

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

API NUMBER: 039 22552

Approval Date: 08/22/2018

Expiration Date: 02/22/2019

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 15 Twp: 15N Rge: 15W

County: CUSTER

SPOT LOCATION:

FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 228 330

Lease Name: ARDELLA

Well No: 1-15HM

Well will be 228 feet from nearest unit or lease boundary.

Operator Name: CONTINENTAL RESOURCES INC

Telephone: 4052349020; 4052349

OTC/OCC Number: 3186 0

CONTINENTAL RESOURCES INC  
PO BOX 269000  
OKLAHOMA CITY, OK 73126-9000

JAMES & ARDELLA FERRELL  
1301 JORNADA STREET  
PAHRUMP NV 89048

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	13257	6	
2	WOODFORD	13957	7	
3			8	
4			9	
5			10	

Spacing Orders: 660332

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201805448

Special Orders:

Total Depth: 18199

Ground Elevation: 1652

**Surface Casing: 1500**

Depth to base of Treatable Water-Bearing FM: 340

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: No

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 located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is AP/TE DEPOSIT

Pit Location Formation: TERRACE

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

PERMIT NO: 18-34976

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 located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is AP/TE DEPOSIT

Pit Location Formation: TERRACE

## HORIZONTAL HOLE 1

Sec 15 Twp 15N Rge 15W County CUSTER

Spot Location of End Point: N2 NE NE NE

Feet From: NORTH 1/4 Section Line: 50

Feet From: EAST 1/4 Section Line: 330

Depth of Deviation: 12964

Radius of Turn: 382

Direction: 360

Total Length: 4635

Measured Total Depth: 18199

True Vertical Depth: 13957

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

### Notes:

#### Category

#### Description

#### DEEP SURFACE CASING

8/20/2018 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR SURFACE CASING

#### HYDRAULIC FRACTURING

8/20/2018 - G71 - OCC 165:10-3-10 REQUIRES:

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;

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](http://OCCEWEB.COM/OG/OGFORMS.HTML); AND,

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](http://FRACFOCUS.ORG)

#### INTERMEDIATE CASING

8/20/2018 - 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

#### MEMO

8/20/2018 - G71 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST; PIT 2 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT

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.

039 22552 ARDELLA 1-15HM

Category	Description
PENDING CD - 201805448	8/22/2018 - G75 - (I.O.) 15-15N-15W X660332 MSSP, WDFD SHL NCT 150' FSL, NCT 330' FEL COMPL. INT. NCT 150' FSL, NCT 150' FNL, NCT 330' FEL NO OP. NAMED REC 8-7-2018 (JACKSON)
SPACING - 660332	8/22/2018 - G75 - (640) 15-15N-15W VAC 45628 MRMC EXT 637144 MSSP EXT 641552 WDFD, OTHER
SURFACE CASING	8/20/2018 - G71 - MIN. 500' PER ORDER # 42589

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.

EXHIBIT: A (1 of 2)  
SHEET: 8.5x11  
SHL: 15-15N-15W  
BHL-1 15-15N-15W



API 039-22552

## COVER SHEET

### CONTINENTAL RESOURCES, INC.

P.O. BOX 26900 OKLAHOMA CITY, OK 73126 \* (T) 1-800-256-8955 (F) 405-234-9253

Section 15 Township 15N Range 15W I.M.

Well: ARDELLA 1-15HM

County CUSTER State OK

Well: --

Operator CONTINENTAL RESOURCES, INC.

