API NUMBER: 073 26314

Oil & Gas

Horizontal Hole

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

Approval Date: 10/11/2018 04/11/2020 **Expiration Date** 

PERMIT TO DRILL

WELL LOCATION: Sec: 05 Twp:	16N	Rge: 8W	County:	KINGFISHER
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SPOT LOCATION: NE FEET FROM QUARTER: FROM SE l ne NW NORTH WEST

SECTION LINES: 700 2380

Lease Name: SANTANA Well No: 1708 4H-29X Well will be 700 feet from nearest unit or lease boundary.

**NEWFIELD EXPLORATION MID-CON INC** Operator Telephone: 2816742521; 9188781 OTC/OCC Number: 20944 0 Name:

NEWFIELD EXPLORATION MID-CON INC 24 WATERWAY AVE STE 900

THE WOODLANDS. TX 77380-2764 KARON MCKINLEY 7701 SANDY LANE

**EDMOND** OK 73034

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

Depth Name Depth MISSISSIPPIAN (LESS CHESTER) 1 8442 6 2 7 3 8 4 9 10

644685 Spacing Orders: Location Exception Orders: Increased Density Orders: 648447

Pending CD Numbers: 201806078 Special Orders:

Total Depth: 19263 Ground Elevation: 1219 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 280

Under Federal Jurisdiction: No Fresh Water Supply Well Drilled: No Surface Water used to Drill: No.

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

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?

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

H. SEE MEMO

#### 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 29 Twp 17N Rge 8W County KINGFISHER

Spot Location of End Point: NW NW NW NE
Feet From: NORTH 1/4 Section Line: 85
Feet From: EAST 1/4 Section Line: 2346

Depth of Deviation: 8179 Radius of Turn: 494 Direction: 360

Total Length: 10308

Measured Total Depth: 19263

True Vertical Depth: 8836

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

Notes:

Category Description

DEEP SURFACE CASING 9/11/2018 - 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 9/11/2018 - 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

INTERMEDIATE CASING 9/11/2018 - 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

MEMO 9/11/2018 - 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 2 - OBM TO VENDOR

Category Description

PENDING CD - 201806072 10/11/2018 - G58 - 29-17N-8W X644685/648447 MSNLC

7 WELLS NO OP NAMED

REC 8/21/2018 (JACKSON)

PENDING CD - 201806073 10/11/2018 - G58 - 32-17N-8W

X644685 MSNLC 7 WELLS NO OP NAMED

REC 8/21/2018 (JACKSON)

PENDING CD - 201806078 10/11/2018 - G58 - (I.O) 29 & 32-17N-8W

EST MULTIUNIT HORIZONTAL WELL

X644685/648447 MSNLC

50% 32-17N-8W 50% 29-17N-8W NO OP. NAMED

REC 8/21/2018 (JACKSON)

PENDING CD - 201806079 10/11/2018 - G58 - (I.O) 29 & 32-17N-8W

X644685/648447 MSNLC

COMPL. INT. 32-17N-8W NCT 165' FSL, NCT 0' FNL, NCT 1980' FEL COMPL. INT. 29-17N-8W NCT 0' FSL, NCT 165' FNL, NCT 1980' FEL

NO OP. NAMED

REC 8/21/2018 (JACKSON)

PENDING CD - 201806088 10/11/2018 - G58 - (I.O.) 29 & 32-17N-8W

X165:10-3-28(C)(2)(B) MSNLC (SANTANA 1708 4H-29X)

MAY BE CLOSER THAN 600' FROM THE SANTANA 1H-29X WELL MAY BE CLOSER THAN 600' FROM THE KRAUS 20-1 WELL MAY BE CLOSER THAN 600' FROM THE FISHER 1-32 WELL MAY BE CLOSER THAN 600' FROM PROPOSED WELL

REC 8/21/2018 (JACKSON)

