



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 4/11/2014  
Invoice #: 12177  
API#:   
Foreman: kirk

Customer: noble  
Well Name: storis e 24-75hn

County: weld  
State: Colorado  
Sec: 24  
Twp: 6n  
Range: 65w  
Consultant: paul  
Rig Name & Number: h&p 315  
Distance To Location:   
Units On Location: 3103-3210  
Time Requested: 430 am  
Time Arrived On Location: 330 am  
Time Left Location: 8:30 am

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft) : 763  
Total Depth (ft) : 796  
Open Hole Diameter (in.) : 13.75  
Conductor Length (ft) : 100  
Conductor ID : 15.5  
Shoe Joint Length (ft) : 44  
Landing Joint (ft) : 29

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: 30%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit:  
Fluid Ahead (bbls): 60.0  
H2O Wash Up (bbls): 15.0

Spacer Ahead Makeup

Casing ID

8.921

Casing Grade

J-55 only used

## Calculated Results

**cuft of Shoe** 19.10 cuft  
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

**cuft of Conductor** 80.51 cuft  
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

**cuft of Casing** 348.66 cuft  
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

**Total Slurry Volume** 448.27 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

**bbls of Slurry** 103.79 bbls  
(Total Slurry Volume) X (.1781) X (% Excess Cement)

**Sacks Needed** 459 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

**Mix Water** 64.35 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

**Displacement:** 57.83 bbls  
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

## Pressure of cement in annulus

**Hydrostatic Pressure:** 602.46 PSI

## Pressure of the fluids inside casing

**Displacement:** 310.02 psi

**Shoe Joint:** 34.74 psi

**Total** 344.76 psi

**Differential Pressure:** 257.70 psi

**Collapse PSI:** #N/A psi

**Burst PSI:** #N/A psi

**Total Water Needed:** 197.18 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.



Bison Oil Well Cementing  
Single Cement Surface Pipe

Customer  
Well Name

noble
storis e 24-75hn

INVOICE #  
LOCATION  
FOREMAN  
Date

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DESCRIPTION OF JOB EVENTS

Safety Meeting		Displace 1			Displace 2			Displace 3			Displace 4	
MIRU		BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time
CIRCULATE		0	718am	10	0			0			0	
Drop Plug		10	720am	70	10			10			10	
718 am		20	722am	90	20			20			20	
		30	724am	160	30			30			30	
		40	726am	250	40			40			40	
M & P		50	728am	280	50			50			50	
Time Sacks		60			60			60			60	
653 am		70			70			70			70	
715 am stop		80			80			80			80	
		90			90			90			90	
		100			100			100			100	
		110			110			110			110	
% Excess		120			120			120			120	
Mixed bbls		130			130			130			130	
Total Sacks		140			140			140			140	
bbl Returns		150			150			150			150	
Water Temp												

Notes:

bumped plug at 732 am 460 psi 79.8 bbls slurry

casing test 1000 psi for 15 min

X

Work Preformed

X

Title