



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 8/1/2015
Invoice #: 80619
API#: 05-123-41821
Foreman: JASON KELEHER

Customer: Anadarko Petroleum Corporation

Well Name: ADAMSON 28N-28HZ

County: Weld
State: Colorado
Sec: 21
Twp: 2N
Range: 65W
Consultant: SEAN
Rig Name & Number: NOBLE 2
Distance To Location: 18
Units On Location: 4031-3106/ 4024-3203
Time Requested: 2130
Time Arrived On Location: 2130
Time Left Location: 200

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 1,853
Total Depth (ft) : 1874
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 47
Conductor ID : 15.25
Shoe Joint Length (ft) : 43
Landing Joint (ft) : 7

Max Rate: 6
Max Pressure: 1250

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 14.2
Cement Yield (cuft) : 1.49
Gallons Per Sack: 7.48
% Excess: 20%
Displacement Fluid lb/gal: 8.3
BBL to Pit: 35.0
Fluid Ahead (bbls): 50.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup
50BBL WATER/ DYE IN LAST 20

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 18.62 cuft

(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 35.87 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X
(Conductor Length ft)

cuft of Casing 1059.22 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing
Depth - Conductor Length)

Total Slurry Volume 1113.70 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 198.35 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 747 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 133.12 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 140.48 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 1367.01 PSI

Pressure of the fluids inside casing

Displacement: 780.51 psi

Shoe Joint: 31.65 psi

Total 812.16 psi

Differential Pressure: 554.85 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 343.60 bbls

X
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.

X 08/01/15
Date

ADAMSON 28N-28HZ SURFACE

