

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

API NUMBER: 011 24052

Approval Date: 07/24/2018

Expiration Date: 01/24/2019

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 21 Twp: 16N Rge: 10W

County: BLAINE

SPOT LOCATION:

FEET FROM QUARTER: FROM SOUTH FROM WEST

SECTION LINES: 240 268

Lease Name: BROWNING

Well No: 2-21-16XHM

Well will be 240 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

BILLY & JAN PETTY  
606 FRANK DR  
OKARCHE OK 73762

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

Name	Depth	Name	Depth
1 MISSISSIPPI LIME	9931	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 590932  
586637

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201805159  
201805161  
201805163  
201805164

Special Orders:

Total Depth: 20215

Ground Elevation: 1311

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 40

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 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: FLOWERPOT

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

PERMIT NO: 18-34894

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: FLOWERPOT

## HORIZONTAL HOLE 1

Sec 16 Twp 16N Rge 10W County BLAINE

Spot Location of End Point: N2 NW NW NW

Feet From: NORTH 1/4 Section Line: 50

Feet From: WEST 1/4 Section Line: 330

Depth of Deviation: 9673

Radius of Turn: 485

Direction: 2

Total Length: 9780

Measured Total Depth: 20215

True Vertical Depth: 10631

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

### Notes:

#### Category

#### Description

#### DEEP SURFACE CASING

7/10/2018 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING

#### HYDRAULIC FRACTURING

7/10/2018 - 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

7/10/2018 - 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

7/10/2018 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED 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.

011 24052 BROWNING 2-21-16XHM

Category	Description
PENDING CD - 201805159	7/18/2018 - G60 - (I.O) 16 & 21-16N-10W EST MULTIUNIT HORIZONTAL WELL X590932 (21-16N-10W) MSSLM X586637 (16-16N-10W) MSSLM 50% 16-16N-10W 50% 21-16N-10W CONTINENTAL RESOURCES INC. REC. 7/23/18 (FOREMAN)
PENDING CD - 201805161	7/18/2018 - G60 - (I.O) 16 & 21-16N-10W X590932 (21-16N-10W) MSSLM X586637 (16-16N-10W) MSSLM SHL 240 FSL, 268' FWL COMPL. INT. (21-16N-10W) NCT 150' FSL, NCT 0' FNL, NCT 330' FWL COMPL. INT. (16-16N-10W) NCT 0' FSL, NCT 150' FNL, NCT 330' FWL CONTINENTAL RESOURCES INC. REC. 7/23/18 (FOREMAN)
PENDING CD - 201805163	7/18/2018 - G60 - 16-16N-10W X586637 MSSLM 2 WELLS NO OP. NAMED REC. 7/23/18 (FOREMAN)
PENDING CD - 201805164	7/18/2018 - G60 - 21-16N-10W X586637 MSSLM 2 WELLS NO OP. NAMED HEARING 8/6/18
SPACING - 586637	7/18/2018 - G60 - (640) 16-16N-10W VAC OTHERS EXT 581994/582121 MSSLM, OTHERS EST OTHERS
SPACING - 590932	7/18/2018 - G60 - (640) 21-16N-10W EXT 555820 MSSLM

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: 21-16N-10W  
BHL-2 16-16N-10W

3501124052



## COVER SHEET

### CONTINENTAL RESOURCES, INC.

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

Section 21 Township 16N Range 10W I.M.

Well: BROWNING 2-21-16XHM

County BLAINE State OK

Well: --

Operator CONTINENTAL RESOURCES, INC.

