API NUMBER: 045 23554

Oil & Gas

Horizontal Hole

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

Approval Date: 12/29/2014
Expiration Date: 06/29/2015

## PERMIT TO DRILL

WELL LOCATION:	Sec:	13	Twp:	19N	Rge:	26V	V County	: ELLI	S		
SPOT LOCATION:	S2	S2	S2	2	SW		FEET FROM QUARTER:	FROM	SOUTH	FROM	WEST
							SECTION LINES:		240		1320

Lease Name: THOMPSON TRUST 13-19-26 Well No: 1H Well will be 240 feet from nearest unit or lease boundary.

Operator CHESAPEAKE OPERATING LLC Telephone: 4059358143; 4059358 OTC/OCC Number: 17441 0

CHESAPEAKE OPERATING LLC

PO BOX 18496

OKLAHOMA CITY, OK 73154-0496

KENNETH & JUANITA THOMPSON

2524 CUTLER CT. NE

ALBUQUERQUE NM 87106

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

N:	Name	Depth	Name	Depth
1 D	OOUGLAS	6825	6	
2 TO	ONKAWA	7399	7	
3 C	COTTAGE GROVE	8470	8	
4 C	CLEVELAND	8574	9	
5			10	
Spacing Orders:	100596	Location Exception Orders: 634	357	Increased Density Orders: 634356
	611136			

Pending CD Numbers: Special Orders:

Total Depth: 13750 Ground Elevation: 2477 Surface Casing: 950 Depth to base of Treatable Water-Bearing FM: 700

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

PIT 1 INFORMATION

Type of Pit System: ON SITE

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

Pit is located in a Hydrologically Sensitive Area.

Category of Pit: 1B
Liner required for Category: 1B

Wellhead Protection Area?

Pit Location is BED AQUIFER
Pit Location Formation: OGALLALA

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

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

PERMIT NO: 14-29303

H. SEE MEMO

PIT 2 INFORMATION

Type of Pit System: ON SITE

Type of Mud System: OIL BASED

Chlorides Max: 300000 Average: 160000

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: 3
Liner required for Category: 3
Pit Location is BED AQUIFER

Pit Location Formation: OGALLALA

## **HORIZONTAL HOLE 1**

Sec 13 Twp 19N Rge 26W County **ELLIS** NW Spot Location of End Point: N2 N2 N2 Feet From: NORTH 1/4 Section Line: 200 Feet From: WEST 1/4 Section Line: 1320

Depth of Deviation: 8147 Radius of Turn: 780 Direction: 360 Total Length: 4378

Measured Total Depth: 13750

True Vertical Depth: 8927

End Point Location from Lease,
Unit, or Property Line: 200

Notes:

Category Description

INCREASED DENSITY - 634356 12/29/2014 - G76 - 13-19N-26W

X100596/611136 CLVD

1 WELL

CHESAPEAKE OPERATING, LLC.

12/19/2014

LOCATION EXCEPTION - 634357 12/29/2014 - G76 - (I.O.) 13-19N-26W

X100596/611136 DGLS, TNKW, CGGV, CLVD

COMPL. INT. NCT 330 FNL, NCT 330 FSL, NCT 600 FWL

CHESAPEAKE OPERATING, LLC.

12/19/2014

MEMO 12/26/2014 - G76 - PITS 1 & 2 - CONCRETE LINED PIT PER OPERATOR REQUEST, PIT 2 - OBM

RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

SPACING - 100596 12/29/2014 - G76 - (640) 13-19N-26W

EST DGLS, TNKW, CGGV, CLVD

**EST OTHERS** 

SPACING - 611136 12/29/2014 - G76 - CLARIFY/IDENTIFY 100596 CLVD SPECIFIC INTERVAL