API NUMBER: 043 23495

Oil & Gas

Horizontal Hole

Category of Pit: C

Liner not required for Category: C

Pit Location is BED AQUIFER

Pit Location Formation: RUSH SPRINGS

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

Approval Date:	01/17/2017
Expiration Date:	07/17/2017

PERMIT TO DRILL

SPOT LOCATION. INL INV INV INV	County: DEW	/EY NORTH FROM	EAST			
SECTION I	LINES:	220	2200			
Lease Name: EARL 30-19 17	Well No:	1H		Well will be 220	0 feet from nearest	unit or lease boundary.
Operator TAPSTONE ENERGY LLC Name:		Telephone: 40	057021600	OTO	C/OCC Number:	23467 0
TAPSTONE ENERGY LLC 100 E MAIN ST OKLAHOMA CITY, OK 73104	-2509		CAROL DO P.O. BOX TALOGA		ND LOLA F. SCH OK 73	HOMP 667
Formation(s) (Permit Valid for Listed Formations Name	s Only): Depth		Name		Depth	
1 MISSISSIPIAN	12000	6				
2		7				
3 4		8				
5		1				
	Location Exception			Increas	sed Density Orders:	
Pending CD Numbers: 201605996 201605997				Special	l Orders:	
Total Depth: 16900 Ground Elevation: 1977	Surface	Casing: 460		Depth to bas	se of Treatable Water-	Bearing FM: 310
Under Federal Jurisdiction: No	Fresh Wate	r Supply Well Drilled:	No		Surface Water us	ed to Drill: Yes
PIT 1 INFORMATION		Ар	proved Method for di	sposal of Drilling Flu	ids:	
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: 17-32032			
Chlorides Max: 8000 Average: 5000		Н	. SEE MEMO			
Is depth to top of ground water greater than 10ft below base of pit?	Υ	_				
Within 1 mile of municipal water well? N						
Wellhead Protection Area? N						
Pit is located in a Hydrologically Sensitive Area.						

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: CPit Location is BED AQUIFER

Pit Location Formation: RUSH SPRINGS

HORIZONTAL HOLE 1

Sec 30 Twp 19N Rge 17W County **DEWEY** Spot Location of End Point: ΝE NW NW NF Feet From: NORTH 1/4 Section Line: 165 Feet From: EAST 1/4 Section Line: 2200

Depth of Deviation: 11405
Radius of Turn: 665
Direction: 360
Total Length: 4450

Measured Total Depth: 16900

True Vertical Depth: 12000

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

Notes:

Category Description

HYDRAULIC FRACTURING 1/12/2017 - G71 - OCC 165:10-3-10 REQUIRES: 1) THE CHEMICAL DISCLOSURE OF HYDRAULIC

FRACTURING INGREDIENTS FOR ALL WELLS BE REPORTED TO FRACFOCUS USING THE FOLLOWING LINK HTTP://FRACFOCUS.ORG/ WITH NOTICE GIVEN 48 HOURS IN ADVANCE OF FRACTURING TO THE LOCAL OCC DISTRICT OFFICE; AND, 2) PRIOR TO COMMENCEMENT OF FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE ALSO GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME

COMMON COURCE OF CURRY WITHIN 4/2 MILE

COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE

INTERMEDIATE CASING

1/12/2017 - 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

MEMO 1/12/2017 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 -

OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

PENDING CD - 201605996 1/12/2017 - G64 - (640)(HOR) 30-19N-17W

VAC 54296 CRLM VAC 217107 MSSLM EXT 647686 MSSP POE TO BHL NCT 660' FB REC. 1-9-2017 (DUNN)

PENDING CD - 201605997 1/12/2017 - G64 - (I.O.) 30-19N-17W

X201605996 MSSP

COMPL. INT. NCT 165' FSL, NCT 165' FNL, NCT 1980' FEL

NO OP. NAMED REC. 1-9-2017 (DUNN)

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA
6709 NORTH CLASSEN BLVD., OKLA. CITY, OKLA. 73116 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219
Certificate of Authorization No. 1293 LS
DEWEY
County Oklahoma API 043 23495 County, Oklahoma
19N Range 220'FNL - 2200'FEL Section Range Township BOTTOM HOLE X= 1688994 Y= 402444 The construction purposes information 413 2200 LOT 1 shown herein 2442 E/2-NW/4 BOTTOM HOLE 165'FNL-2200'FEL NAD-27 (US Feet) 36'06'01.8" N 99'03'04.9" W 36.100503421' N 99.051366487' W X=1689404 Y=402274 LOT 2 ó 1000 30 X= 1691573 Y= 399797 PATH Distance & from Hwy Operator: TAPSTONE ENERGY Topography & Vegetation DRILL Hwy. 51, then ±4.0 mi. South to the NE Cor. of Sec. 31-T19N-R17W t Accessibility to Loc ance & Direction n Hwy Jct or Town_ 119N-R17W Pri 719N-RI Name: LOT 3 PROPOSED EARL E/2-SW/4 LANDING POINT 280°FSL-2199°FEL NAD-27 (US Feet) 36°05'14.5" N 99°03'05.0" W 36.087365621' N 99.051396769' W X=1689343 Y=397492 30-19-17 Location Yes Loc. LOT 4 From LANDING POINT 1686313 397258 fe<u>e</u> X= 1691539 Y= 397179 Jct. 3. US Hwy. level Reference S Stakes Set field WIND TURBINE | OWIND > =0 416 183 North and St. WIND TURBINE LOT 1 Stakes of None 2376 E/2-NW/4 윽 WeⅡ Alternate Hwy. No.: LOT 2 394665 5 主 Location West X= 1691517 Y= 394580 31 3 LOT 3 **ELEVATION:** S, WIND O TURBINE go ±5.0 E/2-SW/4 LOT 4 3. West X= 1691496 Y= 391982 on T19N-R17W Township Line-P X= 1686266 Y= 392072 T18N-R17W LANDING POINT, BOTTOM HOLE AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. X= 1688881 Y= 392027 Date of Drawing: Dec. 07, 2016 ESSIONAL DATUM: <u>NAD-27</u> LAT: <u>36°05'09.6"N</u> Invoice # 269066 Date Staked: Dec. 06, 2016 LONG: 99'03'05.0"W **CERTIFICATE:** d with a GPS of foot Horiz./Vert. LAT: __36.085992052* N THOMAS L Thomas L. Howell _an Oklahoma Licensed Land LONG: 99.051399934° W Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the HOWELL STATE PLANE 1433 COORDINATES: (US Feet) information shown herein 12-7-1 ZONE: OK NORTH Thoma I. Nave 1689337 396992 Oklahoma Lic. No. _