

Bison Oil Well Cementing Single Cement Surface Pipe

Date: 11/23/2013
 Invoice # 12527
 API# 445564
 Foreman: MONTF

Customer: bill barrett **0461 BH**
 Well Name: circle b 6-66-9-0461.cdn

County: WELD
 State: Colorado
 Sec: 9
 Twp: 6n
 Range: 66w

Consultant: pete
 Rig Name & Number: major
 Distance To Location: 21.6
 Units On Location: 3106-3210
 Time Requested: 9:00am
 Time Arrived On Location: 9:00am
 Time Left Location: 12:00

WELL DATA

Casing Size OD (in) : 9.6250
 Casing Weight (lb) : 36
 Casing Depth (ft.) : 790
 Total Depth (ft) : 800
 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: 20%
 Displacement Fluid lb/gal: 8.3
 BBL to Pit:
 Fluid Ahead (bbls):
 H2O Wash Up (bbls): 20.0
 Spacer Ahead Makeup
10 fresh 10 dye 40 fresh

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 18.88 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 386.33 cuft
 (Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)
Total Slurry Volume 405.21 cuft
 (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)
bbls of Slurry 86.60 bbls
 (Total Slurry Volume) X (.1781) X (% Excess Cement)
Sacks Needed 383 sk
 (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)
Mix Water 53.69 bbls
 (Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 58.37 bbls
 (Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 624.16 PSI

Pressure of the fluids inside casing

Displacement: 322.08 psi

Shoe Joint: 34.35 psi

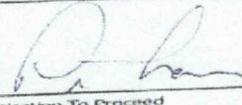
Total 356.43 psi

Differential Pressure: 267.73 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 73.69 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.