



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 5/25/2015
Invoice #: 80136
API#: 05-123-41346
Foreman: JASON KELEHER

Customer: Anadarko Petroleum Corporation

Well Name: JESTER 41N-A14HZ

County: Weld
State: Colorado
Sec: 15
Twp: 3N
Range: 67W

Consultant: RICKY
Rig Name & Number: FINN ENERGY 4
Distance To Location: 16
Units On Location: 4031-3107/ 4019-3205
Time Requested: 200
Time Arrived On Location: 100
Time Left Location: 1100

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 814
Total Depth (ft) : 829
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 60
Conductor ID : 15.25
Shoe Joint Length (ft) : 38
Landing Joint (ft) : 5

Max Rate: 6
Max Pressure: 1000

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: 20.0
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup
30BBL WATER/ DYE IN 2ND 10

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 16.34 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 45.79 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 442.20 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 504.33 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 89.82 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 338 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 60.28 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 60.40 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 600.49 PSI

Pressure of the fluids inside casing

Displacement: 334.75 psi

Shoe Joint: 27.77 psi

Total 362.52 psi

Differential Pressure: 237.97 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 170.69 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 5/25/15
Date

JESTER 41N-A14HZ SURFACE

