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------------------------|
| | FEET FROM QUARTER: FROM N | ORTH FROM WEST | | | |
| Lease Name: GUFFY | | 00 790 12-29-1H | Well will be | 200 feet from neare | est unit or lease boundary. |
| Operator COMANCHE EXPLORATION CO LLC Name: | : | Telephone: 4057555900 | | OTC/OCC Number: | 20631 0 |
| COMANCHE EXPLORATION CO LLC 6520 N WESTERN AVE STE 300 OKLAHOMA CITY, OK 7 | /3116-7334 | | EPH G. & WILMA BOX 453 FON | | 73724 |
| Formation(s) (Permit Valid for Listed Form Name 1 MISSISSIPPIAN 2 3 | ations Only): Depth 8500 | Nam 6 7 8 | e | Dept | h |
| 4 5 | | 9 10 | | | |
| Spacing Orders: 665700 | Location Exception Or | rders: 666519 | Development of the second seco | | |
| Pending CD Numbers: | | | S | Special Orders: | |
| Total Depth: 14668 Ground Elevation: 1745 | 5 Surface Ca | asing: 580 | Depth | to base of Treatable Wate | er-Bearing FM: 530 |
| Under Federal Jurisdiction: No Fresh Water | | upply Well Drilled: No Approved Method for disposal of D | | Surface Water used to Drill: No | |
| Type of Pit System: CLOSED Closed System Means Ste Type of Mud System: WATER BASED Chlorides Max: 8000 Average: 5000 Is depth to top of ground water greater than 10ft below base | | D. One time lar H. SEE MEMO | nd application (REQ | UIRES PERMIT) | PERMIT NO: 17-3336 |
| Within 1 mile of municipal water well? N Wellhead Protection Area? N Pit is located in a Hydrologically Sensitive Area. Category of Pit: C Lines net required for Setangery C | | | | | |
| Liner not required for Category: C Pit Location is BED AQUIFER Pit Location Formation: MARLOW | | | | | |

 PIT 2 INFORMATION

 Type of Pit System:
 CLOSED Closed System Means Steel Pits

 Type of Mud System:
 OIL BASED

 Chlorides Max: 300000
 Average: 200000

 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
 C

Pit Location is BED AQUIFER Pit Location Formation: MARLOW

HORIZONTAL HOLE 1

Sec 29 Twp 20N Rge 16W County MAJOR Spot Location of End Point: NW NE NW NW Feet From: NORTH 1/4 Section Line: 135 Feet From: WEST 1/4 Section Line: 790 Depth of Deviation: 8370 Radius of Turn: 1000 Direction: 360 Total Length: 4727 Measured Total Depth: 14668 True Vertical Depth: 9550 End Point Location from Lease, Unit, or Property Line: 135

| Notes: | | | | | |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| Category | Description | | | | |
| HYDRAULIC FRACTURING | 10/31/2017 - G71 - 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 | | | | |
| INTERMEDIATE CASING | 10/31/2017 - G71 - DUE TO THE KNOWN POTENTIAL RISK OF ENCOUNTERING AN OVER- PRESSURED ZONE IN THE MORROW SERIES IN THIS AREA, THE TECHNICAL MANAGER RECOMMENDS SETTING AN INTERMEDIATE STRING OF CASING IMMEDIATELY ABOVE THE MORROW SERIES | | | | |
| LOCATION EXCEPTION - 666519 | 11/20/2017 - G57 - (I.O.) W2 29-20N-16W X665700 MSSP, OTHER COMPL. INT. NCT 165' FSL, NCT 165' FNL, NCT 330' FWL NO OP. NAMED 8-2-2017 | | | | |
| МЕМО | 10/31/2017 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT | | | | |

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. 093 25108 GUFFY 32-29-1H

SPACING - 665700

Description

11/20/2017 - G57 - (640)(HOR) 29-20N-16W EXT OTHER EST MSSP POE TO BHL NCT 660' FB (COEXIST SP. ORDER #267737 CSTRLM, MNMCO)