#### NAD-83

POINT	WELL NAME	NORTHING	EASTING	LATITUDE LONGITUDE	LATITUDE LONGITUDE		EXISTING ELEVATION	DESIGN ELEVATION
W1	ARDELLA 1-15HM	280992	1738504	35° 46' 09.83" -98° 46' 31.04"	35.769397 -98.775290	228' FSL / 330' FEL (SE/4 SEC 15)	1651.84	1651.83
LP-1	LANDING POINT	281237	1738506	35° 46' 12.25" -98° 46' 31.03"	35.770071 -98.775287	473' FSL / 330' FEL (SE/4 SEC 15)	--	--
BHL-1	BOTTOM HOLE LOCATION	285969	1738557	35° 46' 59.06" -98° 46' 30.88"	35.783071 -98.775245	50' FNL / 330' FEL (NE/4 SEC 15)	--	--
X-1	PUTNAM OSWEGO UNIT #11-1	285417	1735569	35° 46' 53.36" -98° 47' 07.08"	35.781488 -98.785301	15-15N-15W:NE4NW4   TD: UNKNOWN'   1,980' FSL / 1,980' FWL	--	--
X-2	PUTNAM OSWEGO UNIT #7A-1	282750	1738194	35° 46' 27.19" -98° 46' 34.98"	35.774218 -98.776382	15-15N-15W:NE4SE4   TD: 9,860'   1,980' FSL / 1,980' FWL	--	--
X-3	PUTNAM OSWEGO UNIT #10-1	285383	1738265	35° 46' 53.24" -98° 46' 34.37"	35.781455 -98.776214	15-15N-15W:W2NE4NE4   TD: 9,814'   1,980' FSL / 2,030' FWL	--	--

#### NAD-27

POINT	WELL NAME	NORTHING	EASTING	LATITUDE LONGITUDE	LATITUDE LONGITUDE		EXISTING ELEVATION	DESIGN ELEVATION
W1	ARDELLA 1-15HM	280966	1770106	35° 46' 09.66" -98° 46' 29.74"	35.769349 -98.774926	228' FSL / 330' FEL (SE/4 SEC 15)	1651.84	1651.83
LP-1	LANDING POINT	281211	1770109	35° 46' 12.08" -98° 46' 29.72"	35.770022 -98.774923	473' FSL / 330' FEL (SE/4 SEC 15)	--	--
BHL-1	BOTTOM HOLE LOCATION	285944	1770159	35° 46' 58.88" -98° 46' 29.57"	35.783023 -98.774881	50' FNL / 330' FEL (NE/4 SEC 15)	--	--
X-1	PUTNAM OSWEGO UNIT #11-1	285391	1767172	35° 46' 53.19" -98° 47' 05.77"	35.781440 -98.784937	15-15N-15W:NE4NW4   TD: UNKNOWN'   1,980' FSL / 1,980' FWL	--	--
X-2	PUTNAM OSWEGO UNIT #7A-1	282724	1769796	35° 46' 27.01" -98° 46' 33.67"	35.774170 -98.776019	15-15N-15W:NE4SE4   TD: 9,860'   1,980' FSL / 1,980' FWL	--	--
X-3	PUTNAM OSWEGO UNIT #10-1	285357	1769867	35° 46' 53.06" -98° 46' 33.06"	35.781407 -98.775850	15-15N-15W:W2NE4NE4   TD: 9,814'   1,980' FSL / 2,030' FWL	--	--

Certificate of Authorization No. 7318

Date Staked: \*\*--18  
Date Drawn: 07-03-18



Prepared By:  
Petro Land Services South  
10400 Vineyard Blvd.  
Suite C  
Oklahoma City, OK 73120

