

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

API NUMBER: 073 25675

Approval Date: 06/16/2017

Expiration Date: 12/16/2017

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 31 Twp: 16N Rge: 9W

County: KINGFISHER

SPOT LOCATION: SE SW SE SW

FEET FROM QUARTER: FROM SOUTH FROM WEST

SECTION LINES: 310 1805

Lease Name: RODENBURG

Well No: 1509 4H-6X

Well will be 310 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
SPRING, TX 77380-2764

JEFFREY ELDON YOST
ROUTE 1 BOX 63
OMEGA OK 73764

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	8804	6	
2	MISS'AN (EX CHESTER)	9588	7	
3	WOODFORD	10202	8	
4			9	
5			10	

Spacing Orders: 641537
664474

Location Exception Orders: 664851
663975

Increased Density Orders: 664476
664475

Pending CD Numbers: 201701949
201701948

Special Orders:

Total Depth: 20251

Ground Elevation: 1209

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 90

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: Yes

PIT 1 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? 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: 4

Liner not required for Category: 4

Pit Location is NON HSA

Pit Location Formation: FLOWERPOT

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

Approved Method for disposal of Drilling Fluids:

- A. Evaporation/dewater and backfilling of reserve pit.
- B. Solidification of pit contents.

F. Haul to Commercial soil farming facility: Sec. 6 Twn. 2N Rng. 4W Cnty. 137 Order No: 617361

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: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED

Chlorides Max: 8000 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: FLOWERPOT

PIT 3 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: FLOWERPOT

HORIZONTAL HOLE 1

Sec 07 Twp 15N Rge 9W County KINGFISHER

Spot Location of End Point: SW SW SW SE

Feet From: SOUTH 1/4 Section Line: 50

Feet From: EAST 1/4 Section Line: 2351

Depth of Deviation: 9501

Radius of Turn: 258

Direction: 177

Total Length: 10345

Measured Total Depth: 20251

True Vertical Depth: 10202

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

Notes:

Category

Description

DEEP SURFACE CASING

6/13/2017 - 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 - 663975

6/15/2017 - G60 - 6 & 7-15N-9W
X165:10-3-28(C)(2)(B) RODENBURG 1509 4H MSNLC
MAY BE CLOSER THAN 600' TO RODENBURG 1509 3H AND RODENBURG 1509 5H
5/25/17

This permit does not address the right of entry or settlement of surface damages.
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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 25675 RODENBURG 1509 4H-6X

Category	Description
HYDRAULIC FRACTURING	6/13/2017 - 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
INCREASED DENSITY - 664475	6/16/2017 - G60 - 6-15N-9W X641537 MSSP 7 WELLS NEWFIELD EXPLORATION MID-CONTINENT INC. 6/6/17
INCREASED DENSITY - 664476	6/16/2017 - G60 - 7-15N-9W X641537 MSNLC 7 WELLS NEWFIELD EXPLORATION MID-CONTINENT INC. 6/6/17
INTERMEDIATE CASING	6/13/2017 - 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 - 664851	6/15/2017 - G60 - (I.O.) 6 & 7-15N-9W X641537 MSSP, WDFD (SECTION 6) X641537 MSNLC, WDFD (SECTION 7) COMPL. INT. (7-15N-9W) NCT 0 FNL, NCT 165 FSL, NCT 2000 FEL) COMPL. INT. (6-15N-9W) NCT 0 FSL, NCT 165 FNL, NCT 2000 FEL NEWFIELD EXPLOR. MID-CONT. INC. 6/14/17
MEMO	6/13/2017 - G71 - PITS 2 & 3 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, WBM & OBM CUTTINGS CAPTURED IN CONCRETE-LINED PIT, SOLIDIFIED, AND BURIED ON SITE; PIT 3 - OBM TO VENDOR
PENDING CD - 201701948	6/16/2017 - G60 - 6-15N-9W NPT 664475 TO CHANGE WDFD TO MSSP
PENDING CD - 201701949	6/16/2017 - G60 - 7-15N-9W NPT 664476 TO CHANGE WDFD TO MSNLC
SPACING - 641537	6/15/2017 - G60 - (640)(HOR) 6 & 7-15N-9W VAC 56289 MCSTR 6-15N-9W VAC 167255 MNNG 6-15N-9W VAC 176175 MSSSD 6-15N-9W EST MSSP, WDFD 6-15N-9W EST MSNLC, WDFD, OTHER 7-15N-9W POE TO BHL NCT 660 FB (MSSP, MSNLC) POE TO BHL NCT 165 FNL OR FSL, NCT 330 FEL OR FWL (WDFD) (COEXIST SP. ORDER #56289 MCSTR, SP. ORDER #176175 MSSSD, ALL IN 7-15N-9W)
SPACING - 664474	6/15/2017 - G60 - (I.O.) 6 & 7-15N-9W EST MULTIUNIT HORIZONTAL WELL X641537 MSSP, WDFD (SECTION 6) X641537 MSNLC, WDFD (SECTION 7) (WDFD ASSOCIATED COMMON SOURCE OF SUPPLY TO MSSP/MSNLC) 50% 6-15N-9W 50% 7-15N-9W NEWFIELD EXPLOR. MID-CONT. INC. 6/6/17

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.

