

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

API NUMBER: 017 25318

Approval Date: 11/16/2018

Expiration Date: 05/16/2020

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 16 Twp: 10N Rge: 5W

County: CANADIAN

SPOT LOCATION:

FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 260 2175

Lease Name: NOWLIN 16-9-10-5

Well No: 4WXH

Well will be 260 feet from nearest unit or lease boundary.

Operator Name: ROAN RESOURCES LLC

Telephone: 4058968453

OTC/OCC Number: 24127 0

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

BRAD NOWLIN  
13401 S MUSTANG ROAD  
MUSTANG OK 73064

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

Name	Depth	Name	Depth
1 WOODFORD	9016	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 651795

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201808410  
201808411  
201808402  
201808403

Special Orders:

Total Depth: 19576

Ground Elevation: 1195

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 160

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

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: 1A

Liner required for Category: 1A

Pit Location is ALLUVIAL

Pit Location Formation: ALLUVIUM

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

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

PERMIT NO: 18-35656

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 ALLUVIAL

Pit Location Formation: ALLUVIUM

HORIZONTAL HOLE 1

Sec 09 Twp 10N Rge 5W County CANADIAN

Spot Location of End Point: NW NW NW NE

Feet From: NORTH 1/4 Section Line: 65

Feet From: EAST 1/4 Section Line: 2550

Depth of Deviation: 8342

Radius of Turn: 575

Direction: 358

Total Length: 10330

Measured Total Depth: 19576

True Vertical Depth: 9016

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

Notes:

Category

Description

DEEP SURFACE CASING

11/2/2018 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING

HYDRAULIC FRACTURING

11/2/2018 - 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](http://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](http://FRACFOCUS.ORG)

MEMO

11/2/2018 - G71 - PITS 1 & 2 - CONCRETE LINED PIT PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

PENDING CD - 201808402

11/16/2018 - G56 - 16-10N-5W  
X651795 WDFD, OTHER  
5 WELLS; 1 WELL MSSP, 4 WELLS WDFD  
NO OP NAMED  
REC 11/6/2018 (P. PORTER)

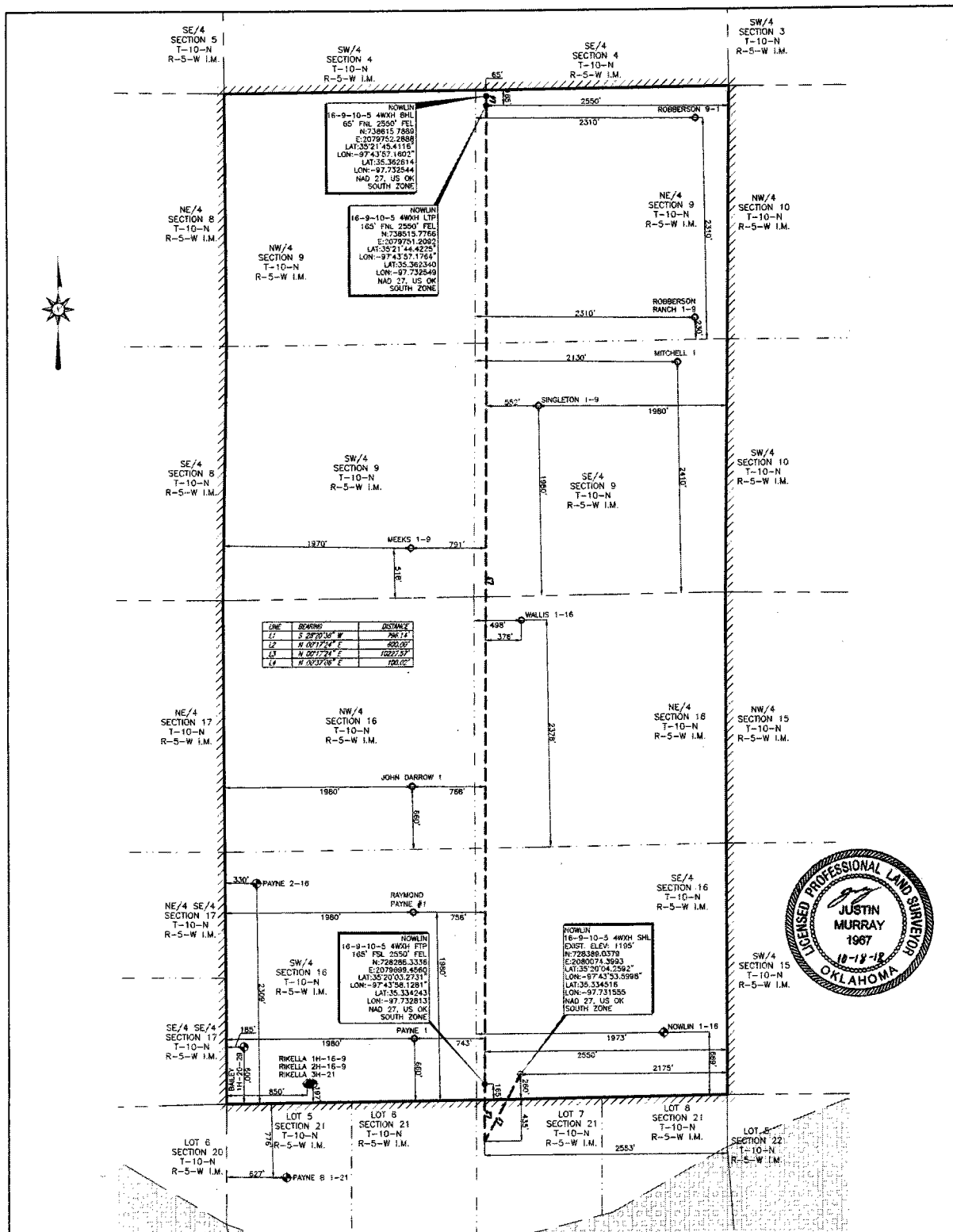
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The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.

