

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

API NUMBER: 083 24350

Approval Date: 11/07/2014

Expiration Date: 05/07/2015

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 07 Twp: 17N Rge: 2W

County: LOGAN

SPOT LOCATION: ☐ SE ☐ SE ☐ SW ☐ SE

FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 215 1515

Lease Name: NORVAL GOOCH

Well No: 1-7MH

Well will be 215 feet from nearest unit or lease boundary.

Operator Name: OSAGE EXPLORATION & DEVELOPMENT INC

Telephone: 4052700989

OTC/OCC Number: 23098 0

OSAGE EXPLORATION & DEVELOPMENT INC
324 N ROBINSON AVE STE 800
OKLAHOMA CITY, OK 73102-6419

ESTATE OF NORVAL GOOCH C/O PAMELA SMITH
2800 W COUNTY ROAD 73
GUTHRIE OK 73044

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

Name	Depth	Name	Depth
1 MISSISSIPPIAN	5450	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 618882

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201408069

Special Orders:

Total Depth: 10632

Ground Elevation: 1040

Surface Casing: 320

Depth to base of Treatable Water-Bearing FM: 120

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: No

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: 5000 Average: 3000

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 BED AQUIFER

Pit Location Formation: GARBER

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

PERMIT NO: 14-28839

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

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.

HORIZONTAL HOLE 1

Sec 07 Twp 17N Rge 2W County LOGAN

Spot Location of End Point: N2 N2 NE NE

Feet From: NORTH 1/4 Section Line: 200

Feet From: EAST 1/4 Section Line: 660

Depth of Deviation: 4950

Radius of Turn: 510

Direction: 2

Total Length: 4882

Measured Total Depth: 10633

True Vertical Depth: 5554

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

Notes:

Category

Description

PENDING CD - 201408069

11/7/2014 - G91 - (E.O.) 7-17N-2W
X 618882 MSSP, OTHER
COMPL. INT. NCT 200 FNL, NCT 200 FSL, NCT 660 FEL
NO OP. NAMED
REC. 11-7-2014 (MCKEOWN)

SPACING - 618882

11/7/2014 - G91 - (640)(HOR) 7-17N-2W
EST MSSP, OTHER
POE TO BHL NCT 600' FB
(COEXIST SP. ORDER # 200178 MSSLM, W2 SE4)

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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.

083 24350 NORVAL GOOCH 1-7MH



Well Location Plat

Sec. 7-17N-2W I.M.

083-24350

Operator: OSAGE EXPLORATION & DEVELOPMENT

Lease Name and No.: NORVAL GOOCH 1-7MH

Footage: 215' FSL - 1515' FEL (SE/4) GR. ELEVATION: 1040' Good Site? YES

Section: 7 Township: 17N Range: 2W I.M.

County: Logan State of Oklahoma

Alternate Loc.: N/A

Terrain at Loc.: Stake fell in open, flat pasture $\pm 180'$ North of East-West fence and powerlines.

Accessibility: From the South.

Directions: From the junction of Highway 33 and Highway 77 in the town of Guthrie, OK, go 5.6 miles North on Highway 77, then Turn West for 1.2 miles on "EW 73 RD." to the Southeast Corner of Section 7-17N-2W.



0 500 1000 1500
1"=1000'