#### NAD-83

POINT	WELL NAME	NORTHING	EASTING	LATITUDE LONGITUDE	LATITUDE LONGITUDE		EXISTING ELEVATION	DESIGN ELEVATION
W2	BROWNING 2-21-16XHM	306531	1886331	35° 50' 30.32" -98° 16' 38.04"	35.841756 -98.277233	240' FSL / 268' FWL (SW/4 SEC 21)	1310.76	1311.35
LP-2	LANDING POINT	306531	1886393	35° 50' 30.32" -98° 16' 37.28"	35.841756 -98.277023	240' FSL / 330' FWL (SW/4 SEC 21)	--	--
BHL-2	BOTTOM HOLE LOCATION	316789	1886400	35° 52' 11.77" -98° 16' 37.55"	35.869937 -98.277098	50' FNL / 330' FWL (NW/4 SEC 16)	--	--
X-1	WOODRUFF #1	312879	1890025	35° 51' 33.20" -98° 15' 53.38"	35.859223 -98.264827	16-16N-10W:SE4   TD: 10,889'   1,320' FSL / 1,320' FWL	--	--
X-2	PETTY #1	309581	1889362	35° 51' 00.57" -98° 16' 01.32"	35.850158 -98.267033	21-16N-10W:SW4NE4   TD: 9,210'   660' FSL / 660' FWL	--	--
X-3	PETTY #1-21	307020	1887518	35° 50' 35.19" -98° 16' 23.63"	35.843109 -98.273231	21-16N-10W:SW4NW4SE4SW4   TD: 9,220'   734' FSL / 1,455' FWL	--	--
X-4	TOMS #1-21XH	306533	1886953	35° 50' 30.36" -98° 16' 30.48"	35.841767 -98.275133	21-16N-10W:SW4SE4SW4SW4   TD: 20,560'   245' FSL / 890' FWL	--	--
X-5	BROWNING #1-21-16XH	306552	1888373	35° 50' 30.59" -98° 16' 13.23"	35.841831 -98.270343	21-16N-10W:S2SE4SE4SW4   TD: 20,114'   270' FSL / 2,310' FWL	--	--

#### NAD-27

POINT	WELL NAME	NORTHING	EASTING	LATITUDE LONGITUDE	LATITUDE LONGITUDE		EXISTING ELEVATION	DESIGN ELEVATION
W2	BROWNING 2-21-16XHM	306507	1917931	35° 50' 30.17" -98° 16' 36.80"	35.841713 -98.276889	240' FSL / 268' FWL (SW/4 SEC 21)	1310.76	1311.35
LP-2	LANDING POINT	306507	1917993	35° 50' 30.17" -98° 16' 36.04"	35.841714 -98.276678	240' FSL / 330' FWL (SW/4 SEC 21)	--	--
BHL-2	BOTTOM HOLE LOCATION	316765	1918000	35° 52' 11.62" -98° 16' 36.31"	35.869895 -98.276753	50' FNL / 330' FWL (NW/4 SEC 16)	--	--
X-1	WOODRUFF #1	312855	1921625	35° 51' 33.05" -98° 15' 52.14"	35.859181 -98.264483	16-16N-10W:SE4   TD: 10,889'   1,320' FSL / 1,320' FWL	--	--
X-2	PETTY #1	309557	1920963	35° 51' 00.42" -98° 16' 00.08"	35.850116 -98.266689	21-16N-10W:SW4NE4   TD: 9,210'   660' FSL / 660' FWL	--	--
X-3	PETTY #1-21	306996	1919118	35° 50' 35.04" -98° 16' 22.39"	35.843067 -98.272887	21-16N-10W:SW4NW4SE4SW4   TD: 9,220'   734' FSL / 1,455' FWL	--	--
X-4	TOMS #1-21XH	306509	1918553	35° 50' 30.21" -98° 16' 29.24"	35.841725 -98.274789	21-16N-10W:SW4SE4SW4SW4   TD: 20,560'   245' FSL / 890' FWL	--	--
X-5	BROWNING #1-21-16XH	306529	1919973	35° 50' 30.44" -98° 16' 11.99"	35.841789 -98.269998	21-16N-10W:S2SE4SE4SW4   TD: 20,114'   270' FSL / 2,310' FWL	--	--

Certificate of Authorization No. 7318

Date Staked: \*\*--18  
Date Drawn: 06-25-18



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

#### REVISIONS

No.	DATE	BY	DESCRIPTION	COMMENTS
00	06-25-18	HDG	ISSUED FOR APPROVAL	--
01	06-29-18	MJL	ADDED BM & PHOTOS	REV. EXHIBITS: D, E, H & I

