

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

API NUMBER: 045 23451

Approval Date: 03/17/2014
Expiration Date: 09/17/2014

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 18 Twp: 17N Rge: 24W County: ELLIS
SPOT LOCATION: SE SW SE SW FEET FROM QUARTER: FROM SOUTH FROM WEST
SECTION LINES: 198 1880

Lease Name: LAVERNA Well No: 2H-19 Well will be 198 feet from nearest unit or lease boundary.
Operator Name: LE NORMAN OPERATING LLC Telephone: 4055481200 OTC/OCC Number: 22738 0

LE NORMAN OPERATING LLC
4727 GAILLARDIA PKWY STE 200
OKLAHOMA CITY, OK 73142-1881

MICHAEL & BRENDA GROSS
HCR 63, BOX 49
ARNETT OK 73832

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

Name	Depth	Name	Depth
1 CLEVELAND	9940	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 138264 Location Exception Orders: 616110 Increased Density Orders: 615777

Pending CD Numbers: Special Orders:

Total Depth: 14400 Ground Elevation: 2054 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 400

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: 35000 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 located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is ALLUVIAL

Pit Location Formation: ALLUVIUM

Approved Method for disposal of Drilling Fluids:

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 13-24401
H. CLOSED SYSTEM=STEEL PITS (REQUIRED - SOUTH CANADIAN RIVER)

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.

HORIZONTAL HOLE 1

Sec 19 Twp 17N Rge 24W County ELLIS

Spot Location of End Point: E2 SW SE SW

Feet From: SOUTH 1/4 Section Line: 330

Feet From: WEST 1/4 Section Line: 1880

Depth of Deviation: 7220

Radius of Turn: 890

Direction: 180

Total Length: 5782

Measured Total Depth: 14400

True Vertical Depth: 9940

End Point Location from Lease,
Unit, or Property Line: 330

Notes:

Category	Description
DEEP SURFACE CASING	3/14/2014 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR SURFACE CASING
INCREASED DENSITY - 615777	3/17/2014 - G75 - 19-17N-24W X138264 CLVD 1 WELL LE NORMAN OP. LLC 9-12-2013
LOCATION EXCEPTION - 616110	3/17/2014 - G75 - (I.O.) X138264 CLVD SHL NCT 198 FSL, NCT 1880 FWL 18-17N-24W FIRST PERF NCT 330 FNL, NCT 560 FWL 19-17N-24W LAST PERF NCT 330 FSL, NCT 560 FWL 19-17N-24W LE NORMAN OP. LLC 9-19-2013
SPACING - 138264	3/14/2014 - G75 - (640) 19-17N-24W EXT OTHERS EXT 131528 CLVD, OTHERS

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