



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 10/28/2017  
Invoice #: 900198  
API#: 05-123-45088  
Foreman: Corey B.

Customer: Anadarko Petroleum Corporation  
Well Name: Newby State 16N-4HZ

County: Weld  
State: Colorado  
Sec: 33  
Twp: 3N  
Range: 68W  
Consultant: Matt  
Rig Name & Number: Cartel 88  
Distance To Location: 30  
Units On Location: 027/3103-4033/3212-4020/321  
Time Requested: 1400  
Time Arrived On Location: 1330  
Time Left Location:

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft.) : 2,278  
Total Depth (ft) : 2288  
Open Hole Diameter (in.) : 13.50  
Conductor Length (ft) : 80  
Conductor ID : 15.25  
Shoe Joint Length (ft) : 44  
Landing Joint (ft) : 15  
  
Max Rate: 8  
Max Pressure: 2000

## Cement Data

Cement Name: BFN III  
Cement Density (lb/gal) : 14.2  
Cement Yield (cuft) : 1.48  
Gallons Per Sack: 7.40  
% Excess: 10%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit:  
Fluid Ahead (bbls): 30.0  
H2O Wash Up (bbls): 20.0  
  
Spacer Ahead Makeup  
30 bbl with Die in 2nd 10

Casing ID 8.921 Casing Grade J-55 only used

## Calculated Results

**cuft of Shoe 19.10 cuft**  
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

**cuft of Conductor 61.05 cuft**  
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

**cuft of Casing 1181.65 cuft**  
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

**Total Slurry Volume 1261.80 cuft**  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

**bbls of Slurry 224.73 bbls**  
(Total Slurry Volume) X (.1781)

**Sacks Needed 853 sk**  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

**Mix Water 150.21 bbls**  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

**Displacement: 173.87 bbls**

(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

## Pressure of cement in annulus

**Hydrostatic Pressure: 1680.48 PSI**

## Pressure of the fluids inside casing

**Displacement: 963.26 psi**

**Shoe Joint: 32.46 psi**

**Total 995.72 psi**

**Differential Pressure: 684.76 psi**

**Collapse PSI: 2020.00 psi**

**Burst PSI: 3520.00 psi**

**Total Water Needed: 374.08 bbls**

Authorization To Proceed

Date \_\_\_\_\_

# Newby State 16N-4HZ

