

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

API NUMBER: 117 23698

Approval Date: 11/28/2018

Expiration Date: 05/28/2020

Straight Hole

Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 27 Twp: 21N Rge: 8E

County: PAWNEE

SPOT LOCATION: ☐ NW ☐ NE ☐ SW ☐ NE

FEET FROM QUARTER: FROM NORTH FROM EAST

SECTION LINES: 1350 1800

Lease Name: KMA

Well No: 1

Well will be 840 feet from nearest unit or lease boundary.

Operator Name: MID-CONTINENT ENERGY OP CO

Telephone: 9185876363; 9185876

OTC/OCC Number: 19736 0

MID-CONTINENT ENERGY OP CO  
2111 S ATLANTA PL  
TULSA, OK 74114-1709

KEYSTONE TEST FACILITY, LLC  
2111 S. ATLANTA PLACE  
TULSA OK 74114

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

	Name	Depth		Name	Depth
1	COTTAGE GROVE	1085	6	SKINNER	2250
2	LAYTON	1300	7	RED FORK	2325
3	CLEVELAND	1800	8	BARTLESVILLE	2400
4	OSWEGO	2030	9	MISSISSIPPI	2600
5	PRUE	2100	10		

Spacing Orders: No Spacing

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 2700

Ground Elevation: 822

**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

Approved Method for disposal of Drilling Fluids:

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED

Chlorides Max: 5000 Average: 1000

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: VAMOOSA

F. Haul to Commercial soil farming facility: Sec. 13 Twn. 19N Rng. 5E Cnty. 119 Order No: 561542

H. CLOSED SYSTEM=STEEL PITS (REQUIRED-KEYSTONE LAKE)

Notes:

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
HYDRAULIC FRACTURING	<p>11/6/2018 - GA8 - OCC 165:10-3-10 REQUIRES:</p> <p>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;</p> <p>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: <a href="http://OCCWEB.COM/OG/OGFORMS.HTML">OCCWEB.COM/OG/OGFORMS.HTML</a>; AND,</p> <p>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: <a href="http://FRACFOCUS.ORG">FRACFOCUS.ORG</a></p>
SPACING	<p>11/27/2018 - G75 - FORMATIONS UNSPACED; 160-ACRE LEASE (NE4)</p>