| PI NUMBER: 017 25499   | OKLAHOMA CORPORATION COMMISSION<br>OIL & GAS CONSERVATION DIVISION<br>P.O. BOX 52000<br>OKLAHOMA CITY, OK 73152-2000 |                  |  |  | Approval Date: 07/29/2019<br>Expiration Date: 01/29/2021 |  |  |
|--|--|------------------|--|--|--|--|--|
| orizontal Hole Oil & Gas   |  | 165:10-3-1)      |  |  |  |  |  |
| ti Unit  |  |                  |  |  |  |  |  |
|  | PERM   | IT TO DRIL       | <u>L</u>                                       |  |  |  |  |
| NELL LOCATION: Sec: 33 Twp: 11N Rge: 7W  | County: CANADIAN   |                  |  |  |  |  |  |
|  | FEET FROM QUARTER: FROM NORTH  | FROM WE          | ST   |  |  |  |  |
|  | SECTION LINES: 2420  | 224              | 0  |  |  |  |  |
| Lease Name: WHIRLAWAY 33-4-11-7  | Well No: 1MXH  |                  | W  | ell will be 2240 feet from nea         | rest unit or lease boundary.                             |  |  |
| Operator ROAN RESOURCES LLC<br>Name:   | Teleş  | ohone: 405896    | 68453  | OTC/OCC Number:                        | 24127 0  |  |  |
| ROAN RESOURCES LLC   |  |                  | DRIES FAMIL                                    | Y TRUST                                |  |  |  |
| 14701 HERTZ QUAIL SPRINGS PKWY   |  |                  | 321 S. MAPLE                                   |  |  |  |  |
| OKLAHOMA CITY, OK 7  | 3134-2641  |                  | UNION CITY                                     | OK                                     | OK 73090   |  |  |
|  |  |                  |  |  | 13030  |  |  |
| Formation(s) (Permit Valid for Listed Form   | ations Only):  |                  |  |  |  |  |  |
| Name   | Depth  |                  | Name   | De                                     | pth  |  |  |
| 1 MISSISSIPPIAN  | 10778  | 6                |  |  |  |  |  |
| 2 MISSISSIPPI LIME   | 10778  | 7                |  |  |  |  |  |
| 3 WOODFORD   | 10997  | 8                |  |  |  |  |  |
| 4  |  | 9                |  |  |  |  |  |
| 5  |  | 10               |  |  |  |  |  |
| Spacing Orders: 671759<br>107705<br>668456   | Location Exception Orders:   |                  |  | Increased Density Orders               | :  |  |  |
| Pending CD Numbers: 201903507  |  |                  |  | Special Orders:                        |  |  |  |
| 201903509  |  |                  |  |  |  |  |  |
| 201903505  |  |                  |  |  |  |  |  |
| 201903508  |  |                  |  |  |  |  |  |
|  |  | (500             |  |  |  |  |  |
| Total Depth: 17712 Ground Elevation: 132:  | 2 Surface Casing   | 1: 1500          |  | Depth to base of Treatable Wa          | ter-Bearing FM: 320                                      |  |  |
| Under Federal Jurisdiction: No   | Fresh Water Supply V   | Vell Drilled: No | 5  | Surface Wate                           | r used to Drill: No                                      |  |  |
| PIT 1 INFORMATION  |  | Approv           | ed Method for dispo                            | sal of Drilling Fluids:                |  |  |  |
| Type of Pit System: ON SITE<br>Type of Mud System: WATER BASED                       |  |                  | poration/dewater an<br>dification of pit conte | d backfilling of reserve pit.<br>ents. |  |  |  |
| Chlorides Max: 5000 Average: 3000  |  | D. One           | e time land application                        | on (REQUIRES PERMIT)                   | PERMIT NO: 19-3681                                       |  |  |
| Is depth to top of ground water greater than 10ft below base                         | e of pit? Y  | H. SEI           | E MEMO   |  |  |  |  |
| Within 1 mile of municipal water well? N   |  |                  |  |  |  |  |  |
| Wellhead Protection Area? N<br>Pit is not located in a Hydrologically Sensitive Area |  |                  |  |  |  |  |  |
| Pit is not located in a Hydrologically Sensitive Area.<br>Category of Pit: 2         |  |                  |  |  |  |  |  |
| Liner not required for Category: 2   |  |                  |  |  |  |  |  |
|  |  |                  |  |  |  |  |  |
| Pit Location is NON HSA  |  |                  |  |  |  |  |  |

PIT 2 INFORMATION Type of Pit System: ON SITE 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 not located in a Hydrologically Sensitive Area. Category of Pit: 3 Liner required for Category: 3

