

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

API NUMBER: 093 25105

Approval Date: 11/09/2017

Expiration Date: 05/09/2018

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 07 Twp: 20N Rge: 13W

County: MAJOR

SPOT LOCATION:

FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 270 2507

Lease Name: SULLIVAN

Well No: 20-13-07 1H

Well will be 270 feet from nearest unit or lease boundary.

Operator Name: STAGHORN PETROLEUM II LLC

Telephone: 9185842558

OTC/OCC Number: 24056 0

STAGHORN PETROLEUM II LLC  
1 W 3RD ST STE 1000  
TULSA, OK 74103-3500

ROD & TWYLIA KECK  
610 NORTH 11TH AVENUE  
FAIRVIEW OK 73737

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	8596	6	
2			7	
3			8	
4			9	
5			10	

Spacing Orders: 667552

Location Exception Orders: 668421

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 13700

Ground Elevation: 1732

**Surface Casing: 600**

Depth to base of Treatable Water-Bearing FM: 530

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 AP/TE DEPOSIT

Pit Location Formation: TERRACE

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

PERMIT NO: 17-33097

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 07 Twp 20N Rge 13W County MAJOR

Spot Location of End Point: NW NW NW NE

Feet From: NORTH 1/4 Section Line: 50

Feet From: EAST 1/4 Section Line: 2589

Depth of Deviation: 8097

Radius of Turn: 573

Direction: 357

Total Length: 4703

Measured Total Depth: 13700

True Vertical Depth: 8738

End Point Location from Lease,  
Unit, or Property Line: 50

### Notes:

#### Category

#### Description

#### HYDRAULIC FRACTURING

10/17/2017 - 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)

#### INTERMEDIATE CASING

10/17/2017 - 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

#### LOCATION EXCEPTION - 668421

11/3/2017 - G57 -(I.O) 7-20N-13W  
X667552  
COMP. INT. NCT 165' FSL, NCT 165' FNL, NCT 330' FWL  
STAGHORN PETRO. LLC  
9/22/2017

#### MEMO

11/9/2017 - G57 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

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

093 25105 SULLIVAN 20-13-07 1H

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.

Category

SPACING - 667552

Description

11/1/2017 - G57 - (640)(HOR) 7-20N-13W  
EST MSSP, OTHERS  
COMPL. INT. NLT 660' FB  
(COEXIST SP. ORDER # 82594 UNCCR & ORDER #126543/131837 MSSSD)

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.



# Well Location Plat

Operator : STAGHORN PETROLEUM, LLC  
 Lease Name and No. : SULLIVAN 20-13-07 1H  
 Footage : 270' FSL - 2507' FEL GR. ELEVATION : 1732'  
 Section : 7 Township : 20N Range : 13W I.M.  
 County : Major State of Oklahoma  
 Terrain at Loc. : Stake fell in part cattle pasture and part wheat field.

Sec. 7-20N-13W I.M.

API 093 25105



All bearings shown  
are grid bearings.



1" = 1000'

GPS DATUM

NAD 83

NAD 27

UTM - ZONE 14

Surface Hole Loc.:

Lat: 36°13'03.73"N

Lon: 98°37'39.85"W

Lat: 36.21766557

Lon: -98.62737285

X: 1750299

Y: 13149431

Landing Point:

Lat: 36°13'05.86"N

Lon: 98°37'40.85"W

Lat: 36.21825775

Lon: -98.62765288

X: 1750216

Y: 13149646

Bottom Hole Loc.:

