



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 3/11/2018  
Invoice #: 200263  
API#  
Foreman: Kirk Kallhoff

Customer: Anadarko Petroleum Corporation

Well Name: quarter circle 24-7hz

County: Weld  
State: Colorado  
Sec: 24  
Twp: 1n  
Range: 67w  
Consultant: levi  
Rig Name & Number: CARTEL 88  
Distance To Location: 33  
Units On Location: 4028/4030/4039  
Time Requested: 1200 pm  
Time Arrived On Location: 1030 pm  
Time Left Location: 5:00pm

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft.) : 1,822  
Total Depth (ft) : 1832  
Open Hole Diameter (in.) : 13.50  
Conductor Length (ft) : 80  
Conductor ID : 15.5  
Shoe Joint Length (ft) : 40  
Landing Joint (ft) : 8

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: 7.48  
% Excess: 10%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit:  
Fluid Ahead (bbls): 30.0  
H2O Wash Up (bbls): 10.0

Spacer Ahead Makeup  
30 BBL WATER, DYE IN 2ND 10

Casing ID

8.921

Casing Grade

J-55 only used

## Calculated Results

**cuft of Shoe** 17.36 cuft  
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

**cuft of Conductor** 64.40 cuft  
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

**cuft of Casing** 936.50 cuft  
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

**Total Slurry Volume** 1018.27 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

**bbls of Slurry** 181.35 bbls  
(Total Slurry Volume) X (.1781)

**Sacks Needed** 688 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

**Mix Water** 122.53 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

**Displacement:** 138.38 bbls

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

## Pressure of cement in annulus

**Hydrostatic Pressure:** 1344.09 PSI

## Pressure of the fluids inside casing

**Displacement:** 768.36 psi

**Shoe Joint:** 29.51 psi

**Total** 797.87 psi

**Differential Pressure:** 546.22 psi

**Collapse PSI:** 2020.00 psi

**Burst PSI:** 3520.00 psi

**Total Water Needed:** 300.91 bbls

X *Kirk Kallhoff*  
Authorization To Proceed



Customer  
Well Name

Anadarko Petroleum Corporation  
quarter circle 24-7hz

INVOICE #  
LOCATION  
FOREMAN  
Date

200263

Weld

Kirk Kallhoff

3/11/2018

Treatment Report Page 2

### DESCRIPTION OF JOB EVENTS

X   
Authorized signature

X NSC  
Title

X 3-11-18  
Date



SERIES 2000

