

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

API NUMBER: 017 25149

Approval Date: 12/21/2017

Expiration Date: 06/21/2018

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 05 Twp: 10N Rge: 6W

County: CANADIAN

SPOT LOCATION: ☐ NW ☐ NE ☐ NW ☐ NW

FEET FROM QUARTER: FROM NORTH FROM WEST

SECTION LINES: 270 920

Lease Name: RIVA RIDGE 32-29-11-6

Well No: 2XH

Well will be 270 feet from nearest unit or lease boundary.

Operator Name: LINN OPERATING LLC

Telephone: 4052412237; 4052412

OTC/OCC Number: 22182 0

LINN OPERATING LLC  
14701 HERTZ QUAIL SPRINGS PKWY  
OKLAHOMA CITY, OK 73134-2641

RAY BORNEMANN  
9600 S. MANNING RD.  
UNION CITY OK 73090

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	10000	6	
2	WOODFORD	10200	7	
3			8	
4			9	
5			10	

Spacing Orders: 239218  
436709

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201706608  
201707928  
201707929

Special Orders:

Total Depth: 20654

Ground Elevation: 1277

**Surface Casing: 1500**

Depth to base of Treatable Water-Bearing FM: 260

Under Federal Jurisdiction: Yes

Fresh Water Supply Well Drilled: Yes

Surface Water used to Drill: No

**PIT 1 INFORMATION**

Type of Pit System: ON SITE

Type of Mud System: WATER BASED

Chlorides Max: 5000 Average: 3000

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: 1A**

**Liner required for Category: 1A**

Pit Location is ALLUVIAL

Pit Location Formation: ALLUVIUM

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

B. Solidification of pit contents.

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

PERMIT NO: 17-33516

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: ON SITE

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: 3

Liner required for Category: 3

Pit Location is ALLUVIAL

Pit Location Formation: ALLUVIUM

HORIZONTAL HOLE 1

Sec 29 Twp 11N Rge 6W County CANADIAN

Spot Location of End Point: NE NW NW NW

Feet From: NORTH 1/4 Section Line: 100

Feet From: WEST 1/4 Section Line: 380

Depth of Deviation: 9700

Radius of Turn: 573

Direction: 355

Total Length: 10054

Measured Total Depth: 20654

True Vertical Depth: 10200

End Point Location from Lease,  
Unit, or Property Line: 100

Notes:

Category

Description

DEEP SURFACE CASING

12/1/2017 - 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

12/1/2017 - 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)

MEMO

12/1/2017 - G71 - PIT 1 & 2 - CONCRETE-LINED PIT PER OPERATOR REQUEST; PIT 2 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT

PENDING CD - 201706608

12/12/2017 - G75 - (640)(HOR) 32 & 29-11N-6W  
EXT 663028 WDFD  
COMPL. INT. NLT 165' FNL & FSL, NLT 330' FEL & FWL  
REC 10-24-2017 (MINMIER)

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.

017 25149 RIVA RIDGE 32-29-11-6 2XH

Category	Description
PENDING CD - 201707928	12/12/2017 - G75 - (I.O.) 32 & 29-11N-6W EST MULTIUNIT HORIZONTAL WELL X239218 MSSP 29-11N-6W X436709 MSSP 32-11N-6W X201706608 WDFD 32 & 29-11N-6W (MSSP ADJACENT COMMON SOURCE OF SUPPLY TO WDFD) 50% 32-11N-6W 50% 29-11N-6W NO OP. NAMED REC 12-19-2017 (MILLER)
PENDING CD - 201707929	12/12/2017 - G75 - (I.O.) 32 & 29-11N-6W X239218 MSSP 29-11N-6W X436709 MSSP 32-11N-6W X201706608 WDFD 32 & 29-11N-6W COMPL. INT. (32-11N-6W) NCT 165' FSL, NCT 0' FNL, NCT 330' FWL COMPL. INT. (29-11N-6W) NCT 0' FSL, NCT 165' FNL, NCT 330' FWL NO OP. NAMED REC 12-19-2017 (MILLER)
SPACING - 239218	12/12/2017 - G75 - (640) 29-11N-6W VAC OTHERS EXT 231942 MSSP, OTHERS EXT OTHERS EST OTHER
SPACING - 436709	12/12/2017 - G75 - (640) 32-11N-6W EXT 311807 MSSP, OTHERS

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