

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

API NUMBER: 063 24725 A

Approval Date: 11/15/2017
Expiration Date: 05/15/2018

Horizontal Hole Oil & Gas

Amend reason: CHANGE TO HORIZONTAL OIL/GAS WELL

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 04 Twp: 5N Rge: 9E

County: HUGHES

SPOT LOCATION:

FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 352 245

Lease Name: MERRIMAN

Well No: 1015-1HX

Well will be 245 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	MISSISSIPPIAN	4950	6	
2	WOODFORD	5310	7	
3	SYLVAN	5500	8	
4			9	
5			10	

Spacing Orders: No Spacing

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201707376
201707375
201702336

Special Orders:

Total Depth: 16000

Ground Elevation: 854

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: ON SITE

Type of Mud System: AIR

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

PERMIT NO: 17-33374

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: 4

Liner not required for Category: 4

Pit Location is BED AQUIFER

Pit Location Formation: WEWOKA

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

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 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

PIT 3 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 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 15 Twp 5N Rge 9E County HUGHES

Spot Location of End Point: SE SW SW SW

Feet From: SOUTH 1/4 Section Line: 165

Feet From: WEST 1/4 Section Line: 440

Depth of Deviation: 4858

Radius of Turn: 573

Direction: 175

Total Length: 10242

Measured Total Depth: 16000

True Vertical Depth: 5500

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

Notes:

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.

063 24725 MERRIMAN 1015-1HX

Category	Description
HYDRAULIC FRACTURING	<p>12/22/2017 - G71 - OCC 165:10-3-10 REQUIRES:</p> <p>1) PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE;</p> <p>2) WITH NOTICE ALSO GIVEN 48 HOURS IN ADVANCE OF HYDRAULIC FRACTURING ALL WELLS TO BOTH THE OCC CENTRAL OFFICE AND LOCAL DISTRICT OFFICES, USING THE "FRAC NOTICE FORM" FOUND AT THE FOLLOWING LINK: OCCEWEB.COM/OG/OGFORMS.HTML; AND,</p> <p>3) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS TO BE REPORTED TO FRACFOCUS WITHIN 60 DAYS AFTER THE CONCLUSION THE HYDRAULIC FRACTURING OPERATIONS, USING THE FOLLOWING LINK: FRACFOCUS.ORG</p>
MEMO	<p>11/13/2017 - G71 - PIT 2 & 3 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST; PIT 3 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT</p>
PENDING CD - 201702336	<p>12/22/2017 - G75 - (E.O.)(640)(HOR) 10 & 15-5N-9E VAC 536264 WDFD ** EST MSSP, WDFD, SLVN POE TO BHL (MSSP) NCT 660' FB POE TO BHL (SLVN) NCT 330' FB POE TO BHL (WDFD) NCT 165' FNL & FSL, NCT 330' FEL & FWL NO OP. NAMED REC 12-21-2017 (JOHNSON)</p> <p>** S/B VAC 536264 CNEY, WDFD; TO BE CORRECTED IN ORDER SUBMITTED TO OCC FOR REVIEW PER ATTORNEY FOR OPERATOR</p>
PENDING CD - 201707375	<p>12/22/2017 - G75 - (E.O.) 10 & 15-5N-9E EST MULTIUNIT HORIZONTAL WELL X201702336 MSSP, WDFD, SLVN (MSSP, SLVN ADJACENT COMMON SOURCES OF SUPPLY TO WDFD) 50% 10-5N-9E 50% 15-5N-9E NO OP. NAMED REC 12-21-2017 (JOHNSON)</p>
PENDING CD - 201707376	<p>12/22/2017 - G75 - (E.O.) X201702336 MSSP, WDFD, SLVN SHL (4-5N-9E) 352' FSL, 245' FEL COMPL. INT. (10-5N-9E) NCT 150' FNL, NCT 0' FSL, NCT 330' FWL COMPL. INT. (15-5N-9E) NCT 0' FNL, NCT 150' FSL, NCT 330' FWL NO OP. NAMED REC 12-21-2017 (JOHNSON)</p>

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.

