API NUMBER: 049 25097

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: 12/14/2016
Expiration Date: 06/14/2017

PERMIT TO DRILL

WELL LOCATION: Sec: 26 Twp: 3N Rge: 4W County: GARVIN

SPOT LOCATION: SW SE SE FEET FROM QUARTER: FROM SOUTH FROM EAST SECTION LINES: 315 1270

Lease Name: TINA Well No: 5H-23X Well will be 315 feet from nearest unit or lease boundary.

Operator 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 77380-3197

JERRY TODD MCCULLOUGH

15081 N. CR 3020

LINDSAY OK 73052

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

Name Depth Name Depth MISSISSIPPIAN 1 9885 6 2 SYCAMORE 12562 7 WOODFORD 12722 8 3 9 10 617886 Spacing Orders: Location Exception Orders: Increased Density Orders: 360755

Pending CD Numbers: 201605456 Special Orders:

201605464 201605465 201605455

Total Depth: 12835 Ground Elevation: 1007 **Surface Casing: 1500** Depth to base of Treatable Water-Bearing FM: 430

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

PIT 1 INFORMATION Appr

Type of Pit System: CLOSED Closed System Means Steel Pits A. E

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? N

Within 1 mile of municipal water well? N
Wellhead Protection Area? N

Pit is not located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C
Pit Location is NON HSA
Pit Location Formation: BISON

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

F. Haul to Commercial soil farming facility: Sec. 6 Twn. 2N Rng. 4W Cnty. 137 Order No:

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? N

Within 1 mile of municipal water well? N

Wellhead Protection Area?

Pit is not located in a Hydrologically Sensitive Area.

BISON

Category of Pit: C

Pit Location Formation:

Liner not required for Category: C Pit Location is NON HSA

PIT 3 INFORMATION

Type of Pit System: ON SITE Type of Mud System: AIR

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

Within 1 mile of municipal water well? N

Wellhead Protection Area?

Pit is not located in a Hydrologically Sensitive Area.

Category of Pit: 4

Liner not required for Category: 4

Pit Location is NON HSA Pit Location Formation:

Mud System Change to Water-Based or Oil-Based Mud Requires an Amended Intent (Form 1000)

### **HORIZONTAL HOLE 1**

Sec 23 Twp 3N Rge 4W County **GARVIN** 

Spot Location of End Point: NE NW SE Feet From: SOUTH 1/4 Section Line: 2476 Feet From: EAST 1/4 Section Line: 2178

Depth of Deviation: 12477 Radius of Turn: 402 Direction: 356

Total Length: 7707

Measured Total Depth: 20816 True Vertical Depth: 12972 End Point Location from Lease, Unit, or Property Line: 2178

Additional Surface Owner	Address	City, State, Zip
DANNITA DARLENE MCCULLOUGH	15081 N CR 3020	LINDSAY, OK 73052
CODY FRANK FOSTER	15081 N CR 3020	LINDSAY, OK 73052
AMBER LORELLE FOSTER	15081 N CR 3020	LINDSAY, OK 73052

Notes:

Description Category

**BOTTOM HOLE LOCATION** 12/14/2016 - G60 - PLAT INDICATES 3102 FWL OF SW4; 3102-2640 = 462 FWL SE4 ASSUMING A

REGULAR SECTION, 2178 FEL

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

HYDRAULIC FRACTURING 12/13/2016 - G71 - OCC 165:10-3-10 REQUIRES: 1) THE CHEMICAL DISCLOSURE OF

HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS BE REPORTED TO FRACFOCUS USING THE FOLLOWING LINK HTTP://FRACFOCUS.ORG/ WITH NOTICE GIVEN 48 HOURS IN ADVANCE OF FRACTURING TO THE LOCAL OCC DISTRICT OFFICE; AND, 2) PRIOR TO COMMENCEMENT OF FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE ALSO

GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE.

MEMO 12/13/2016 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, WBM

& OBM CUTTINGS CAPTURED IN CONCRETE-LINED PIT, SOLIDIFIED, AND BURIED ON SITE;

PIT 2 - OBM TO VENDOR

PENDING CD - 201605455 12/14/2016 - G60 - (E.O.) 23-3N-4W

X617886 WDFD

5 WELLS

NEWFIELD EXPLORATION MID-CONTINENT INC.

REC. 12/6/16 (JOHNSON)

PENDING CD - 201605456 12/14/2016 - G60 - (E.O.) 26-3N-4W

X360755 WDFD

7 WELLS

NEWFIELD EXPLORATION MID-CONTINENT INC.

REC. 12/6/16 (JOHNSON)

PENDING CD - 201605464 12/14/2016 - G60 - (I.O.) 23 & 26-3N-4W

EST MULTIUNIT HÖRIZONTAL WELL X360755 (26-3N-4W) SCMR, WDFD X617886 (23-3N-4W) MSSP, WDFD

(SCMR AND MSSP ARE ASSOCIATED COMMON SOURCES OF SUPPLY TO WDFD)

65% (26-3N-4W) 35% (23-3N-4W)

NEWFIELD EXPLORATION MID-CONTINENT INC.