Pit Location is NON HSA Pit Location Formation: DOG CREEK

## HORIZONTAL HOLE 1

| Sec                            | 04       | Twp     | 10N     | Rge    | 7W    | С     | ounty | CANAD | IAN |
|--------------------------------|----------|---------|---------|--------|-------|-------|-------|-------|-----|
| Spot                           | Locatio  | n of En | d Point | : SE   | Ξ     | NW    | SE    | SW    |     |
| Feet                           | From:    | SOL     | JTH     | 1/4 Se | ction | Line: | 85    | 0     |     |
| Feet                           | From:    | WE      | ST      | 1/4 Se | ction | Line: | 16    | 80    |     |
| Depth                          | n of Dev | iation: | 10094   | Ļ      |       |       |       |       |     |
| Radius of Turn: 575            |          |         |         |        |       |       |       |       |     |
| Direction: 182                 |          |         |         |        |       |       |       |       |     |
| Total Length: 6715             |          |         |         |        |       |       |       |       |     |
| Measured Total Depth: 17712    |          |         |         |        |       |       |       |       |     |
| True Vertical Depth: 10997     |          |         |         |        |       |       |       |       |     |
| End Point Location from Lease, |          |         |         |        |       |       |       |       |     |
| Unit, or Property Line: 850    |          |         |         |        |       |       |       |       |     |
|                                |          |         |         |        |       |       |       |       |     |

| Notes:                 |   |
|------------------------|---|
| Category               | Description   |
| DEEP SURFACE CASING    | 7/18/2019 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY OF ANY LOSS OF<br>CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR<br>SURFACE CASING  |
| HYDRAULIC FRACTURING   | 7/18/2019 - G71 - OCC 165:10-3-10 REQUIRES:   |
|                        | 1) PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS FOR HORIZONTAL<br>WELLS, NOTICE GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH<br>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<br>WELLS TO BOTH THE OCC CENTRAL OFFICE AND LOCAL DISTRICT OFFICES, USING THE<br>"FRAC NOTICE FORM" FOUND AT THE FOLLOWING LINK:<br>OCCEWEB.COM/OG/OGFORMS.HTML; AND, |
|                        | 3) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS<br>TO BE REPORTED TO FRACFOCUS WITHIN 60 DAYS AFTER THE CONCLUSION THE<br>HYDRAULIC FRACTURING OPERATIONS, USING THE FOLLOWING LINK: FRACFOCUS.ORG                 |
| MEMO                   | 7/18/2019 - G71 - PITS 1 & 2 - CONCRETE LINED PIT PER OPERATOR REQUEST, PIT 2 - OBM<br>RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT  |
| PENDING CD - 201903505 | 7/26/2019 - GB1 - 33-11N-7W<br>X671759 MSSP, WDFD<br>4 WELLS MSSP, 3 WELLS WDFD<br>ROAN RESOURCES LLC<br>HEARING 8/5/2019   |

017 25499 WHIRLAWAY 33-4-11-7 1MXH

| Category               | Description   |
|------------------------|---|
| PENDING CD - 201903507 | 7/26/2019 - GB1 - (E.O.) 33-11N-7W & 4-10N-7W<br>EST MULTIUNIT HORIZONTAL WELL<br>X671759 MSSP, WDFD 33-11N-7W<br>X107705 MSSLM 4-10N-7W<br>X668456 WDFD 4-10N-7W<br>(WDFD IS ADJACENT COMMON SOURCE OF SUPPLY TO MSSP/MSSLM)<br>36% 33-11N-7W<br>64% 4-10N-7W<br>ROAN RESOURCES LLC<br>REC. 7/9/2019 (MILLER)        |
| PENDING CD - 201903508 | 7/26/2019 - GB1 - 4-10N-7W<br>X107705 MSSL<br>X668456 WDFD<br>2 WELLS MSSLM, 2 WELLS WDFD<br>ROAN RESOURCES LLC<br>HEARING 8/5/2019   |
| PENDING CD - 201903509 | 7/26/2019 - GB1 - (E.O.) 33-11N-7W & 4-10N-7W<br>X671759 MSSP, WDFD 33-11N-7W<br>X107705 MSSLM 4-10N-7W<br>X668456 WDFD 4-10N-7W<br>COMPL. INT. (33-11N-7W) NCT 2500 FNL, NCT 0' FSL, NCT 1320' FWL<br>COMPL. INT. (4-10N-7W) NCT 0' FNL, NCT 165' FSL, NCT 1320' FWL<br>ROAN RESOURCES LLC<br>REC/ 7/9/2019 (MILLER) |
| SPACING - 107705       | 7/26/2019 - GB1 - (640) 4-10N-7W<br>CONFIRMS SP ORDER 98732<br>EXT 98732 MSSLM, OTHERS<br>EXT OTHERS  |
| SPACING - 668456       | 7/26/2019 - GB1 - (640)(HOR) 4-10N-7W<br>EST WDFD<br>COMPL. INT. (WDFD) NCT 165' FNL/FSL, NCT 330' FEL/FWL  |
| SPACING - 671759       | 7/26/2019 - GB1 - (640)(HOR) 33-11N-7W<br>EST MSSP, WDFD<br>COMPL. INT. (MSSP) NCT 660' FB<br>COMPL. INT. (WDFD) NCT 165' FNL/FSL, NCT 330' FEL/FWL   |