

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

API NUMBER: 091 21818

Approval Date: 03/14/2019

Expiration Date: 09/14/2020

Horizontal Hole Oil & Gas
Multi Unit

PERMIT TO DRILL

WELL LOCATION: Sec: 31 Twp: 9N Rge: 13E County: MCINTOSH
SPOT LOCATION: SE NE SE SE FEET FROM QUARTER: FROM SOUTH FROM EAST
SECTION LINES: 719 255

Lease Name: MOSE Well No: 2-32-8CH Well will be 255 feet from nearest unit or lease boundary.

Operator CALYX ENERGY III LLC
Name:

Telephone: 9189494224

OTC/OCC Number: 23515 0

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

JAMES B SACKETT
401686 E 1250 RD F12
HANNA OK 74845

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	3700	6	
2	CANEY	4500	7	
3	CANEY SHALE	4501	8	
4	WOODFORD	4850	9	
5			10	

Spacing Orders: 690614
524669
672567

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201810541
201810787
201810540
201810785

Special Orders:

Total Depth: 15559

Ground Elevation: 727

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 190

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 AP/TE DEPOSIT

Pit Location Formation: TERRACE

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. PIT 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, WBM/CUTTINGS CAPTURED IN CONCRETE-LINED PIT,

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 AP/TE DEPOSIT

Pit Location Formation: TERRACE

HORIZONTAL HOLE 1

Sec 08 Twp 8N Rge 13E County MCINTOSH

Spot Location of End Point: SE SE SW SW

Feet From: SOUTH 1/4 Section Line: 165

Feet From: WEST 1/4 Section Line: 1000

Depth of Deviation: 4568

Radius of Turn: 382

Direction: 177

Total Length: 10391

Measured Total Depth: 15559

True Vertical Depth: 4950

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

Notes:

Category

Description

DEEP SURFACE CASING

1/9/2019 - 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

1/9/2019 - 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

PENDING CD - 201810018

2/12/2019 - G56 - S2 32-9N-13E
X201809852 MSSP
1 WELL
NO OP NAMED
REC 1/22/2019 (JOHNSON)

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.

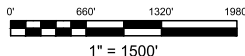
Category	Description
PENDING CD - 201810540	<p>2/12/2019 - G56 - (I.O.) S2 32-9N-13E, 5 & 8-8N-13E ESTABLISH MULTIUNIT HORIZONTAL WELL X201809852 MSSP, WDFD, HNTN, SLVN S2 32-9N-13E X524669 WDFD, CNYSH 5-8N-13E X672567 CNEY, WDFD 8-8N-13E (WDFD IS AN ADJACENT COMMON SOURCE OF SUPPLY TO MSSP S2 32-9N-13E, CNYSH 5-8N-13E, CNEY 8-8N-13E) 14% S2 32-9N-13E*** 44% 5-8N-13E*** 42% 8-8N-13E*** NO OP NAMED REC 1/7/2019 (DUNN)</p> <p>*** WILL BE REVISED AT HEARING PER OPERATOR 2% S2-31-9N-13E 50% 6-8N-13E 48% 7-8N-13E</p>
PENDING CD - 201810541	<p>2/12/2019 - G56 - (I.O.) S2 32-9N-13E, 5 & 8-8N-13E X201809852 MSSP, WDFD, HNTN, SLVN S2 32-9N-13E X524669 WDFD, CNYSH 5-8N-13E X672567 CNEY, WDFD 8-8N-13E COMPL INT (S2 32-9N-13E) NCT 165' FNL, NCT 0' FSL, NCT 330' FWL COMPL INT (5-8N-13E) NCT 0' FNL, NCT 0' FSL, NCT 330' FWL COMPL INT (8-8N-13E) NCT 0' FNL, NCT 165' FSL, NCT 330' FWL NO OP NAMED REC 1/7/2019 (DUNN)</p>
PENDING CD - 201810785	<p>2/12/2019 - G56 - (I.O.) S2 32-9N-13E X165-10-3-28(C)(2)(B) MSSP MAY BE CLOSER THAN 600' TO MOSE 1-32-8WH WELL CALYX ENERGY III, LLC REC 1/22/2019 (JOHNSON)</p>
SPACING - 524669	<p>2/12/2019 - G56 - (640) 5-8N-13E EST OTHERS EXT OTHER EXT 490484 WDFD, CNYSH, OTHERS</p>
SPACING - 672567	<p>2/12/2019 - G56 - (640)(HOR) 8-8N-13E EST CNEY, WDFD, OTHERS COMPL INT (CNEY) NLT 330' FB COMPL INT (WDFD) NLT 165' FNL/FSL, NLT 330' FEL/FWL</p>
SPACING - 690614	<p>2/12/2019 - G56 - (320)(HOR) S2 32-9N-13E EST MSSP, WDFD, OTHERS POE TO BHL (MSSP) NLT 660' FB POE TO BHL (WDFD) NLT 165' FNL/FSL, NLT 330' FEL/FWL</p>

