API NUMBER: 117 23649

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: 03/26/2015

Expiration Date: 09/26/2015

240 feet from nearest unit or lease boundary.

23402 0

PERMIT TO DRILL

WELL LOCATION:	Sec: 20	Twp:	20N	Rge:	8E	County	: PAW	/NEE		
SPOT LOCATION:	SW SE	SI		SW		FEET FROM QUARTER:	FROM	SOUTH	FROM	WEST
						SECTION LINES:		240		2240
Lease Name: (GRAY WOLF					We	ell No:	1-20H		
Operator U S ENERGY DEVELOPMENT CORPORATION Name:						Teleph	ione:	7166360401		

U S ENERGY DEVELOPMENT CORPORATION 2350 N FOREST RD

GETZVILLE, NY 14068-1296

JOY REMINGTON
3701-A S. HARVARD # 160
TULSA OK 74135

OTC/OCC Number:

Well will be

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

1 MISSISSIPPI 2870 6	
2 7	
3 8	
4 9	
5 10	
Spacing Orders: 638046 Location Exception Orders: Increased Density Orders:	

Pending CD Numbers: 201501093 Special Orders:

Total Depth: 7820 Ground Elevation: 862 **Surface Casing: 320** Depth to base of Treatable Water-Bearing FM: 220

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

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

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

Is depth to top of ground water greater than 10ft below base of pit? Y

Wellhead Protection Area? Y

Within 1 mile of municipal water well? Y

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: VAMOOSA

PERMIT NO: 15-29692

HORIZONTAL HOLE 1

Sec 20 Twp 20N Rge 8E County PAWNEE

Spot Location of End Point: NW NE NE NW
Feet From: NORTH 1/4 Section Line: 200
Feet From: WEST 1/4 Section Line: 2240

Depth of Deviation: 2340
Radius of Turn: 600
Direction: 360
Total Length: 4537

Measured Total Depth: 7820

True Vertical Depth: 2940

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

Notes:

Category Description

PENDING CD - 201501093 3/12/2015 - G75 - (I.O.) 20-20N-8E

X638046 MISS, OTHER

SHL NCT 200 FSL, NCT 1980 FWL

COMPL. INT. NCT 200 FSL, NCT 200 FNL, NCT 1980 FWL

BHL NCT 200 FNL, NCT 1980 FWL

NO OP. NAMED

REC 3-25-2015 (THOMAS)

PUBLIC WATER SUPPLY WELLS 3/9/2015 - G71 - PAWNEE CO. RWD #2, 4 PWS/WPA, C 19-20N-8E & 6 PWS/WPA, NE4 18-20N-8E

SPACING - 638046 3/25/2015 - G75 - (640/40) 20-20N-8E

EXT (40) OTHERS

EXT (640) 623458 MISS, OTHER



Well Location Plat

Sec. 20-20N-8E I.M.

Operator: U.S. ENERGY DEVELOPMENT CORPORATION

Lease Name and No.: GRAY WOLF #1-20H

Footage: 240' FSL - 2240' FWL GR. ELEVATION: 862' Good Site? YES

Section: 20 Township: 20N Range: 8E I.M.

County: Pawnee State of Oklahoma

Alternate Loc.: N/A

Terrain at Loc.: Location fell on the side of rocky hill in heavy timber, +/- 380 West of a

house, +/- 205 North of E-W Fence.

Accessibility: From the West.

Directions: From the junction of "EW 575 Road" & "NS 3655 Road" in the town of Terlton, OK, go 1.0 mile East on "EW 575 Road to the Southwest Corner of Section

20-20N-8E.



GPS DATUM NAD - 27 **OK NORTH ZONE**

1"=1000

Surface Hole Loc.: Lat: 36°11'19.15"N Lon: 96°28'24.72"W

X: 2450437 Y: 436221

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

Please note that this location was staked

promptly if any inconsistency is determined GPS data is observed from RTK - GPS. Please contact Arkoma Surveying and Mapping Professional Land Surveyor, but the accuracy of this on the ground under the supervision of a Licensed

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. 2632 2633 X:2453336 "ORCUTTS CORNER **<:2450705** <:2448072 Y:441366 :441316 ':441267 0 "CEMETERY RD." 20 AIRPORT RD 2666 2240^C X:2453403 X:2450803 Y:436051 Y:435988 "EW 570 RD." X:2448203 2601 Y:435937 2600'

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 #5325 Date Staked: 02/20/15 Date Drawn: 02/25/15

By: C.K By: T.S.

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.

02/25/15 STAN DRANNON **OK LPLS 1672**

