

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

API NUMBER: 103 24652

Approval Date: 03/27/2014
Expiration Date: 09/27/2014

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 16 Twp: 20N Rge: 1W

County: NOBLE

SPOT LOCATION: NW NE NE NW

FEET FROM QUARTER: FROM SOUTH FROM WEST

SECTION LINES: 2490 2185

Lease Name: HARTSUCK

Well No: 20-1-16 1H

Well will be 150 feet from nearest unit or lease boundary.

Operator Name: DORADO E & P PARTNERS LLC

Telephone: 7204023700

OTC/OCC Number: 23019 0

DORADO E & P PARTNERS LLC
1401 17TH ST STE 1500
DENVER, CO 80202-1253

HARTSUCK FAMILY, LLC
6909 NW GRAND BLVD
OKC OK 73116

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

Name	Depth	Name	Depth
1	MISSISSIPPIAN	5160	6
2			7
3			8
4			9
5			10

Spacing Orders: 599766

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201401267

Special Orders:

Total Depth: 10315

Ground Elevation: 1148

Surface Casing: 190

Depth to base of Treatable Water-Bearing FM: 140

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: Yes

PIT 1 INFORMATION

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: WELLINGTON

Approved Method for disposal of Drilling Fluids:

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

PERMIT NO: 14-26706

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR OPTION

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 16 Twp 20N Rge 1W County NOBLE

Spot Location of End Point: S2 S2 SE SW

Feet From: SOUTH 1/4 Section Line: 195

Feet From: WEST 1/4 Section Line: 1980

Depth of Deviation: 4523

Radius of Turn: 500

Direction: 180

Total Length: 4975

Measured Total Depth: 10315

True Vertical Depth: 5160

End Point Location from Lease,
Unit, or Property Line: 195

Notes:

Category	Description
PENDING CD - 201401267	3/27/2014 - G30 - 16-20N-1W X599766 MSSP, OTHER COMP. INT. NCT 195 FNL, NCT 195 FSL, NCT 660 FWL NO OP. NAMED REC 3/11/14 (CANDLER)
SPACING - 599766	3/27/2014 - G30 - (640 HOR) 16-20N-1W DEL 114203 MISS EST MSSP, OTHER POE TO BHL NCT 660' FB (SUPERSEDE NON-DEVELOPED NON-HORIZONTAL SPACING UNITS)