



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 8/25/2015  
Invoice # 80523  
API#  
Foreman: Kirk Kallhoff

Customer: Anadarko Petroleum Corporation

Well Name: powers 26n-27hz

County: Weld  
State: Colorado

Sec: 23  
Twp: 2n  
Range: 65w

Consultant: hayden  
Rig Name & Number: noble 2  
Distance To Location: 40  
Units On Location: 4031-3103/4007-3203  
Time Requested: 1200 am  
Time Arrived On Location: 930 pm  
Time Left Location: 4:00 pm

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft) : 1,878  
Total Depth (ft) : 1888  
Open Hole Diameter (in.) : 13.50  
Conductor Length (ft) : 40  
Conductor ID : 15.25  
Shoe Joint Length (ft) : 43  
Landing Joint (ft) : 10

Max Rate:  
Max Pressure:

## Cement Data

Cement Name: BFN III  
Cement Density (lb/gal) : 14.2  
Cement Yield (cuft) : 1.49  
Gallons Per Sack: 7.48  
% Excess: 15%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit:  
Fluid Ahead (bbls): 30.0  
H2O Wash Up (bbls): 10.0

Spacer Ahead Makeup

Casing ID

8.921

Casing Grade

J-55 only used

## Calculated Results

cuft of Shoe 18.66 cuft  
(Casing ID Squared) X (.005454) X (Shoe Joint ft)  
cuft of Conductor 30.53 cuft  
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)  
cuft of Casing 1033.03 cuft  
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)  
Total Slurry Volume 1082.22 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)  
bbls of Slurry 192.74 bbls  
(Total Slurry Volume) X (.1781)  
Sacks Needed 726 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)  
Mix Water 129.35 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 142.63 bbls  
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

## Pressure of cement in annulus

Hydrostatic Pressure: 1385.40 PSI

## Pressure of the fluids inside casing

Displacement: 791.22 psi

Shoe Joint: 31.72 psi

Total 822.94 psi

Differential Pressure: 562.46 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 311.99 bbls

X   
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.





# M/D TOTCO 2000 SERIES

