

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

API NUMBER: 093 25063

Approval Date: 04/04/2017

Expiration Date: 10/04/2017

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 17 Twp: 20N Rge: 12W County: MAJOR

SPOT LOCATION: ☐ SW ☐ SE ☐ SW ☐ SW FEET FROM QUARTER: FROM SOUTH FROM WEST

SECTION LINES: 230 940

Lease Name: JACK SAMUEL 2012 Well No: 1-20H29H Well will be 230 feet from nearest unit or lease boundary.

Operator Name: 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

GGL MARTENS, LLC  
2925 NE 36TH  
NEWTON KS 67114

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

Name	Depth	Name	Depth
1 MISSISSIPPI SOLID	8165	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 228797  
561334

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201700798  
201700799  
201700801

Special Orders:

Total Depth: 18520 Ground Elevation: 1412 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 430

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? Y

Within 1 mile of municipal water well? N

Wellhead Protection Area? N

Pit is not located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is NON HSA

Pit Location Formation: FLOWERPOT

E. Haul to Commercial pit facility: Sec. 33 Twn. 26N Rng. 15W Cnty. 151 Order No: 627651

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 not located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is NON HSA

Pit Location Formation: FLOWERPOT

## HORIZONTAL HOLE 1

Sec 29 Twp 20N Rge 12W County MAJOR

Spot Location of End Point: S2 S2 SW SW

Feet From: SOUTH 1/4 Section Line: 200

Feet From: WEST 1/4 Section Line: 660

Depth of Deviation: 7627

Radius of Turn: 750

Direction: 185

Total Length: 9715

Measured Total Depth: 18520

True Vertical Depth: 8405

End Point Location from Lease,  
Unit, or Property Line: 200

### Notes:

#### Category

#### Description

BOTTOM-HOLE LOCATION

3/2/2017 - G75 - 200' FSL, 660' FWL SW4 29-20N-12W PER STAKING PLAT

DEEP SURFACE CASING

3/2/2017 - 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

3/2/2017 - G71 - OCC 165:10-3-10 REQUIRES: 1) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS BE REPORTED TO FRACFOCUS USING THE FOLLOWING LINK [HTTP://FRACFOCUS.ORG/](http://fracfocus.org/) WITH NOTICE GIVEN 48 HOURS IN ADVANCE OF FRACTURING TO THE LOCAL OCC DISTRICT OFFICE; AND, 2) PRIOR TO COMMENCEMENT OF FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE ALSO GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE

INTERMEDIATE CASING

3/2/2017 - 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

3/2/2017 - G71 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST; PIT 2 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT

This permit does not address the right of entry or settlement of surface damages.

093 25063 JACK SAMUEL 2012 1-20H29H

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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.

Category	Description
PENDING CD - 201700798	3/3/2017 - G75 - (I.O.) 20 & 29-20N-12W EST MULTIUNIT HORIZONTAL WELL X561334 MSSSD 20-20N-12W X228797 MSSSD 29-20N-12W 50% 20-20N-12W 50% 29-20N-12W SANDRIDGE EXPLOR. & PROD., L.L.C. REC 4-3-2017 (LEAVITT)
PENDING CD - 201700799	3/3/2017 - G75 - (I.O.) 20 & 29-20N-12W X561334 MSSSD 20-20N-12W X228797 MSSSD 29-20N-12W COMPL. INT. (20-20N-12W) NCT 150' FNL, NCT 0' FSL, NCT 330' FWL COMPL. INT. (29-20N-12W) NCT 0' FNL, NCT 150' FSL, NCT 330' FWL NO OP. NAMED REC 4-3-2017 (LEAVITT)
PENDING CD - 201700801	3/3/2017 - G75 - 29-20N-12W X228797 MSSSD 1 WELL NO OP. NAMED REC 4-3-2017 (LEAVITT)
SPACING - 228797	3/2/2017 - G75 - (640) 29-20N-12W EXT OTHERS EXT 83423/162490 MSSSD
SPACING - 561334	3/2/2017 - G75 - (640) 20-20N-12W VAC 209927 MSSLM, OTHERS EST OTHER EXT OTHERS EXT 228797 MSSSD, OTHERS
SURFACE LOCATION	3/2/2017 - G75 - 230' FSL, 940' FWL SW4 17-20N-12W PER STAKING PLAT

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MAJOR Section 17 Township 20N Range 12W I.M.

