API NUMBER: 051 24639

Type of Mud System: WATER BASED

Within 1 mile of municipal water well? Y

Is depth to top of ground water greater than 10ft below base of pit? Y

is located in a Hydrologically Sensitive Area.

Chlorides Max: 5000 Average: 3000

Liner not required for Category: C
Pit Location is BED AQUIFER
Pit Location Formation: DUNCAN

Wellhead Protection Area?

Category of Pit: C

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

Approval Date:	05/17/2019
Expiration Date:	11/17/2020

Horizontal Hole Multi Unit Oil & Gas

PERMIT TO DRILL

ROAN RESOURCES LLC	
ROAN RESOURCES LLC	0
14701 HERTZ QUAIL SPRINGS PKWY OKLAHOMA CITY, OK 73134-2641	
14701 HER12 QUAIL SPRINGS PRWY 2930 COUNTY STREET TUTTLE	
OKLAHOMA CITY, OK 73134-2641 TUTTLE OK 73089 Formation(s) (Permit Valid for Listed Formations Only): Name Depth Name Depth	
Formation(s) (Permit Valid for Listed Formations Only): Name Depth Name Depth	
Name Depth Name Depth 1 MISSISSIPPIAN 9680 6 2 WOODFORD 10043 7 3 8 9 5 10 10 Spacing Orders: 253223 250481 Location Exception Orders: 250481 Increased Density Orders: 250481 648596 653565 653565	
250481	
648596 653565	
ending CD Numbers: 201902448 Special Orders: 201902449 201902446 201902447	
Total Depth: 17690 Ground Elevation: 1311 Surface Casing: 420 Depth to base of Treatable Water-Bearing FM: 1	170
Under Federal Jurisdiction: No Fresh Water Supply Well Drilled: No Surface Water used to Drill: No	No
PIT 1 INFORMATION Approved Method for disposal of Drilling Fluids:	
Type of Pit System: CLOSED Closed System Means Steel Pits B. Solidification of pit contents.	

D. One time land application -- (REQUIRES PERMIT)

H. SEE MEMO

PERMIT NO: 19-36616

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? Y
Wellhead Protection Area? Y

Pit is located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C
Pit Location is BED AQUIFER
Pit Location Formation: DUNCAN

HORIZONTAL HOLE 1

Sec 31 Twp 10N Rge 5W County **GRADY** NW Spot Location of End Point: NW ΝE ΝE Feet From: NORTH 1/4 Section Line: 65 Feet From: WEST 1/4 Section Line: 2050

Depth of Deviation: 9120 Radius of Turn: 573

Direction: 5

Total Length: 7670

Measured Total Depth: 17690
True Vertical Depth: 10043
End Point Location from Lease,
Unit, or Property Line: 65

Notes:

MEMO

Category Description

HYDRAULIC FRACTURING 5/10/2019 - 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 5/16/2019 - G71 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST: PIT 2 -

OPM TO VENDOD OPM CUTTINGS DED DISTRICT

OBM TO VENDOR, OBM CUTTINGS PER DISTRICT

PENDING CD - 201902446 5/17/2019 - G75 - 6-9N-5W

X253223 MSSP 1 WELL NO OP. NAMED HEARING 5-28-2019

PENDING CD - 201902447 5/17/2019 - G75 - 31-10N-5W

X250481 MSSP 1 WELL NO OP. NAMED HEARING 5-28-2019

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.

Category Description

PENDING CD - 201902448 5/17/2019 - G75 - (I.O.) 6-9N-5W & 31-10N-5W

EST MULTIUNIT HORIZONTAL WELL

X253223 MSSP 6-9N-5W X653565 WDFD 6-9N-5W X250481 MSSP 31-10N-5W X648596 WDFD 31-10N-5W

(WDFD ADJACENT COMMON SOURCE OF SUPPLY TO MSSP)

33% 6-9N-5W 67% 31-10N-5W NO OP. NAMED

REC 5-13-2019 (THOMAS)

PENDING CD - 201902449 5/17/2019 - G75 - (I.O.) 6-9N-5W & 31-10N-5W

X253223 MSSP 6-9N-5W X653565 WDFD 6-9N-5W X250481 MSSP 31-10N-5W X648596 WDFD 31-10N-5W

X165:10-3-28(C)(2)(B) MAY BE CLOSER THAN 600' TO EXISTING/PROPOSED WELL

COMPL. INT. (6-9N-5W) NCT 2000' FSL, NCT 0' FNL, NCT 2000' FWL COMPL. INT. (31-10N-5W) NCT 0' FSL, NCT 150' FNL, NCT 2000' FWL

NO OP. NAMÈD

REC 5-13-2019 (THOMAS)

PUBLIC WATER SUPPLY WELLS 5/16/2019 - G71 - SCOTT'S MINI STOP # 3, 1 PWS/WPA, NE4 6-9N-5W; TRINITY CROSSING

PENTECOSTAL HOLINESS CHURCH, 1 PWS/WPA, NE4 6-9N-5W

SPACING - 250481 5/16/2019 - G75 - (640) 31-10N-5W

EST MSSP, OTHERS

SPACING - 253223 5/16/2019 - G75 - (640) 6-9N-5W

EXT 144013/217821/244149 MSSP, OTHERS

EST OTHERS EXT OTHER

SPACING - 648596 5/16/2019 - G75 - (640)(HOR) 31-10N-5W

EXT 641851 WDFD

POE TO BHL NCT 165' FNL & FSL, NCT 330' FEL & FWL

SPACING - 653565 5/16/2019 - G75 - (640)(HOR) 6-9N-5W

EXT 648596 WDFD

POE TO BHL NLT 165' FNL & FSL, NLT 330' FEL & FWL

