

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

API NUMBER: 119 24031

Approval Date: 02/01/2013
Expiration Date: 08/01/2013

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 04 Twp: 18N Rge: 4E County: PAYNE
SPOT LOCATION: NW NE NW NE FEET FROM QUARTER: FROM NORTH FROM EAST
SECTION LINES: 205 1780

Lease Name: MITCHELL Well No: 33-2MH Well will be 205 feet from nearest unit or lease boundary.
Operator Name: CALYX ENERGY LLC Telephone: 9189494224 OTC/OCC Number: 22299 0

CALYX ENERGY LLC
10820 E 45TH ST STE 208
TULSA, OK 74146-3807

BETTY LOUISE MITCHELL, TRUSTEE
4708 S. COUNCIL RD.
RIPLEY OK 74062

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

Name	Depth	Name	Depth
1	MISSISSIPPIAN	3940	6
2			7
3			8
4			9
5			10

Spacing Orders: 583717

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201208527
201208437

Special Orders:

Total Depth: 8793

Ground Elevation: 969

Surface Casing: 240

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: CLOSED Closed System Means Steel Pits

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: C

Liner not required for Category: C

Pit Location is BED AQUIFER

Pit Location Formation: OSCAR

Approved Method for disposal of Drilling Fluids:

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

PERMIT NO: 12-22239

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

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.

HORIZONTAL HOLE 1

Sec 33 Twp 19N Rge 4E County PAYNE

Spot Location of End Point: C NW NW NE

Feet From: NORTH 1/4 Section Line: 330

Feet From: EAST 1/4 Section Line: 2310

Depth of Deviation: 3240

Radius of Turn: 764

Direction: 354

Total Length: 4353

Measured Total Depth: 8793

True Vertical Depth: 3940

End Point Location from Lease,
Unit, or Property Line: 330

Notes:

Category	Description
PENDING CD - 201208437	2/1/2013 - G75 - 33-19N-4E X583717 MSSP 1 WELL NO OP. NAMED REC 1-22-1013 (P. PORTER)
PENDING CD - 201208527	2/1/2013 - G75 - (I.O.) X583717 MSSP SHL 205 FNL, 1780 FEL 4-18N-4E FIRST PERF NCT 330 FSL, NCT 660 FEL 33-19N-4E LAST PERF NCT 330 FNL, NCT 660' FEL 33-19N-4E NO OP. NAMED REC 1-22-2013 (P. PORTER)
SPACING - 583717	2/1/2013 - G75 - (640)(HOR) 33-19N-4E VAC 161472 MSSLM EXT 581300 MSSP POE TO BHL NCT 660' FB (SUPERSEDE NON-DEVELOPED NON-HORIZONTAL SPACING UNITS)