



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 1/20/2014  
Invoice #: 12812  
API#: 05-123-36329  
Foreman: Calvin Reimers

Customer: Noble  
Well Name: No Worries PC G 14-64-1HN

County: Weld  
State: Colorado  
Sec: 14  
Twp: 4N  
Range: 65W

Consultant: Lance / Justin  
Rig Name & Number: H&P 273  
Distance To Location: 6 Miles  
Units On Location: 3106/3210  
Time Requested: 400pm  
Time Arrived On Location: 340pm  
Time Left Location: 745pm

## WELL DATA

Casing Size OD (in): 9.6250  
Casing Weight (lb): 36  
Casing Depth (ft): 620  
Total Depth (ft): 655  
Open Hole Diameter (in.): 13.75  
Conductor Length (ft): 100  
Conductor ID: 16  
Shoe Joint Length (ft): 43  
Landing Joint (ft): 29

Max Rate: 7  
Max Pressure: 2500

## Cement Data

Cement Name: BFN III  
Cement Density (lb/gal): 15.2  
Cement Yield (cuft): 1.27  
Gallons Per Sack: 5.89  
% Excess: 20%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit: 16.0  
Fluid Ahead (bbls):  
H2O Wash Up (bbls): 20.0

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

Casing ID

8.921

Casing Grade

J-55 only used

## Calculated Results

cuft of Shoe 18.87 cuft  
(Casing ID Squared) X (.005454) X (Shoe Joint ft)  
cuft of Conductor 89.10 cuft  
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X  
(Conductor Length ft)  
cuft of Casing 273.70 cuft  
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing  
Depth - Conductor Length)  
Total Slurry Volume 381.67 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)  
bbls of Slurry 81.57 bbls  
(Total Slurry Volume) X (.1781) X (% Excess Cement)  
Sacks Needed 361 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)  
Mix Water 50.57 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 46.85 bbls  
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe  
Joint)

## Pressure of cement in annulus

Hydrostatic Pressure: 489.92 PSI

## Pressure of the fluids inside casing

Displacement: 248.78 psi

Shoe Joint: 34.33 psi

Total 283.11 psi

Differential Pressure: 206.80 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 70.57 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.



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Single Cement Surface Pipe

INVOICE #  
LOCATION  
FOREMAN  
Date

12812  
Weld  
Calvin Reimers  
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Customer  
Well Name

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Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

	Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
	BBS	Time	PSI	BBS	Time	PSI	BBS	Time	PSI	BBS	Time	PSI	BBS	Time	PSI
Safety Meeting	550pm			0	640pm	90	0			0			0		
MIRU	511pm			10	643pm	120	10			10			10		
CIRCULATE	610pm			20	645pm	200	20			20			20		
Drop Plug				30	647pm	300	30			30			30		
639pm				40	649pm	320	40			40			40		
M & P				50	652pm	230	50			50			50		
Time	Sacks			60	Bump	490	60			60			60		
620pm	361			70			70			70			70		
636pm				80			80			80			80		
				90			90			90			90		
				100			100			100			100		
				110			110			110			110		
				120			120			120			120		
% Excess	20%			130			130			130			130		
Mixed bbls	50.57			140			140			140			140		
Total Sacks	361			150			150			150			150		
bbl Returns															

Notes:

The day

Float Held

1/2 bbl back on bleed off

X

X WSS

X 1/20/14

WorPreformed