



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 8/7/2015  
 Invoice # 80426  
 API# 05-123-41814  
 Foreman: Calvin Reimers

**Customer:** Anadarko Petroleum Corporation

**Well Name:** GE Powers 3C-26HZ

County: Weld  
 State: Colorado  
 Sec: 23  
 Twp: 2N  
 Range: 65W

Consultant: Chris / Sean  
 Rig Name & Number: Noble 2  
 Distance To Location: 40 Miles  
 Units On Location: 4023-3104/4024-3203  
 Time Requested: 1000am  
 Time Arrived On Location: 910am  
 Time Left Location: 1:45 pm

## WELL DATA

Casing Size OD (in) : 9.625  
 Casing Weight (lb) : 36.00  
 Casing Depth (ft.) : 1,834  
 Total Depth (ft) : 1851  
 Open Hole Diameter (in.) : 13.50  
 Conductor Length (ft) : 40  
 Conductor ID : 15.25  
 Shoe Joint Length (ft) : 42  
 Landing Joint (ft) : 10  
 Max Rate: 6  
 Max Pressure: 1750

## Cement Data

Cement Name: BFN III  
 Cement Density (lb/gal) : 14.2  
 Cement Yield (cuft) : 1.49  
 Gallons Per Sack: 7.48  
 % Excess: 20%  
 Displacement Fluid lb/gal: 8.3  
 BBL to Pit: 24  
 Fluid Ahead (bbls): 30.0  
 H2O Wash Up (bbls): 15.0  
 Spacer Ahead Makeup  
30 bbls With Dye in 2nd 10 bbls

Casing ID 8.921 Casing Grade J-55 only used

<b>Calculated Results</b>	<b>Displacement: 139.32 bbls</b> (Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)
<b>cuft of Shoe 18.32 cuft</b> (Casing ID Squared) X (.005454) X (Shoe Joint ft)	<b>Pressure of cement in annulus</b>
<b>cuft of Conductor 30.53 cuft</b> (Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)	<b>Hydrostatic Pressure: 1353.21 PSI</b>
<b>cuft of Casing 1052.35 cuft</b> (Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length )	<b>Pressure of the fluids inside casing</b>
<b>Total Slurry Volume 1101.20 cuft</b> (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	<b>Displacement: 772.75 psi</b>
<b>bbls of Slurry 196.12 bbls</b> (Total Slurry Volume) X (.1781)	<b>Shoe Joint: 31.14 psi</b>
<b>Sacks Needed 739 sk</b> (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	<b>Total 803.88 psi</b>
<b>Mix Water 131.62 bbls</b> (Sacks Needed) X (Gallons Per Sack) ÷ 42	<b>Differential Pressure: 549.33 psi</b>
	<b>Collapse PSI: 2020.00 psi</b>
	<b>Burst PSI: 3520.00 psi</b>
	<b>Total Water Needed: 315.94 bbls</b>

X Chris  
 Authorization To Proceed

Customers hereby acknowledges and specifically agrees to the terms and condition on this work order, including, without limitation, the provisions on this work order.



# SERIES 2000