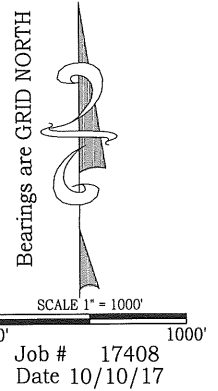
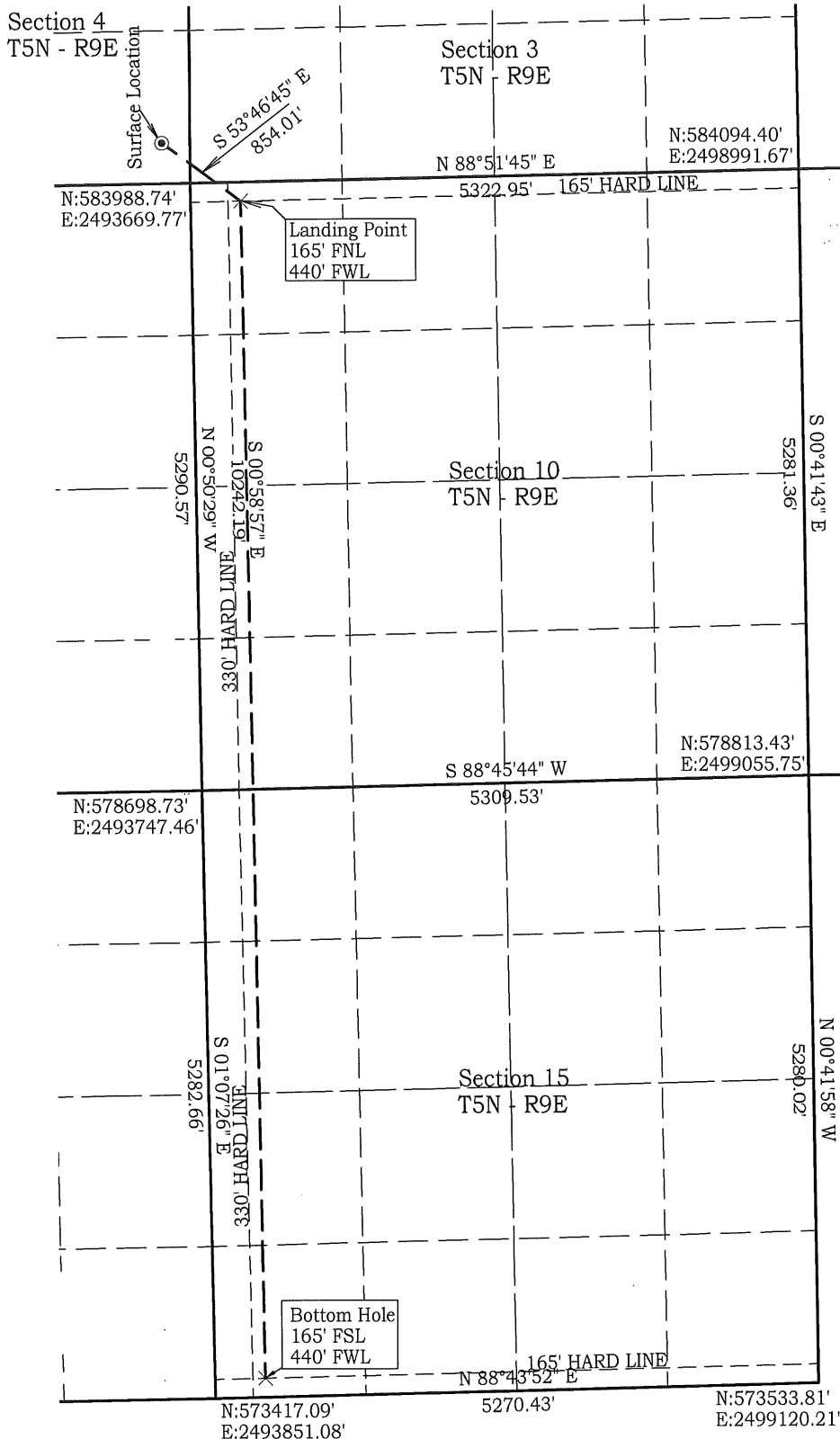
Well Location Plat
M & M Land Surveying, Inc.
520 "E" Street NW. Ardmore, OK. 73401
Office 580-226-0446 Mobile 580-221-4999

API 063-24725 A

Company Name: Corterra Energy Operating, LLC. Lease Name: Merriman #1015-1HX
Section 4 Township 5 North Range 9 East County Hughes Oklahoma

Surface Location 352' FSL - 245' FEL Elevation 854'

ALL SECTION CORNER COORDINATES ARE NAD 27



NAD 27 OK SOUTH
Surface Location
Latitude: 34.927974°
Longitude: 96.353848°
Y= 584,337'
X = 2,493,423'
Landing Point
N= 583,832'
E = 2,494,112'
Bottom Hole
N= 573,592'
E = 2,494,288'

NAD 83 OK SOUTH
Surface Location
Latitude: 34.928062°
Longitude: 96.354133°
Y= 584,384'
X = 2,461,826'
Landing Point
N= 583,880'
E = 2,462,515'
Bottom Hole
N= 573,639'
E = 2,462,690'

D. Harry McClintick 10/25/17

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.

