API NUMBER: 149 21698

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: 04/15/2014
Expiration Date: 10/15/2014

PERMIT TO DRILL

WELL LOCATION: Sec: 29 Twp: 11N Rge: 17W County: WASHITA

SPOT LOCATION: N2 N2 NW NE FEET FROM QUARTER: FROM NORTH FROM EAST
SECTION LINES: 230 1980

Lease Name: SAWATZKY 29-11-17 Well No: 1H Well will be 230 feet from nearest unit or lease boundary.

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

CHESAPEAKE OPERATING INC

PO BOX 18496

OKLAHOMA CITY, OK 73154-0496

JACK SAWATZKY 22510 E. 1160 RD.

CORDELL OK 73632

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

Name Depth Name Depth VIRGILIAN 1 9159 6 2 MISSOURIAN 10893 7 3 **DES MOINES** 12186 8 4 9 10 574328 Spacing Orders: Location Exception Orders: 615581 Increased Density Orders: 615580

Pending CD Numbers: Special Orders:

Total Depth: 17100 Ground Elevation: 1607 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 450

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

Wellhead Protection Area?

Pit is located in a Hydrologically Sensitive Area.

Category of Pit: 1B

**Liner required for Category: 1B**Pit Location is BED AQUIFER

Pit Location Formation: CLOUD CHIEF

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 14-26877

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: CLOUD CHIEF

## **HORIZONTAL HOLE 1**

Sec 29 Twp 11N Rge 17W County WASHITA

Spot Location of End Point: S2 S2 SW SE
Feet From: SOUTH 1/4 Section Line: 200
Feet From: EAST 1/4 Section Line: 1980

Depth of Deviation: 11406 Radius of Turn: 780 Direction: 180

Total Length: 4469

Measured Total Depth: 17100

True Vertical Depth: 12603

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

Notes:

Category Description

DEEP SURFACE CASING 4/11/2014 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS

OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR

SURFACE CASING

INCREASED DENSITY - 615580 4/15/2014 - G75 - 29-11N-17W

X574328 DSMN

1 WELL

CHESAPEAKE OP., INC.

9-6-2013

LOCATION EXCEPTION - 615581 4/15/2014 - G75 - (I.O.) 29-11N-17W

X574328 VRGN, MSRN, DSMN

COMPL. INT. NCT 300 FNL, NCT 300 FSL, NCT 1320 FEL

CHESAPEAKE OP., INC.

9-6-2013

MEMO 4/11/2014 - G71 - PIT 1 & 2 - CONCRETE-LINED PIT PER OPERATOR REQUEST; PIT 2 - OBM TO

VENDOR, OBM CUTTINGS PER DISTRICT

SPACING - 574328 4/15/2014 - G75 - (640) 29-11N-17W

VAC 188327 MOGW, DMSGW, SKNR, RDFK

VAC 215012 HBNR, TNKW, CGGV, CCKB, VRDG, PKLM

EXT 567108 VRGN, MSRN, DSMN