



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 12/12/2013
Invoice # 12512564
API#
Foreman: Kirk

Customer: bill barrett
Well Name: helton 5-63-27-3340 cdh

County: weld
State: Colorado
Sec: 27
Twp: 5n
Range: 63w

Consultant: casey
Rig Name & Number: major 43
Distance To Location:
Units On Location: 3103-3211
Time Requested: 100 am
Time Arrived On Location: 915 am
Time Left Location: 12:30 pm

WELL DATA

Casing Size OD (in) : 9.6250
Casing Weight (lb) : 36
Casing Depth (ft.) : 780
Total Depth (ft) : 788
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) :
Conductor ID :
Shoe Joint Length (ft) : 44
Landing Joint (ft) : 8

Max Rate:
Max Pressure:

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 15.2
Cement Yield (cuft) : 1.27
Gallons Per Sack: 5.89
% Excess: 30%
Displacement Fluid lb/gal: 8.3
BBL to Pit:
Fluid Ahead (bbls):
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

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

cuft of Casing 381.21 **cuft**
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 400.18 **cuft**
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 92.65 **bbls**
(Total Slurry Volume) X (.1781) X (% Excess Cement)

Sacks Needed 410 **sk**
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 57.45 **bbls**
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 57.54 **bbls**
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 615.89 **PSI**

Pressure of the fluids inside casing

Displacement: 317.48 **psi**

Shoe Joint: 34.51 **psi**

Total 351.98 **psi**

Differential Pressure: 263.90 **psi**

Collapse PSI: 2020.00 **psi**

Burst PSI: 3520.00 **psi**

Total Water Needed: 77.45 **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.