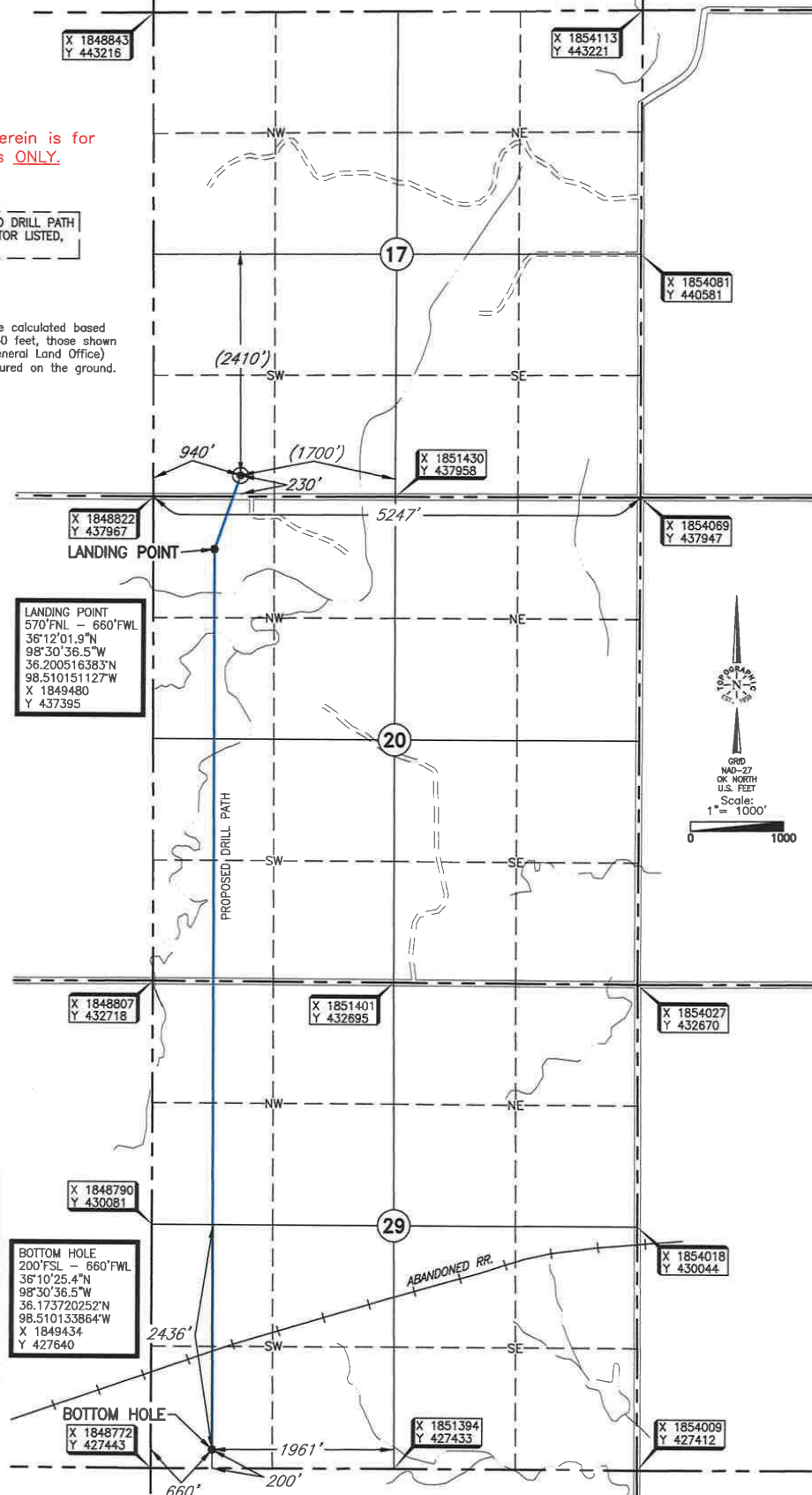
**-NOTE-**  
The information shown herein is for construction purposes ONLY.

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

Distances shown in parenthesis are calculated based upon the Quarter Section being 2640 feet, those shown in [brackets] are based on GLO (General Land Office) distances and have NOT been measured on the ground.

Operator: SANDRIDGE EXPLORATION & PRODUCTION, LLC  
Lease Name: JACK SAMUEL, 2012  
Topography & Vegetation: Location fall in terraced wheat field.  
Well No.: 1-20H29H  
ELEVATION: 1412' Gr. at Stake

Good Drill Site? Yes  
Reference Stakes or Alternate Location None  
Best Accessibility to Location From South off county road.  
Distance & Direction From Fairview, OK, go ±4.5 mi. South on St. Hwy. 58, then ±2.0 mi. West to the SW Cor. of Sec. 17-T20N-R12W.



DATUM: NAD-27  
LAT: 36°12'09.8" N  
LONG: 98°30'33.1" W  
LAT: 36.202715756° N  
LONG: 98.509207615° W  
STATE PLANE  
COORDINATES: (US Feet)  
ZONE: OK NORTH  
X: 1849763  
Y: 438194

Date of Drawing: Feb. 27, 2017  
Invoice # 269749 Date Staked: Feb. 24, 2017 AC

**CERTIFICATE:**

I, Lee K. Goss, an Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the information shown herein

Oklahoma Lic. No. 1778