SPACING - 644685 10/11/2018 - G58 - (640)(HOR) 29 & 32-17N-8W

EXT 637461 MSNLC POE TO BHL NCT 660' FB

(COEXIST SP. ORDER #143505/168065 MSSLM SEC 29, SP. ORDER #501091 MSSLM SW4 SEC

32, SP.ORDER #143505 MSSLM N2 & SE4 SEC 32)

SPACING - 648447 10/11/2018 - G58 - SP. ORDER 644685 IS CONFIRMED THIS ORDER NOTIFIES RESPONDENTS

IN THE LANDS MENTIONED IN SP ORDER 644685

# 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: SANTANA 1708 4H-29X

Section 5 Township 16 N Range 8 W , I.B.M, County of Kingfisher, State of Oklahoma

Good Location? YES

BASIS OF BEARINGS ARE GRID NORTH COORDINATES ARE NAD27

SCALE 1" = 1500'

1500

Original Location: 700'FNL - 2380'FWL Elevation 1219' GROUND Distance & Direction From Nearest Town: 8.4 miles Northwest of Kingfisher

SURFACE LOCATION
DATUM: NAD27
LAT: 35° 53' 47.54"N
LONG: 98° 04' 32.72"W
LAT: 35.896538°N
LONG: 98.075756°W
STATE PLANE
COORDINATES: (US
SURVEY FEET)
ZONE: NORTH ZONE
Y (N): 326355.03

X (E): 1977561.55

DATUM: NAD83
LAT: 35° 53' 47.69"N
LONG: 98° 04' 33.94"W
LAT: 35.896579°N
LONG: 98.076094°W
STATE PLANE
COORDINATES: (US

SURVEY FEET)

ZONE: NORTH ZONE
Y (N): 326378.75
X (E): 1945962.24

DATA DERIVED FROM G.P.S. WITH O.P.U.S. DATA.

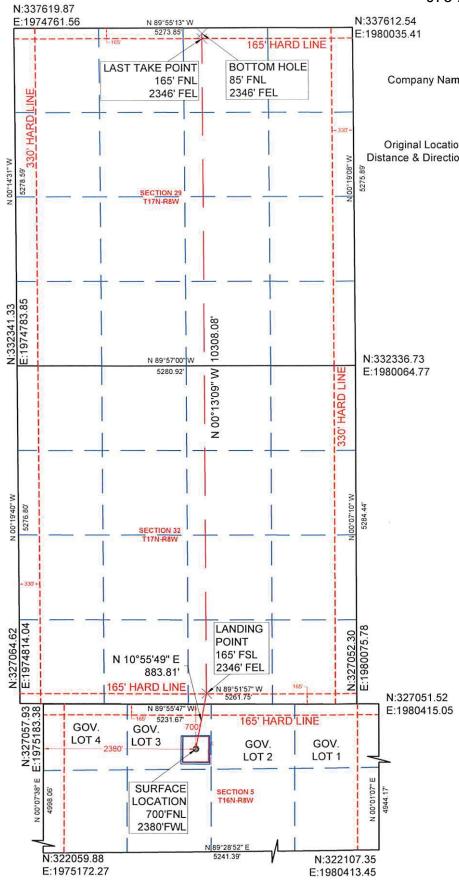
This location has been staked according to the best official survey records available to us. The metrical data shown hereon is for permitting the well location and the section location may or may not be field verified. Please review this plat and notify us immediately of any discrepancy.

## **CERTIFICATE:**

I Aaron Morris 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.

Aaron L. Morris R.P.L.S. No.1477 Bennett-Morris & Associates Land Surveying P.C. ~ C.A. No. 5795 (LS)

Phone (580) 226-5108 Fax (888) 662-7778 1010 Northwest Boulevard Ardmore, OK 73401



SURVEY BY: M & M Land Surveying, Inc. ~ C.A. No. 3093 (LS)

DRAWING BY: Bennett-Morris And Associates Land Surveying, P.C.

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PROJECT NUMBER: SITE VISIT: (Explanation and Date)

18295 STAKING DATE: 07/17/2018

SHEET: 6 OF 10 DRAWING DATE: 07/26/2018