

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

API NUMBER: 051 24365

Approval Date: 05/21/2018

Expiration Date: 11/21/2018

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 04 Twp: 9N Rge: 5W

County: GRADY

SPOT LOCATION:

FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 365 605

Lease Name: VIRGINIA LIBERTY 4-33-9-5

Well No: 2WXH

Well will be 365 feet from nearest unit or lease boundary.

Operator Name: ROAN RESOURCES LLC

Telephone: 4052412237

OTC/OCC Number: 24127 0

ROAN RESOURCES LLC
14701 HERTZ QUAIL SPRINGS PKWY
OKLAHOMA CITY, OK 73134-2641

AMBER RILEY & DEAN BUNTLEY
2176 E. ROCK CREEK RD.
TUTTLE OK 73089

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

Name	Depth	Name	Depth
1 WOODFORD	9600	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 654124
648701

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201803782
201803783
201803784
201803785

Special Orders:

Total Depth: 20135

Ground Elevation: 1285

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 200

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: Yes

Surface Water used to Drill: No

PIT 1 INFORMATION

Type of Pit System: ON SITE

Type of Mud System: WATER BASED

Chlorides Max: 5000 Average: 3000

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: 2

Liner not required for Category: 2

Pit Location is BED AQUIFER

Pit Location Formation: DUNCAN

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

B. Solidification of pit contents.

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

PERMIT NO: 18-34502

H. SEE MEMO

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.

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 located in a Hydrologically Sensitive Area.

Category of Pit: 3

Liner required for Category: 3

Pit Location is BED AQUIFER

Pit Location Formation: DUNCAN

HORIZONTAL HOLE 1

Sec 33 Twp 10N Rge 5W County GRADY

Spot Location of End Point: NW NE NE NE

Feet From: NORTH 1/4 Section Line: 65

Feet From: EAST 1/4 Section Line: 530

Depth of Deviation: 8886

Radius of Turn: 573

Direction: 2

Total Length: 10349

Measured Total Depth: 20135

True Vertical Depth: 9600

End Point Location from Lease,
Unit, or Property Line: 65

Notes:

Category

Description

DEEP SURFACE CASING

5/18/2018 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR SURFACE CASING

HYDRAULIC FRACTURING

5/18/2018 - 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

MEMO

5/18/2018 - G71 - PIT 1 & 2 - CONCRETE-LINED PIT PER OPERATOR REQUEST; PIT 2 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT

PENDING CD - 201803782

5/21/2018 - G75 - (E.O.) 4-9N-5W & 33-10N-5W
EST MULTIUNIT HORIZONTAL WELL
X654124 WDFD, OTHER 4-9N-5W
X648701 WDFD, OTHER 33-10N-5W
50% 4-9N-5W
50% 33-10N-5W
ROAN RESOURCES, LLC
REC 5-15-2018 (JACKSON)

This permit does not address the right of entry or settlement of surface damages.

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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 - 201803783	5/21/2018 - G75 - (E.O.) 4-9N-5W & 33-10N-5W X654124 WDFD, OTHER 4-9N-5W X648701 WDFD, OTHER 33-10N-5W COMPL. INT. (4-9N-5W) NCT 165' FSL, NCT 0' FNL, NCT 530' FEL COMPL. INT. (33-10N-5W) NCT 0' FSL, NCT 165' FNL, NCT 530' FEL ROAN RESOURCES, LLC REC 5-15-2018 (JACKSON)
PENDING CD - 201803784	5/21/2018 - G75 - 33-10N-5W X648701 WDFD 1 WELL NO OP. NAMED HEARING 6-5-2018
PENDING CD - 201803785	5/21/2018 - G75 - 4-9N-5W X654124 WDFD 1 WELL NO OP. NAMED HEARING 6-5-2018
SPACING - 648701	5/21/2018 - G75 - (640)(HOR) 33-10N-5W VAC 264865/357209/480763 WFDMS EXT 641851 WDFD, OTHER POE TO BHL NCT 165' FNL & FSL, NCT 330' FEL & FWL
SPACING - 654124	5/21/2018 - G75 - (640)(HOR) 4-9N-5W VAC OTHER VAC 280305 WFDMS EST WDFD, OTHER POE TO BHL NCT 165' FNL & FSL, NCT 330' FEL & FWL

