API NUMBER: 093 25170

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: 10/30/2018 04/30/2020 **Expiration Date** 

PERMIT TO DRILL

WELL LOCATION: Sec: Twp: 20N Rge: 15W County: MAJOR

FEET FROM QUARTER: SPOT LOCATION: lsw SOUTH WEST SE SE SECTION LINES: 235

Lease Name: MEDILL 2015 Well No: 2-27H Well will be 235 feet from nearest unit or lease boundary.

2500

SANDRIDGE EXPLORATION & PRODUCTION LLC Operator OTC/OCC Number: Telephone: 4054295610 22281 0 Name:

SANDRIDGE EXPLORATION & PRODUCTION LLC 123 ROBERT S KERR AVE STE 1702

OKLAHOMA CITY. OK 73102-6406 RICK UNWIN AND MARY S UNWIN

PO BOX 894

**SEILING** OK 73663

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

Name Depth Name Depth MISSISSIPPIAN 1 9226 6 2 7 8 3 4 9 10 664236 Spacing Orders: Location Exception Orders: Increased Density Orders:

Pending CD Numbers: 201802850 Special Orders:

201802849

Total Depth: 13941 Ground Elevation: 1693 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 350

Under Federal Jurisdiction: Fresh Water Supply Well Drilled: No Surface Water used to Drill:

Approved Method for disposal of Drilling Fluids: PIT 1 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED Chlorides Max: 10000 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?

is located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C Pit Location is AP/TE DEPOSIT Pit Location Formation: TERRACE

PERMIT NO: 18-35638 D. One time land application -- (REQUIRES PERMIT)

H. SEE MEMO

PIT 2 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: OIL BASED
Chlorides Max: 500000 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 AP/TE DEPOSIT
Pit Location Formation: TERRACE

#### **HORIZONTAL HOLE 1**

Sec. 27 Twp 20N Rge 15W County **MAJOR** Spot Location of End Point: N2 N2 NW NW Feet From: NORTH 1/4 Section Line: 150 WEST Feet From: 1/4 Section Line: 660

Depth of Deviation: 8188
Radius of Turn: 477
Direction: 350
Total Length: 5004

Measured Total Depth: 13941

True Vertical Depth: 9226

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

Notes:

Category Description

BOTTOM HOLE LOCATION 10/30/2018 - G58 - 150' FNL, 660' FWL PER REVISED STAKING PLAT DATED 10/30/2018

DEEP SURFACE CASING 10/29/2018 - GA8 - 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 10/29/2018 - GA8 - 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 10/29/2018 - GA8 - 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 10/29/2018 - GA8 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2

- OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

Category Description

PENDING CD - 201802849 10/29/2018 - G58 - 27-20N-15W

X664236 MSSP 2 WELLS NO OP NAMED

REC 5/7/2018 (M. PORTER)

PENDING CD - 201802850 10/29/2018 - G58 - (I.O.) 27-20N-15W

X664236 MSSP

COMPL. INT. NCT 150' FNL, NCT 150' FSL, NCT 560' FWL

NO OP. NAMED

REC 5/7/2018 (M. PORTER)

SPACING - 664236 10/29/2018 - G58 - (640)(HOR) 27-20N-15W

VAC 155067 CSTR EXT 634339 MSSP, OTHER POE TO BHL NCT 660' FB

(COEXIST SP. ORDER 128563/143475 MSSLM)

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA
13800 Wireless Way, Okla. City, OK, 73134 (405) 843-4847 \* OUT OF STATE (800) 654-3219