Lat: 36°13'52.39"N

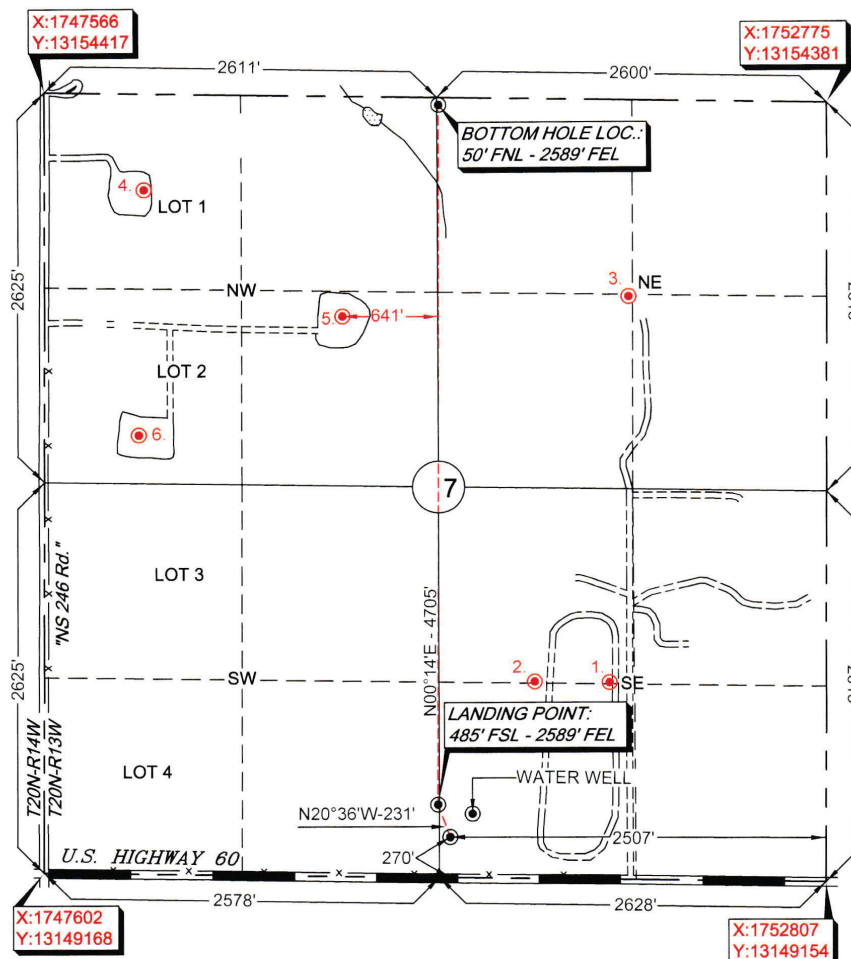
Lon: 98°37'40.99"W

Lat: 36.23118204

Lon: -98.62769009

X: 1750187

Y: 13154349



1. HUNT OIL CO.  
SEABOURN 1  
1320' FSL-1140' FWL (SE/4)  
OCC STATUS: PA

2. HUNT OIL CO.  
SEABOURN 2  
1320' FSL-640' FWL (SE/4)  
OCC STATUS: PA

3. XTO ENERGY INC.  
CORNELSON 1  
1320' FNL-1320' FEL (NE/4)  
OCC STATUS: AC

4. STAGHORN  
FORTUNE 1-7  
1980' FSL-660' FWL (NW/4)  
OCC STATUS: AC

5. STAGHORN  
FORTUNE 2-7  
1140' FSL-1980' FWL (NW/4)  
OCC STATUS: AC

6. STAGHORN  
FORTUNE 3-7  
330' FSL-660' FWL (NW/4)  
OCC STATUS: AC

Please note that this location was staked on the ground under the supervision of a Licensed Professional Land Surveyor, but the accuracy of this survey is not guaranteed. Please contact Arkoma Surveying and Mapping promptly if any inconsistency is determined. GPS data is observed from RTK - GPS. Quarter Section distances may be assumed from a Government Survey Plat or assumed at a proportionate distance from opposing section corners, or occupation thereof, and may not have been measured on-the-ground, and further, does not represent a true boundary survey.  
NOTE: X and Y data shown hereon for Section Corners may NOT have been surveyed on-the-ground, and further, does NOT represent a true Boundary Survey.

**\*PLEASE NOTE\***  
EXISTING WELL DATA SHOWN HEREON WAS  
FURNISHED FROM THE OCC WEBSITE AND WAS NOT  
SURVEYED OR VERIFIED ON THE GROUND

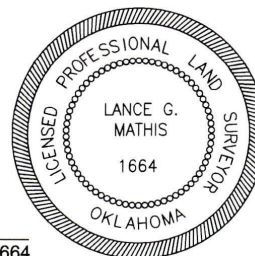
survey and plat by,  
Arkoma Surveying and Mapping, PLLC  
P.O. Box 238 Wilburton, OK 74578  
Ph. 918-465-5711 Fax 918-465-5030  
Certificate of Authorization No. 5348  
Expires June 30, 2018

## Certification:

This is to certify that this Well Location Plat represents the results of a survey made on the ground performed under the supervision of the undersigned.

*Lance G. Mathis*  
LANCE G. MATHIS

09/26/17  
OK LPLS 1664



Invoice #6768-D

Date Staked : 09/19/17 By : C.K.  
Date Drawn : 09/23/17 By : K.B.