API NUMBER: 043 23685 OKLAHOMA CORPORATION COMMISSION **OIL & GAS CONSERVATION DIVISION** P.O. BOX 52000 **OKLAHOMA CITY, OK 73152-2000** (Rule 165:10-3-1)

Approval Date: 01/23/2019 07/23/2020 **Expiration Date**

Horizontal Hole

Multi Unit

Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 16 Twp: 19N Rge: 17W County: DEWEY FEET FROM QUARTER: SPOT LOCATION: S2 S2 SOUTH EAST 82 SF SECTION LINES: 1320 200 Lease Name: HEATH 16/9-19-17 Well No: ЗН Well will be 200 feet from nearest unit or lease boundary. **TAPSTONE ENERGY LLC** Operator Telephone: 4057021600 OTC/OCC Number: 23467 0

TAPSTONE ENERGY LLC 100 E MAIN ST

OKLAHOMA CITY. OK 73104-2509

KATHLEEN YAWGER, ET AL 61679 N. 2280 ROAD

SEILING OK 73663

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

Name Depth Name Depth MISSISSIPPIAN 10900 1 6 2 7 3 8 4 9 5 10 666760 Spacing Orders: Location Exception Orders: Increased Density Orders: 686941 661124 686942

Pending CD Numbers: 201900276 Special Orders:

201900275

Total Depth: 20800 Ground Elevation: 1860 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 230

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

Approved Method for disposal of Drilling Fluids: PIT 1 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED Chlorides Max: 8000 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: C

Liner not required for Category: C

Pit Location is BED AQUIFER

RUSH SPRINGS Pit Location Formation:

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 19-36145

H. SEE MEMO

PIT 2 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

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: C

Liner not required for Category: C
Pit Location is BED AQUIFER

Pit Location Formation: RUSH SPRINGS

HORIZONTAL HOLE 1

Sec 09 Twp 19N Rge 17W County DEWEY Spot Location of End Point: N2 N2 N2 NF Feet From: NORTH 1/4 Section Line: 150 Feet From: EAST 1/4 Section Line: 1320

Depth of Deviation: 10384
Radius of Turn: 477
Direction: 360
Total Length: 9667

Measured Total Depth: 20800

True Vertical Depth: 10900

End Point Location from Lease,
Unit, or Property Line: 150

Notes:

Category Description

DEEP SURFACE CASING 1/22/2019 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS

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

SURFACE CASING

HYDRAULIC FRACTURING 1/22/2019 - G71 - OCC 165:10-3-10 REQUIRES:

1) PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE:

2) WITH NOTICE ALSO GIVEN 48 HOURS IN ADVANCE OF HYDRAULIC FRACTURING ALL WELLS TO BOTH THE OCC CENTRAL OFFICE AND LOCAL DISTRICT OFFICES, USING THE

"FRAC NOTICE FORM" FOUND AT THE FOLLOWING LINK:

OCCEWEB.COM/OG/OGFORMS.HTML; AND,

3) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS TO BE REPORTED TO FRACFOCUS WITHIN 60 DAYS AFTER THE CONCLUSION THE

HYDRAULIC FRACTURING OPERATIONS, USING THE FOLLOWING LINK: FRACFOCUS.ORG

INCREASED DENSITY - 686941 1/23/2019 - G75 - 9-19N-17W

X661124 MSSP

1 WELL

TAPSTONE ENERGY, LLC

11-20-2018

INCREASED DENSITY - 686942 1/23/2019 - G75 - 16-19N-17W

X666760 MSSP

1 WELL

TAPSTONE ENERGY, LLC

11-20-2018

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.

Category Description

INTERMEDIATE CASING 1/22/2019 - G71 - DUE TO THE KNOWN POTENTIAL RISK OF ENCOUNTERING AN OVER-

> PRESSURED ZONE IN THE MORROW SERIES IN THIS AREA, THE TECHNICAL MANAGER RECOMMENDS SETTING AN INTERMEDIATE STRING OF CASING IMMEDIATELY ABOVE THE

MORROW SERIES

1/22/2019 - G71 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST; PIT 2 -**MEMO**

OBM TO VENDOR, OBM CUTTINGS PER DISTRICT

PENDING CD - 201900275 1/23/2019 - G75 - (E.O.) 16 & 9-19N-17W

EST MULTIUNIT HORIZONTAL WELL

X666760 MSSP 16-19N-17W X661124 MSSP 9-19N-17W

50% 16-19N-17W 50% 9-19N-17W

TAPSTONE ENERGY, LLC REC 1-18-2019 (JACKSON)

PENDING CD - 201900276 1/23/2019 - G75 - (E.O.) 16 & 9-19N-17W

X666760 MSSP 16-19N-17W X661124 MSSP 9-19N-17W

X165:10-3-28(C)(2)(B) MAY BE CLOSER THAN 600' TO EXISTING/PROPOSED WELL

COMPL. INT. (16-19N-17W) NCT 150' FSL, NCT 0' FNL, NCT 660' FEL COMPL. INT. (9-19N-17W) NCT 0' FSL, NCT 150' FNL, NCT 660' FEL

TAPSTONE ENERGY, LLC REC 1-18-2019 (JACKSON)

1/23/2019 - G75 - (640)(HOR) 9-19N-17W VAC 85657 MCSTR **SPACING - 661124**

EST MSSP

COMPL. INT. NLT 660' FB

1/23/2019 - G75 - (640)(HOR) 16-19N-17W **SPACING - 666760**

VAC 78413 MCSTR **EXT 661124 MSSP** COMPL. INT. NLT 660' FB

