



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 11/9/2017
 Invoice #: 200194
 API#
 Foreman: Kirk Kallhoff

Customer: Anadarko Petroleum Corporation
Well Name: leinweber fed 4c-8hz

County: Weld
 State: Colorado
 Consultant: sean
 Rig Name & Number: CARTEL 88
 Distance To Location: 30
 Units On Location: 4028/4032/4024
 Time Requested: 800 pm
 Time Arrived On Location: 700 pm
 Time Left Location: 1:30 pm

WELL DATA	Cement Data
Casing Size OD (in) : 9.625	Cement Name: BFN III
Casing Weight (lb) : 36.00	Cement Density (lb/gal) : 14.2
Casing Depth (ft.) : 1,857	Cement Yield (cuft) : 1.48
Total Depth (ft) : 1867	Gallons Per Sack: 7.48
Open Hole Diameter (in.) : 13.50	% Excess: 10%
Conductor Length (ft) : 80	Displacement Fluid lb/gal: 8.3
Conductor ID : 15.5	BBL to Pit:
Shoe Joint Length (ft) : 40	Fluid Ahead (bbls): 30.0
Landing Joint (ft) : 8	H2O Wash Up (bbls): 10.0
Max Rate: 8	Spacer Ahead Makeup
Max Pressure: 2000	30 BBL WATER, DYE IN 2ND 10

Calculated Results	Displacement: 141.09 bbls
cuft of Shoe 17.36 cuft (Casing ID Squared) X (.005454) X (Shoe Joint ft)	(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)
cuft of Conductor 64.40 cuft (Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)	Pressure of cement in annulus Hydrostatic Pressure: 1369.91 PSI
cuft of Casing 955.32 cuft (Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)	Pressure of the fluids inside casing Displacement: 783.46 psi Shoe Joint: 29.51 psi Total 812.96 psi
Total Slurry Volume 1037.09 cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	Differential Pressure: 556.94 psi
bbls of Slurry 184.71 bbls (Total Slurry Volume) X (.1781)	Collapse PSI: 2020.00 psi Burst PSI: 3520.00 psi
Sacks Needed 701 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	Total Water Needed: 305.88 bbls
Mix Water 124.80 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42	

Sean [Signature]
 Authorization To Proceed

SERIES 2000