#### REVISIONS

No.	DATE	BY	DESCRIPTION	COMMENTS
00	07-03-18	HDG	ISSUED FOR APPROVAL	--

EXHIBIT: A (2 of 2)  
SHEET: 8.5x14  
SHL: 15-15N-15W  
BHL-1 15-15N-15W

**PETRO LAND SERVICES SOUTH, LLC**

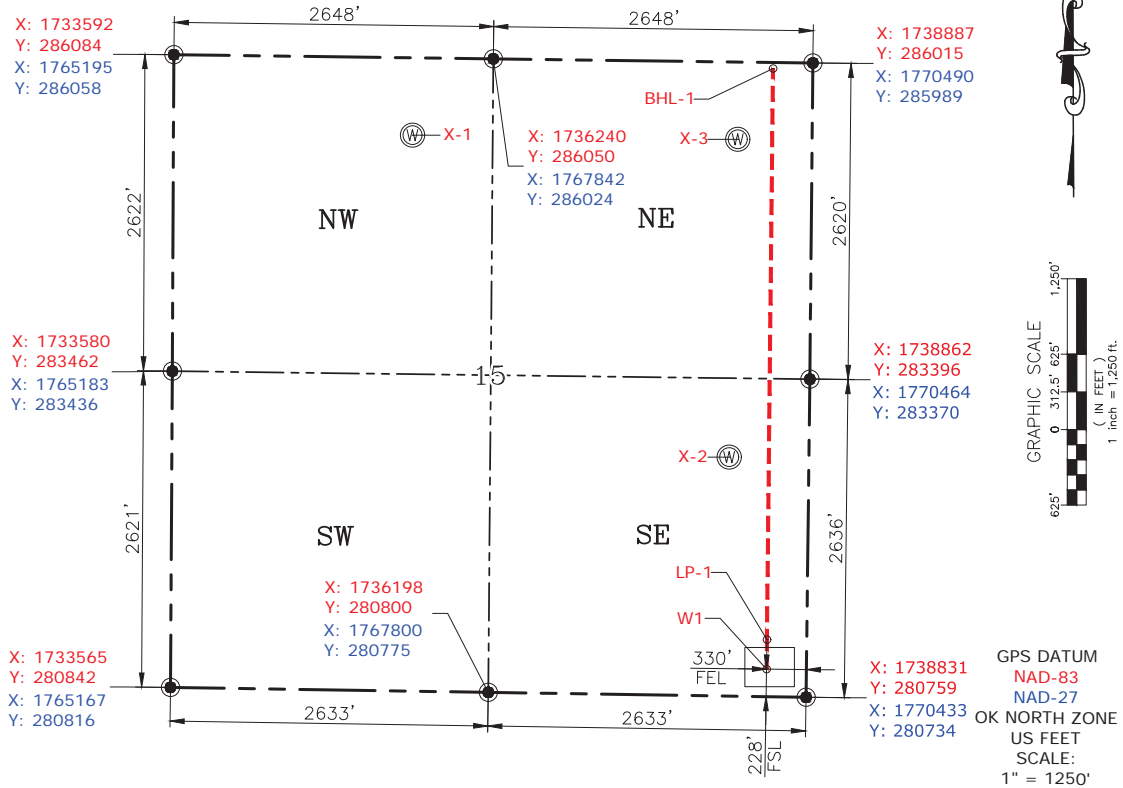
10400 VINEYARD BLVD, SUITE C, OKLA. CITY, OKLA. 73120 \* OFFICE (405) 212-3108  
Certificate of Authorization No. 7318



CONTINENTAL  
RESOURCES, INC.  
(OPERATOR)

CUSTER \_\_\_\_\_ County Oklahoma  
228' FSL-330' FEL Section 15 Township 15N Range 15W I.M.

WELL: ARDELLA 1-15HM



Please note that this location was staked on the ground under the supervision of a Licensed Professional Land Surveyor, but the accuracy of this survey is not guaranteed. Please contact PLS promptly if any inconsistency is determined. GPS data is observed from RTK-GPS. NOTE: X and Y data shown hereon for Section Corners may NOT have been surveyed on-the-ground, and further, does NOT represent a true Boundary Survey. Quarter Section distances may be assumed from a Government Survey Plat or assumed at a proportionate distance from opposing section corners, or occupation thereof, and may not have been measured on-the-ground, and further, does not represent a true Boundary Survey.

**CERTIFICATE:**

I, RANDALL J. BILYEU an Oklahoma Licensed Land Surveyor and an authorized agent of Petro Land Services South, LLC, do hereby certify to the information shown herein.

Date Staked: \*\*--\*\*--18  
Date Drawn: 07-03-18

CURRENT REV.: 0



*Randall J. Bilyeu*

Oklahoma PLS No.1196 DATE