

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

API NUMBER: 073 26391

Approval Date: 12/14/2018

Expiration Date: 06/14/2020

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 13 Twp: 16N Rge: 9W

County: KINGFISHER

SPOT LOCATION: ☐ NW ☐ NE ☐ NW ☐ NE

FEET FROM QUARTER: FROM NORTH FROM EAST

SECTION LINES: 250 1760

Lease Name: SMITH BROTHERS

Well No: 1609 5H-1X

Well will be 250 feet from nearest unit or lease boundary.

Operator Name: NEWFIELD EXPLORATION MID-CON INC

Telephone: 2816742521; 9188781

OTC/OCC Number: 20944 0

NEWFIELD EXPLORATION MID-CON INC
24 WATERWAY AVE STE 900
THE WOODLANDS, TX 77380-2764

ROBERT BOECKMAN
5892 E 792 RD
KINGFISHER OK 73750

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

Name	Depth	Name	Depth
1 MISSISSIPPIAN	8110	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 632727
687602

Location Exception Orders: 687726

Increased Density Orders: 685873
685872

Pending CD Numbers:

Special Orders:

Total Depth: 19450

Ground Elevation: 1177

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 400

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: Yes

PIT 1 INFORMATION

Approved Method for disposal of Drilling Fluids:

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED

Chlorides Max: 5000 Average: 3000

H. SEE MEMO

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

E. Haul to Commercial pit facility: Sec. 31 Twn. 12N Rng. 8W Cnty. 17 Order No: 587498

Within 1 mile of municipal water well? N

Wellhead Protection Area? N

Pit is located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is AP/TE DEPOSIT

Pit Location Formation: TERRACE

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: 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? N

Wellhead Protection Area? N

Pit is located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is AP/TE DEPOSIT

Pit Location Formation: TERRACE

HORIZONTAL HOLE 1

Sec 01 Twp 16N Rge 9W County KINGFISHER

Spot Location of End Point: NW NE NE NE

Feet From: NORTH 1/4 Section Line: 85

Feet From: EAST 1/4 Section Line: 440

Depth of Deviation: 8444

Radius of Turn: 604

Direction: 3

Total Length: 10057

Measured Total Depth: 19450

True Vertical Depth: 8854

End Point Location from Lease,
Unit, or Property Line: 85

Notes:

Category

Description

DEEP SURFACE CASING

12/3/2018 - 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

12/3/2018 - G71 - 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: OCCWEB.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

INCREASED DENSITY - 685872

12/14/2018 - G56 - 1-16N-9W
X632727 MSSP
4 WELLS
NEWFIELD EXPLOR. MID-CONTINENT INC.
10/31/2018

INCREASED DENSITY - 685873

12/14/2018 - G56 - 12-16N-9W
X632727 MSSP
4 WELLS
NEWFIELD EXPLOR. MID-CONTINENT INC.
10/31/2018

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.

073 26391 SMITH BROTHERS 1609 5H-1X

Category	Description
INTERMEDIATE CASING	12/3/2018 - G71 - DUE TO THE KNOWN POTENTIAL RISK OF ENCOUNTERING AN OVER-PRESSURED ZONE IN THE MORROW SERIES IN THIS AREA, THE TECHNICAL MANAGER RECOMMENDS SETTING AN INTERMEDIATE STRING OF CASING IMMEDIATELY ABOVE THE MORROW SERIES
LOCATION EXCEPTION - 687726	12/14/2018 - G56 - (I.O.) 1 & 12-16N-9W X632727 MSSP, OTHER 1 & 12-16N-9W COMPL INT (12-16N-9W) NCT 0' FNL, NCT 165' FSL, NCT 330' FEL COMPL INT (1-16N-9W) NCT 0' FSL, NCT 165' FNL, NCT 330' FEL NEWFIELD EXPLOR. MID-CON INC. 12/5/2018
MEMO	12/3/2018 - G71 - PIT 1 & 2 - CLOSED SYSTEM = STEEL PITS PER OPERATOR REQUEST, WBM/CUTTINGS & OBM CUTTINGS CAPTURED IN STEEL HALF PITS & TRANSFERRED TO R360 587498 (31-12N-8W), CANADIAN CO; PIT 3 - OBM TO VENDOR
SPACING - 632727	12/14/2018 - G56 - (640)(HOR) 1 & 12-16N-9W EST OTHER EXT 614033 MSSP, OTHER COMPL INT NLT 660' FB (COEXIST WITH NON HOR DRILLING AND SP UNITS)
SPACING - 687602	12/14/2018 - G56 - (I.O.) 1 & 12-16N-9W ESTABLISH MULTIUNIT HORIZONTAL WELL X632727 MSSP, OTHER 1 & 12-16N-9W 50% 12-16N-9W 50% 1-16N-9W NEWFIELD EXPLOR. MID-CON INC. 12/4/2018

