

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

API NUMBER: 153 23632

Approval Date: 08/20/2018

Expiration Date: 02/20/2019

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 14 Twp: 20N Rge: 20W

County: WOODWARD

SPOT LOCATION: ☐ NW ☐ NW ☐ SE ☐ SW

FEET FROM QUARTER: FROM SOUTH FROM WEST

SECTION LINES: 1000 1585

Lease Name: JOAN 23-20-20

Well No: 1H

Well will be 1000 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

JAMES C. BORDEN, JR. & JOAN BORDEN
RT. 2, BOX 45
VICI OK 73859

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

Name	Depth	Name	Depth
1 MISSISSIPPIAN	11950	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: No Spacing

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201806062
201806063

Special Orders:

Total Depth: 17200

Ground Elevation: 2166

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 410

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: OGALLALA

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

PERMIT NO: 18-35078

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: OGALLALA

HORIZONTAL HOLE 1

Sec 23 Twp 20N Rge 20W County WOODWARD

Spot Location of End Point: S2 S2 S2 S2

Feet From: SOUTH 1/4 Section Line: 165

Feet From: WEST 1/4 Section Line: 2640

Depth of Deviation: 11643

Radius of Turn: 382

Direction: 172

Total Length: 4957

Measured Total Depth: 17200

True Vertical Depth: 11950

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

Notes:

Category

Description

DEEP SURFACE CASING

8/20/2018 - 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

8/20/2018 - 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; 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

MEMO

8/20/2018 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

PENDING CD - 201806062

8/20/2018 - G57 - (E.O.)(640)(HOR) 23-20N-20W
VAC 69796 MISS
VAC 137969 CSTR
EXT 658420 MSSP
POE TO BHL NLT 660' FB
REC 8-17-2018 (P. 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.

153 23632 JOAN 23-20-20 1H

Category

PENDING CD - 201806063

Description

8/20/2018 - G57 - (E.O.) 23-20N-20W
X201806062 MSSP
COMPL. INT. NCT 165' FNL, NCT 165' FSL, NCT 800' FWL
TAPSTONE ENERGY, LLC.
REC 8-17-2018 (P. 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.

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

13800 WIRELESS WAY, OKLA. CITY, OKLA. 73134 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219

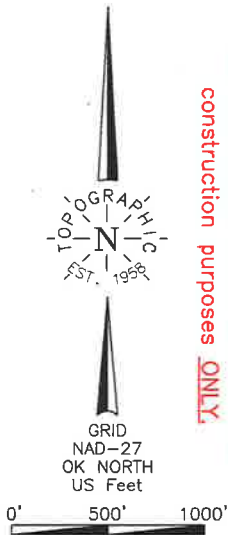
Certificate of Authorization No. 1293 LS

