



Bison Oil Well Cementing Single Cement Surface Pipe

Invoice # 12761

API#

Foreman: Kirk Kallhoff

Customer: enczna

Well Name: rodman bruntz 2d-26h

County: Weld County
State: ColoradoSec: 26
Twp: 2n
Range: 66wConsultant: mike
Rig Name & Number: ensign 124
Distance To Location:
Units On Location: 3103-3211
Time Requested: 430 pm
Time Arrived On Location: 300pm
Time Left Location: 6:30 pm

WELL DATA

Casing Size OD (in) : 9.6250
Casing Weight (lb) : 40
Casing Depth (ft.) : 1,210
Total Depth (ft) : 1241
Open Hole Diameter (in.) : 12.25
Conductor Length (ft) : 93
Conductor ID : 15.5
Shoe Joint Length (ft) : 46
Landing Joint (ft) : 20

Max Rate:
Max Pressure:

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 15.2
Cement Yield (cuft) : 1.27
Gallons Per Sack: 5.89
% Excess: 40%
Displacement Fluid lb/gal: 8.3
BBL to Pit:
Fluid Ahead (bbls):
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

Casing ID

8.835

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.58 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 74.87 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 349.82 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 444.27 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 110.78 bbls
(Total Slurry Volume) X (.1781) X (% Excess Cement)

Sacks Needed 490 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 68.68 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 89.78 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 955.42 PSI

Pressure of the fluids inside casing

Displacement: 501.89 psi**Shoe Joint:** 36.32 psi**Total** 538.22 psi**Differential Pressure:** 417.20 psi**Collapse PSI:** 2570.00 psi**Burst PSI:** 3950.00 psi**Total Water Needed:** 88.68 bbls

X *Michael Fow*
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.



INVOICE #	LOCATION	FOREMAN

12761

Weld County
Kirk Kallhoff

Customer
Well Name

enczna

rodman bruntz 2d-26h

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

[illegible]

Notes:

bumped plug at 535 pm 580 psi

X Ann L. Barnes
Work Performed

X Co Mar
Title

X / Nov 13