OKLAHOMA CORPORATION COMMISSION **OIL & GAS CONSERVATION DIVISION** Approval Date: 08/16/2017 API NUMBER: P.O. BOX 52000 043 23546 Expiration Date: 02/16/2018 **OKLAHOMA CITY, OK 73152-2000** (Rule 165:10-3-1) Horizontal Hole Oil & Gas PERMIT TO DRILL WELL LOCATION: Twp: 19N Rge: 17W County: DEWEY SPOT LOCATION: N2 N2 FEET FROM QUARTER: NORTH EAST SECTION LINES 1320 Lease Name: PAULA 5/32-20-Well will be Well No: 1H 335 feet from earest unit or lease boundary. Operator TAPSTONE ENER Telephone: 4057021600 OTC/OCC umber: 23467 0 Name: TAPSTONE ENERGY LLC PAULA HOWARD & DOYLE HOWARD 100 E MAIN ST P.O. BOX 85 OKLAHOMA CITY, OK 7310 -2509 SEILING OK 73663 Formation(s) (Permit Valid for Listed Formations Only) Depth Name Depth MISSISSIPPIAN (LESS UPPER CHESTER) 9070 2 MISSISSIPPI LIME 10600 3 5 10 646393 Spacing Orders: Location Except Orders: Increased Density Orders: 534131 Pending CD Numbers: 201703904 Special Orders: 201703902 201703903 Total Depth: 20950 Ground Elevation: 1881 Surface Casing: 280 Depth to base of Treatable Water-Bearing FM: 130 Under Federal Jurisdiction: 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 S tem Means Steel Pits Type of Mud System: WATER BASE D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 17-32744 H. SEE MEMO Chlorides Max: 8000 Average: 50 Is depth to top of ground water ater than 10ft below base of pit? Y Within 1 mile of municipal wa well? Wellhead Protection Area is located j Hydrologically Sensitive Area Category of Pit: Liner not requ ed for Category: C Pit Location is BED AQUIFER Pit Location Formation: RUSH SPRINGS 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.

Office of the Conservation Division as to when Surface Casing will be run.

Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District

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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

of municipal water well? N

ed in a Hydrologically Sensitive Area.

Category of Pit:

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

Pit Location Formation USH SPRINGS

HORIZONTAL HOLE 1

Sec 32 Twp 20N County WOODWARD

1/4 Section I

Spot Location of End Point: N2 NF NE Feet From: NORTH 1/4 Section Line: 165 Feet From:

Depth of Deviation: 9956 Radius of Turn: 477

FAST

Direction: 5

Total Length: 10245

Measured Total Depth: 20950 True Vertical Depth: 10600 End Point Location from Lease. Unit, or Property Line: 165

Notes:

Category

MEMO

HYDRAULIC FRACTURING

INTERMEDIATE CASING

Description

660

165:10-3-10 REQUIRES: 8/3/2017 - G58 -

MMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS FOR HORIZONTAL 1) PRIOR TO Q WELLS, NOTIZE 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.RTML; 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

8/3/2017 - G58 - DUE TO THE KNOWN PO ENTIAL RISK OF ENCOUNTERING AN OVER-PRESSURED ZONE IN THE MORROW SER ES IN THIS AREA, THE TECHNICAL MANAGER RECOMMENDS SETTING AN INTERMEDIATE STRING OF CASING IMMEDIATELY ABOVE THE

MORROW SERIES

8/3/2017 - G58 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST; PIT 2 -OBM TO VENDOR, OBM CUTTINGS PER DISTRIC

PENDING CD - 201703902

8/14/2017 - G75 - 5-19N-17W X646393 MSLUC 1 WELL NO OP. NAMED REC 7-10-2017 (M. PORTER)

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.

043 23546 PAULA 5/32-20-17 1H

Category Description 8/14/2017 - G75 - (I.O.) 5-19N-17W & 32-20N-17W EST MULTIUNIT HORIZONTAL WELL PENDING CD - 201703903 X646393 MSLUC 5-19N-17W X534131 MSSLM 32-20N-17W 50% 5-19N-17W 50% 32-20N-17W TAPSTONE ENERGY, LLC REC 7-10-2017 (M. PORTER) 8/14/2017 - G75 - (I.O.) 5-19N-17W & 32-20N-17W X646393 MSLUC 5-19N-17W PENDING CD - 201 03904 X534131 MSSLM 32-20N-17W COMPL. INT. (5-19N-17W) NCT 165' FSL, NCT 0' FNL, NCT 330' FEL COMPL. INT. (32-20N-17W) NCT 0' FSL, NCT 165' FNL, NCT 330' FEL NO OP. NAMED REC 7-10-2017 (M. PORTER) 8/14/2017 - G75 - (640) 32-20N-17W EXT OTHERS SPACING - 534131 EST MSSLM 8/14/2017 - G75 - (640) 5-19N-17W VAC 85657 MCSTR **SPACING - 646393** EST (VER) OTHER EST (HOR) MSLUC COMPL. INT. NLT 660' FB

