API NUMBER: 091 21802

Horizontal Hole Oil & Gas

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

Approval Date: 06/13/2018
Expiration Date: 12/13/2018

PERMIT TO DRILL

WELL LOCATION: Sec: 17 Twp: 8N Rge: 13E County: MCINTOSH

SPOT LOCATION: NW NW NW NW FEET FROM QUARTER: FROM **NORTH** FROM **WEST**
SECTION LINES: **290** **324**

Lease Name: OSCAR LU **Well No: 1-7-6MWH** **Well will be 290 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

MIDDLE CREEK, LLC.
2798 N. 394
DUSTIN OK 74839

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

	Name	Depth		Name	Depth
1	CANEY	4500	6		
2	MAYES	4750	7		
3	WOODFORD	4850	8		
4	HUNTON	4900	9		
5	SYLVAN	4900	10		

Spacing Orders: 672567
677022
672236

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201802973
201802972

Special Orders:

Total Depth: 15175 Ground Elevation: 759 **Surface Casing: 1500** Depth to base of Treatable Water-Bearing FM: 220

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: SENORA

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

Mud System Change to Water-Based or Oil-Based Mud Requires an Amended Intent (Form 1000).

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: SENORA

HORIZONTAL HOLE 1

Sec 06 Twp 8N Rge 13E County MCINTOSH

Spot Location of End Point: N2 NE NE NE

Feet From: NORTH 1/4 Section Line: 165

Feet From: EAST 1/4 Section Line: 330

Depth of Deviation: 4350

Radius of Turn: 382

Direction: 353

Total Length: 10224

Measured Total Depth: 15175

True Vertical Depth: 5291

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

Notes:

Category	Description
DEEP SURFACE CASING	6/6/2018 - 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	6/6/2018 - 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	6/6/2018 - G71 - PIT 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, WBM/CUTTINGS CAPTURED IN CONCRETE-LINED PIT, SOLIDFIED AND HELD UNTIL DISPOSAL APPROVED BY OCC