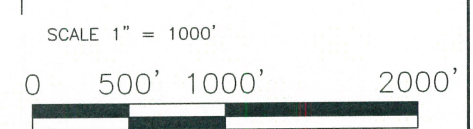
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API 051-24365



PERMIT PLAT OF
ROAN RESOURCES, LLC.
VIRGINIA LIBERTY 4-33-9-5 2WXH
365' FSL 605' FEL OF SECTION 4
MINCO FIELD
SECTION 4, TOWNSHIP 9 NORTH, RANGE 5 WEST I.M. &
SECTION 33, TOWNSHIP 10 NORTH, RANGE 5 WEST I.M.
LEASE LINES
SHL: 365' FNL 605' FEL
GRADY COUNTY, OKLAHOMA

NOTE:
1. COMBINED SCALE FACTOR: 0.999947069
2. SHL IS APPROXIMATELY 4.97 MILES S 79°23'59" E
OF TUTTLE OKLAHOMA.

FILE: S:\OK\GRADY\PROJECTS\T10N-R05W\DWG\

LEGEND SHL SURFACE HOLE LOCATION PP PENETRATION POINT FTP FIRST TAKE POINT LTP LAST TAKE POINT BHL BOTTOM HOLE LOCATION OCC OKLAHOMA CORPORATION COMMISSION		 ● POINT ○ EXISTING WELLHEAD ○ PROPOSED WELL LOCATION SET ○ SURFACE LOCATION OBTAINED FROM OCC --- AS-DRILLED LATERAL --- SUBJECT PROPOSED LATERAL --- PROPOSED LATERAL --- LEASE LINE --- SURVEY LINE	ORIGINAL STAKE DATE: 04/27/18 RE-STAKE DATE: 05/03/18 ADDED LATERAL: 05/17/18	NOTE: 1. BEARINGS, DISTANCES & ACREAGE ARE GRID, NAD 27 US OK SOUTH ZONE AND ARE OBTAINED BY NORMAL GPS TECHNIQUES. 2. ELEVATIONS ARE BASED ON NAD 88 COMPUTED USING GEOID 12B. 3. THIS SURVEY IS FOR AN OIL & GAS SUB-SURFACE LEASE AND IS NOT A BOUNDARY SURVEY. 4. LOCATION OF ADJOINING WELLS OUTSIDE LEASE BOUNDARY ARE APPROXIMATED FROM OKLAHOMA CORPORATION COMMISSION DATA. 5. DOWNHOLE INFORMATION PROVIDED BY THE CLIENT. 6. THIS SURVEY COMPLIES WITH THE US PUBLIC LAND SURVEY SYSTEM AND MEETS THE OKLAHOMA MINIMUM STANDARDS FOR THE PRACTICE OF LAND SURVEYING AS ADOPTED BY THE OKLAHOMA STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS, EFFECTIVE JULY 25, 2013. 7. THIS IS NOT A BOUNDARY SURVEY. 8. THIS PERMIT PLAT HAS BEEN PREPARED FROM A SURVEY PLAT ON FILE IN THE OFFICE OF JOHN F. WATSON & COMPANY, MIDLAND TEXAS. I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT THE SURVEY INFORMATION FOUND ON THIS PLAT WAS DERIVED FROM ACTUAL FIELD NOTES OF ON-THE-GROUND SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.
John F. Watson & Company LAND & DEVELOPMENT SERVICES PROFESSIONAL LAND SURVEYORS 200 N. Lorraine, Ste. 220 Midland, Texas 79701 off: (432) 520-2400 fax: (432) 520-2404		 CA#5957 EXPIRATION 6-30-2019 200 N LORAIN #220 MIDLAND, TX 79701 (432) 520-2400	REV: --- AFE NO.: --- FIELD BOOK: SERVER	JOB NO.: 18-0118 VER: 1 DRAWN BY: JMM PROFESSIONAL LAND SURVEYOR