API NUMBER: 045 23371

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: 07/17/2013 01/17/2014 **Expiration Date**

PERMIT TO DRILL

WELL LOCATION: Sec: 33 Twp: 20N Rge: 26W County: ELLIS

FEET FROM QUARTER: SPOT LOCATION: FROM NORTH FROM EAST NW ll NE NE SECTION LINES:

Lease Name: LSS 33-20-26 Well No: 1H Well will be 280 feet from nearest unit or lease boundary.

700

CHESAPEAKE OPERATING INC Operator OTC/OCC Number: Telephone: 4059358143 17441 0 Name:

280

CHESAPEAKE OPERATING INC

PO BOX 18496

OKLAHOMA CITY. OK 73154-0496 LINDA AND PHILLIP STAHLMAN

506 W. 31ST

HAYES KS 67601

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

Depth Name Depth DOUGLAS (UP TONKAWA) 1 7600 6 2 TONKAWA (LOW TONKAWA) 7800 7 COTTAGE GROVE 8050 8 3 CLEVELAND 8295 9 10 131723 Spacing Orders: Location Exception Orders: 609189 Increased Density Orders: 609109 613835

Pending CD Numbers: Special Orders:

Total Depth: 13200 Surface Casing: 910 Depth to base of Treatable Water-Bearing FM: 660 Ground Elevation: 2508

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: 5000

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?

is located in a Hydrologically Sensitive Area.

Category of Pit: 1B

Liner required for Category: 1B 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: 13-23875

H. SEE MEMO

PIT 2 INFORMATION

Type of Pit System: ON SITE

Type of Mud System: OIL BASED

Chlorides Max: 300000 Average: 200000

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

Rge 26W County Sec 33 Twp 20N **ELLIS** SE Spot Location of End Point: S2 S2 SE Feet From: SOUTH 1/4 Section Line: 200 Feet From: EAST 1/4 Section Line: 660

Depth of Deviation: 7633
Radius of Turn: 780
Direction: 360
Total Length: 4475

Measured Total Depth: 13200

True Vertical Depth: 8413

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

Notes:

Category Description

INCREASED DENSITY - 609109 7/17/2013 - G30 - 33-20N-26W

X131723 CLVD 3 WFLLS

CHESAPEAKE OPERATING, INC.

3/15/13

LOCATION EXCEPTION - 609189 7/17/2013 - G30 - (I.O.) 33-20N-26W

X131723 DGTKU, TNKLT, CGGV, CLVD

COMP. INT. NCT 330 FNL, NCT 330 FSL, NCT 560 FEL

CHESAPEAKE OPERATING, INC.

3/18/13

MEMO 7/17/2013 - G71 - PITS 1 & 2 - CONCRETE LINED PIT PER OPERATOR REQUEST, PIT 2 - OBM

RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

SPACING - 131723 7/17/2013 - G30 - (640) 33-20N-26W

EXT 100596 DGTKU, TNKLT, CGGV, CLVD, OTHER

EST OTHERS

SPACING - 613835 7/17/2013 - G30 - 33-20N-26W

CLARIFY 131723 TOP AND BASE OF CLVD, OTHERS