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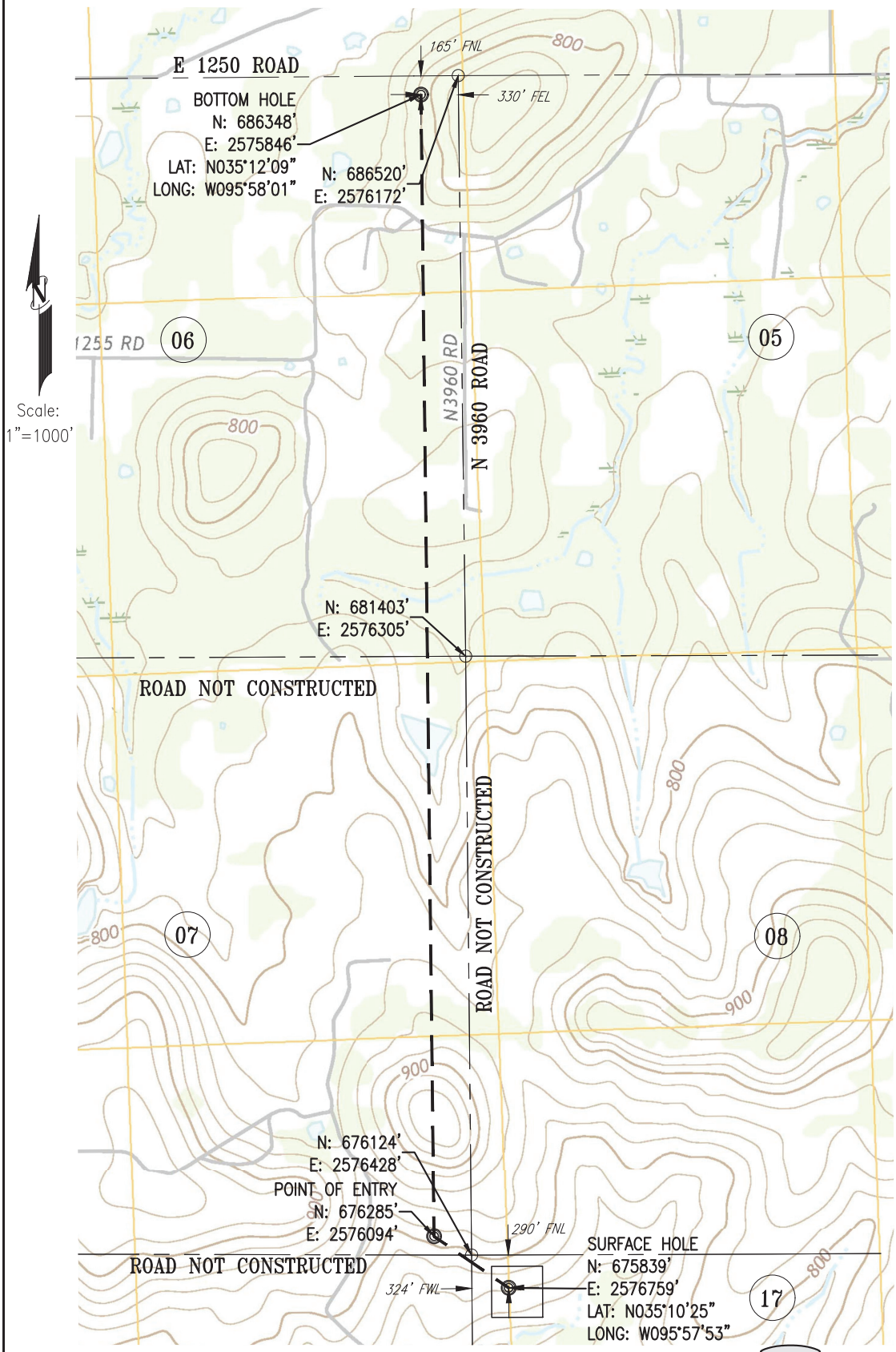
Category	Description
PENDING CD - 201802972	6/7/2018 - G57 - (I.O.) 6 & 7-8N-13E EST MULTIUNIT HORIZONTAL WELL X672567 CNEY, MYES, WDFD 7-8N-13E X672236 CNEY, MYES, WDFD, HNTN 6-8N-13E X677022 SLVN 6-8N-13E (CNEY, WDFD ARE ADJACENT COMMON SOURCES OF SUPPLY TO THE MYES 7-8N-13E) (CNEY, HNTN, SYLVAN ARE ADJACENT COMMON SOURCES OF SUPPLY TO THE MYES & WDFD 6-8N-13E) 50% 7-8N-13E 50% 6-8N-13E NO OP. NAMED REC 5-18-2018 (DUNN)
PENDING CD - 201802973	6/7/2018 - G57 - (I.O.) 6 & 7-8N-13E X672567 CNEY, MYES, WDFD 7-8N-13E X672236 CNEY, MYES, WDFD, HNTN 6-8N-13E X677022 SLVN 6-8N-13E MYES COMPL. INT. (7-8N-13E) NCT 165' FSL, NCT 0' FNL, NCT 330' FEL MYES COMPL. INT. (6-8N-13E) NCT 0' FSL, NCT 165' FNL, NCT 330' FEL WDFD COMPL. INT. (6-8N-13E) NCT 165' FSL, NCT 165' FNL, NCT 330' FEL NO OP. NAMED REC 6-11-2018 (DUNN)
SPACING - 672236	6/7/2018 - G57 - (640)(HOR) 6-8N-13E EST CNEY, MYES, WDFD, HNTN POE TO BHL (MYES, HNTN) NLT 660' FB POE TO BHL (CNEY) NLT 330' FB POE TO BHL (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL
SPACING - 672567	6/7/2018 - G57 - (640)(HOR) 7-8N-13E EST CNEY, MYES, WDFD, HNTN POE TO BHL (MYES, HNTN) NLT 660' FB POE TO BHL (CNEY) NLT 330' FB POE TO BHL (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL
SPACING - 677022	6/7/2018 - G57 - (640)(HOR) 6 & 7-8N-13E EXT 671803 SLVN POE TO BHL NLT 330' FB

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BOTTOM HOLE EXHIBIT

MCINTOSH County, Oklahoma Sections 6, 7, & 17, Township 8N, Range 13E I.M.



Above Background data from U.S.G.S. Topographic Map
Contour Interval 10'

SURFACE HOLE: 324' FWL & 290' FNL Sec. 17–T8N–R13E
POINT OF ENTRY: 330' FEL & 165' FSL Sec. 07–T8N–R13E
BOTTOM HOLE: 330' FEL & 165' FNL Sec. 06–T8N–R13E

Operator: CALYX ENERGY III, LLC
Well Name: OSCAR LU 1-7-6MWH

W18–005

Keystone Engineering and Land Surveying, Inc.

Keystone Engineering and Land Surveying, Inc. CA #5877 Exp. 6/30/19 P.O. Box 436 Stillwater, OK. 74076 Ph. (405) 743-3355