API NUMBER: 121 24715

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: 09/19/2013
Expiration Date: 03/19/2014

PERMIT TO DRILL

WELL LOCATION: Sec: 03 Twp: 7N Rge: 12E County: PITTSBURG

SPOT LOCATION: NW SE SE SW FEET FROM QUARTER: FROM SOUTH FROM WEST

SECTION LINES: 540 2050

Lease Name: SUSAN Well No: 3-1H Well will be 540 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	CANEY	4910	6	
	2	MAYES	5091	7	
	3	WOODFORD	5199	8	
	4	HUNTON	5299	9	
	5			10	
Spa	cing Orders:	613743	Location Exception Orders: 61447	0	Increased Density Orders:

Pending CD Numbers: Special Orders:

Total Depth: 10462 Ground Elevation: 807 Surface Casing: 280 Depth to base of Treatable Water-Bearing FM: 230

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: 13-24445 ls depth to top of ground water greater than 10ft below base of pit? Y H. SEE MEMO

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?

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 NW NW NW

Feet From: NORTH 1/4 Section Line: 1
Feet From: WEST 1/4 Section Line: 448

Depth of Deviation: 4729
Radius of Turn: 500
Direction: 360

Total Length: 4709

Measured Total Depth: 10462

True Vertical Depth: 6000

End Point Location from Lease,
Unit, or Property Line: 1

Notes:

Category Description

LOCATION EXCEPTION - 614470 9/19/2013 - G30 - (I.O.) 3-7N-12E

X613743 CNEY, MYES, HNTN

COMP. INT. NCT 165 FSL, NCT 165 FNL, NCT 330 FWL

VANGUARD PERMIAN, LLC

8/2/13

MEMO 9/19/2013 - G71 - PITS 2 & 3 - CLOSED SYSTEM=STEEL PITS PER OPERATOR OPTION, PIT 3 -

OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

Category

**SPACING - 613743** 

9/19/2013 - G30 - (640 HOR) 3-7N-12E EXT 605074 CNEY, MYES, WDFD, HNTN POE TO BHL (CNEY, MYES, HNTN) NLT 660' FB POE TO BHL (WDFD) NLT 330 FEL/FWL, NLT 165 FNL/FSL

Description