3507325675



Newfield Exploration Mid-Continent, Inc.
One Williams Center; Suite 1900
Tulsa, OK 741729
918-582-2690
Fax: 918-732-1787

June 12, 2017

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

ATTN: Geology

RE: Newfield Exploration Mid Continent, Inc.
Request Surface Casing Waiver
Rodenburg 1509 4H-6X
Sec 31-16N-09W Kingfisher County

Dear Madam/Sirs:

Newfield Exploration Mid Continent, Inc. respectfully requests an exemption to the 250 feet below the base of the treatable water depth limitation as specified by Rule 165:10-3-4 as requested in order that the surface casing be set at 1500 feet. This deeper setting depth will provide for a higher degree of pressure control, help reduce sloughing of the formations found, and protect the water sands. The 1500 feet of casing will be cemented with sufficient amount of cement to circulate cement from 1500 to the surface. This cement will provide sufficient protection for the freshwater sands from any contamination. Any lost circulation problems will be handled with the use of lost circulation material that will be at the drill site. If circulation is lost, the OCC District office will be immediately notified. It is estimated that the surface hole will be drilled in 1 day.

Research of all wells in the nine-section area surrounding the proposed location found no instances of lost circulation.

Sincerely,

Heather Soto

Heather Soto
Regulatory Specialist

cc: WF



Newfield Exploration Mid-Continent, Inc.
One Williams Center; Suite 1900
Tulsa, OK 741729
918-582-2690
Fax: 918-732-1787

June 12, 2017

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

ATTN: Manager of the Technical Services Department

RE: Newfield Exploration Mid Continent, Inc.
Rodenburg 1509 4H-6X
Sec 31-16N-09W Kingfisher County
Liner Variance Request

Dear Madam/Sirs:

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, DuroSM. 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 DuroSM 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 DuroSM material is at least 70 pounds per square inch (psi), or
2. No liner is required if the DuroSM material meets all of the following conditions:
 - a. A permeability of not more than 1×10^{-6} cm/sec;
 - b. A UCS of at least 35 psi; and
 - c. Concentrations in a leachate of the DuroSM 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. pH, 12.49 SU, plus a lower limit no less than 6;
 - iii. Arsenic, 5.00 mg/l;
 - iv. Barium, 100 mg/l;

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

The permeability value specified in item 2(a) is the same as that required for a standard soil liner, so that in effect the DuroSM processed material becomes its own liner but is even more effective, because the low permeability extends throughout the bulk of the DuroSM material.

Conformance with the specified criteria is determined on laboratory samples made with a representative sample of the waste to be subjected to the DuroSM 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.

Sincerely,

Heather Soto

Heather Soto
Regulatory Specialist

cc: WF

3507325675

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: **RODENBURG 1509 4H-6X**
 Section 31 Township 16 N Range 9 W , I.B.M, County of Kingfisher, State of Oklahoma

Original Location: **310'FSL - 1805'FWL** Elevation **1209' GROUND** Good Location? **YES**
 Distance & Direction From Nearest Town: **15.4 miles WSW of Kingfisher**

SURFACE LOCATION
 DATUM: **NAD27**
 LAT: **35° 48' 46.46"N**
 LONG: **98° 12' 01.85"W**
 STATE PLANE
 COORDINATES: (US SURVEY FEET)
 ZONE: **NORTH ZONE**
 Y (N): **295964.65**
 X (E): **1940546.4**

DATUM: **NAD83**
 LAT: **35° 48' 46.61"N**
 LONG: **98° 12' 03.08"W**
 STATE PLANE
 COORDINATES: (US SURVEY FEET)
 ZONE: **NORTH ZONE**
 Y (N): **295988.333**
 X (E): **1908946.875**

