



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 12/15/2017
Invoice #: 666244
API#: 05-123-45727
Supervisor: Nick Vigil

Customer: Bill Barrett Corp.
Well Name: Anschutz-Williams 5-61-27-6457BN

County: Weld
State: Colorado
Sec: 27
Twp: 5N
Range: 61W
Consultant: Robert
Rig Name & Number: Savanna 802
Distance To Location: 30
Units On Location: 40,234,024
Time Requested: 3:00
Time Arrived On Location: 2:30
Time Left Location:

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 851
Total Depth (ft) : 851
Open Hole Diameter (in.) : 12.25
Conductor Length (ft) : 90
Conductor ID : 15.25
Shoe Joint Length (ft) : 46
Landing Joint (ft) : 0
Max Rate: 8
Max Pressure: 2500

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 14.2
Cement Yield (cuft) : 1.49
Gallons Per Sack: 7.48
% Excess: 25%
Displacement Fluid lb/gal: 8.3
BBL to Pit:
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 10.0
Spacer Ahead Makeup
h2o dye in 1st 10

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.97 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)
cuft of Conductor 68.68 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)
cuft of Casing 297.52 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)
Total Slurry Volume 386.17 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)
bbls of Slurry 68.78 bbls
(Total Slurry Volume) X (.1781)
Sacks Needed 259 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)
Mix Water 46.16 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 62.16 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 627.05 PSI

Pressure of the fluids inside casing

Displacement: 346.67 psi

Shoe Joint: 33.93 psi

Total 380.60 psi

Differential Pressure: 246.44 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 148.31 bbls

x Robert L. Schultz
Authorization To Proceed

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