

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

API NUMBER: 063 24669

Approval Date: 05/16/2017
Expiration Date: 11/16/2017

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 04 Twp: 5N Rge: 9E County: HUGHES
SPOT LOCATION: SE SE SE SE FEET FROM QUARTER: FROM SOUTH FROM EAST
SECTION LINES: 312 280

Lease Name: ROGER 0509 Well No: 2-4H Well will be 280 feet from nearest unit or lease boundary.
Operator Name: CORTERRA ENERGY OPERATING LLC Telephone: 9186150400 OTC/OCC Number: 23995 0

CORTERRA ENERGY OPERATING LLC
1717 S BOULDER AVE STE 900
TULSA, OK 74119-4844

HAROLD BRUCE MERRIMAN
7361 EAST 144 ROAD
ATWOOD OK 74827

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

	Name	Depth	Name	Depth
1	CANEY	4885	6	
2	WOODFORD	5275	7	
3			8	
4			9	
5			10	

Spacing Orders: 539798

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201702432
201702968

Special Orders:

Total Depth: 10800

Ground Elevation: 850

Surface Casing: 550

Depth to base of Treatable Water-Bearing FM: 500

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: Yes

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: 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: WEWOKA

D. One time land application -- (REQUIRES PERMIT)

PERMIT NO: 17-32537

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: 200000

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: WEWOKA

HORIZONTAL HOLE 1

Sec 04 Twp 5N Rge 9E County HUGHES

Spot Location of End Point: NW NE NE NE

Feet From: NORTH 1/4 Section Line: 165

Feet From: EAST 1/4 Section Line: 380

Depth of Deviation: 5250

Radius of Turn: 369

Direction: 359

Total Length: 4970

Measured Total Depth: 10800

True Vertical Depth: 5600

End Point Location from Lease,
Unit, or Property Line: 165

Notes:

Category

Description

HYDRAULIC FRACTURING

5/5/2017 - 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/](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

5/5/2017 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

PENDING CD - 201702432

5/8/2017 - G64 - 4-5N-9E
X539798 WDFD
2 WELLS
NO OP. NAMED
HEARING 5-9-2017

PENDING CD - 201702968

5/10/2017 - G64 - (E.O.) 4-5N-9E
X539798 CNEY, WDFD
XOTHER
SHL 213' FSL, 280' FEL
COMPL. INT. NCT 165' FSL, NCT 165' FNL, NCT 330' FEL
CORTERRA ENERGY LLC
REC. 5-16-2017 (MCKEOWN)

SPACING - 539798

5/8/2017 - G64 - (640) 4-5N-9E
EXT 536817 CNEY, WDFD, OTHER

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.