

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

API NUMBER: 149 21598 A

Approval Date: 02/17/2015
Expiration Date: 08/17/2015

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 16 Twp: 11N Rge: 16W

County: WASHITA

SPOT LOCATION:

FEET FROM QUARTER: FROM SOUTH FROM WEST

SECTION LINES: 249 2081

Lease Name: ANNAKATE 16-11-16

Well No: 2H

Well will be 249 feet from nearest unit or lease boundary.

Operator Name: CHESAPEAKE OPERATING LLC

Telephone: 4059358143; 4059358

OTC/OCC Number: 17441 0

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

ELMER SMITH FARMS, LLC
P. O. BOX 1719
CLINTON OK 73601

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

Name	Depth	Name	Depth
1 DES MOINES	11770	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 167057

Location Exception Orders: 636644

Increased Density Orders:

Pending CD Numbers: 201500177

Special Orders:

Total Depth: 17000

Ground Elevation: 1437

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 360

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: No

PIT 1 INFORMATION

Approved Method for disposal of Drilling Fluids:

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 BED AQUIFER

Pit Location Formation: CLOUD CHIEF

D. One time land application -- (REQUIRES PERMIT)
H. SEE MEMO

PERMIT NO: 15-29559

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.

PIT 2 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

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: C

Liner not required for Category: C

Pit Location is BED AQUIFER

Pit Location Formation: CLOUD CHIEF

HORIZONTAL HOLE 1

Sec 16 Twp 11N Rge 16W County WASHITA

Spot Location of End Point: NW NE NE NW

Feet From: NORTH 1/4 Section Line: 200

Feet From: WEST 1/4 Section Line: 2080

Depth of Deviation: 11366

Radius of Turn: 780

Direction: 360

Total Length: 4409

Measured Total Depth: 17000

True Vertical Depth: 12146

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

Notes:

Category	Description
DEEP SURFACE CASING	2/17/2015 - G76 - APPROVED CONTINGENT ON NOTIFYING OCC FIELD STAFF IMMEDIATELY OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING
LOCATION EXCEPTION - 636644	2/17/2015 - G76 - (I.O.) 16-11N-16W X167057 DSMN COMPL. INT. NCT 300 FNL, NCT 300 FSL, NCT 1320 FWL CHESAPEAKE OP., L.L.C. 2/13/2015
MEMO	2/17/2015 - G76 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS REQUIRED (WASHITA RIVER), PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT
PENDING CD - 201500177	2/17/2015 - G76 - 16-11N-16W X167057 DSMN 1 WELL CHESAPEAKE OP., L.L.C. HEARING ON 2/17/2015
SPACING - 167057	2/17/2015 - G76 - (640) 16-11N-16W EXT 156679 DSMN, OTHERS

This permit does not address the right of entry or settlement of surface damages.

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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.

149 21598 ANNAKATE 16-11-16 2H