API NUMBER: 003 23326

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: 07/31/2018
Expiration Date: 01/31/2019

PERMIT TO DRILL

WELL LOCATION:	Sec:	30	Twp:	28N	Rge:	12W	County:	ALFALFA
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SPOT LOCATION: SE SW SW FEET FROM QUARTER: FROM SOUTH FROM WEST SECTION LINES: 210 510

Lease Name: CUMMINGS 2812 Well No: 3-30H Well will be 210 feet from nearest unit or lease boundary.

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

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

OKLAHOMA CITY, OK 73102-6406

SALLY ANN CUMMINGS & DANIEL BENNETT W/H 4202 QUANDERS PROMISE DR

BOWIE MD 20720

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

	Name	Depth	Name	Depth	
1	MISSISSIPPIAN	5192	6		
2			7		
3			8		
4			9		
5			10		
Spacing Orders:	631129	Location Exception Orders:	679936	Increased Density Orders:	679935

Pending CD Numbers: Special Orders:

Total Depth: 9716 Ground Elevation: 1279 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 440

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: 10000 Average: 5000

Is depth to top of ground water greater than 10ft below base of pit?  $\quad \mbox{Y}$ 

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

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-34844 H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

#### **HORIZONTAL HOLE 1**

Sec 30 Twp 28N Rge 12W County ALFALFA

Spot Location of End Point: N2 N2 NW NW Feet From: NORTH 1/4 Section Line: 150

Feet From: WEST 1/4 Section Line: 660

Depth of Deviation: 4489 Radius of Turn: 382

Direction: 2

Total Length: 4626

Measured Total Depth: 9716

True Vertical Depth: 5192

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

Notes:

Category Description

DEEP SURFACE CASING 7/5/2018 - 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 7/5/2018 - 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

INCREASED DENSITY - 679935 7/30/2018 - G57 - 30-28N-12W

X631129 MSSP

1 WELL

SANDRIDGE EXPLORATION & PRODUCTION, LLC.

7-3-2018

LOCATION EXCEPTION - 679936 7/30/2018 - G57 - (I.O.) 30-28N-12W

X631129 MSSP

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

SANDRIDGE EXPLORATION & PRODUCTION, LLC.

7-3-2018

SPACING - 631129 7/30/2018 - G57 - (640)(HOR) 30-28N-12W

**EST MSSP** 

POE TO BHL NLT 660' FB

(COEXIST SP. ORDER # 593706 MSSP)

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA
13800 WIRELESS WAY, OKLA. CITY, OKLA. 73134 \* LOCAL (405) 843-4847 \* OUT OF STATE (800) 654-3219 API: 003 23326

\*\*Certificate of Authorization No. 1293.\*\* ALFALFA County, Oklahoma 210'FSL-510'FWL Section 30 <u>28N</u> Range <u>12W</u> I.M. \_\_ Township -150 1842060 1844713 1847350 Y 686385 686369 Y 686353 660 1993 BOTTOM HOLE 150'FNL-660'FWL Lot 1 36'53'02.1 98'32'15.8" 36.883924568 98.537734942° W X: 1842719 Y: 686231 2488' PATH E/2-NW/4DRILL Lot 2 X 1842051 X 1847339 Y 683716 683747 30 8 LANDING POINT 500'FSL-660'FWL 36'52'16.4" N 98'32'15.7" W Lot 3 GRID NAD-27 36.871218864 OK NORTH 98.537701494\* W US FEET X: 1842704 2428 Scale: 1" = 1000 E/2-SW/4 KICKOFF POINT Meridian 100'FSL-660'FWL 36'52'12.4" N 98'32'15.7" W 1000' 36.870120235\* Guide Lot 4 98.537698501 1842702 5 10 681205 X 1844692 Y 681094 X 1847320 Y 681080 1847328 X 1842042 Y 681109 5286 BOTTOM HOLE, KICKOFF POINT, LANDING POINT, AND DRILL PATH
The information shown herein is for INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED.

CONSTRUCTION Purposes ONLY. construction purposes ONLY. Operator: SANDRIDGE EXPLORATION & PRODUCTION, LLC **ELEVATION:** Lease Name: CUMMINGS 2812 Well No.: \_ 3-30H 1279' Gr. at Topography & Vegetation Location fell in sloped wheat field. Reference Stakes or Alternate Location Yes Stakes Set None Good Drill Site? \_\_\_ From county road south of well location. Best Accessibility to Location \_\_\_ Distance & Direction From Burlington, Ok, go west  $\pm 5.5$  miles on St. Hwy. 11, then  $\pm 2.0$  miles south, then  $\pm 1.0$ from Hwy Jct or Town mile west to the Southwest Corner of Section 30, T28N-R12W. Date of Drawing: June 11, 2018 Invoice # 294728 Date Staked: May 31, 2018 JGW DATUM: NAD-27 LAT: 36°52'13.5"N LONG: 98°32'17.6"W **CERTIFICATE:** CENSED SURVE LAT: <u>36.870422151°</u> N THOMAS L. Thomas L. Howell an Oklahoma Licensed Land HOWELL LONG: 98.538212275° W Surveyor and an authorized agent of Topographic Land STATE PLANE Surveyors of Oklahoma, do hereby certify to the 1433,18 COORDINATES: (US Feet) information shown herein ZONE: OK NORTH TLAHOMA X: <u>1842553</u>

Oklahoma Lic. No. \_

681316

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. ALFALFA County, Oklahoma 210'FSL-510'FWL 30 <u>28N</u> Range <u>12W</u> I.M. Township \_ Section



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

The information shown herein is for construction purposes ONLY.

construction purposes ONLY.

