



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 7/3/2015
Invoice #: 80415
API#: 50-690-6479
Foreman: Calvin Reimers

Customer: Anadarko Petroleum Corporation

Well Name: Encore 1C-12HZ

County: Larimer

State: Colorado

Sec: 12

Twp: 5N

Range: 68W

Consultant: Sean / Chris

Rig Name & Number: Noble 2

Distance To Location: 23 Miles

Units On Location: 4023-3104/3210/3211

Time Requested: 1200pm

Time Arrived On Location: 1025am

Time Left Location: 3:30pm

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 1,845
Total Depth (ft) : 1862
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 40
Conductor ID : 16
Shoe Joint Length (ft) : 44
Landing Joint (ft) : 10

Max Rate: 6
Max Pressure: 1750

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 14.2
Cement Yield (cuft) : 1.49
Gallons Per Sack: 7.48
% Excess: 15%
Displacement Fluid lb/gal: 8.3
BBL to Pit: 19
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 15.0

Spacer Ahead Makeup
30 bbls With Dye in 2nd 10 bbls

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 18.96 cuft

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

cuft of Conductor 35.64 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X
(Conductor Length ft)

cuft of Casing 1014.61 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing
Depth - Conductor Length)

Total Slurry Volume 1069.21 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 190.43 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 718 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 127.80 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 140.05 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 1361.23 PSI

Pressure of the fluids inside casing

Displacement: 776.79 psi

Shoe Joint: 32.23 psi

Total 809.02 psi

Differential Pressure: 552.21 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 312.85 bbls

x Sean Kelly
Authorization To Proceed

Bison Oil Well Cementing Single Cement Surface Pipe

INVOICE #
LOCATION
FOREMAN
Date

80415
Larime
/in Reir
/3/201

Customer
Well Name

Anadarko Petroleum Corporation
Encore 1C-12HZ

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DESCRIPTION OF JOB EVENTS

[illegible]

X *Sam Walsh*
Work Performed

X Comar

x 7/3/15

SERIES 2000

