

Bison Oil Well Cementing Single Cement Surface Pipe

Date: 2/2/2015
Invoice #: 25139
API#: 05-123-39055
Foreman: Calvin Reimers

Customer: Noble Energy Inc.
Well Name: Mahalo State AA 09-75-HNC

County: Weld
State: Colorado
Sec: 4
Twp: 6N
Range: 64W

Consultant: John D
Rig Name & Number: PD 829
Distance To Location: 32 Miles
Units On Location: 4030-3104/4034-3211
Time Requested: 430pm
Time Arrived On Location: 320pm
Time Left Location: 830pm

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 814
Total Depth (ft) : 840
Open Hole Diameter (in) : 13.50
Conductor Length (ft) : 80
Conductor ID : 16
Shoe Joint Length (ft) : 45
Landing Joint (ft) : 19

Max Rate: 7
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: 20%
Displacement Fluid lb/gal: 8.3
BBL to Pit: 14.0
Fluid Ahead (bbls): 50.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup
50bbls H2O+Dye in 2nd 10bbls

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.60 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)
cuft of Conductor 71.28 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)
cuft of Casing 430.28 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)
Total Slurry Volume 521.15 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)
bbls of Slurry 92.82 bbls
(Total Slurry Volume) X (.1781)
Sacks Needed 350 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)
Mix Water 62.29 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 60.85 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 600.24 PSI

Pressure of the fluids inside casing

Displacement: 331.37 psi

Shoe Joint: 33.31 psi

Total 364.68 psi

Differential Pressure: 235.57 psi

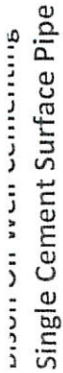
Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 193.15 bbls

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.



Single Cement Surface Pipe

Customer
Well Name

Noble Energy Inc.
Mahalo State AA 09-75-HNC

Treatment Report Page 2

INVOICE # _____
LOCATION _____
FOREMAN _____
Date _____

2015
Weld
Calvin Reimers
2/2/2015

DESCRIPTION OF JOB EVENTS

[illegible]

Notes:

The day

1/2 bbl Back on Bleed Off

Casing PSI Test 728psm

1010psi to 743pm 970psi

Work Preformed

× |

Date _____