

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

API NUMBER: 093 25202

Approval Date: 02/08/2019

Expiration Date: 08/08/2020

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 18 Twp: 20N Rge: 14W County: MAJOR

SPOT LOCATION:     FEET FROM QUARTER: FROM NORTH FROM WEST

SECTION LINES: 390 2310

Lease Name: HARLEY 2014 Well No: 1-18H Well will be 390 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

MICHAEL CURTIS PEMBROOK  
52496 S. CR 252  
FAIRVIEW OK 73737

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

Name	Depth	Name	Depth
1 MISSISSIPPI SOLID	8887	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 143398

Location Exception Orders:

Increased Density Orders: 690289

Pending CD Numbers: 201808657

Special Orders:

Total Depth: 13631

Ground Elevation: 1772

**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 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: 18-36038

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 AP/TE DEPOSIT

Pit Location Formation: TERRACE

## HORIZONTAL HOLE 1

Sec 18 Twp 20N Rge 14W County MAJOR

Spot Location of End Point: S2 S2 SW SW

Feet From: SOUTH 1/4 Section Line: 150

Feet From: WEST 1/4 Section Line: 660

Depth of Deviation: 7872

Radius of Turn: 477

Direction: 185

Total Length: 5010

Measured Total Depth: 13631

True Vertical Depth: 8985

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

### Notes:

#### Category

#### Description

#### DEEP SURFACE CASING

1/31/2019 - 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

1/31/2019 - 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 - 690289

2/8/2019 - G58 - 18-20N-14W  
X143398 MSSSD  
4 WELLS  
NO OP. NAMED  
1/24/2019

#### INTERMEDIATE CASING

1/31/2019 - 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

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

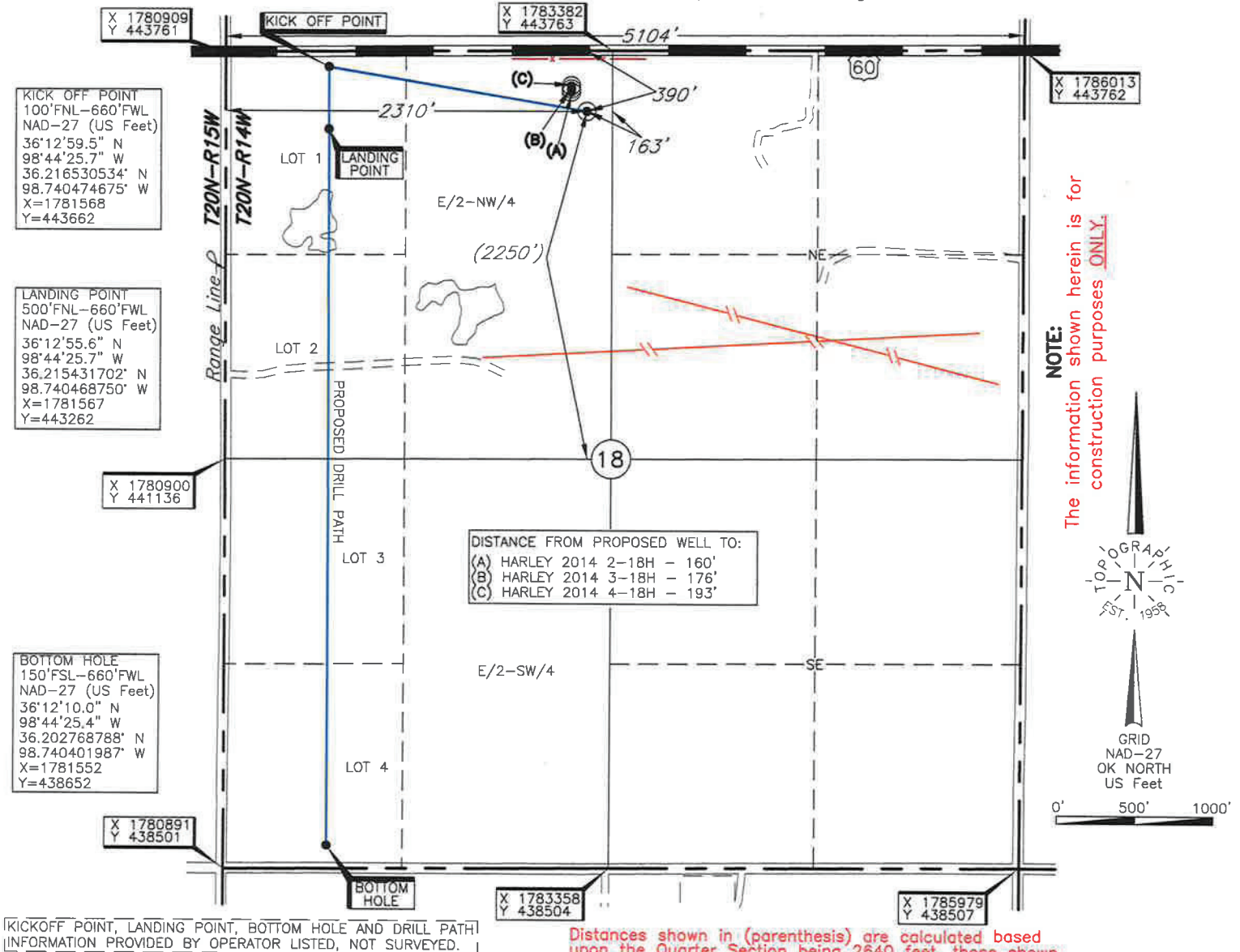
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Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

093 25202 HARLEY 2014 1-18H

Category	Description
MEMO	1/31/2019 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT
PENDING CD - 201808657	2/8/2019 - G58 - (I.O.) 18-20N-14W X143398 MSSSD COMPL. INT. NCT 150' FNL, NCT 150' FSL, NCT 560' FWL NO OP. NAMED REC 12/17/2018 (P. PORTER)
SPACING - 143398	2/8/2019 - G58 - (640) 18-20N-14W EXT OTHER EXT 87492 MSSSD, OTHERS

390'FNL - 2310'FWL Section 18 Township 20N Range 14W I.M.



[KICKOFF POINT, 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 GLD (General Land Office)  
distances and have NOT been measured on the ground.

Operator: SANDRIDGE EXPLORATION & PRODUCTION, LLC

Lease Name: HARLEY 2014

Well No.: 1-18H

ELEVATION:

1772' Gr. at Stake

Topography & Vegetation Loc. fell rolling sandy pasture, ±665' SE of house

Good Drill Site? Yes

Reference Stakes or Alternate Location  
Stakes Set None

Best Accessibility to Location From North off US Hwy 60

Distance & Direction  
from Hwy Jct or Town From Seiling, OK, go ± 4.5 mi. North on US Hwy. 281, then ±10.0 mi. East  
on US Hwy. 60 to the NW Cor. of Sec. 18-T20N-R14W

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

DATUM: NAD-27  
LAT: 36°12'56.8" N  
LONG: 98°44'05.6" W  
LAT: 36.215771633° N  
LONG: 98.734877745° W  
STATE PLANE  
COORDINATES: (US Feet)  
ZONE: OK NORTH  
X: 1783217  
Y: 443373

Project # 123402 Date of Drawing: Jan. 29, 2019  
Date Staked: Jan. 25, 2019 ST

CERTIFICATE:

I, 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

Thomas L. Howell  
Oklahoma Lic. No. 1433

