API NUMBER: 043 23681 **OKLAHOMA CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION** P.O. BOX 52000 **OKLAHOMA CITY, OK 73152-2000** (Rule 165:10-3-1)

01/14/2019 Approval Date: Expiration Date: 07/14/2020

Horizontal Hole Multi Unit

Oil & Gas

## PERMIT TO DRILL

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WELL LOCATION: Sec: 22 Twp: 19N Rge: 1 SPOT LOCATION: NE NW NW NW  Lease Name: DEENA 15/10-19-17	7W County: DEW    FEET FROM QUARTER: FROM   SECTION LINES:   Well No:		EST 60 Well will be	150 feet from nearest unit or lease boundary.
Operator TAPSTONE ENERGY LLC Name:		Telephone: 40570	021600	OTC/OCC Number: 23467 0
TAPSTONE ENERGY LLC  100 E MAIN ST  OKLAHOMA CITY,  OK	73104-2509		ALAN A. MEYER & LII 214593 E. 730 RD CAMARGO	NDA F. MEYER OK 73935

Formation(s)	) (Permit Valid for Listed	Formations Only):		
	Name	Depth	Name	Depth
1	MISSISSIPPIAN	10900	6	
2			7	
3			8	
4			9	
5			10	
Spacing Orders:	664843 686803	Location Exception Orde	ers:	Increased Density Orders: 686938
Pending CD Num	bers: 201805695 201805696			Special Orders:
Total Depth: 2	21200 Ground Elevatio	n: 1846 Surface Cas	ing: 1500	Depth to base of Treatable Water-Bearing FM: 220

Total Depth: 21200	Ground Elevation: 1846	Surface Casing: 1500	0	Depth to base of 1	Freatable Water-Bearin	ng FM: 220	
Under Federal Jurisdiction: N	No	Fresh Water Supply Well Drille	ed: No	S	Surface Water used to I	Drill: Yes	
PIT 1 INFORMATION		,	Approved Method for disposal of	of Drilling Fluids:			
Type of Pit System: CLOSED	Closed System Means Steel Pits						
Type of Mud System: WATER I	BASED		D. One time land application	(REQUIRES PER	MIT) P	ERMIT NO: 19-3	6071
Chlorides Max: 8000 Average: 5	000		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?

Chlorides Max: 8000 Average: 5000

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

## 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 10 Twp 19N Rge 17W County **DEWEY** NW Spot Location of End Point: N2 N2 NW Feet From: NORTH 1/4 Section Line: 150 Feet From: WEST 1/4 Section Line: 660

Depth of Deviation: 10316 Radius of Turn: 525

Direction: 1

Total Length: 10060

Measured Total Depth: 21200

True Vertical Depth: 10900

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

Notes:

Category Description

DEEP SURFACE CASING 1/8/2019 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY OF ANY LOSS OF

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

SURFACE CASING

HYDRAULIC FRACTURING 1/8/2019 - 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 - 686938 1/14/2019 - G56 - 10-19N-17W

X664843 MSSP

1 WELL

TAPSTONE ENERGY, LLC

11/20/2018

INTERMEDIATE CASING 1/8/2019 - 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** 

Category Description

MEMO 1/8/2019 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS (REQUIRED - DEEP CREEK), PIT 2 -

OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

PENDING CD - 201805695 1/14/2019 - G56 - (I.O.) 15 & 10-19N-17W

ESTABLISH MULIUNIT HORIZONTAL WELL

X201804103 MSSP 15-19N-17W X664843 MSSP 10-19N-17W

50% 15-19N-17W 50% 10-19N-17W

TAPSTONE ENERGY, LLC REC 10/12/2018 (THOMAS)

PENDING CD - 201805696 1/14/2019 - G56 - (I.O.) 15 & 10-19N-17W

X201804103 MSSP 15-19N-17W X664843 MSSP 10-19N-17W

COMPL INT (15-19N-17W) NCT 165' FSL, NCT 0' FNL, NCT 560' FWL COMPL INT (10-19N-17W) NCT 0' FSL, NCT 165' FNL, NCT 560' FWL

NO OP NAMED

REC 10/12/2018 (THOMAS)

SPACING - 664843 1/14/2019 - G56 - (640)(HOR) 10-19N-17W

VAC 151390 MSCST EXT 661124 MSSP COMPL INT NLT 660' FB

SPACING - 686803 1/14/2019 - G56 - (640)(HOR) 15-19N-17W

EXT OTHER VAC 85657 MSCST EXT 667857 MSSP COMPL INT NCT 660' FB