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.

Calyx Energy LLC Well Location Plat

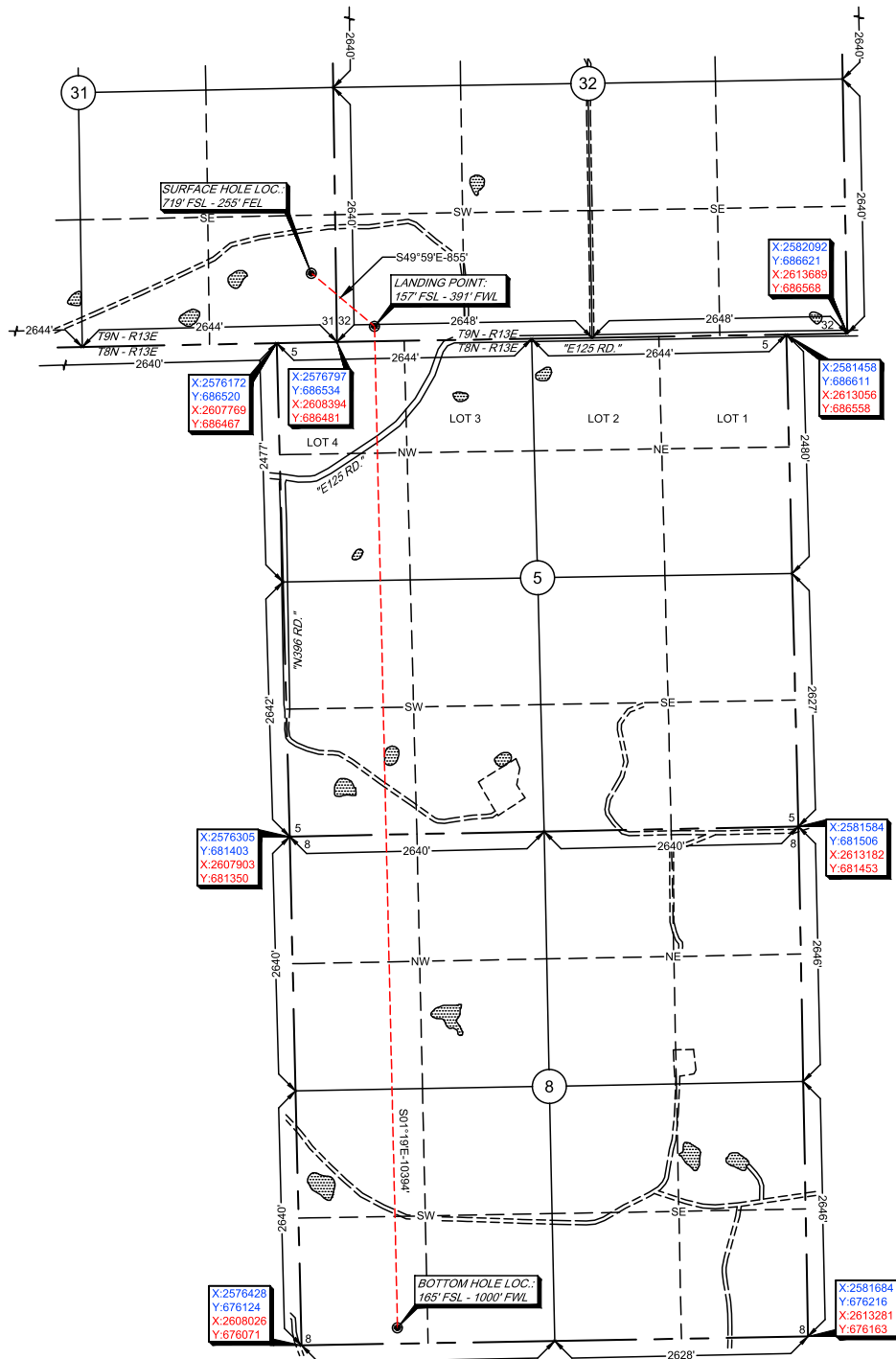
S.H.L. Sec. 31-9N-13E I.M.
B.H.L. Sec. 8-8N-13E I.M.

