API NUMBER: 073 25505

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: 01/30/2017
Expiration Date: 07/30/2017

PERMIT TO DRILL

WELL LOCATION: Sec: 31 Twp: 18N Rge: 6W County: KINGFISHER

SPOT LOCATION: SE SW SE SW FEET FROM QUARTER: FROM **SOUTH** FROM **WEST**
SECTION LINES: **228** **1824**

Lease Name: HELEN 6-17-6 **Well No: 4H** **Well will be 228 feet from nearest unit or lease boundary.**

Operator Name: **CHESAPEAKE OPERATING LLC** Telephone: 4059353425; 4059358 OTC/OCC Number: 17441 0

CHESAPEAKE OPERATING LLC
PO BOX 18496
OKLAHOMA CITY, OK 73154-0496

SAMPSON EMERY LIVING TRUST
3303 NORTHLAND DRIVE, SUITE 308
AUSTIN TX 78731

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

	Name	Depth		Name	Depth
1	OSWEGO	6467	6		
2			7		
3			8		
4			9		
5			10		

Spacing Orders: 649484 Location Exception Orders: 660061 Increased Density Orders: 660059

Pending CD Numbers: Special Orders:

Total Depth: 11800 Ground Elevation: 1093 **Surface Casing: 1500** Depth to base of Treatable Water-Bearing FM: 240

Under Federal Jurisdiction: No Fresh Water Supply Well Drilled: No Surface Water used to Drill: No

PIT 1 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits
Type of Mud System: WATER BASED
Chlorides Max: 25000 Average: 8000
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

Approved Method for disposal of Drilling Fluids:

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 17-32037
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 06 Twp 17N Rge 6W County KINGFISHER

Spot Location of End Point: E2 SE SW SW

Feet From: SOUTH 1/4 Section Line: 330

Feet From: EAST 1/4 Section Line: 1050

Depth of Deviation: 6119

Radius of Turn: 437

Direction: 172

Total Length: 4995

Measured Total Depth: 11800

True Vertical Depth: 6480

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

Notes:

Category	Description
DEEP SURFACE CASING	1/18/2017 - 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	1/18/2017 - G71 - OCC 165:10-3-10 REQUIRES: 1) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS BE REPORTED TO FRACFOCUS USING THE FOLLOWING LINK HTTP://FRACFOCUS.ORG/ WITH NOTICE GIVEN 48 HOURS IN ADVANCE OF FRACTURING TO THE LOCAL OCC DISTRICT OFFICE; AND, 2) PRIOR TO COMMENCEMENT OF FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE ALSO GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE
INCREASED DENSITY - 660059	1/30/2017 - G60 - 6-17N-6W X649484 OSWG 1 WELL CHESAPEAKE OPERATING, LLC. 1/20/17
LOCATION EXCEPTION - 660061	1/30/2017 - G60 - (I.O.) 6-17N-6W X649484 BGLM, OSWG COMPL. INT. NCT 330' FNL, NCT 330' FSL, NCT 660' FEL OR FWL CHESAPEAKE OPERATING, LLC. 1-20-17
SPACING - 649484	1/30/2017 - G60 - (640)(HOR) 6-17N-6W EXT 644968 BGLM, OSWG POE TO BHL NCT 660' FB (COEXIST WITH SP. ORDER 56829 OSWG, SP. ORDER 57462/57687 BGLM, OSWG)

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