REC. 12/13/16 (MCKEOWN)

PENDING CD - 201605465 12/14/2016 - G60 - (I.O.) 23 & 26-3N-4W

X360755 (26-3N-4W) SCMR, WDFD X617886 (23-3N-4W) MSSP, WDFD

SHL SE4 26-3N-4W

COMPL. INT. (26-3N-4W) NCT 165' FSL, NCT 0' FNL, NCT 2220' FWL COMPL. INT. (23-3N-4W) NCT 0' FSL, NCT 2640' FNL, NCT 2220' FWL

NEWFIELD EXPLORATION MID-CONTINENT INC.

REC. 12/13/16 (MCKEOWN)

SPACING - 360755 12/14/2016 - G60 - 12/2/2016 - G60 - (640) 26-3N-4W

EST SCMR, WDFD

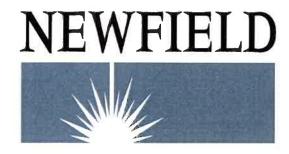
EXT OTHER

SPACING - 617886 12/14/2016 - G60 - (640)(HOR) 23-3N-4W

EXT 606602 WDFD EST MSSP, HNTN

COMPL. INT. (MSSP, HNTN) NLT 660' FB

COMPL. INT. (WDFD) NCT 165' FNL, NCT 165' FSL, NCT 330' FEL, NCT 330' FWL



December 11, 2016

# **Newfield Exploration Mid-Continent Inc.**

24 Water Way, Suite 900 The Woodlands, TX 77380

Regulatory Department PHONE: 281-674-2521 FAX: 346-224-7026

Oklahoma Corporation Commission
Oil & Gas Conservation Division
P.O. Box 52000-2000
Oklahoma City, Oklahoma 73152-2000

RE:

Tina 5H-23X Sec 26-3N-4W Garvin County, OK

Dear Sir or Madam

We are requesting a variance to the liner requirements for the burial of oil-based cuttings (OBC) as stated in rules of the Oklahoma Corporation Commission (OCC). We intend to bury the OBC from the above mentioned well using Scott Environmental Services Inc.'s (SESI) stabilization and solidification process, Duro<sup>SM</sup>. Specifically, the request for a variance is because the chosen process cannot be practically carried out under current Oklahoma rules due to the rules stating that OBC burial requires a geomembrane liner but the rules do not allow stirring within geomembrane lined pits.

In a letter dated November 15, 2010, Mr. Tim Baker confirmed that use of a Duro<sup>SM</sup> process had met the requirements of the Commission. It is requested that a variance be approved for this well site, provided that the following conditions are met:

- 1. A soil liner may be used instead of a geomembrane liner if the unconfined compressive strength (UCS) of the Duro<sup>SM</sup> material is at least 70 pounds per square inch (psi), or
- 2. No liner is required if the Duro<sup>SM</sup> material meets all of the following conditions:
  - a. A permeability of not more than  $1 \times 10^{-6}$  cm/sec;
  - b. A UCS of at least 35 psi; and
  - c. Concentrations in a leachate of the Duro<sup>SM</sup> material according to EPA's SPLP procedure do not exceed the following values for the constituents named:
    - i. Total Petroleum Hydrocarbons, 100 mg/l;
    - ii. Chloride, 1750 mg/l;
    - iii. pH, 12.49 SU, plus a lower limit no less than 6;
    - iv. Arsenic, 5.00 mg/l;
    - v. Barium, 100 mg/l;

- vi. Cadmium, 1.00 mg/l;
- vii. Chromium, 5.00 mg/l;
- viii. Lead, 5.00 mg/l;
- ix. Mercury, 0.20 mg/l;
- x. Selenium, 1.00 mg/l;
- xi. Silver, 5.00 mg/l;
- xii. Zinc, 5.00 mg/l; and
- xiii. Benzene, 0.5 mg/l.

The permeability value specified is the same as that required for a standard soil liner, so that in effect the Duro<sup>SM</sup> material becomes its own liner but is even more effective, because the low permeability extends throughout the bulk of the Duro<sup>SM</sup> material.

Conformance with the specified criteria is determined on laboratory samples made with a representative sample of the waste to be subjected to the Duro<sup>SM</sup> process. The results of the testing will be provided to the Pollution Abatement Department of the OCC.

Your prompt attention to this matter is appreciated.

Respectfully,

Newfield Exploration, Mid-Continent Inc.