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

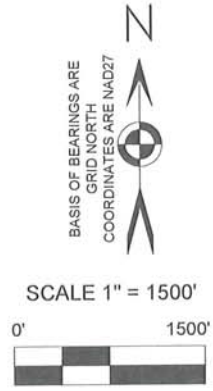
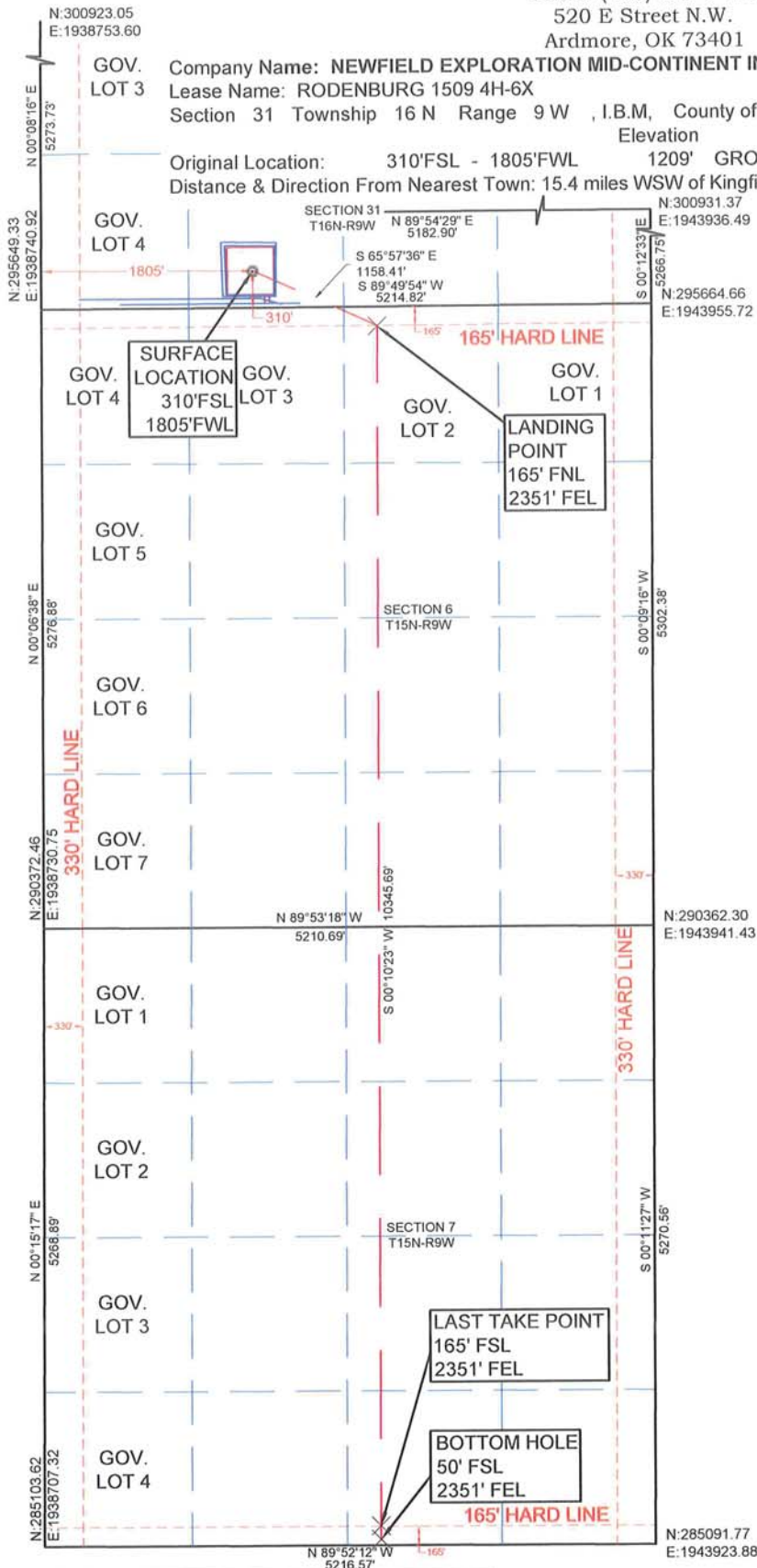
This location has been staked according to the best official survey records available to us. The metrical data shown hereon is for permitting the well location and the section location may or may not be field verified. Please review this plat and notify us immediately of any discrepancy.

CERTIFICATE:

I 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 CFEDS



SURVEY BY: M & M Land Surveying, Inc. - C.A. No. 3093 (LS)	
DRAWING BY: Bennett-Morris And Associates Land Surveying, P.C.	
© COPYRIGHT 2017 C.A. No. 5975 (LS) - Aaron L. Morris, RPLS	
PROJECT NUMBER: 17133	SITE VISIT: (Explanation and Date)
17133	STAKING DATE: 03/27/2017
SHEET: 6 OF 10	DRAWING DATE: 05/06/2017

3507325675

Bob Anthony
Commissioner

Jeff Cloud
Commissioner

Dana Murphy
Commissioner

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.

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.

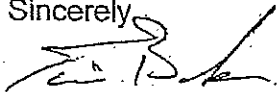
If the processes employed by your company and any other entity demonstrate through the submission of laboratory analyses, chain of custody forms and any other documentation required by the TSD Manager that the solidified OBC for which a variance from the pit liner requirements is sought meet acceptable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

SERVICE • ASSISTANCE • COMPLIANCE
EXCELLENCE IS OUR STANDARD

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

Sincerely,



Tim Baker
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