

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

API NUMBER: 043 23633

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

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 21 Twp: 19N Rge: 17W County: DEWEY  
SPOT LOCATION:  NW  NE  NE  NW FEET FROM QUARTER: FROM NORTH FROM WEST  
SECTION LINES: 200 2100

Lease Name: HEATH 16/9-19-17 Well No: 2H Well will be 200 feet from nearest unit or lease boundary.

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

TAPSTONE ENERGY LLC  
100 E MAIN ST  
OKLAHOMA CITY, OK 73104-2509

DAVID LANDON HEATH  
2208 BELLAIRE DRIVE  
MOORE OK 73160

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

Name	Depth	Name	Depth
1 MISSISSIPPIAN	10100	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 661124 Location Exception Orders: 678819 Increased Density Orders: 678816  
666760 678817  
678874

Pending CD Numbers:

Special Orders:

Total Depth: 21300 Ground Elevation: 1883 **Surface Casing: 1500** Depth to base of Treatable Water-Bearing FM: 240

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

Chlorides Max: 8000 Average: 5000

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

D. One time land application -- (REQUIRES PERMIT)

PERMIT NO: 18-34526

H. SEE MEMO

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.

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 09 Twp 19N Rge 17W County DEWEY

Spot Location of End Point: NW NE NE NW

Feet From: NORTH 1/4 Section Line: 165

Feet From: WEST 1/4 Section Line: 2100

Depth of Deviation: 10078

Radius of Turn: 750

Direction: 360

Total Length: 10044

Measured Total Depth: 21300

True Vertical Depth: 11000

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

Notes:

Category

Description

DEEP SURFACE CASING

5/24/2018 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR SURFACE CASING

HYDRAULIC FRACTURING

5/24/2018 - 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](http://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](http://FRACFOCUS.ORG)

INCREASED DENSITY - 678816

6/8/2018 - G75 - 9-19N-17W  
X661124 MSSP  
1 WELL  
TAPSTONE ENERGY, LLC  
6-6-2018

INCREASED DENSITY - 678817

6/8/2018 - G75 - 16-19N-17W  
X666760 MSSP  
2 WELLS  
TAPSTONE ENERGY, LLC  
6-6-2018

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.

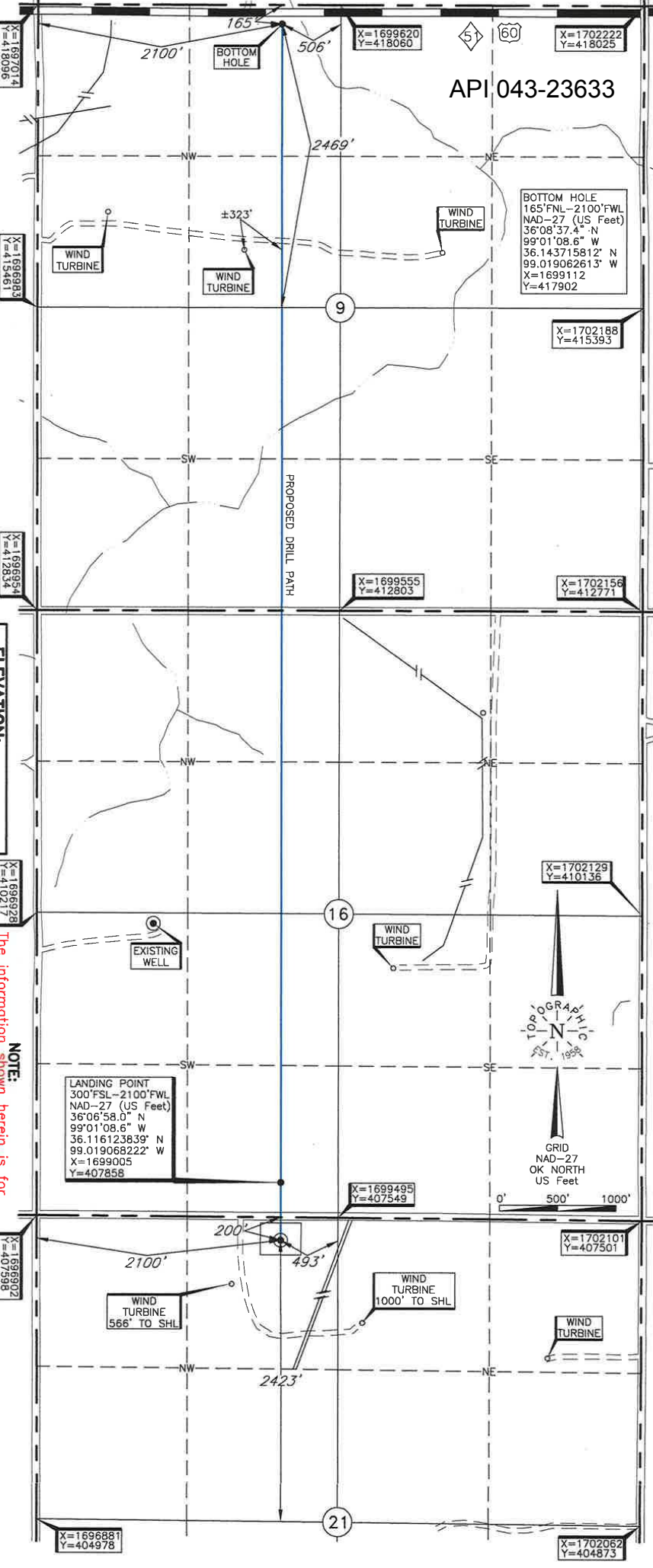
Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

