



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 7/9/2015

Invoice # 80610

API# 05-123-41795

Foreman: JASON KELEHER

Customer: Anadarko Petroleum Corporation

Well Name: TEDFORD 3C-28HZ

County: Weld

State: Colorado

Sec: 28

Twp: 2N

Range: 66W

Consultant: CHRIS

Rig Name & Number: NOBLE 2

Distance To Location: 19

Units On Location: 4031-3106/ 4034-3211

Time Requested: 500

Time Arrived On Location: 300

Time Left Location: 900

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft) : 1,853  
Total Depth (ft) : 1864  
Open Hole Diameter (in.) : 13.50  
Conductor Length (ft) : 47  
Conductor ID : 15.25  
Shoe Joint Length (ft) : 44  
Landing Joint (ft) : 7

Max Rate: 6

Max Pressure: 1250

## 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: 20.0

Fluid Ahead (bbls): 30.0

H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

30BBL WATER/ DYE IN 2ND 10

Casing ID

8.921

Casing Grade

J-55 only used

## Calculated Results

cuft of Shoe 18.97 cuft

(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 35.87 cuft

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

cuft of Casing 1059.17 cuft

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

Total Slurry Volume 1114.01 cuft

(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 198.41 bbls

(Total Slurry Volume) X (.1781)

Sacks Needed 748 sk

(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 133.15 bbls

(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 140.41 bbls

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

## Pressure of cement in annulus

Hydrostatic Pressure: 1366.96 PSI

## Pressure of the fluids inside casing

Displacement: 780.13 psi

Shoe Joint: 32.24 psi

Total 812.38 psi

Differential Pressure: 554.58 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 323.57 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.

X 7/9/15  
Date

# TEDFORD 3C-28HZ SURFACE

