



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 4/21/2017  
Invoice #: 666114  
API#: 05-123-43804  
Foreman: Nick Vigil

Customer: Anadarko Petroleum Corporation

Well Name: Babcock 35C-33HZ

County: Weld  
State: Colorado  
Sec: 4  
Twp: 2N  
Range: 67W

Consultant: Lane/Sean  
Rig Name & Number: WMO 252  
Distance To Location: 26 Miles  
Units On Location: 4023/4024/4033  
Time Requested: 12:00  
Time Arrived On Location: 10:45  
Time Left Location:

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft.) : 1,869  
Total Depth (ft) : 1879  
Open Hole Diameter (in.) : 13.50  
Conductor Length (ft) : 80  
Conductor ID : 15.25  
Shoe Joint Length (ft) : 44  
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: 0.0  
Fluid Ahead (bbls): 30.0  
H2O Wash Up (bbls): 20.0

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

cuft of Casing 1005.49 cuft  
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length )

Total Slurry Volume 1085.64 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 193.35 bbls  
(Total Slurry Volume) X (.1781)

Sacks Needed 729 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 129.76 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 141.86 bbls

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

## Pressure of cement in annulus

Hydrostatic Pressure: 1378.76 PSI

## Pressure of the fluids inside casing

Displacement: 786.91 psi

Shoe Joint: 32.46 psi

Total 819.36 psi

Differential Pressure: 559.40 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 321.62 bbls

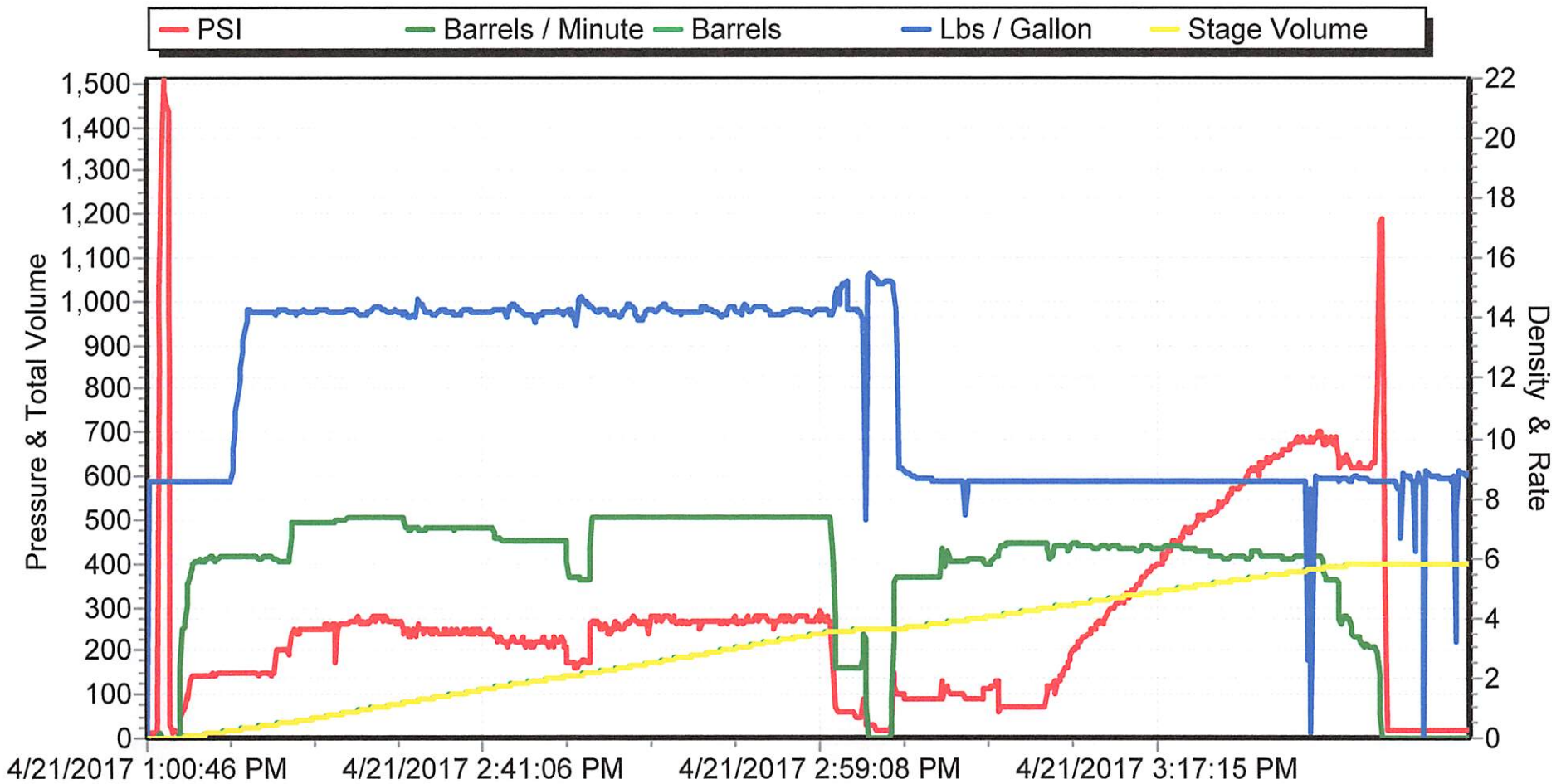
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Authorization To Proceed

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

X 4.21.17  
Date

## Babcock 35C-33HZ





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