



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 8/14/2017  
Invoice #: 900153  
API#: 05-123-42733  
Foreman: Corey B.

Customer: Bill Barrett Corp.  
Well Name: 4033C

County: Weld  
State: Colorado  
Sec: 28  
Twp: 3N  
Range: 68W

Consultant: Matt  
Rig Name & Number: WM 344  
Distance To Location: 25  
Units On Location: 4024/3103 -  
Time Requested: 1030  
Time Arrived On Location: 930  
Time Left Location:

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft.) : 800 / 801  
Total Depth (ft) : 801 / 800  
Open Hole Diameter (in.) : 12.25  
Conductor Length (ft) : 0  
Conductor ID :  
Shoe Joint Length (ft) : 42.5  
Landing Joint (ft) : 0

Max Rate:  
Max Pressure:

## Cement Data

Cement Name: BFN III  
Cement Density (lb/gal) : 14.2  
Cement Yield (cuft) : 1.48  
Gallons Per Sack: 7.40  
% Excess: 30%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit:  
Fluid Ahead (bbls): 20.0  
H2O Wash Up (bbls): 20.0  
Spacer Ahead Makeup  
20 BBL with die in 2nd 10

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

**cuft of Casing** 325.71 cuft  
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

**Total Slurry Volume** 343.94 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

**bbls of Slurry** 61.26 bbls  
(Total Slurry Volume) X (.1781)

**Sacks Needed** 232 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

**Mix Water** 40.94 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

**Displacement:** 58.60 bbls

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

## Pressure of cement in annulus

**Hydrostatic Pressure:** 590.16 PSI

## Pressure of the fluids inside casing

**Displacement:** 326.84 psi

**Shoe Joint:** 30.98 psi

**Total** 357.82 psi

**Differential Pressure:** 232.34 psi

**Collapse PSI:** 2020.00 psi

**Burst PSI:** 3520.00 psi

**Total Water Needed:** 139.54 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.



## Bison Oil Well Cementing Single Cement Surface Pipe

Customer  
Well Name

Bill Barrett Corp.

4033C

AEF 4-62-29

INVOICE #  
LOCATION  
FOREMAN  
Date

900153

Weld

Corey B.

8/14/2017

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### DESCRIPTION OF JOB EVENTS

[illegible]

X

Work Performed

X

Title

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Date \_\_\_\_\_