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

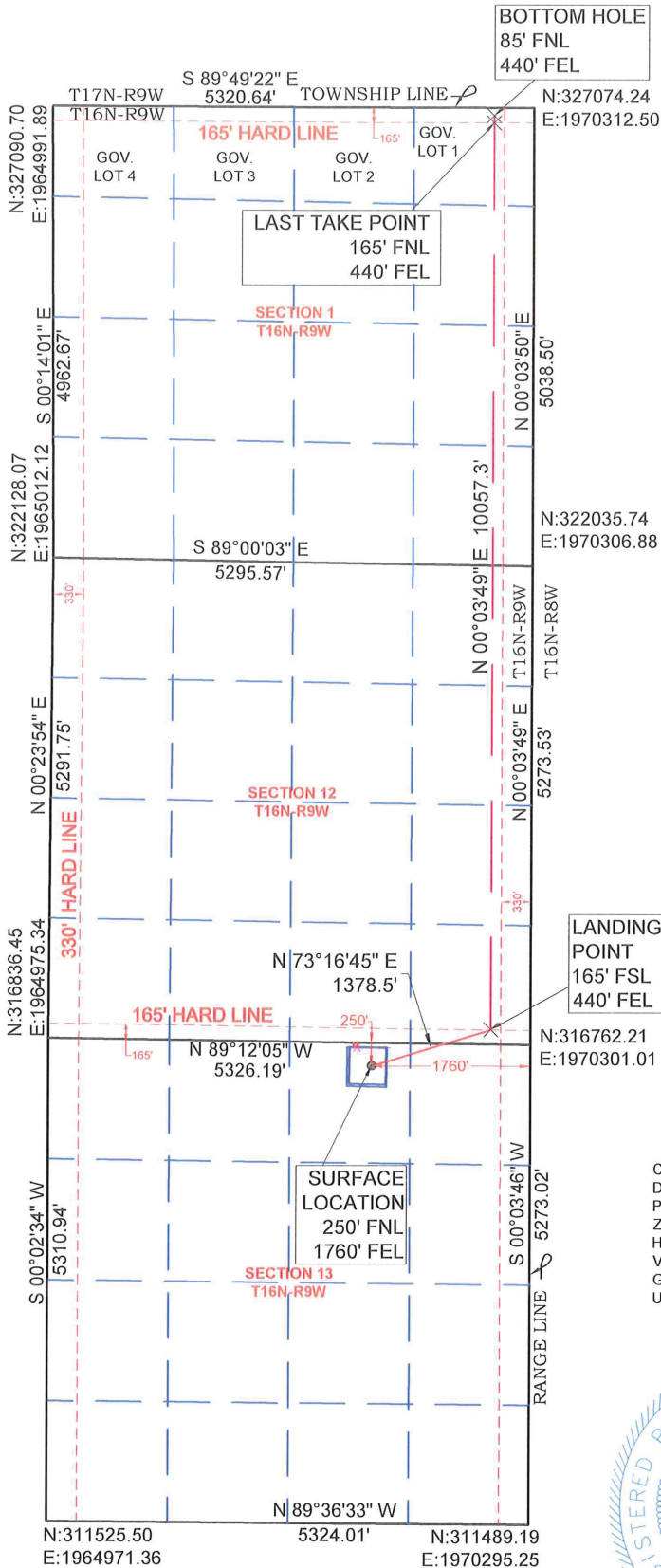
The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.

