



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 7/11/2015
Invoice #: 80612
API#: 05-123-41794
Foreman: JASON KELEHER

Customer: Anadarko Petroleum Corporation

Well Name: TEDFORD 29N-28HZ

County: Weld
State: Colorado

Sec: 28
Twp: 2N
Range: 66W

Consultant: SEAN
Rig Name & Number: NOBLE 2
Distance To Location: 19
Units On Location: 4031-3106/ 4034-3203
Time Requested: 630
Time Arrived On Location: 500
Time Left Location: 1000

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 1,832
Total Depth (ft) : 1849
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 47
Conductor ID : 15.25
Shoe Joint Length (ft) : 39
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: 15.0
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 17.07 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 1046.86 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 1099.79 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 195.87 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 738 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 131.45 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 139.13 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 1351.47 PSI

Pressure of the fluids inside casing

Displacement: 772.97 psi

Shoe Joint: 29.01 psi

Total 801.98 psi

Differential Pressure: 549.49 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 320.58 bbls

Authorization To Proceed

X 7/11/15
Date

TEDFORD 29N-28HZ SURFACE