API:153 23632

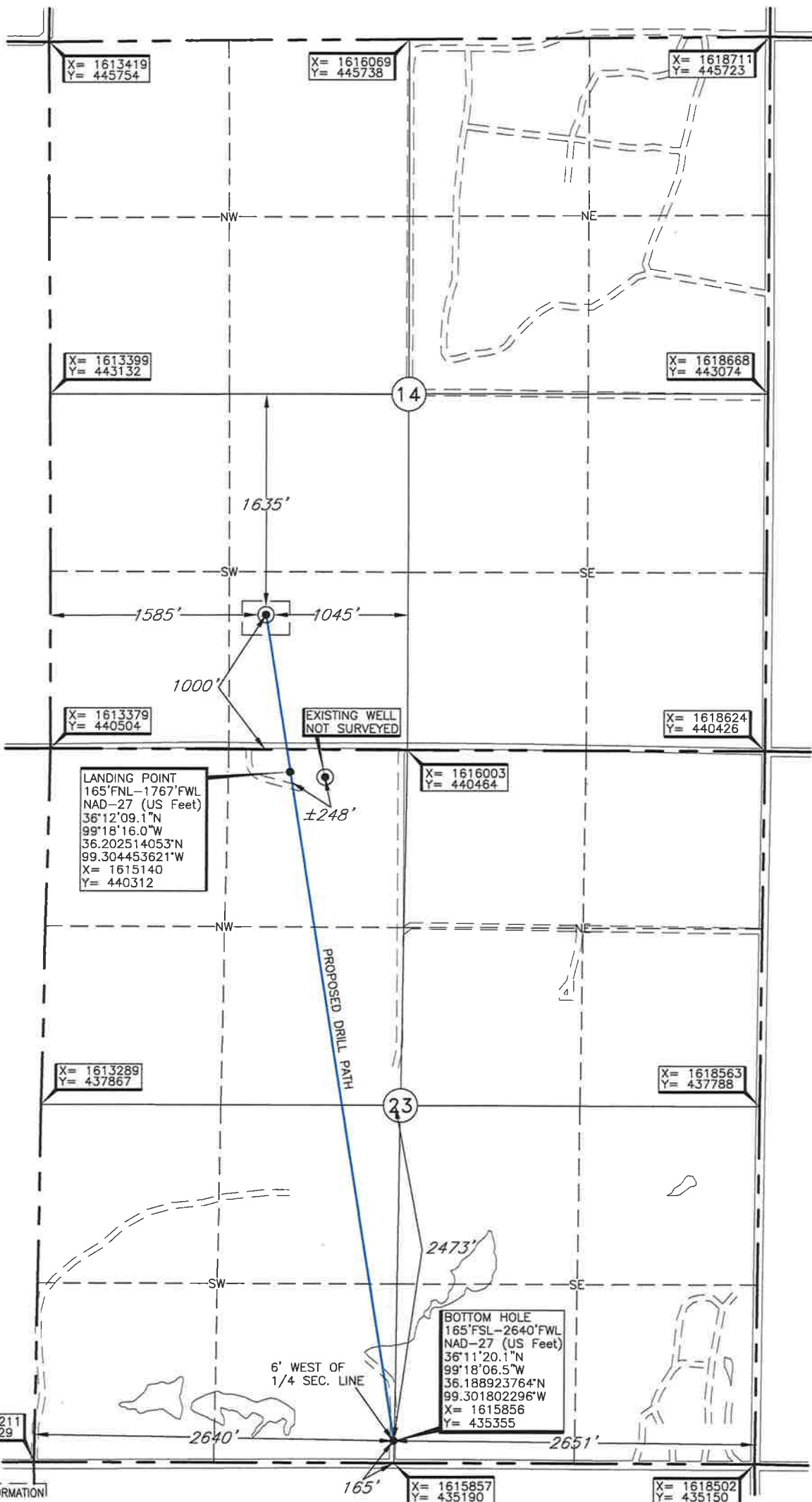
WOODWARD

County, Oklahoma

1000'FSL-1585'FWL Section 14 Township 20N Range 20W I.M.



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



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

Revision ☒ C

Date of Drawing: July 25, 2018

Invoice # 298000

Date Staked: July 20, 2018

TR

CERTIFICATE:

I, Dan W. Rogers an Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the information shown herein.

Dan W. Rogers
Oklahoma Lic. No. 1200



DATUM: NAD-27
LAT: 36°12'20.6\"N
LONG: 99°18'18.3\"W
LAT: 36.205715297\"N
LONG: 99.305078286\"W
STATE PLANE
COORDINATES: (US Feet)
ZONE: OK NORTH
X: 1614971
Y: 441480

Information was gathered with a GPS receiver with a 1 foot foot accuracy.

Operator: TAPSTONE ENERGY
Lease Name: JOAN 23-20-20
Topography & Vegetation: Loc. fell in rolling sandy pasture, ±250' NE of E-W pipeline, North of wind tower road
Good Drill Site? Yes
Reference Stakes or Alternate Location Stakes Set
None

ELEVATION:
2166' Gr. at Stake

Best Accessibility to Location From South of county road
Distance & Direction From Sharon, OK, go South ±5 miles, then East ±0.75 miles to the SW Cor. of Sec. 14-T20N-R20W.