Certificate of Authorization No. 1293 LS 093-25170 MAJOR County, Oklahoma 27 Township 235'FSL 2500'FWL 20N Range 15W I.M. Section \_\_ X 1770361 Y 433275 150 BOTTOM HOLE for 1765146 433304 1767753 433290 only. 660 1948 herein BOTTOM HOLE 150'FNI -660'FWI NAD-27 (US Feet) 36'11'14.3" N 98'47'37.0" W shown NOTE 36.187314830° N 98.793619830° W 247 X=1765804 construction Y = 433151information LANDING POINT 500'FSL-660'FWL NAD-27 (US Feet) The 36'10'28.8" N 98'47'37.0" W 36.174666214 98.793598529' W Y=428547 27 X 1770347 Y 430654 1765128 430677 KICK OFF POINT 100'FSL-660'FWL NAD-27 (US Feet) 36'10'24,8" N 98'47'36.9" W FC UNWIN "A" ACTIVE WELL 643' PDP QGRAA' 36.173567367' N 98.793596691' W 0-N-5 X=1765770 557. 1958. 2390 Y = 428147ALT. LOCATION ACT. LOCATION 260'FSL—300'FWL NAD—27 (US Feet) 36'10'26.4" N 98'47'41.3" W 36.174002796' N LANDING POINT GRID NAD-27 OK NORTH 114' 98.794816547° X=1765412 2500 US Feet 1767724 428040 Y=428308 PROPOSED DRILL PATH 500' 1000 235 X 1765110 Y 428049 5223 1770333 428031 KICK OFF POINT KICK OFF POINT, LANDING POINT, BOTTOM HOLE AND DRILL PATHI INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. Operator: SANDRIDGE EXPLORATION & PRODUCTION, LLC **ELEVATION:** Lease Name: MEDILL 2015 Well No.: 2-27H 1693' Gr. at Stake Topography & Vegetation Loc. fell in sloped sandy irrigated wheat field, outside of circle; Alt. loc. fell in rolling sandy pasture, ±210' West of power line, ±533' West of shop building Reference Stakes or Alternate Location

Alt. Yes Stakes Set Alt. 260'FSL-300'FWL; Elev. 1708' Gr. Yes; Alt. Yes Good Drill Site? \_ Best Accessibility to Location From South off county road Distance & Direction From Jct. US Hwy. 281 N-S and US Hwy. 60 East at Chester, OK, go ±7.0 mi. East from Hwy Jct or Town on US Hwy. 60, then ±3.0 mi. South to the SW Cor. of Sec. 27-T20N-R15W Was ESSIONAL WOOFESSIONAL ROOFESSIONAL Date of Drawing: \_ Oct. 30, 2018 DATUM: NAD-27 LAT: 36'10'26.3"N LONG: 98'47'14.5"W Invoice # 305992 Date Staked: Oct. 11, 2018 AC **CERTIFICATE:** LAT: 36.173962408 N Thomas L. Howell CENSED \_an Oklahoma Licensed Land SUR THOMAS L This informati gathered with a G with ±1 foot Horiz./V LONG: 98.787363750' W Surveyor and an authorized agent of Topographic Land HOWELL STATE PLANE Surveyors of Oklahoma, do hereby certify to the 1433 COORDINATES: (US Feet) information shown herein

Oklahoma Lic. No. \_\_

ZONE: OK NORTH X: 1767611 Y: 428275

OF LAHOMA BUILD

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA
13800 Wireless Way, Okla. City, OK. 73134 (405) 843-4847 \* OUT OF STATE (800) 654-3219

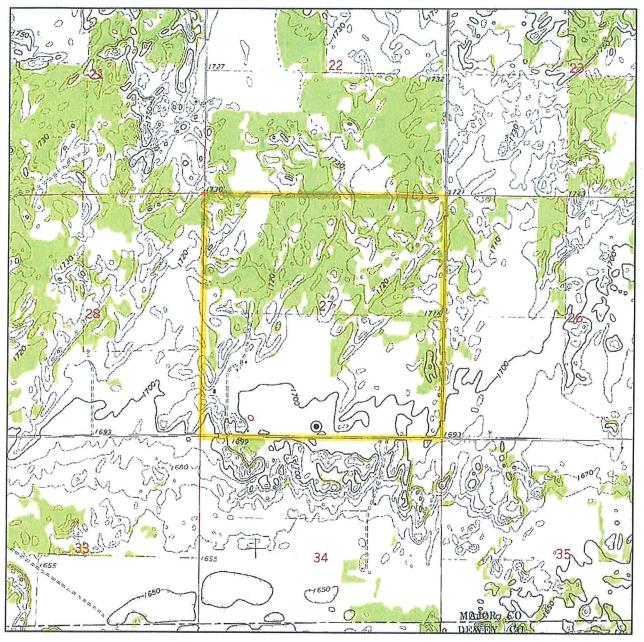
Certificate of Authorization No. 1293 LS