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.

PERMIT PLAT

M & M Land Surveying, Inc.
Phone (580) 226-0446
520 E Street N.W.
Ardmore, OK 73401

Company Name: NEWFIELD EXPLORATION MID-CONTINENT INC.
Lease Name: SMITH BROTHERS1609 5H-1X
Section 13 Township 16 N Range 9 W , I.B.M, County of Kingfisher, State of Oklahoma
Elevation Good Location?
Original Location: 250'FNL - 1760'FEL 1177' GROUND YES
Distance & Direction From Nearest Town: 9.8 miles West of Kingfisher



SURFACE LOCATION	LANDING POINT
DATUM: NAD27	DATUM: NAD27
LAT: 35° 52' 10.35"N	LAT: 35° 52' 14.29"N
LONG: 98° 06' 22.23"W	LONG: 98° 06' 06.20"W
LAT: 35.869542°N	LAT: 35.870635°N
LONG: 98.106175°W	LONG: 98.101721°W
Y (N): 316536.8	Y (N): 316933.35
X (E): 1968541.01	X (E): 1969861.17
DATUM: NAD83	DATUM: NAD83
LAT: 35° 52' 10.50"N	LAT: 35° 52' 14.44"N
LONG: 98° 06' 23.45"W	LONG: 98° 06' 07.41"W
LAT: 35.869584°N	LAT: 35.870677°N
LONG: 98.106513°W	LONG: 98.102059°W
Y (N): 316560.5	Y (N): 316957.06
X (E): 1936941.68	X (E): 1938261.86

LAST TAKE POINT	BOTTOM HOLE
DATUM: NAD27	DATUM: NAD27
LAT: 35° 53' 52.96"N	LAT: 35° 53' 53.75"N
LONG: 98° 06' 06.19"W	LONG: 98° 06' 06.19"W
LAT: 35.898045°N	LAT: 35.898265°N
LONG: 98.101718°W	LONG: 98.101718°W
Y (N): 326910.6	Y (N): 326990.6
X (E): 1969872.39	X (E): 1969872.49
DATUM: NAD83	DATUM: NAD83
LAT: 35° 53' 53.11"N	LAT: 35° 53' 53.90"N
LONG: 98° 06' 07.40"W	LONG: 98° 06' 07.40"W
LAT: 35.898086°N	LAT: 35.898306°N
LONG: 98.102057°W	LONG: 98.102057°W
Y (N): 326934.3	Y (N): 327014.3
X (E): 1938272.94	X (E): 1938273.03

This location has been staked according to the best official survey records available to us. The metrical data shown hereon is for permitting the well location and the section location may or may not be field verified. Please review this plat and notify us immediately of any discrepancy. The metrical data shown hereon is for permitting the well location and the section location may or may not be field verified.

COORDINATES ARE AS SHOWN ARE
DERIVED FROM OPUS SOLUTION.
PROJECTION: OKLAHOMA NORTH
ZONE, LAMBERT CONFORMAL
HORIZONTAL: NAD27
VERTICAL: NAVD88
GEOID MODEL: GEOID 99
UNITS: US SURVEY FEET

CERTIFICATE:

I D. Harry McClintick a Registered Land Surveyor in the State Of Oklahoma, do hereby certify that the above described Well Location was surveyed and staked on the ground as shown and that said plat meets or exceeds the Oklahoma Minimum Technical Standards for the practice of land surveying as adopted by the Oklahoma State Board of Licensure for Professional Engineers and Land Surveyors.



D. Harry McClintick
D. Harry McClintick
PLS. No.1367

SURVEY BY: M & M Land Surveying, Inc. - C.A. No. 3093 (LS)	
DRAWING BY: Bennett-Morris And Associates Land Surveying, P.C.	
© COPYRIGHT 2018 C.A. No. 5975 (LS) - Aaron L. Morris, RPLS	
PROJECT NUMBER: 18549	SITE VISIT: (Explanation and Date)
	STAKING DATE: 11/07/2018
SHEET: 6 OF 9	DRAWING DATE: 11/26/2018