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

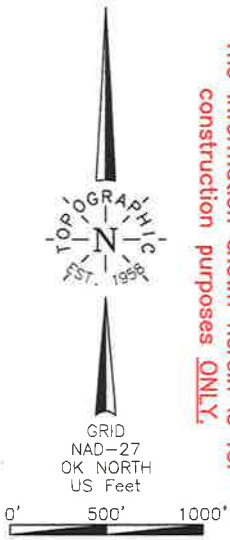
13800 WIRELESS WAY, OKLA. CITY, OKLA. 73134 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219

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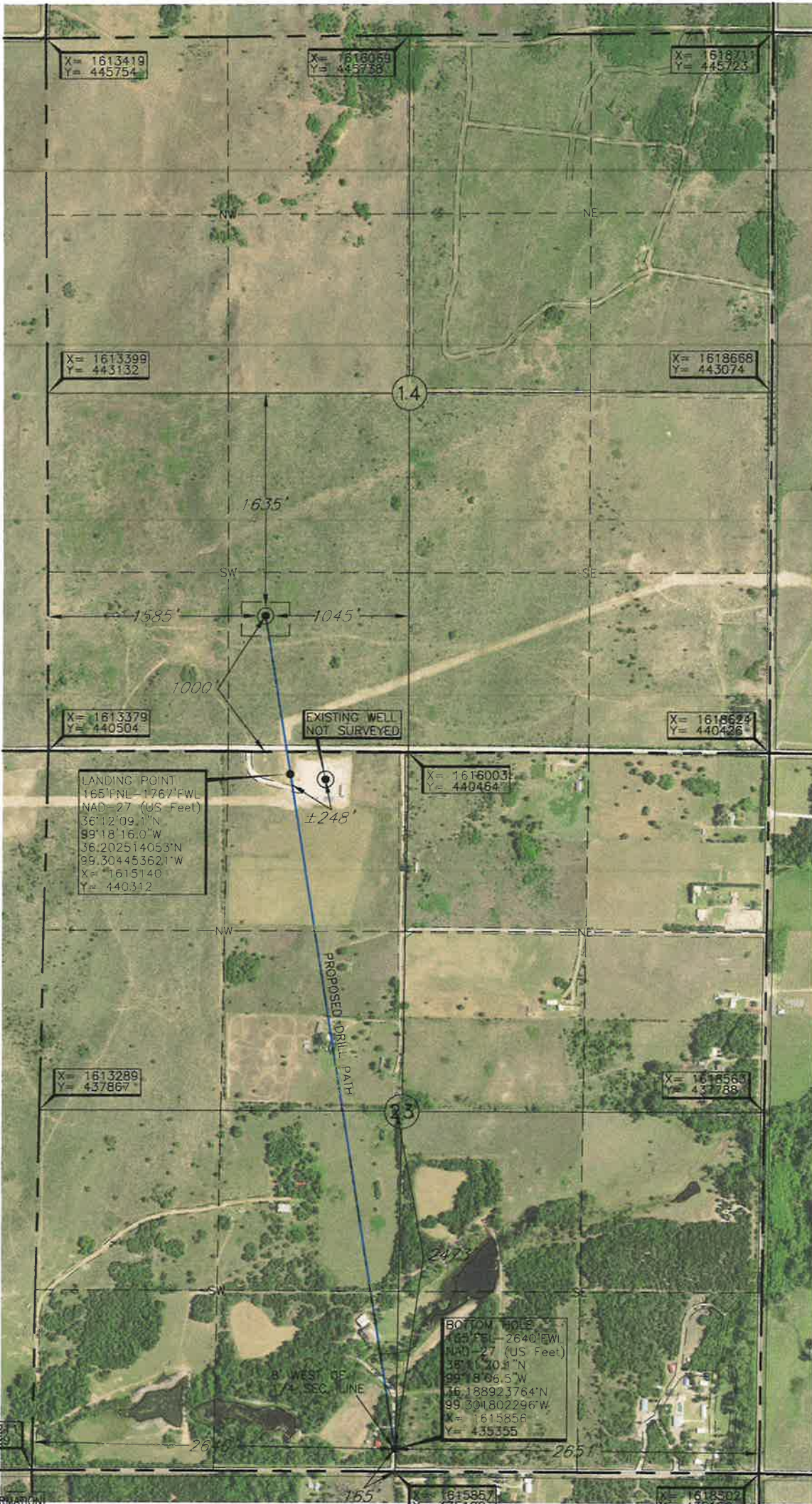
County, Oklahoma

