



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 1/16/2017
Invoice #: 200020
API#: _____
Foreman: Kirk Kallhoff

Customer: Anadarko Petroleum Corporation
Well Name: puma fed 13c-35hz

County: Weld
State: Colorado
Sec: 23
Twp: 1n
Range: 67w
Consultant: brian
Rig Name & Number: wmo 252
Distance To Location: 35
Units On Location: 4028/4019/4020
Time Requested: 200 pm
Time Arrived On Location: 1230 pm
Time Left Location: 5:30 pm

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 2,235
Total Depth (ft) : 2260
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 80
Conductor ID : 15.5
Shoe Joint Length (ft) : 42
Landing Joint (ft) : 15

Max Rate: 7
Max Pressure: 1500

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 14.2
Cement Yield (cuft) : 1.48
Gallons Per Sack: 7.40
% Excess: 15%
Displacement Fluid lb/gal: 8.3
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 10.0

Spacer Ahead Makeup

h2o

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 64.40 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)
cuft of Casing 1211.19 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)
Total Slurry Volume 1293.83 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)
bbls of Slurry 230.43 bbls
(Total Slurry Volume) X (.1781)
Sacks Needed 874 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)
Mix Water 154.03 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 170.70 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 1648.76 PSI

Pressure of the fluids inside casing

Displacement: 945.58 psi

Shoe Joint: 30.98 psi

Total 976.56 psi

Differential Pressure: 672.20 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 364.72 bbls

X
Authorization To Proceed

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SERIES 2000

