API NUMBER: 073 25413

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: 11/07/2016
Expiration Date: 05/07/2017

PERMIT TO DRILL

WELL LOCATION:	Sec:	31	Twp:	17N	Rge:	9W	County:	KINGFISHER
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SPOT LOCATION: SE SE SW SW FEET FROM QUARTER: FROM SOUTH FROM WEST SECTION LINES: 250 1125

Lease Name: CHANNEL Well No: 1H-30X Well will be 250 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

ANGELA D. WILLARD 5917 HILLTOP ROAD

OKLAHOMA CITY OK 73121

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

Depth Name Depth MISS'AN (EX CHESTER) 1 7753 6 2 WOODFORD 8400 7 8 3 4 9 5 10 647819 Spacing Orders: Location Exception Orders: 651823 Increased Density Orders: 652046

Pending CD Numbers: 201601093

201601095 201505479 201601094

Total Depth: 18933 Ground Elevation: 1210 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 340

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: 50000 Average: 5000

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 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: CHICKASHA

H. SEE MEMO

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

Special Orders:

617361

PIT 2 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: OIL BASED
Chlorides Max: 300000 Average: 150000

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 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: CHICKASHA

#### **HORIZONTAL HOLE 1**

Sec 30 Twp 17N Rge 9W County KINGFISHER

Spot Location of End Point: NE NW NW NW
Feet From: NORTH 1/4 Section Line: 50
Feet From: WEST 1/4 Section Line: 440

Depth of Deviation: 8791
Radius of Turn: 715
Direction: 355

Total Length: 9019

Measured Total Depth: 18933

True Vertical Depth: 9030

End Point Location from Lease,
Unit, or Property Line: 50

Additional Surface Owner Address City, State, Zip

 SHELIA C. NYE
 321 SW 62ND
 OKLAHOMA CITY, OK 73139

 GARY L. PECK
 1904 CEDAR WOOD TRAIL
 BELLEVILLE, IL 62221

Notes:

Category Description

DEEP SURFACE CASING 10/20/2016 - 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

EXCEPTION TO RULE - 652046 11/3/2016 - G60 - 30-17N-9W

X165:10-3-28(C) MSNLC (CHANNEL 1H-30X) MAY BE CLOSER THAN 600' TO RENNER 2-31

NO OP NAMED REC. 11/1/16 (DUNN)

HYDRAULIC FRACTURING 10/20/2016 - 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.

INTERMEDIATE CASING 10/20/2016 - 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

Category Description

LOCATION EXCEPTION - 651823 10/20/2016 - G60 - (I.O.) 31-17N-9W

X647819 MSNLC, WDFD

COMPL. INT. NCT 0' FNL, NCT 150' FSL, 330' FWL

CHESAPEAKE EXPLORATION LLC. \*\*\*

4-15-16

\*\*\*WILL BE CORRECTED TO NEWFIELD EXPLORATION AT HEARING FOR FINAL ORDER PER

**OPERATOR** 

MEMO 10/20/2016 - 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 - 201505479 11/2/2016 - G60 - (640)(HOR) 30-17N-9W

EXT 643256/645301/645331 MSNLC, WDFD

**EST OTHER** 

COMPL. INT. (MSNLC) COMPL. INT. (WDFD)

(COEXIST WITH SP. ORDER 89104 MCSTR AND SP. ORDER 518552 WDFD)

REC. 11-1-16 (DUNN)

PENDING CD - 201601093 10/20/2016 - G60 - (I.O.) 30 & 31 17N-9W

EST MULTIUNIT HORIZONTAL WELL

X647819 MSNLC, WDFD X201505479 MSNLC, WDFD

50% 30-17N-9W 50% 31-17N-9W

CHESAPEAKE OPERATING LLC AND CHESAPEAKE EXPLORATION LLC. \*\*\*

REC. 11-1-16 (DUNN)

\*\*\*WILL BE CORRECTED TO NEWFIELD EXPLORATION AT HEARING FOR FINAL ORDER PER

**OPERATOR** 

PENDING CD - 201601094 11/2/2016 - G60 - (I.O.) 30-17N-9W

X647819 MSNLC, WDFD

COMPL. INT. NCT 150' FNL, NCT 0' FSL, 330' FWL

NO OP. NAMED REC. 11-1-16 (DUNN)

PENDING CD - 201601095 10/20/2016 - G60 - 30-17N-9W

X165:10-3-28(C) MSNLC (CHANNEL 1H-30X)

MAY BE CLOSER THAN 600' TO WHITNEY 1-30 AND EILEEN 1-30

NO OP NAMED REC. 11/1/16 (DUNN)

SPACING - 647819 10/20/2016 - G60 - (640)(HOR) 31-17N-9W

EXT 639140/640131/644146 MSNLC EXT 639140/640131 WDFD

COMPL. INT. (MSNLC) NLT 660' FB

COMPL. INT. (WDFD) NLT 165' FNL AND FSL, NLT 330' FEL OR FWL

(COXIST WITH SP. ORDER 96050 MNNG, MSSSD)



September 28, 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:

Channel 1H-30X

Sec 31-17N-9W

Kingfisher 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  $Duro^{SM}$  material becomes its own liner but is even more effective, because the low permeability extends throughout the bulk of the  $Duro^{SM}$  material.

Conformance with the specified criteria is determined on laboratory samples made with a representative sample of the waste to be subjected to the  $Duro^{SM}$  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

**OKLAHOMA** 

# **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. 520 "E" Street NW. Ardmore, OK 73401 Office 580-226-0446 Mobile 580-221-4999

Company Name: _ Section 31	Township Surface Loca	on Mid-Continent, In 17 North Rang	ge <u>9 West</u> L - 1125' FWL	Channel #1H-30X County Kingfisher Elevation 1210'	Oklahoma Oklahoma
Y= 337,700' X= 1,937,905'	Lot 1 Proposed Bottom H 50' FNL 440' FWL	- l i	Y= X	= 337,702' = 1,943,155'	Bearings are TRUE NORTH
5277.41'		Section 30 T17N - R9W	N 00°3237 W 5284.81'		Scale: 1" = 1500' Invoice #16294 Date 8/17/16
Y= 332,423' X= 1,937,918'	N 00°06′03" W Lot 1	N 89°56'39" E 5277.43'		f a a v I i i i i i i i i i i i i i i i i i i	Coordinates were derived from GPS RTK methods and are only accurate within ±10 feet Location GPS NAD 27 Oklahoma North Surface Location atitude: 35.89925° longitude: 98.20586° = 327,400° (= 1,939,028') Location NAD 83 Surface Location atitude: 35.89929° longitude: 35.89929° longitude: 98.20620° (= 327,423° longitude: 98.20620° (
N 00°03'15" E	COT./CC   Lot 2   Lot 3   Lot 4   Lot 4   Lot 4   Lot 4   Lot 4   Lot 5   Lot	Section 31 T17N - R9W	N 00°027" E	D Harry McClintick R	is plat and notify us
330' Y= 327,151' X= 1,937,902'	Surface	g Point   L 'L		₹= 327,145' ₹= 1,943,180'	D. HARRY MCCLINTICK C