Category	Description
INTERMEDIATE CASING	5/24/2018 - 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
LOCATION EXCEPTION - 678819	6/8/2018 - G75 - (I.O.) 16 & 9-19N-17W X666760 MSSP 16-19N-17W X661124 MSSP 9-19N-17W COMPL. INT. (16-19N-17W) NCT 165' FSL, NCT 0' FNL, NCT 1980' FWL COMPL. INT. (9-19N-17W) NCT 0' FSL, NCT 165' FNL, NCT 1980' FEL TAPSTONE ENERGY, LLC 6-6-2018
MEMO	5/24/2018 - G71 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST; PIT 2 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT
SPACING - 661124	6/8/2018 - G75 - (640)(HOR) 9-19N-17W VAC 85657 MCSTR EST MSSP COMPL. INT. NLT 660' FB
SPACING - 666760	6/8/2018 - G75 - (640)(HOR) 16-19N-17W VAC 78413 MCSTR EXT 661124 MSSP COMPL. INT. NLT 660' FB
SPACING - 678874	6/8/2018 - G75 - (I.O.) 16 & 9-19N-17W EST MULTIUNIT HORIZONTAL WELL X666760 MSSP 16-19N-17W X661124 MSSP 9-19N-17W 50% 16-19N-17W 50% 9-19N-17W TAPSTONE ENERGY, LLC 6-7-2018

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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.

LANDING POINT, BOTTOM HOLE AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED.

**TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA**  
 13800 Wireless Hwy, Okla City, OK 73134 (405) 843-4847 \* OUR OF STATE (800) 654-3219  
 DEWEY Certificate of Authorization No. 1293 LS County, Oklahoma  
 Section 21 Township 19N Range 17W I.M.



**ELEVATION:**  
 1883' Gr. at Stake

**NOTE:**  
 The information shown herein is for the construction purposes ONLY.

Operator: TAPSTONE ENERGY  
 Lease Name: HEATH 16/9-19-17  
 Topography & Vegetation Loc. fall in terraced wheat field  
 Well No.: ZH  
 Good Drill Site? Yes  
 Reference Stakes or Alternate Location Stakes Set None  
 Best Accessibility to Location From North off county road  
 Distance & Direction from Hwy Jct or Town From Jct. US Hwy. 281 and St. Hwy. 51 in Sealing, OK, go ±5.7 mi. West on St. Hwy. 51/US Hwy. 60, then ±2.0 mi. South to the NW Cor. of Sec. 21-T19N-R17W

DATUM: NAD-27  
 LAT: 36°06'53.1"N  
 LONG: 99°01'08.6"W  
 LAT: 36.1147502774° N  
 LONG: 99.0190068501° W  
 STATE PLANE  
 COORDINATES: (US Feet)  
 ZONE: OK NORTH  
 X: 1699000  
 Y: 407358

This information was gathered with a GPS receiver with ±1 foot Horiz./Vert. accuracy.

Date of Drawing: Mar. 29, 2018  
 Invoice # 291107 Date Staked: Mar. 27, 2018  
**CERTIFICATE:**  
 I, T. WAYNE FISCH, an Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the information shown herein.  
 T. Wayne Fisch  
 Oklahoma Lic. No. 1378

