



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 8/22/2015

Invoice # 90029

API# 05-123-41954

Supervisor Nick

Customer: Anadarko Petroleum Corporation

Well Name: Powers 2G-27HZ

County: Weld

State: Colorado

Sec: 22

Twp: 2N

Range: 65W

Consultant: Hayden

Rig Name & Number: Noble 2

Distance To Location: 30

Units On Location: 024/3210/4027/3106/3105/320

Time Requested: 22:30

Time Arrived On Location: 21:10

Time Left Location: 0:20

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 1,875
Total Depth (ft) : 1885
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 40
Conductor ID : 15.25
Shoe Joint Length (ft) : 43
Landing Joint (ft) : 10

Max Rate: 8
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: 35.0
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup
30 bbl dye in second 10

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 18.66 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)
cuft of Conductor 30.53 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)
cuft of Casing 1031.34 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)
Total Slurry Volume 1080.53 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)
bbls of Slurry 192.44 bbls
(Total Slurry Volume) X (.1781)
Sacks Needed 725 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)
Mix Water 129.15 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 142.40 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 1383.19 PSI

Pressure of the fluids inside casing

Displacement: 789.92 psi

Shoe Joint: 31.72 psi

Total 821.64 psi

Differential Pressure: 561.54 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 321.55 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.



Customer
Well Name

Anadarko Petroleum Corporation
Powers 2G-27HZ

INVOICE #
LOCATION
Supervisor
Date

90029
Weld
Nick
8/22/2015

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DESCRIPTION OF JOB EVENTS

X Handwritten Signature
Work Performed

X
Title

X
Date

Powers 2G-27HZ

