API NUMBER: 121 24716

Oil & Gas

Horizontal Hole

Sp

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

Approval Date: 09/25/2013
Expiration Date: 03/25/2014

PERMIT TO DRILL

SPOT LOCATION: SW SE SE SE FEET FROM QUARTER: FROM SOUTH FROM EAST SECTION LINES: 285 357

Lease Name: CHRISTI Well No: 3-4H Well will be 285 feet from nearest unit or lease boundary.

 Operator Name:
 VANGUARD PERMIAN LLC
 Telephone:
 8323272255
 OTC/OCC Number:
 23042
 0

VANGUARD PERMIAN LLC 5847 SAN FELIPE ST STE 3000

HOUSTON, TX 77057-3399

ARTHUR & SUSAN HOEHNE

PO BOX 1928

MCALESTER OK 74502

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

	Name	Depth	Name	Depth
1	WOODFORD	5302	6	
2			7	
3			8	
4			9	
5			10	
Spacing Orders:	613743	Location Exception Orders:		Increased Density Orders:

Pending CD Numbers: 201306303 Special Orders:

Total Depth: 10489 Ground Elevation: 775 Surface Casing: 380 Depth to base of Treatable Water-Bearing FM: 330

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: ON SITE A. Evaporation/dewater and backfilling of reserve pit.

Type of Mud System: AIR

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

PERMIT NO: 13-24472

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: 4

Liner not required for Category: 4
Pit Location is BED AQUIFER
Pit Location Formation: SENORA

Mud System Change to Water-Based or Oil-Based Mud Requires an Amended Intent (Form 1000).

## PIT 2 INFORMATION

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 BED AQUIFER
Pit Location Formation: SENORA

## PIT 3 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 BED AQUIFER
Pit Location Formation: SENORA

## **HORIZONTAL HOLE 1**

Sec 03 Twp 7N Rge 12E County PITTSBURG

Spot Location of End Point: NE NE NW NE
Feet From: NORTH 1/4 Section Line: 165
Feet From: EAST 1/4 Section Line: 1509

Depth of Deviation: 5332 Radius of Turn: 500 Direction: 360

Total Length: 4716

Measured Total Depth: 10489

True Vertical Depth: 6000

End Point Location from Lease,
Unit, or Property Line: 165

Notes:

Category Description

MEMO 9/25/2013 - G71 - PITS 2 & 3 - CLOSED SYSTEM=STEEL PITS PER OPERATOR OPTION, PIT 3 -

OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

PENDING CD - 201306303 9/25/2013 - G30 - 3-7N-12E

X613743 WDFD 4 WELLS NO OP. NAMED

NO OP. NAMED HEARING 10/1/13 Category Description

**SPACING - 613743** 

9/25/2013 - G30 - (640 HOR) 3-7N-12E X605074 WDFD, OTHERS POE TO BHL NLT 330 FEL/FWL, NLT 165 FNL/FSL