

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

API NUMBER: 063 24818 A

Approval Date: 06/27/2018
Expiration Date: 12/27/2018

Horizontal Hole Oil & Gas

Amend reason: CHANGE TO HORIZONTAL HOLE

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 18 Twp: 9N Rge: 10E County: HUGHES
SPOT LOCATION: ☐ SW ☐ SW ☐ NW ☐ NW FEET FROM QUARTER: FROM NORTH FROM WEST
SECTION LINES: 1263 182

Lease Name: THUNDER Well No: 2-18-6MH Well will be 182 feet from nearest unit or lease boundary.
Operator Name: CALYX ENERGY III LLC Telephone: 9189494224 OTC/OCC Number: 23515 0

CALYX ENERGY III LLC
6120 S YALE AVE STE 1480
TULSA, OK 74136-4226

EDWARD V. WILLIAMS & LORI V. WILLIAMS
2151 N. 377 RD
WETUMKA OK 74883

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	3600	6	
2	WOODFORD	3875	7	
3			8	
4			9	
5			10	

Spacing Orders: 678867
678869

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201804487
201804488
201804489
201804486

Special Orders:

Total Depth: 15250 Ground Elevation: 853 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 140

Under Federal Jurisdiction: No Fresh Water Supply Well Drilled: No Surface Water used to Drill: Yes

PIT 1 INFORMATION

Type of Pit System: ON SITE
Type of Mud System: AIR

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).

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.
B. Solidification of pit contents.

F. Haul to Commercial soil farming facility: Sec. 14 Twn. 7N Rng. 9E Cnty. 63 Order No: 551649

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: 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

HORIZONTAL HOLE 1

Sec 06 Twp 9N Rge 10E County HUGHES

Spot Location of End Point: N2 NW NW NW

Feet From: NORTH 1/4 Section Line: 165

Feet From: WEST 1/4 Section Line: 330

Depth of Deviation: 3173

Radius of Turn: 573

Direction: 2

Total Length: 11177

Measured Total Depth: 15250

True Vertical Depth: 3875

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

Notes:

Category

Description

DEEP SURFACE CASING

6/19/2018 - 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

6/19/2018 - 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; 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

MEMO

6/19/2018 - G71 - PIT 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, WBM/CUTTINGS CAPTURED IN CONCRETE-LINED PIT, SOLIDIFIED AND HELD UNTIL DISPOSAL APPROVED BY OCC

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.

063 24818 THUNDER 2-18-6MH

Category	Description
PENDING CD - 201804486	6/20/2018 - G57 - (I.O.) 6,7,18,19-9N-10E EST MULTIUNIT HORIZONTAL WELL X678867 MSSP, WDFD 18 & 19-9N-10E X678869 MSSP, WDFD 6 & 7-9N-10E (WDFD IS AN ADJACENT COMMON SOURCE OF SUPPLY TO THE MSSP) 10% 18 & 19-9N-10E 90% 6 & 7-9N-10E CALYX ENERGY III, LLC. REC 6-25-2018 (JOHNSON)
PENDING CD - 201804487	6/20/2018 - G57 - (I.O.) 6,7,18,19-9N-10E X678867 MSSP, WDFD 18 & 19-9N-10E X678869 MSSP, WDFD 6 & 7-9N-10E COMPL. INT. (18 & 19-9N-10E) NLT 1320' FNL, NCT 0' FNL, NCT 330' FWL COMPL. INT. (6 & 7-9N-10E) NCT 0' FSL, NCT 165' FNL, NCT 330' FWL CALYX ENERGY III, LLC. REC 6-25-2018 (JOHNSON)
PENDING CD - 201804488	6/20/2018 - G57 - 6 & 7-9N-10E X678869 MSSP 1 WELL CALYX ENERGY III, LLC. REC 6-25-2018 (JOHNSON)
PENDING CD - 201804489	6/20/2018 - G57 - 18 & 19-9N-10E X678867 MSSP 1 WELL CALYX ENERGY III, LLC. REC 6-25-2018 (JOHNSON)
SPACING - 678867	6/20/2018 - G57 - (1280)(HOR) 18 & 19-9N-10E EST MSSP, WDFD, OTHER POE TO BHL (MSSP) NLT 660' FB POE TO BHL (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL
SPACING - 678869	6/20/2018 - G57 - (1280)(HOR) 6 & 7-9N-10E EST MSSP, WDFD, OTHER POE TO BHL (MSSP) NLT 660' FB POE TO BHL (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL

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.