



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 8/19/2018
Invoice #: 666342
API#: 05-123-47100
Foreman: Nick Vigil

Customer: Anadarko Petroleum Corporation

Well Name: Cowboy 21-5HZ

County: Weld
State: Colorado
Sec: 8
Twp: 1N
Range: 65W
Consultant: Brian
Rig Name & Number: Cartel 88
Distance To Location: 30 Miles
Units On Location: 4023/4041/4035
Time Requested: 2:30
Time Arrived On Location: 12:30
Time Left Location:

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 1,865
Total Depth (ft) : 1875
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 80
Conductor ID : 15.25
Shoe Joint Length (ft) : 42
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: 10%
Displacement Fluid lb/gal: 8.3
BBL to Pit:
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 10.0
Spacer Ahead Makeup
Dye in second 10 bbl

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 18.23 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 959.62 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)
Total Slurry Volume 1038.90 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)
bbls of Slurry 185.03 bbls
(Total Slurry Volume) X (.1781)
Sacks Needed 697 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)
Mix Water 124.18 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 141.71 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 1375.81 PSI

Pressure of the fluids inside casing

Displacement: 786.04 psi

Shoe Joint: 30.98 psi

Total 817.03 psi

Differential Pressure: 558.78 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 305.88 bbls

X
Authorization to Proceed

Date _____

Cowboy 21-5HZ

