API NUMBER: 045 23300 Α OKLAHOMA CORPORATION COMMISSION **OIL & GAS CONSERVATION DIVISION** P.O. BOX 52000 **OKLAHOMA CITY, OK 73152-2000** (Rule 165:10-3-1)

Approval Date: 01/24/2013 07/24/2013 Expiration Date:

Horizontal Hole Oil & Gas

Amend reason: CHANGE SHL AND BHL

## AMEND PERMIT TO DRILL

| WELL LOCATION: | Sec: | 10 | Twp: | 20N | Rge: | 25\ | V Count            | y: ELLI | S     |      |      |  |
|----------------|------|----|------|-----|------|-----|--------------------|---------|-------|------|------|--|
| SPOT LOCATION: | SE   | SW | S    | W   | SW   |     | FEET FROM QUARTER: | FROM    | SOUTH | FROM | WEST |  |
|                |      |    |      |     |      |     | SECTION LINES:     |         | 255   |      | 395  |  |

Well No: 1H Well will be 255 feet from nearest unit or lease boundary.

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

CHESAPEAKE OPERATING INC

Lease Name: C & E BLACKBURN 15-20-25

PO BOX 18496

OKLAHOMA CITY. OK 73154-0496 CHRISTOPHER W. AND ERIC C. BLACKBURN 2965 FAIRWOOD DRIVE

**RENO** NV 89502

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

|                 | Name          | Depth                      |        | Name | Depth                     |
|-----------------|---------------|----------------------------|--------|------|---------------------------|
| 1               | TONKAWA       | 7161                       | 6      |      |                           |
| 2               | COTTAGE GROVE | 7600                       | 7      |      |                           |
| 3               | CLEVELAND     | 8193                       | 8      |      |                           |
| 4               | MARMATON      | 8500                       | 9      |      |                           |
| 5               |               |                            | 10     |      |                           |
| Spacing Orders: | 504825        | Location Exception Orders: | 605675 |      | Increased Density Orders: |
|                 | 605460        | •                          |        |      | ·                         |
|                 |               |                            |        |      |                           |

Pending CD Numbers: Special Orders:

Total Depth: 13100 Ground Elevation: 2390 Surface Casing: 870 Depth to base of Treatable Water-Bearing FM: 620

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: 13-22373

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**

Sec 15 Twp 20N Rge 25W County **ELLIS** SE SW Spot Location of End Point: SW SW Feet From: SOUTH 1/4 Section Line: 247 Feet From: WEST 1/4 Section Line: 703

Depth of Deviation: 7521 Radius of Turn: 780 Direction: 360

Total Length: 4487

Measured Total Depth: 13100

True Vertical Depth: 8500

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

Notes:

Category Description

LOCATION EXCEPTION - 605675 1/24/2013 - G30 - (I.O.) 15-20N-25W

X504825 TNKW, CLVD, CGGV

X605460 MRMN

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

CHESAPEAKE OPERATING, INC.

12/18/12

MEMO 1/22/2013 - G71 - PITS 1 & 2 - CONCRETE-LINED PIT PER OPERATOR REQUEST, PIT 2 - OBM

RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

SPACING - 504825 1/24/2013 - G30 - (640) 15-20N-25W

EXT 185772 TNKW, CGGV, CLVD, OTHER

EST HPLR

(VAC HPLR BY 605460)

SPACING - 605460 1/24/2013 - G30 - (640) 15-20N-25W

VAC 504825 HPLR

EST MRMN