

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

API NUMBER: 111 27504

Approval Date: 06/29/2016
Expiration Date: 12/29/2016

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 05 Twp: 12N Rge: 12E County: OKMULGEE
SPOT LOCATION: SW NW NW NW FEET FROM QUARTER: FROM NORTH FROM WEST
SECTION LINES: 630 315

Lease Name: MCKINNEY Well No: 1H-5 Well will be 315 feet from nearest unit or lease boundary.
Operator Name: LANDSEER EXPLORATION LLC Telephone: 7139041942 OTC/OCC Number: 23740 0

LANDSEER EXPLORATION LLC
5300 MEMORIAL DR STE 475
HOUSTON, TX 77007-8230

CLIFFORD AND LORETTA MCKINNEY
7600 HONEY CREEK ROAD
OKMULGEE OK 74447

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	3012	6	
2	WOODFORD	3185	7	
3			8	
4			9	
5			10	

Spacing Orders: No Spacing

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201602457
201602456

Special Orders:

Total Depth: 8495 Ground Elevation: 714 **Surface Casing: 350** Depth to base of Treatable Water-Bearing FM: 100

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

PIT 1 INFORMATION

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? N

Pit is located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is BED AQUIFER

Pit Location Formation: WEWOKA

Approved Method for disposal of Drilling Fluids:

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 16-31343
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: 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 located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is BED AQUIFER

Pit Location Formation: WEWOKA

HORIZONTAL HOLE 1

Sec 05 Twp 12N Rge 12E County OKMULGEE

Spot Location of End Point: SE SW SW SW

Feet From: SOUTH 1/4 Section Line: 50

Feet From: WEST 1/4 Section Line: 440

Depth of Deviation: 2332

Radius of Turn: 740

Direction: 179

Total Length: 5000

Measured Total Depth: 8495

True Vertical Depth: 3185

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

Notes:

Category

Description

HYDRAULIC FRACTURING

6/28/2016 - 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/](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

6/28/2016 - 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 - 201602456

6/28/2016 - G60 - (E.O.)(640)(HOR) 5-12N-12E
EST MSSP, WDFD
COMPL. INT. (MSSP) NCT 660' FB
COMPL. INT. (WDFD) NCT 165' FNL & FSL, NCT 330' FEL & FWL
LANDSEER EXPLORATION, LLC
REC. 6-28-16 (LEAVITT)

PENDING CD - 201602457

6/28/2016 - G60 - (E.O.) 5-12N-12E
X201602456 MSSP, WDFD
SHL: NCT 150' FNL, NCT 250' FWL
COMPL. INT. NCT 165' FNL AND NCT 165' FSL, NCT 330' FWL
LANDSEER EXPLORATION, LLC.
REC. 6-28-16 (LEAVITT)

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.

