



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 5/29/2015
Invoice #: 80044
API#: 05-123-41342
Foreman: Calvin Reimers

Customer: Anadarko Petroleum Corporation

Well Name: Iceman State 12N-16HZ

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

Consultant: Ricky / Sam
Rig Name & Number: Pinnenergy 4
Distance To Location: 17 Miles
Units On Location: 4023-3104/4030-3203
Time Requested: 630pm
Time Arrived On Location: 450pm
Time Left Location: 3:45am

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 1,625
Total Depth (ft) : 1649
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 60
Conductor ID : 16
Shoe Joint Length (ft) : 40
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: 20%
Displacement Fluid lb/gal: 8.3
BBL to Pit: 23
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 10.0

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

cuft of Conductor 53.46 cuft
(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 919.99 cuft
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 990.85 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 176.47 bbls
(Total Slurry Volume) X (.1781)

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

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

Displacement: 123.32 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 1198.92 PSI

Pressure of the fluids inside casing

Displacement: 683.48 psi

Shoe Joint: 29.57 psi

Total 713.05 psi

Differential Pressure: 485.87 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Water Needed: 281.75 bbls

Signature
Authorization To Proceed

Bison Oil Well Cementing Single Cement Surface Pipe

Customer
Well Name

Anadarko Petroleum Corporation

Iceman State 12N-16HZ

INVOICE #

80044

LOCATION

Weld

FOREMAN

Calvin Reimers

Date _____

5/30/2015

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

[illegible]

X

Work Performed

X

Title

3

Date _____

SERIES 2000