**MAJOR** County, Oklahoma 20N Range 235'FSL - 2500'FWL \_ Range <u>15W</u> I.M. Section \_ Township BOTTOM HOLE for <u>.a</u> >: BOTTOM HOLE 150'FNL-660'FWL NAD-27 (US Feet) 36'11'14.3" N 98'47'37.0" W 36.187314830' N 98.793619830' W X=1765804 construction Y=433151 information LANDING POINT LANDING POINT 500'FSL-660'FWL NAD-27 (US Feet) 36'10'28,8" N 98'47'37,0" W 36.174666214' N 98.793598529' W X = 1765773Y=428547 1770347 430654 KICK OFF POINT NICK OFF POINT 100'FSL-660'FWL NAD-27 (US Feet) 36'10'24.8" N 98'47'36.9" W 36.173567367' N 98.793596691' W 2-1765770 X=1765770 Y=428147 ALT. LOCATION 260'FSL-300'FWL NAD-27 (US Feet) 36'10'26.4" N 98'47'41.3" W 36.174002796' N 98.794816547' W X=1765412 EANDING POINT GRID NAD-27 OK NORTH US Feet Y=428308 500' 1000' KICK OFF POINT, LANDING POINT, BOTTOM HOLE AND DRILL PATH LINFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. Operator: SANDRIDGE EXPLORATION & PRODUCTION, LLC **ELEVATION:** Lease Name: MEDILL 2015 Well No.: 2-27H 1693' Gr. at Stake Topography & Vegetation Loc. fell in sloped sandy irrigated wheat field, outside of circle; Alt. loc. fell in rolling sandy pasture, ±210' West of power line, ±533' West of shop building
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# 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. 27 Twp. 20N Rng. 15W IM

County MAJOR State OK

Operator SANDRIDGE EXPLORATION & PRODUCTION, LLC

Description 235'FSL - 2500'FWL

Lease MEDILL 2015 2-27H

Elevation 1708' 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.

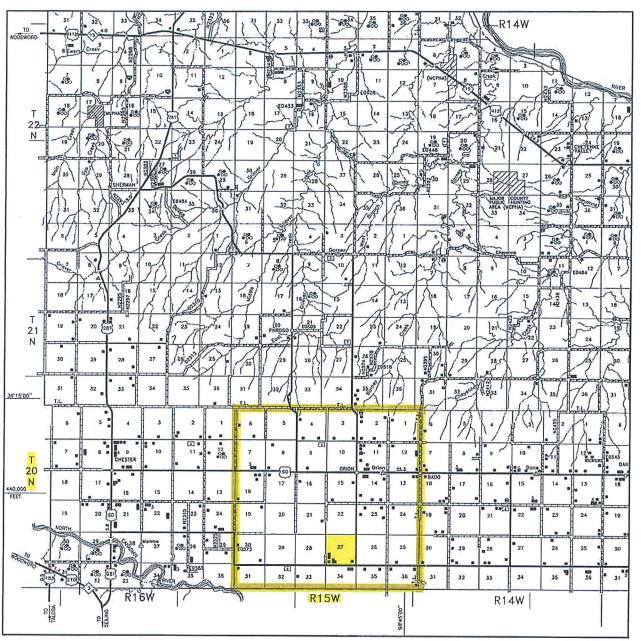


LAND SURVEYORS OF OKLAHOMA

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## VICINITY MAP



Scale: 1" = 3 Miles

 Sec.
 27
 Twp.
 20N
 Rng.
 15W
 IM

 County
 MAJOR
 State
 OK

Operator SANDRIDGE EXPLORATION & PRODUCTION, LLC

