API NUMBER: 019 26396 OIL & GAS CONSERVATION DIVISION P.O. BOX 52000

**OKLAHOMA CITY, OK 73152-2000** (Rule 165:10-3-1)

**OKLAHOMA CORPORATION COMMISSION** 

Approval Date: 06/17/2020 12/17/2021 Expiration Date:

**Directional Hole** Oil & Gas

## **PERMIT TO DRILL**

|   |                                   |              |                    |               |  |                                    | DIXILL   |                         |              |                       |                |  |
|---|-----------------------------------|--------------|--------------------|---------------|--|------------------------------------|--|-------------------------|--------------|-----------------------|----------------|--|
| WELL LOCATION:  | Section: 07                       | Township:    | 2S Ran             | ge: 2W        | County: (  | CARTE                              | R  |                         |              |                       |                |  |
| SPOT LOCATION:  | NE NW NE                          | SW           | FEET FROM QUART    | TER: FROM     | SOUTH  | FROM                               | WEST   |                         |              |                       |                |  |
|   |                                   |              | SECTION LIN        | IES:          | 2499   |                                    | 1850   |                         |              |                       |                |  |
| Lease Name:   | SW WILDCAT JIM DEE                | SE UNIT      |                    | Well No:      | 18-2-I   |                                    |  | Well will be            | 1850 feet fi | rom nearest unit or l | ease boundary. |  |
| Operator Name:  | MACK ENERGY CO                    |              |                    | Telephone:    | 5802525  | 580; 580                           | 02525580   |                         | (            | OTC/OCC Number:       | 11739 0        |  |
| MACK ENER   | GY CO                             |              |                    |               |  |                                    |  |                         |              |                       |                |  |
| PO BOX 400  |                                   |              |                    |               |  | в                                  | BRADY/DRIVER CO TC CRAIGHEAD                                 |                         |              |                       |                |  |
| DUNCAN,   |                                   | OK           | 73534-0400         |               |  |                                    | O BOX 576  |                         |              |                       |                |  |
|   |                                   |              |                    |               |  | A                                  | RDMORE   |                         | Ok           | 73402                 |                |  |
| Formation(s)  | (Permit Valid for L               | isted For    | mations Only)      | -             |  |                                    |  |                         |              |                       |                |  |
| Name  | ,                                 | Code         |                    | Depth         |  |                                    |  |                         |              |                       |                |  |
| 1 DEESE   |                                   | 404D         | EESS               | 2820          |  |                                    |  |                         |              |                       |                |  |
| Spacing Orders:   | 701901                            |              | Lo                 | ocation Excep | otion Order  | s: No                              | Exceptions   |                         | Increased    | Density Orders: No    | Density Orders |  |
| Pending CD Numb   | ers: No Pending                   |              |                    |               |  |                                    |  |                         |              | Special Orders: No    | Special Orders |  |
| Total Depth: 4500 Ground Elevation: 1050 Surface Casing: 1260 Depth to base of Treatable Water-Bearing FM: 1210 |                                   |              |                    |               |  |                                    |  |                         |              |                       |                |  |
| Under   | Federal Jurisdiction: No          |              |                    |               |  | Ap                                 | proved Method  | I for disposal of Drill | ing Fluids:  |                       |                |  |
| Fresh Water Supply Well Drilled: No   |                                   |              |                    |               | A. Evaporation/dewater and backfilling of reserve pit. |                                    |  |                         |              |                       |                |  |
| Surfac  | e Water used to Drill: No         |              |                    |               |  | D.                                 | One time land a  | pplication (REQUIR      | RES PERMIT)  | PERMI                 | T NO: 20-37317 |  |
| PIT 1 INFOR   | MATION                            |              |                    |               |  |                                    | Cate   | gory of Pit: 2          |              |                       |                |  |
| Type of Pit System: ON SITE   |                                   |              |                    |               |  | Liner not required for Category: 2 |  |                         |              |                       |                |  |
| Type of Mud System: WATER BASED  Chlorides Max: 5000 Average: 3000  |                                   |              |                    |               |  |                                    | Pit Location is: BED AQUIFER  Pit Location Formation: GARBER |                         |              |                       |                |  |
|   | otop of ground water greate       | er than 10ft | helow hase of nit? | Y             |  |                                    | Pit Location i   | rormation: GARBE        | :K           |                       |                |  |
|   | mile of municipal water we        |              | below base of pit: | •             |  |                                    |  |                         |              |                       |                |  |
|   | Wellhead Protection Area          |              |                    |               |  |                                    |  |                         |              |                       |                |  |
| Pit <u>is</u> I   | located in a Hydrologically       | Sensitive Ar | ea.                |               |  |                                    |  |                         |              |                       |                |  |
| DIRECTIONAL   | L HOLE 1                          |              |                    |               |  |                                    |  |                         |              |                       |                |  |
| Section:  | 7 Township                        | : 2S         | Range              | : 2W          |  |                                    |  |                         |              |                       |                |  |
|   | County: CAF                       | RTER         |                    |               |  |                                    | Mea  | asured Total Dep        | oth: 4546    |                       |                |  |
| Spot Locatio  | n of End Point: NE                | NE           | NW S               | W             |  |                                    | Т  | rue Vertical Dep        | oth: 4500    |                       |                |  |
|   | Feet From: SOI                    | JTH          | 1/4 Section        | Line: 24      | 13   |                                    | End  | Point Location f        | rom          |                       |                |  |
|   | Feet From: WFST 1/4 Section Line: |              |                    |               |  | Lease, Unit, or Property L         |  |                         |              |                       |                |  |

NOTES:

| Category             | Description  |
|----------------------|--|
| HYDRAULIC FRACTURING | 6/17/2020 - 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              |
| SPACING - 701901     | 6/17/2020 - GC2 - (UNIT) NE4 SW4 7-2S-2W<br>EST SW WILDCAT JIM DEESE OPERATING UNIT FOR THE DEESS  |