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.

017 25318 NOWLIN 16-9-10-5 4WXH

Category	Description
PENDING CD - 201808403	11/16/2018 - G56 - 9-10N-5W X651795 WDFD, OTHER 5 WELLS; 1 WELL MSSP, 4 WELLS WDFD NO OP NAMED REC 11/6/2018 (P. PORTER)
PENDING CD - 201808410	11/16/2018 - G56 - (I.O.) 16 & 9-10N-5W ESTABLISH MULTIUNIT HORIZONTAL WELL X651795 WDFD, OTHER 16 & 9-10N-5W 50% 16-10N-5W 50% 9-10N-5W ROAN RESOURCES LLC REC 11/6/2018 (P. PORTER)
PENDING CD - 201808411	11/16/2018 - G56 - (I.O.) 16 & 9-10N-5W X651795 WDFD, OTHER X165:10-3-28(C)(2)(B) MAY BE CLOSER THAN 600' TO EXISTING AND/OR PROPOSED WELLS COMPL INT (16-10N-5W) NCT 150' FSL, NCT 0' FNL, NCT 2550' FEL COMPL INT (9-10N-5W) NCT 0' FSL, NCT 150' FNL, NCT 2550' FEL NO OP NAMED REC 11/6/2018 (P. PORTER)
SPACING - 651795	11/16/2018 - G56 - (640)(HOR) 9 & 16-10N-5W VAC OTHERS EST WDFD, OTHER POE TO BHL NCT 165' FNL/FSL, NCT 330' FEL/FWL



PERMIT PLAT OF  
 ROAN RESOURCES, LLC.  
 NOWLIN 16-9-10-5 4WXXH  
 260' FSL 2175' FEL OF SECTION 16  
 MINCO FIELD

SECTION 16, TOWNSHIP 10 NORTH, RANGE 5 WEST I.M. &  
 SECTION 9, TOWNSHIP 10 NORTH, RANGE 5 WEST I.M.

LEASE LINES  
 SHL: 260' FSL & 2175' FEL  
 CANADIAN COUNTY, OKLAHOMA

- NOTE:
1. COMBINED SCALE FACTOR: 0.999947089
  2. SHL IS APPROXIMATELY 3.95 MILES S 05°49'20" W OF MUSTANG, OKLAHOMA.

FILE: S:\OK\GRADY\PROJECTS\11000\DWG\

**LEGEND**

● POINT  
 ○ SURFACE HOLE LOCATION  
 ○ PROPOSED WELL LOCATION  
 ○ FIRST TAKE POINT  
 ○ LAST TAKE POINT  
 ○ BOTTOM HOLE LOCATION  
 ○ SURFACE LOCATION OBTAINED FROM GOC

**John F. Watson & Company**  
 LAND & DEVELOPMENT SERVICES  
 PROFESSIONAL LAND SURVEYORS  
 2611 S. Main St. Ste. 100  
 Midland, Texas 79701  
 (409) 432-2400  
 Fax: (409) 729-3400

CA#5957 EXPIRATION 6-30-2019  
 200 N LORATINE #220  
 MIDLAND, TX 79701  
 (432) 520-2400

STAKED WELLS: 09/10/18  
 ADDED LATERAL: 06/25/18  
 CHANGED WELL NAME: 10/18/18

REV: 1 DATE: 10-18-18  
 FIELD BOOK: SERVER

VER: 1 DRAWN BY: LFP

- NOTE:
1. BEARINGS, DISTANCES, & AGREEANCE ARE OBTAINED BY SURVEY AND ARE OBTAINED BY NORMAL GPS TECHNIQUES.
  2. DISTANCES ARE BASED ON HATCH 20 COMPILED USGS 1:250,000.
  3. THIS SURVEY IS FOR AN OIL & GAS SURFACE LOCATION AND IS NOT A BOUNDARY SURVEY.
  4. LOCATION OF BOUNDARY LINES, DISTANCES, & AGREEANCE ARE OBTAINED FROM OKLAHOMA COMMISSION DATA.
  5. SURVEY INFORMATION IS PROVIDED BY THE SURVEYOR AND IS NOT A BOUNDARY SURVEY.
  6. THIS SURVEY COMPLETES THE US PUBLIC LAND SURVEY SYSTEM AND MEETS THE OKLAHOMA MINERAL STATUTES FOR THE PURPOSE OF LAND SURVEYING AS REQUIRED BY THE OKLAHOMA STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS, EFFECTIVE JULY 28, 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.
  9. THE UNDERSIGNED DO HEREBY CERTIFY THAT THE SURVEY INFORMATION FOUND ON THIS PLAT WAS OBTAINED 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.

10/18/18

SHEET 1 OF 1