



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 6/13/2017  
Invoice #: 200105  
API#  
Foreman: Kirk Kallhoff

Customer: Anadarko Petroleum Corporation

Well Name: fl greens 29c-5hz

County: Weld  
State: Colorado  
Sec: 8  
Twp: 1n  
Range: 66w

Consultant: tim  
Rig Name & Number: pd 461  
Distance To Location: 35  
Units On Location: 4028/4030/4034  
Time Requested: 800 pm  
Time Arrived On Location: 700 pm  
Time Left Location: 2:00 PM

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft.) : 1,808  
Total Depth (ft) : 1856  
Open Hole Diameter (in.) : 13.50  
Conductor Length (ft) : 80  
Conductor ID : 15.6  
Shoe Joint Length (ft) : 42  
Landing Joint (ft) : 35

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 18.23 cuft

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

cuft of Conductor 65.76 cuft  
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X  
(Conductor Length ft)

cuft of Casing 971.20 cuft  
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing  
Depth - Conductor Length)

Total Slurry Volume 1055.20 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 187.93 bbls  
(Total Slurry Volume) X (.1781)

Sacks Needed 708 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 124.78 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 139.23 bbls

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

## Pressure of cement in annulus

Hydrostatic Pressure: 1333.76 PSI

## Pressure of the fluids inside casing

Displacement: 761.47 psi

Shoe Joint: 30.98 psi

Total 792.45 psi

Differential Pressure: 541.31 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 304.01 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.





Customer  
Well Name

Anadarko Petroleum Corporation  
fl greens 29c-5hz

INVOICE #  
LOCATION  
FOREMAN  
Date

200105  
Weld  
Kirk Kallhoff  
6/14/2017

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## DESCRIPTION OF JOB EVENTS

X Bill Turner  
Work Performed

X 6/17/17  
Title \_\_\_\_\_

X 6-14-17  
Date

SERIES 2000