1000'FSL-1585'FWL Section 14 Township 20N Range 20W I.M.



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construction purposes ONLY.

Operator: TAPSTONE ENERGY
Lease Name: JOAN 23-20-20
Topography & Vegetation: Loc. fell in rolling sandy pasture, $\pm 250'$ NE of E-W pipeline, North of wind tower road
Good Drill Site? Yes
Best Accessibility to Location: From South off county road
Distance & Direction from Hwy Jct or Town: From Sharon, OK, go South ± 5 miles, then East ± 0.75 miles to the SW Cor. of Sec. 14-T20N-R20W.
Reference Stakes or Alternate Location: Stakes Set None
Well No.: 1H
ELEVATION: 2166' Gr. at Stake



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

Revision ☒ C

Date of Drawing: July 25, 2018

Invoice # 298000

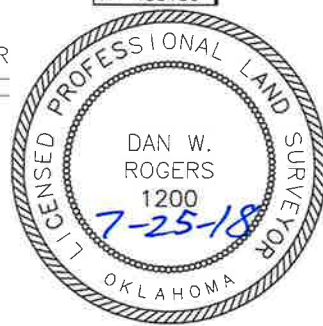
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LONG: 99°18'18.3"W
LAT: 36.205715297°N
LONG: 99.305078286°W
STATE PLANE
COORDINATES: (US Feet)
ZONE: OK NORTH
X: 1614971
Y: 441480

This was gathered with a GPS receiver using real time kinematic (RTK) technology.

