

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

API NUMBER: 143 24330

Approval Date: 12/18/2019

Expiration Date: 06/18/2021

Straight Hole

Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 12 Twp: 21N Rge: 12E

County: TULSA

SPOT LOCATION:

S2

S2

N2

S2

FEET FROM QUARTER: FROM

SOUTH

FROM

EAST

SECTION LINES:

1450

2640

Lease Name: CHALKY WHITE UNIT

Well No: 10

Well will be 660 feet from nearest unit or lease boundary.

Operator
Name: LDO LLC

Telephone: 9185741320

OTC/OCC Number: 24147 0

LDO LLC
8929 S JOPLIN AVE
TULSA, OK 74137-3020

MSH PROPERTIES LLC
2525 E 66 ST N
TULSA OK 74130

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

	Name	Depth	Name	Depth
1	CLEVELAND	200	6	
2	OSWEGO	600	7	
3	BARTLESVILLE	1150	8	
4	BURGESS	1400	9	
5	ARBUCKLE	1800	10	

Spacing Orders: No Spacing

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 2000

Ground Elevation: 619

Surface Casing: 100

Depth to base of Treatable Water-Bearing FM: 40

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: No

PIT 1 INFORMATION

Approved Method for disposal of Drilling Fluids:

Type of Pit System: ON SITE

A. Evaporation/dewater and backfilling of reserve pit.

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 ALLUVIAL

Pit Location Formation: ALLUVIUM

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

Notes:

This permit does not address the right of entry or settlement of surface damages.
The duration of this permit is 18 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>11/26/2019 - G71 - 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: OCCWEB.COM/OG/OGFORMS.HTML; 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: FRACFOCUS.ORG</p>
SPACING	<p>12/18/2019 - GB1 - UNSPACED FORMATIONS, 200-ACRE LEASE (E2 E2 SW4 & SE4)</p>