GPS DATUM
NAD - 27
OK NORTH ZONE

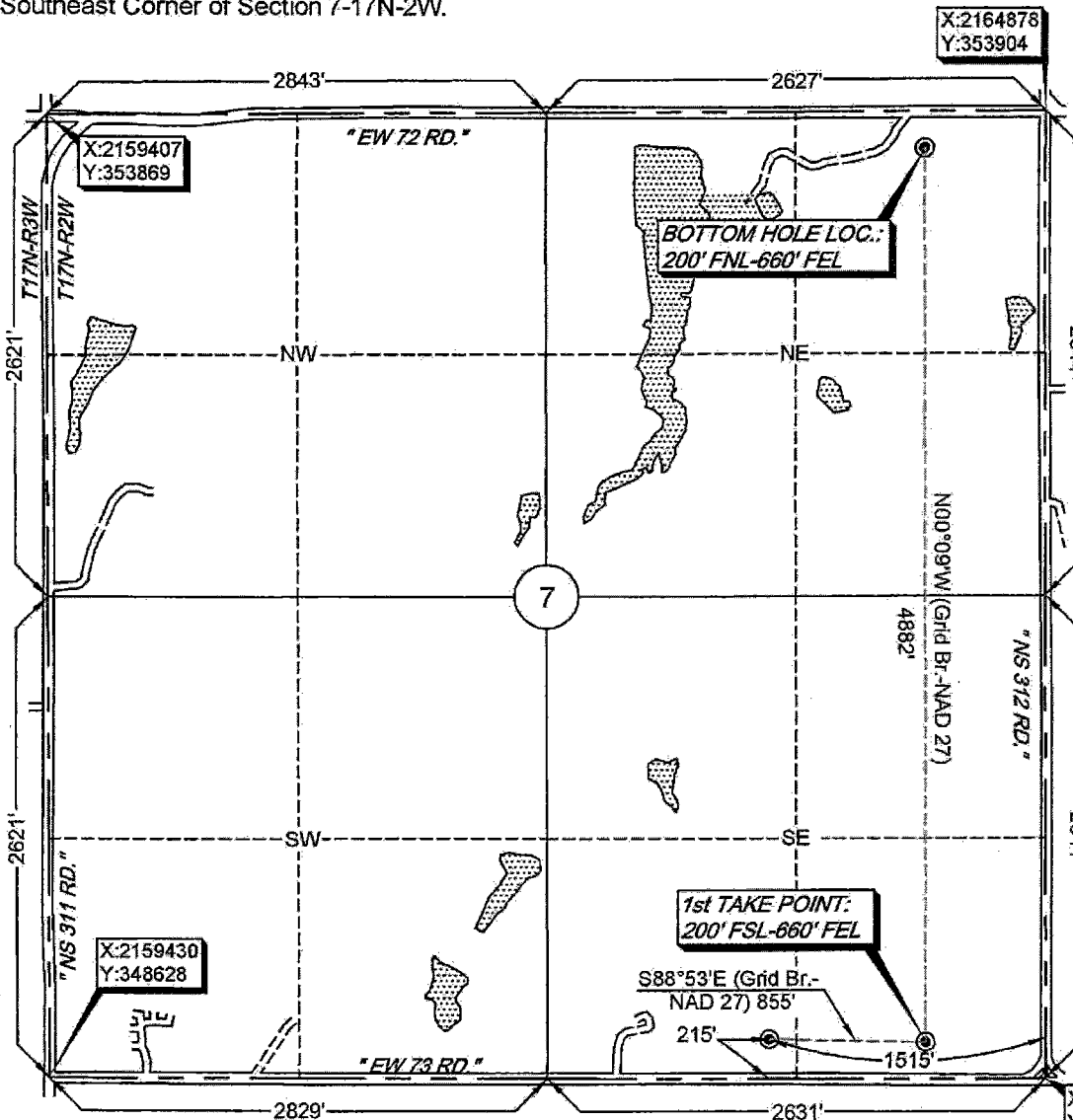
Surface Hole Loc.:
Lat: 35°57'25.35"N
Lon: 97°26'52.76"W
X: 2163375
Y: 348834

1st Take Point:
Lat: 35°57'25.13"N
Lon: 97°26'42.36"W
X: 2164230
Y: 348818

Bottom Hole Loc.:
Lat: 35°58'13.42"N
Lon: 97°26'42.17"W
X: 2164218
Y: 353700

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.
NOTE: X and Y data shown herein for Section Corners may NOT have been surveyed on-the-ground, and further, does NOT represent a true Boundary Survey.

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.



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, 2016
Invoice # 4972

Date Staked: 10/02/14 By: C.K.
Date Drawn: 10/07/14 By: J.H.
Add FTP & BHL: 10/09/14 By: R.M.

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.

Stan Drannon 10/9/14
STAN DRANNON OK LPLS 1672

