



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 4/8/2017
Invoice # 666106
API# 05-123-44411
Foreman: Nick Vigil

Customer: Anadarko Petroleum Corporation
Well Name: Butterball 22N2-34HZ

County: Weld
State: Colorado
Sec: 10
Twp: 2N
Range: 67W

Consultant: Brian
Rig Name & Number: WMO 252
Distance To Location: 27 miles
Units On Location: 402,340,244,030
Time Requested: 9:00
Time Arrived On Location: 8:50
Time Left Location:

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 1,819
Total Depth (ft) : 1829
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 80
Conductor ID : 15.25
Shoe Joint Length (ft) : 44
Landing Joint (ft) : 10

Max Rate:
Max Pressure:

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 14.2
Cement Yield (cuft) : 1.49
Gallons Per Sack: 7.48
% Excess: 15%
Displacement Fluid lb/gal: 8.3
BBL to Pit: 0.0
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.10 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 61.05 cuft
(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 977.39 cuft
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 1057.53 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 188.35 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 710 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 126.40 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 138.00 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 1341.88 PSI

Pressure of the fluids inside casing

Displacement: 765.35 psi

Shoe Joint: 32.46 psi

Total 797.81 psi

Differential Pressure: 544.07 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 314.40 bbls

X Bryan Brown
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.

Date _____

Butterball 22N2-34HZ