API: 111-27504

Permit Plat

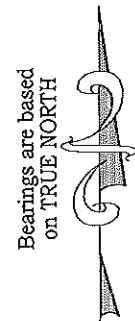
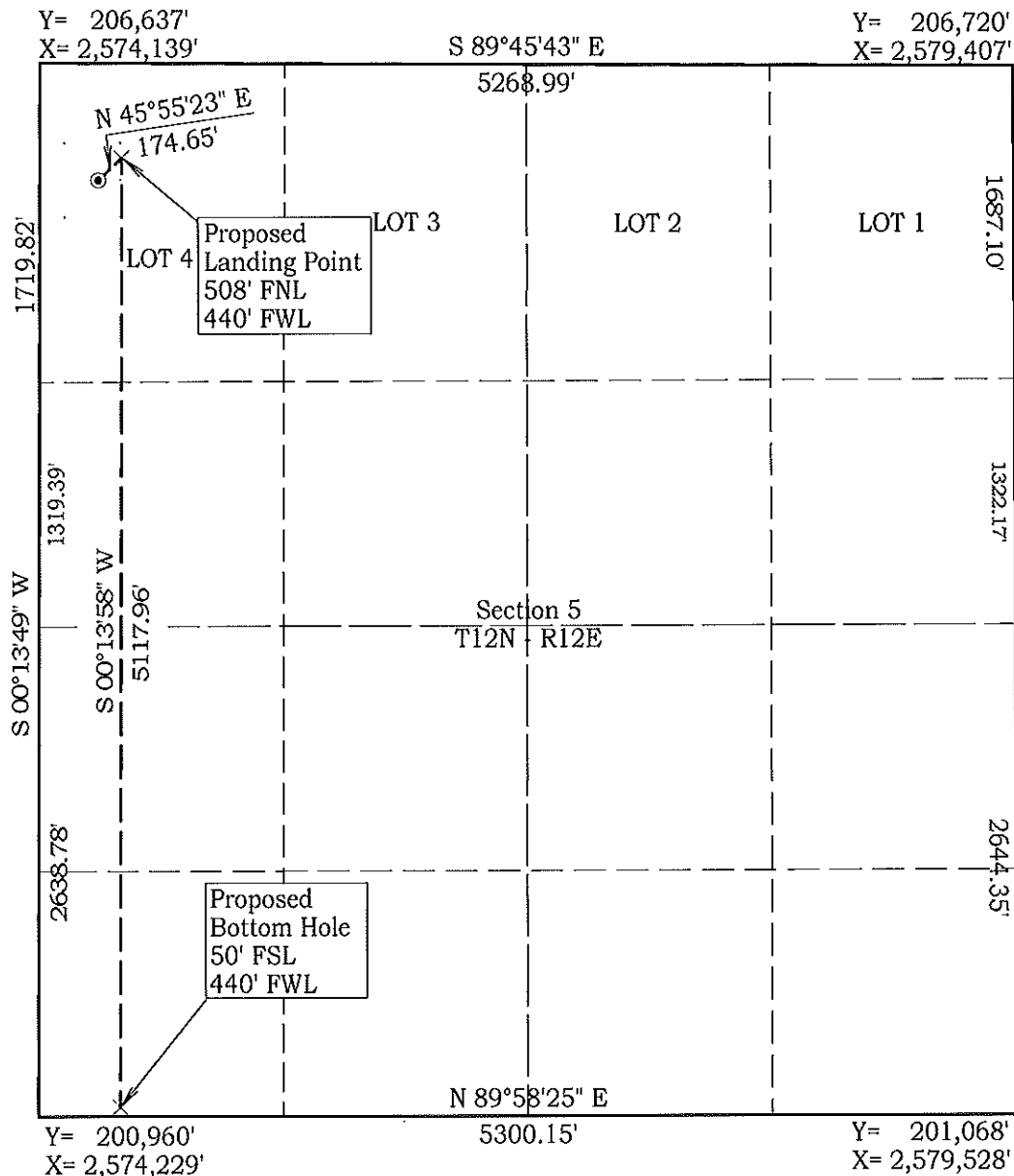
M & M Land Surveying, Inc.

520 "E" Street NW. Ardmore, OK. 73401
Office 580-226-0446 Mobile 580-221-4999 Fax 580-226-7158

Company Name: Landseer Exploration Lease Name: McKinney #1H-5
Section 5 Township 12 North Range 12 East County Okmulgee Oklahoma

Surface Location 630' FNL - 315' FWL Elevation 714'

ALL SECTION CORNER COORDINATES ARE NAD 27



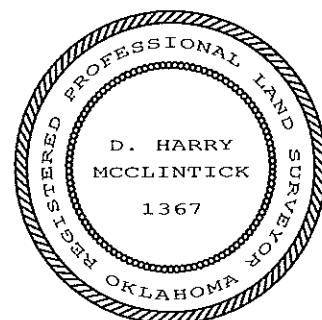
Scale: 1" = 1000'
Invoice #15487
Date 12/10/15

Location GPS NAD 27 Oklahoma North
Surface Location
Latitude: 35.55026°
Longitude: 96.06884°
Y= 206,012'
X= 2,574,464'

Location NAD 83
Surface Location
Latitude: 35.55036°
Longitude: 96.06912°
Y= 206,053'
X= 2,542,867'

D. Harry McClintick 3/30/16

D. Harry McClintick, R.P.L.S. # 1367, CA # 3093
This location has been staked according to the best official survey records available to us, but its accuracy is not guaranteed. Please review this plat and notify us immediately of any discrepancy.



API: 111-27504

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.

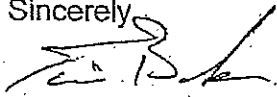
If the processes employed by your company and any other entity demonstrate through the submission of laboratory analyses, chain of custody forms and any other documentation required by the TSD Manager that the solidified OBC for which a variance from the pit liner requirements is sought meet acceptable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

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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

API: 111-27504

LANDSEER EXPLORATION

Landseer Exploration LLC
PO Box 5060
Norman, OK 73070

6/28/2016

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: Liner Variance Request
McKinney 1H-5
Sec 05-12N-12E, Okmulgee County

Dear Sir:

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,

A handwritten signature in blue ink that reads "Daniele Burris". The signature is written in a cursive, flowing style.

Daniele Burris
Regulatory Principal

Landseer Exploration LLC