



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 1/11/2018  
Invoice #: 200220  
API#:   
Foreman: Kirk Kallhoff

Customer: Anadarko Petroleum Corporation  
Well Name: hergenreder 22n2-4hz

County: Weld  
State: Colorado  
Sec: 32  
Twp: 3n  
Range: 68w

Consultant: levi  
Rig Name & Number: CARTEL 88  
Distance To Location: 30  
Units On Location: 4028/4020/4030  
Time Requested: 1000 am  
Time Arrived On Location: 830 am  
Time Left Location: 2:00 pm

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft.) : 2,280  
Total Depth (ft) : 2290  
Open Hole Diameter (in.) : 13.50  
Conductor Length (ft) : 68  
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: 5%  
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** 54.74 cuft  
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

**cuft of Casing** 1135.12 cuft  
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

**Total Slurry Volume** 1207.23 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

**bbls of Slurry** 215.01 bbls  
(Total Slurry Volume) X (.1781)

**Sacks Needed** 816 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

**Mix Water** 145.27 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

**Displacement:** 173.79 bbls

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

## Pressure of cement in annulus

**Hydrostatic Pressure:** 1681.96 PSI

## Pressure of the fluids inside casing

**Displacement:** 965.85 psi

**Shoe Joint:** 29.51 psi

**Total** 995.35 psi

**Differential Pressure:** 686.60 psi

**Collapse PSI:** 2020.00 psi

**Burst PSI:** 3520.00 psi

**Total Water Needed:** 359.06 bbls

X *Kirk Kallhoff*  
Authorization To Proceed



## Bison Oil Well Cementing Single Cement Surface Pipe

Customer  
Well Name

Anadarko Petroleum Corporation  
hergenreder 22n2-4hz

INVOICE #  
LOCATION  
FOREMAN  
Date

200220  
Weld  
Kirk Kallhoff  
1/11/2018

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## DESCRIPTION OF JOB EVENTS

[illegible]

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Authorized signature

X APC  
Title

X 1-11-18  
Date



# SERIES 2000

