



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 5/3/2017  
Invoice #: 200081  
API#:   
Foreman: Kirk Kallhoff

Customer: Anadarko Petroleum Corporation

Well Name: butterball 40n-33hz

County: Weld  
State: Colorado  
Sec: 10  
Twp: 2n  
Range: 67w

Consultant: matt  
Rig Name & Number: wmo 252  
Distance To Location: 26  
Units On Location: 4028/4020/4033  
Time Requested: 700 am  
Time Arrived On Location: 615 am  
Time Left Location: 10:15 am

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft.) : 1,814  
Total Depth (ft) : 1839  
Open Hole Diameter (in.) : 13.50  
Conductor Length (ft) : 90  
Conductor ID : 15.6  
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) : 1.49  
Gallons Per Sack: 7.40  
% 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** 19.10 cuft  
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

**cuft of Conductor** 73.98 cuft  
(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)

**cuft of Casing** 968.96 cuft  
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

**Total Slurry Volume** 1062.04 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

**bbls of Slurry** 189.15 bbls  
(Total Slurry Volume) X (.1781)

**Sacks Needed** 713 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

**Mix Water** 125.58 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

**Displacement:** 138.00 bbls

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

## Pressure of cement in annulus

**Hydrostatic Pressure:** 1338.19 PSI

## Pressure of the fluids inside casing

**Displacement:** 763.19 psi

**Shoe Joint:** 32.46 psi

**Total** 795.65 psi

**Differential Pressure:** 542.54 psi

**Collapse PSI:** 2020.00 psi

**Burst PSI:** 3520.00 psi

**Total Water Needed:** 303.58 bbls

X   
Authorization To Proceed





200081
Weld
Kirk Kallhoff
5/3/2017

Anadarko Petroleum Corporation
butterball 40n-33hz

### DESCRIPTION OF JOB EVENTS

X	Ce	pen	
Title			Date
X	5-3-17		

SERIES 2000

