API NUMBER: 043 23568

Chlorides Max: 8000 Average: 5000

Liner not required for Category: C

Pit Location is BED AQUIFER

Pit Location Formation: RUSH SPRINGS

Wellhead Protection Area?

Category of Pit: C

Within 1 mile of municipal water well? N

Is depth to top of ground water greater than 10ft below base of pit? Y

is located in a Hydrologically Sensitive Area.

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:	11/13/2017
Expiration Date:	05/13/2018

PERMIT TO DRILL

FOI LOCATION. INV INV INV	County: DEWEY EET FROM QUARTER: FROM NO EECTION LINES: 24 Well No: 11	DRTH FROM EAST	Well will be 240 feet from nea	rest unit or lease boundary.		
Operator TAPSTONE ENERGY LLC Name:		Telephone: 4057021600	OTC/OCC Number:	23467 0		
TAPSTONE ENERGY LLC 100 E MAIN ST OKLAHOMA CITY, OK 7	3104-2509	CAROL / P.O. BO TALOGA		73667		
Formation(s) (Permit Valid for Listed Formation	ations Only): Depth	Name	De	pth		
1 MISSISSIPPIAN	11750	6				
2		7				
3 4		8 9				
5		10				
pacing Orders: 657193	Location Exception Or	ders:	Increased Density Orders:			
ending CD Numbers: 201706053 201706052			Special Orders:	_		
Total Depth: 16800 Ground Elevation: 1908	Surface Ca	sing: 1500	Depth to base of Treatable Wa	iter-Bearing FM: 180		
Under Federal Jurisdiction: No	Fresh Water Su	upply Well Drilled: No	Surface Wate	r used to Drill: Yes		
PIT 1 INFORMATION		Approved Method for disposal of Drilling Fluids:				
Type of Pit System: CLOSED Closed System Means Ste	el Pits					
Type of Mud System: WATER BASED		D. One time land application (REQUIRES PERMIT) PERMIT NO: 17-332				

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

Depth of Deviation: 11145 Radius of Turn: 449

Direction: 3

Total Length: 4950

Measured Total Depth: 16800

True Vertical Depth: 11750

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

Notes:

Category Description

DEEP SURFACE CASING 10/4/2017 - 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 10/4/2017 - 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

INTERMEDIATE CASING 10/4/2017 - 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 10/4/2017 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 -

OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

Category Description

PENDING CD - 201706052 11/13/2017 - G60 - 7-19N-17W

X657193 MSSP 1 WELL

NO OP. NAMED REC. 10/2/17 (M. PORTER)

PENDING CD - 201706053 11/13/2017 - G60 - (I.O.) 7-19N-17W

X657193 MSSP

COMPL. INT. NCT 165' FNL, NCT 165' FSL, NCT 660' FEL

NO OP. NAMED

REC. 10/2/17 (M. PORTER)

SPACING - 657193 11/13/2017 - G60 - (640) 7-19N-17W

VAC 85657 MCSTR EST MSSP, OTHERS

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, Okłahoma 3504323568 _ Section ___18 <u>19N</u> Range <u>17W</u> I.M. 240'FNL - 2495'FEL __ Township X=1691794 Y=418179 2200 60 5 construction X=1686521 Y=418260 BOTTOM HOLE 165 FNL - 2200 FEL NAD - 27 (US Feet) 36 08 37.8" N 99 03 04.7" W 36.143838636" N 99.051308159" W X=1689592 Y=418048 430 LOT 1 shown her 2465 E/2-NW/4 herein rein is LOT 2 GRID NAD-27 OK NORTH US Feet ð 1000 X=1686487 Y=415638 X=1691763 Y=415544 Best Accessibility to L Distance & Direction from Hwy Jct or Towr LANDING POINT 259'FSL-2467'FEL NAD-27 (US Feet) 36'07'50.0" N 99'03'08.0" W 36.130545498' N 99.052225480' W X=1689269 Y=413212 Good Operator: TAPSTONE ENERGY Copography T19N-R18W Drill Name: BIVENS LOT 3 PROPOSED Site? & Vegetation of Sec. E/2-SW/4 Town Location 7-19-17 18-T19N-R17W Yes LOT 4 From Loc. X=1686454 Y=413004 X=1689107 Y=412956 fell Seiling, LANDING POINT ≥. >240 sloped 웃 Reference Stakes Set go off grass LOT 1 #6 Set .75 pasture Stakes or 2381' ∄. road E/2-NW/4 West 9 Ve∥ on Alternate LOT 2 No.: S Hwy. =1686433 =410379 PROVIDED P <u>+</u> Location 18 60 POINT, BOTTOM D BY OPERATOR X=1691704 Y=410291 then **ELEVATION:** # LOT 3 Ö HOLE A ∄. E AND DRILL PATH ED, NOT SURVEYED. South E/2-SW/4 to LOT 4 INFORMATION X=1689062 Y=407704 Date of Drawing: Aug. 17, 2017 ESSIONAL DATUM: NAD-27
LAT: 36'07'45.0"N
LONG: 99'03'08 4" Invoice # 280031 Date Staked: Aug. 15, 2017 AC LAT: 36'07'45.0"N LONG: 99'03'08.4"W **CERTIFICATE:** is information of with a GPS foot Horiz./Vert. LAT: 36.129174082° N THOMAS L Thomas L Howell _an Oklahoma Licensed Land LONG: 99.05**2320**100° W STATE PLANE HOWELL Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the information shown herein 1433 COORDINATES: (US Feet) ZONE: OK NORTH Theme I. Nave ma Lic. No. 1433 1689236

Oklahoma Lic. No. __

412713

OK LAHOMA