Evelyn P. Smith

Sr. Regulatory Specialists

Commissioner
OKLAHOMA

**Bob Anthony** 

# **Corporation Commission**

P.O. BOX 52000 OKLAHOMA CITY OKLAHOMA 73152-2000 255 Jim Thorpe Building Telephone: (405)521-2302 FAX: (405)521-3099

### OIL & GAS CONSERVATION DIVISION



Lori Wrotenbery, Director

November 15, 2010

J. Blake Scott Scott Environmental Services, Inc. P.O. Box 6215 Longview, Texas 75608

RE: Requests for variances to liner requirements for pits used to contain oil-based cuttings of the re-

Dear Mr. Scott:

This is in response to your inquiry concerning the procedure by which operators of wells in the State of Oklahoma regulated by the Commission's Oil and Gas Conservation Division may request variances to liner requirements for pits used to contain oil-based cuttings (OBC). OAC 165:10-7-16(b)(1)(B)(iv) provides that any pit used to contain oil-based drilling fluids, cuttings and/or completion/fracture/workover fluids shall be required to have a geomembrane liner. OAC 165:10-7-16(b)(5) states that any variance from the liner requirements of OAC 165:10-7-16 may be granted by the Manager of the Technical Services Department after receipt of a written request and supporting documentation required by the Department. Operators must submit written requests for variances to liner requirements for pits used to contain OBC to the Commission's Technical Services Department (TSD) Manager as attachments to initial or amended OCC Form 1000 Applications to Drill, Recomplete or Reenter.

The TSD Manager will require operators to submit documentation in support of requests for variances. Variances to liner requirements for pits containing OBC are not effective until granted by the TSD Manager. If operators requesting variances to liner requirements for pits containing OBC fail to submit acceptable documentation to the TSD Manager, or if such variance requests are denied, then operators are required to deposit the solidified OBC in pits containing geomembrane liners and close the pits as required by OAC 165:10-7-16, or otherwise dispose of the solidified OBC in accordance with Commission rules.

If the processes employed by your company and any other entity demonstrate through the submission of laboratory analyses, chain of custody forms and any other documentation required by the TSD Manager that the solidified OBC for which a variance from the pit liner requirements is sought meet acceptable criteria, then the TSD Manager could approve such variance requests submitted by operators.

Your company has demonstrated in three separate trials to date that solidified OBC for which variances were sought by operators have met the criteria of the Technical Services Department for burying such materials in pits with no geomembrane liners.

If you have any questions concerning the foregoing, please contact me at (405) 522-2763.

Sincerely

Tim Baker

ar and the second

Manager, Pollution Abatement Department Oklahoma Corporation Commission

Cc: Lori Wrotenbery, Ron Dunkin, Wayne Wright, Grant Ellis, Tony Cupp, Terry Grooms, Gayland Darity, Sally Shipley, Keith Thomas, Susan Conrad, Jim Hamilton, Connie Moore

g raidhan all no aig lei Shrin si el mar challan i neamh-reamh-ri daol airte a leichean all aiste le

## 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: TINA #5H-23X Section 26 Township 3 N Range 4 W , I.B.M, County of Garvin, State of Oklahoma

Elevation

Good Location?

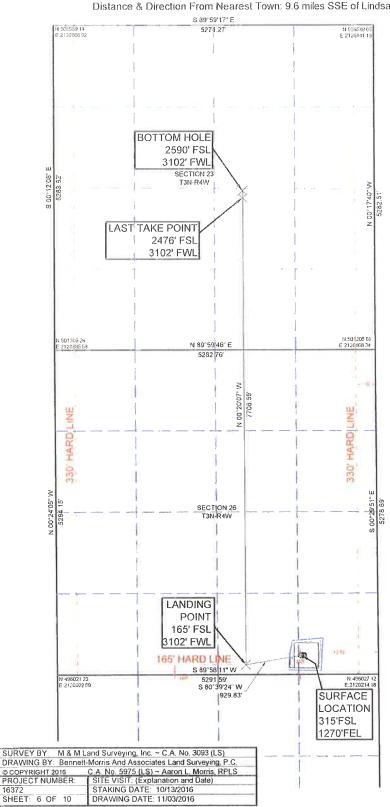
Original Location:

315'FSL - 1270'FEL

1007' GROUND

YES

Distance & Direction From Nearest Town: 9.6 miles SSE of Lindsay



SURFACE LOCATION DATUM: NAD27

LAT: 34° 41' 47.52"N LONG: 97° 35' 03.65"W LAT: 34.696532°N LONG: 97.584348°W STATE PLANE COORDINATES: (US SURVEY FEET)

ZONE: SOUTH ZONE Y (N): 496340.62

X (E): 2124940.98

DATUM: NAD83 34° 41' 47.79"N LAT: LONG: 97° 35' 04.76"W LAT:

34.696610°N LONG: 97.584655°W STATE PLANE

COORDINATES: (US SURVEY FEET)

ZONE: SOUTH ZONE 496382.863 Y (N): X (E): 2093345.576

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

BASIS OF BEARINGS ARE GRID NORTH COORDINATES ARE NAD27

SCALE 1" = 1500"

1500

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 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 PLS, No.1367 CFEDS