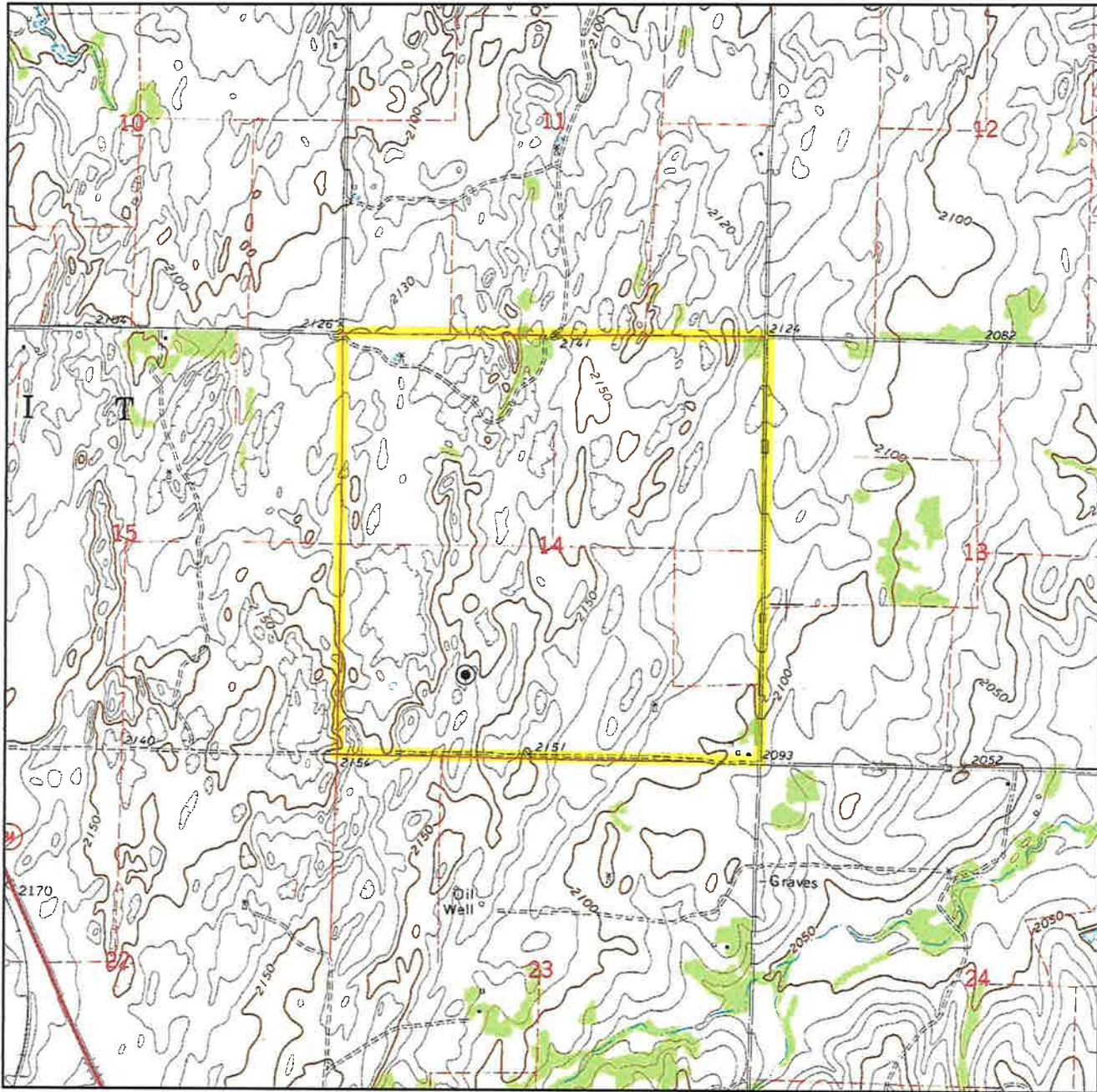
TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

Surveying and Mapping for the Energy Industry

13800 Wireless Way, Oklahoma City, OK 73134 www.topographic.com

Telephone Numbers: Local (405) 843-4847 Toll Free (800) 654-3219

LOCATION & ELEVATION VERIFICATION MAP



Sec. 14 Twp. 20N Rng. 20W IM

County WOODWARD State OK

Operator TAPSTONE ENERGY

Description 1000'FSL-1585'FWL

Lease JOAN 23-20-20 1H

Elevation 2166' Gr. at Stake

Above Background Data from
U.S.G.S. Topographic Map
Scale: 1"=2000'

Contour Interval 10'

When elevation is shown hereon it is the ground
elevation of the location stake.
Review this plat and inform us immediately of
any possible discrepancy.



TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

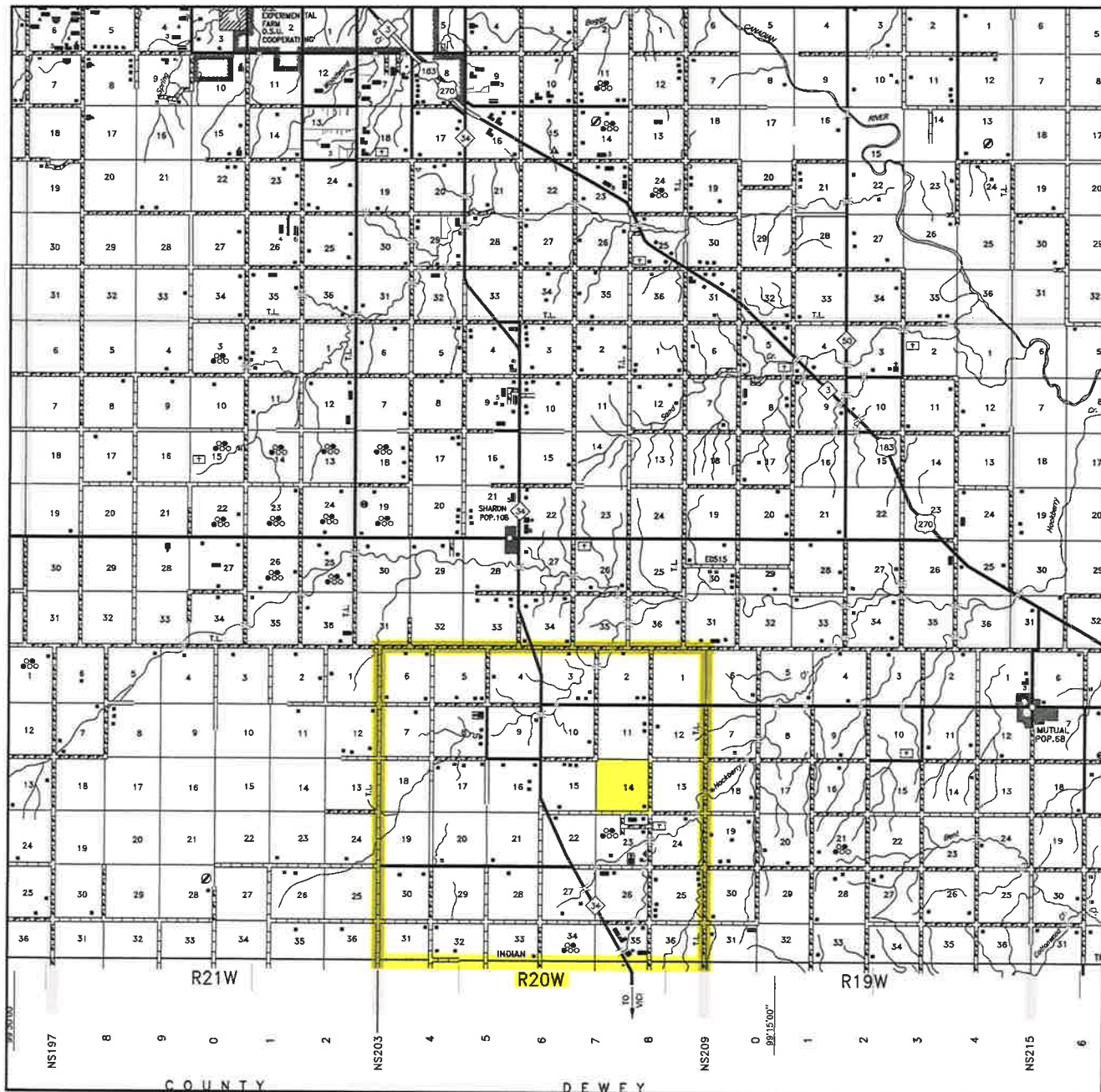
LAND SURVEYORS OF OKLAHOMA

July 20, 2018

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

Surveying and Mapping for the Energy Industry
13800 Wireless Way, Oklahoma City, OK 73134 www.topographic.com
Telephone Numbers: Local (405) 843-4847 Toll Free (800) 654-3219

