



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 9/25/2014
Invoice #: 25055
API#: 05-123-39922
Foreman: Calvin Reimers

Customer: Noble Energy Inc.
Well Name: Coalview G 02-65-1HN

County: Weld
State: Colorado
Sec: 1
Twp: 4N
Range: 65W

Consultant: Mike
Rig Name & Number: H&P 343
Distance To Location: 10 Miles
Units On Location: 4023-3104/4020-3212
Time Requested: 300am
Time Arrived On Location: 210am
Time Left Location: 545am

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 649
Total Depth (ft) : 683
Open Hole Diameter (in.) : 13.75
Conductor Length (ft) : 100
Conductor ID : 16
Shoe Joint Length (ft) : 45
Landing Joint (ft) : 28

Max Rate: 7
Max Pressure: 2500

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: 13.0
Fluid Ahead (bbls): 50.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup
50bbls H2O+Dye in 2nd 10bbls

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.61 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 89.10 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 346.76 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 455.47 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 81.12 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 359 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 50.29 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 48.88 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 512.83 PSI

Pressure of the fluids inside casing

Displacement: 260.56 psi

Shoe Joint: 35.68 psi

Total 296.24 psi

Differential Pressure: 216.59 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 169.18 bbls

X

Authorization To Proceed