EXHIBIT: A (2 of 2)  
SHEET: 8.5x14  
SHL: 21-16N-10W  
BHL-2 16-16N-10W

**PETRO LAND SERVICES SOUTH, LLC**

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

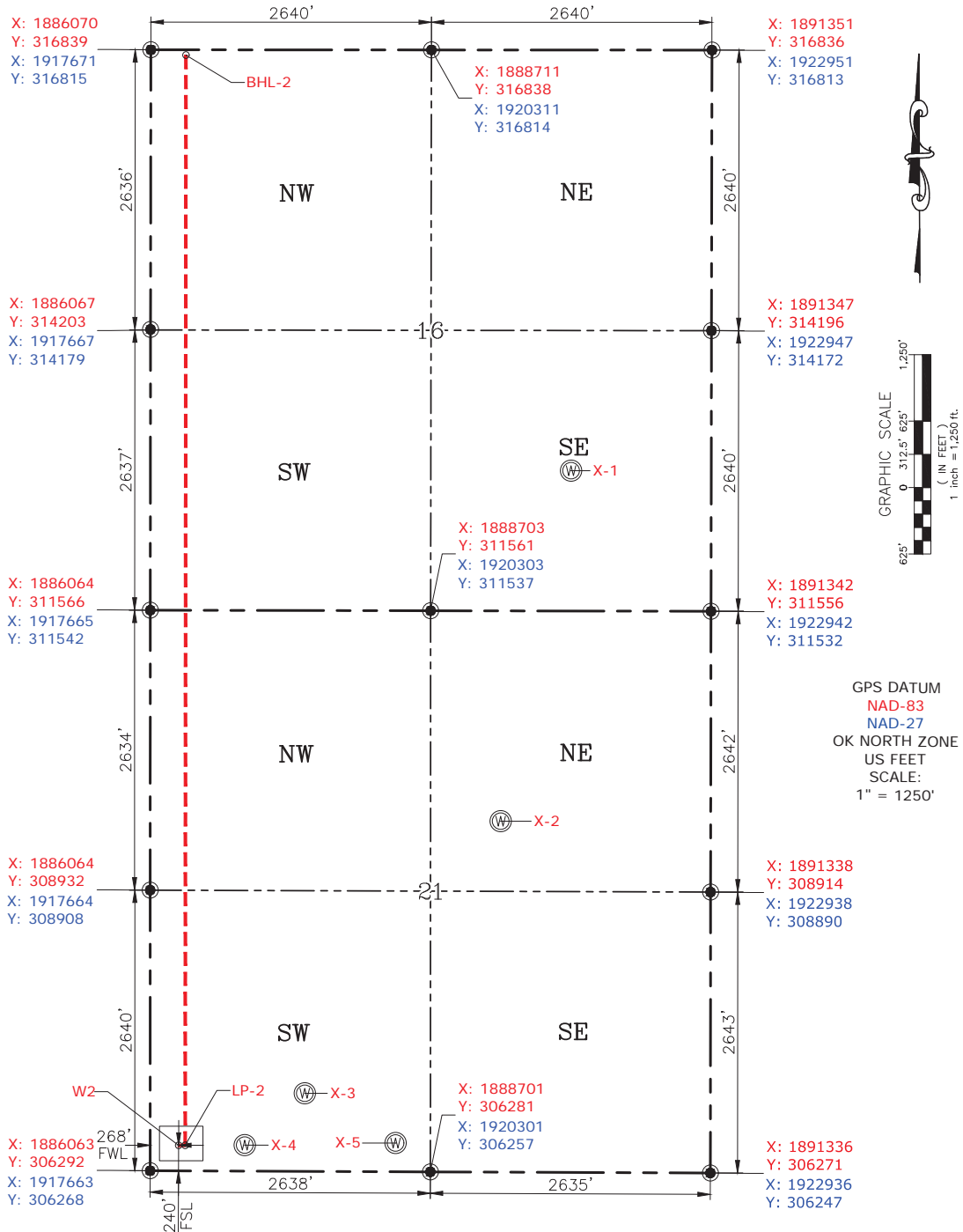


CONTINENTAL  
RESOURCES, INC.  
(OPERATOR)

BLAINE \_\_\_\_\_ County Oklahoma  
240' FSL-268' FWL Section 21 Township 16N Range 10W I.M.

**3501124052**

WELL: BROWNING  
2-21-16XHM



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.

Date Staked: \*\*--\*\*--18  
Date Drawn: 06-25-18

CURRENT REV.: 1



**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.

*Randall J. Bilyeu*

Oklahoma PLS No.1196 DATE