API NUMBER: 043 23635

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: 06/08/2018
Expiration Date: 12/08/2018

PERMIT TO DRILL

WELL LOCATION:	Sec:	80	Twp:	19N	Rge:	17W	County:	DEWEY

SPOT LOCATION: SW SE SE SW FEET FROM QUARTER: FROM SOUTH FROM WEST SECTION LINES: 250 2025

Lease Name: MYRNA 8-19-17 Well No: 1H Well will be 250 feet from nearest unit or lease boundary.

Operator TAPSTONE ENERGY LLC Telephone: 4057021600 OTC/OCC Number: 23467 0

TAPSTONE ENERGY LLC

100 E MAIN ST

OKLAHOMA CITY, OK 73104-2509

MYRNA ANN FUQUA RT. 2. BOX 89

SEILING OK 73663

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	10800	3	
2		7	•	
3		8	3	
4		S)	
5		1	0	
Spacing Orders:	657021	Location Exception Orders:		Increased Density Orders:

Pending CD Numbers: 201804180 Special Orders:

201804179

Total Depth: 15400 Ground Elevation: 1869 Surface Casing: 320 Depth to base of Treatable Water-Bearing FM: 170

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

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 D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-34637

Chlorides Max: 8000 Average: 5000 H. SEE MEMO

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: CPit Location is BED AQUIFER

Pit Location Formation: RUSH SPRINGS

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 08 Twp 19N Rge 17W County **DEWEY** NW Spot Location of End Point: N2 N2 NF Feet From: NORTH 1/4 Section Line: 165 Feet From: WEST 1/4 Section Line: 1980

Depth of Deviation: 10298 Radius of Turn: 477 Direction: 359

Total Length: 4353

Measured Total Depth: 15400

True Vertical Depth: 10800

End Point Location from Lease,
Unit, or Property Line: 165

Notes:

Category Description

HYDRAULIC FRACTURING

INTERMEDIATE CASING

6/1/2018 - 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 6/1/2018 - G71 - DUE TO THE KNOWN POTENTIAL RISK OF ENCOUNTERING AN OVER-

6/1/2018 - G/1 - 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

MEMO 6/1/2018 - G71 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST; PIT 2 -

OBM TO VENDOR, OBM CUTTINGS PER DISTRICT

PENDING CD - 201804179 6/8/2018 - G75 - 8-19N-17W

X657021 MSSP 1 WELL

NO OP. NAMED HEARING 6-19-2018

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

PENDING CD - 201804180 6/8/2018 - G75 - (E.O.) 8-19N-17W

X657021 MSSP

COMPL. INT. NCT 165' FSL, NCT 165' FNL, NCT 1320' FWL

TAPSTONE ENERGY, LLC REC 6-1-2018 (P. PORTER)

SPACING - 657021 6/8/2018 - G75 - (640) 8-19N-17W

VAC 85657 MCSTR EST MSSP, OTHERS

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA
13800 Wireless Way, Okla. City, OK. 73134 (405) 843-4847 * OUT OF STATE (800) 654-3219

Certificate of Authorization No. 1293 LS API 043-23635 DEWEY County, Oklahoma 250'FSL - 2025'FWL 8 19N Range 17W I.M. Section Township X 1697014 Y 418096 BOTTOM HOLE 1694405 418138 X 1691794 Y 418179 **5**) 60 for 1980 rein is BOTTOM HOLE BOTTOM HOLE 165'FNL-1980'FWL NAD-27 (US Feet) 36'08'37.6" N 99'02'13.7" W 36.143783514' N NOTE: information shown herein 9 construction purposes 99.037151435° W 2471 X=1693772 Y=417983 The X 1696983 Y 415461 X 1691763 Y 415544 8 DRILL 0 GR40' -2-N-5 PATH LANDING POINT 750'FSL-2020'FWL NAD-27 (US Feet) 36'07'54.6" N 99'02'13.3" W 557. 1950 36.131825876* 99.037028995° W 2382 LANDING POINT X = 1693761Y=413630 GRID NAD-27 587' OK NORTH US Feet X 1696954 Y 412834 1694344 412872 500' 1000 250 LANDING POINT, BOTTOM HOLE AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. **ELEVATION:** Operator: TAPSTONE ENERGY Lease Name: MYRNA 8-19-17 1H 1869' Gr. at Stake Well No.: ___ Topography & Vegetation <u>Loc. fell in sloping wheat field pasture</u> Reference Stakes or Alternate Location Stakes Set None Yes Good Drill Site? ___ From South off county road Best Accessibility to Location ___ Distance & Direction From Jct. US Hwy. 183 and St. Hwy. 51, go ±5.0 mi. West on US Hwy. 60, from Hwy Jct or Town then ±1.0 mi. South to the SW Cor. of Sec. 8-T19N-R17W DO FESSIONAL May 16, 2018 Date of Drawing: _ Invoice # 294013 Date Staked: May 15, 2018 AC DATUM: NAD-27 LAT: 36'07'49.6"N LONG: 99'02'13.3"W **CERTIFICATE:** SURVEYOR CENSED THOMAS L. LAT: 36.130452361° N I, Thomas L. Howell an Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land Thomas L. Howell HOWELL LONG: 99.037014933° W 1433 STATE PLANE Surveyors of Oklahoma, do hereby certify to the COORDINATES: (US Feet) OKLAHOMA BY ZONE: OK NORTH 1693760 Y: 413130 Oklahoma Lic. No. ___