JGW

Operator: SANDRIDGE EXPLORATION & PRODUCTION, LLC		ELEVATION:		7	
Lease Name: CUMMINGS 2812	Well No.: 3-30H				
Topography & Vegetation <u>Location fell in sloped wheat</u>	field.				
Good Drill Site?Yes Stakes Set _	akes or Alternate Location None				
Best Accessibility to Location From county road sout	h of well location.				
Distance & Direction from Hwy Jct or Town <u>From Burlington, Ok, go wes</u> t	±5.5 miles on St. Hwy.	11, then ±2.0 m	niles south, t	:hen :	±1.0
mile west to the Southwest Corner of Section 30, T28	N-R12W.				

Invoice # 294728 Date Staked: May 31, 2018

DATUM: NAD-27 LAT: 36'52'13.5"N LONG: 98'32'17.6"W LAT: 36.870422151° N LONG: 98.538212275° W

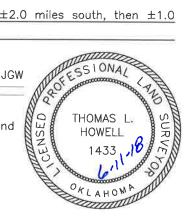
STATE PLANE COORDINATES: (US Feet) ZONE: OK NORTH

X: 1842553 Y: 681316 CERTIFICATE:

Thomas L. Howell \_\_\_ an Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the information shown herein

Date of Drawing: June 11, 2018

Oklahoma Lic. No. \_

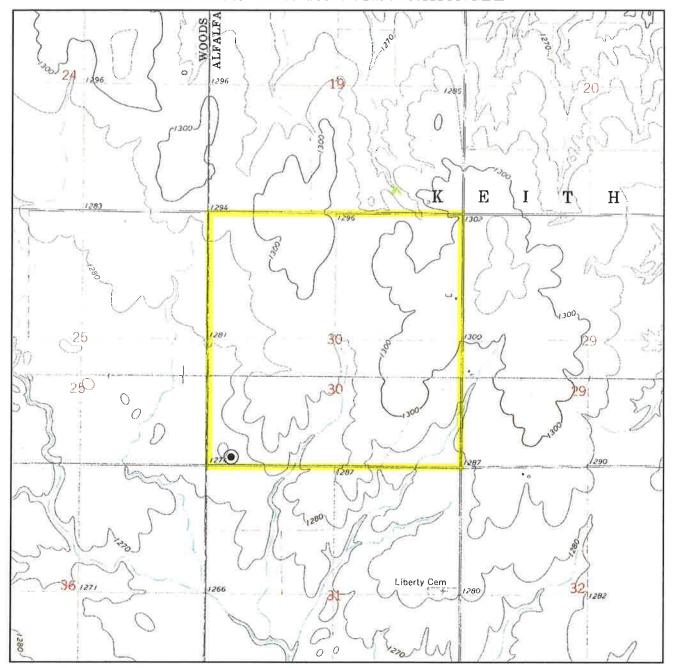


# TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

Surveying and Mapping for the Energy Industry

6709 North Classen Blvd. Oklahoma City, OK 73116 www.topographic.com Telephone Numbers: Local (405) 843-4847 Toll Free (800) 654-3219

### LOCATION & ELEVATION VERIFICATION MAP



Sec. 30 Twp. 28N Rng. 12W IM

County ALFALFA State OK

Operator SANDRIDGE EXPLORATION & PRODUCTION, LLC

Description 210'FSL-510'FWL

Lease CUMMINGS 2812 3-30H

Elevation 1279' Gr. at Stake

U.S.G.S. Topographic

Quadrangle Map ALVA SE, OK

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.

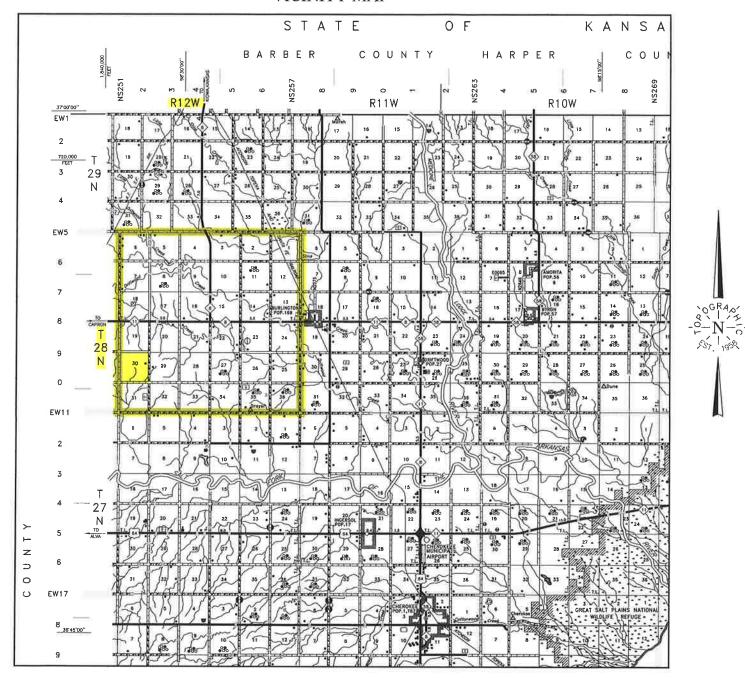


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### VICINITY MAP



Scale: 1'' = 3 Miles

1950

Sec. 30 Twp. 28N Rng. 12W IM County\_\_\_\_\_ALFALFA State OK

LAND SURVEYORS OF OKLAHOMA

Operator SANDRIDGE EXPLORATION & PRODUCTION, LLC

