



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 1/29/2018
Invoice # 666268
API# 05-123-45913
Foreman: Nick Vigil

Customer: Anadarko Petroleum Corporation
Well Name: Azul 13-4HZ

County: Weld
State: Colorado
Sec: 13
Twp: 1N
Range: 66W
Consultant: Brian/Levi
Rig Name & Number: Cartel 88
Distance To Location: 37 Miles
Units On Location: 4023/4039/4041
Time Requested: 1:00
Time Arrived On Location: 0:15
Time Left Location:

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 1,854
Total Depth (ft) : 1844
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 80
Conductor ID : 15.25
Shoe Joint Length (ft) : 43
Landing Joint (ft) : 10
Max Rate: 8
Max Pressure: 2000

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 14.2
Cement Yield (cuft) : 1.49
Gallons Per Sack: 7.48
% Excess: 5%
Displacement Fluid lb/gal: 8.3
BBL to Pit:
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 20.0
Spacer Ahead Makeup
Dye in second 10 bbl

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 18.66 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 910.36 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)
Total Slurry Volume 990.07 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)
bbls of Slurry 176.33 bbls
(Total Slurry Volume) X (.1781)
Sacks Needed 664 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)
Mix Water 118.34 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 140.78 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 1367.70 PSI

Pressure of the fluids inside casing

Displacement: 780.87 psi

Shoe Joint: 31.72 psi

Total 812.59 psi

Differential Pressure: 555.11 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 309.12 bbls

X
Authorization To Proceed

Date _____

Azul 13-4HZ