Operator: CALYX ENERGY III, LLC
 Lease Name and No.: MOSE 2-32-8CH
 Footage: 719' FSL - 255' FEL Gr. Elevation: 727'
 Section: 31 Township: 9N Range: 13E I.M.
 County: McIntosh State of Oklahoma
 Terrain at Loc.: Location fell on the bottom of a brushy hillside.



All bearings shown are grid bearings.

GPS DATUM
 NAD 83
 NAD 27
 OK SOUTH ZONE



Surface Hole Loc.:
 Lat: 35°12'17.58"N
 Lon: 95°57'52.64"W
 Lat: 35.20488260
 Lon: -95.96462167
 X: 2576530.47
 Y: 687247.36

Surface Hole Loc.:
 Lat: 35°12'17.23"N
 Lon: 95°57'51.64"W
 Lat: 35.20478540
 Lon: -95.96434429
 X: 2608128.17
 Y: 687194.38

Landing Point:
 Lat: 35°12'12.01"N
 Lon: 95°57'44.88"W
 Lat: 35.20333557
 Lon: -95.96246682
 X: 2577185.47
 Y: 686697.36

Landing Point:
 Lat: 35°12'11.66"N
 Lon: 95°57'43.88"W
 Lat: 35.20323839
 Lon: -95.96218951
 X: 2608783.17
 Y: 686644.40

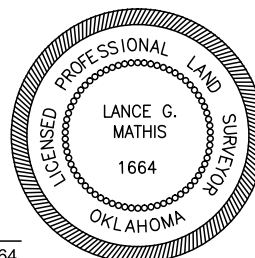
Bottom Hole Loc.:
 Lat: 35°10'29.21"N
 Lon: 95°57'44.53"W
 Lat: 35.17477993
 Lon: -95.96236963
 X: 2577424.30
 Y: 676306.22

Bottom Hole Loc.:
 Lat: 35°10'28.86"N
 Lon: 95°57'43.53"W
 Lat: 35.17468333
 Lon: -95.96209243
 X: 2609021.98
 Y: 676253.75

-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 Arkoma Surveying and Mapping 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.

Survey and plat by:
 Arkoma Surveying and Mapping, PLLC
 P.O. Box 238 Wilburton, OK 74578
 Ph. 918-465-5711 Fax 918-465-5030
 Certificate of Authorization No. 5348
 Expires June 30, 2020

Certification:
 This is to certify that this Well Location Plat represents the results of a survey made on the ground performed under the supervision of the undersigned.



Invoice #8393-D
 Date Staked: 12/18/18 By: Z.D.
 Date Drawn: 12/19/18 By: C.K.

Lance G. Mathis
 LANCE G. MATHIS 12/27/18
 OK LPLS 1664