VICINITY MAP



Scale: 1" = 3 Miles

Sec. 14 Twp. 20N Rng. 20W IM

County WOODWARD State OK

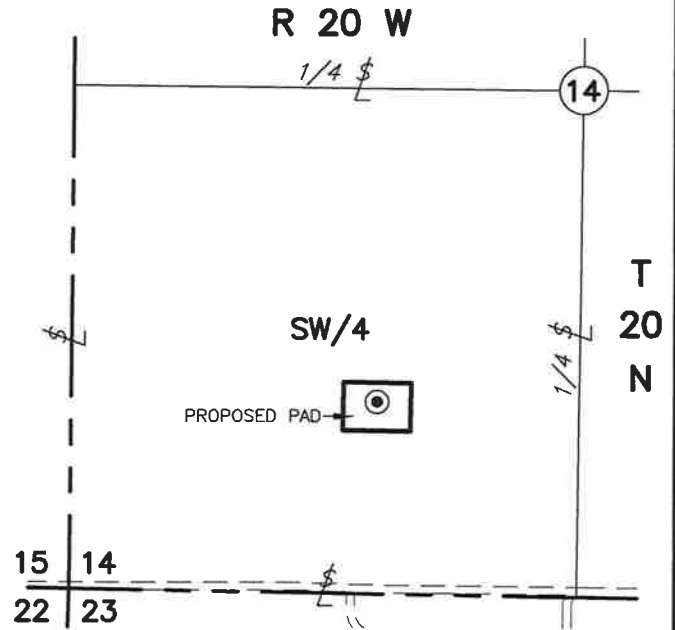
Operator TAPSTONE ENERGY



LAND SURVEYORS OF OKLAHOMA

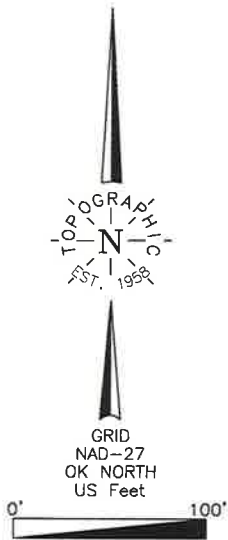
T 20 N – R 20 W
(INDIAN MERIDIAN)

PLAT SHOWING
PROPOSED PAD AREA IN THE
SW/4 OF SECTION 14, T20N – R20W
WOODWARD COUNTY, OKLAHOMA

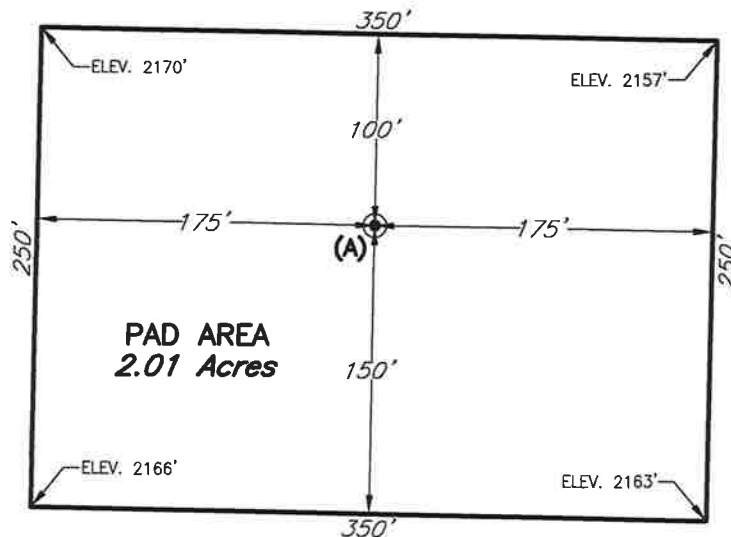


VICINITY MAP
(Scale: 1" = 1000')

(A) TAPSTONE ENERGY
JOAN 23-20-20 1H
1000'FSL-1585'FWL
Elev. 2166' Gr.



SECTION 14
SW/4



NOTE:

The information shown herein is
for construction purposes ONLY.

				This plat was prepared exclusively for		SCALE: 1"=100'	
				TAPSTONE ENERGY		DATE: 7/24/18	
				and may not be relied upon by any other entity without the written consent of Topographic Land Surveyors of Oklahoma		INVOICE NO.: 298000	
NO.	REVISION	DATE	BY	SURVEYING AND MAPPING BY		FILE NAME: L2186A1.DWG	
SUR. BY:	DJ	7/20/18		TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA		DWG NO.: 120010-L2-186-A1	
DRAWN BY:	TR			13800 Wireless Way, Okla. City, OK. 73134 (405) 843-4847		SHEET 1 OF 1	
APPROVED BY:	DR			Certificate of Authorization No. 1293 LS			