



# Bison Oil Well Cementing Single Cement Surface Pipe

Invoice # 12703  
API# 05-123-37174  
Foreman: Calvin Reimers

Customer: Noble  
Well Name: NCLP AA 04-65HN

County: Weld County  
State: Colorado  
Sec: 4  
Twp: 6N  
Range: 63W

Consultant: Matt  
Rig Name & Number: H&P 343  
Distance To Location: 31 Miles  
Units On Location: 3106/3203  
Time Requested: 800am  
Time Arrived On Location: 715am  
Time Left Location: 1200pm

## WELL DATA

Casing Size OD (in) : 9.6250  
Casing Weight (lb) : 36  
Casing Depth (ft) : 764  
Total Depth (ft) : 640  
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

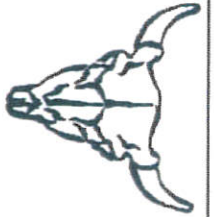
Cement Name: BFN III  
Cement Density (lb/gal) : 15.2  
Cement Yield (cuft) : 1.27  
Gallons Per Sack: 5.89  
% Excess: 0%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit: 20.0  
Fluid Ahead (bbls): 60  
H2O Wash Up (bbls): 20.0  
  
Spacer Ahead Makeup  
s H2O with KCL+ Dye in 2nd 10bbls

Casing ID	8.921	Casing Grade	J-55 only used
Calculated Results		Displacement: 57.98 bbls (Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)	
cuft of Shoe	18.56	cuft	Pressure of cement in annulus
(Casing ID Squared) X (.005454) X (Shoe Joint ft)			
cuft of Conductor	89.10	cuft	Hydrostatic Pressure: 603.03 PSI
(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)			
cuft of Casing	349.04	cuft	Pressure of the fluids inside casing
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length )			
Total Slurry Volume	456.70	cuft	Displacement: 310.86 psi
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)			
bbls of Slurry	81.34	bbls	Shoe Joint: 33.77 psi
(Total Slurry Volume) X (.1781) X (% Excess Cement)			
Sacks Needed	360	sk	Total 344.63 psi
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)			
Mix Water	50.43	bbls	Differential Pressure: 258.40 psi
(Sacks Needed) X (Gallons Per Sack) ÷ 42			
			Collapse PSI: 2020.00 psi
			Burst PSI: 3520.00 psi
			Total Water Needed: 70.43 bbls

X *Matt Satt*  
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  
NCLP AA 04-65HN

INVOICE #  
LOCATION  
FOREMAN

12703  
Weld County  
Calvin Reimers

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**DESCRIPTION OF JOB EVENTS**

Safety Meeting	945am	Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
	900am 1006am	BLS	Time	PSI	BLS	Time	PSI	BLS	Time	PSI	BLS	Time	PSI	BLS	Time	PSI
MIRU		0	1040am	50	0			0			0			0		
CIRCULATE		10	1042am	80	10			10			10			10		
Drop Plug		20	1044am	100	20			20			20			20		
1039am		30	1046am	190	30			30			30			30		
		40	1047am	280	40			40			40			40		
M & P		50	1049am	320	50			50			50			50		
Time	Sacks	60	1052am	300	60			60			60			60		
1016am	418	70	Bump	510	70			70			70			70		
1036am		80			80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	0%	120			120			120			120			120		
Mixed bbls	50.43	130			130			130			130			130		
Total Sacks	360	140			140			140			140			140		
bbl Returns	5	150			150			150			150			150		

Notes:

The day

Used 360 sks 81.34 bbls Slurry

Casing PSI Test 1055am 1000psi to 1110am 1020psi

5 bbl slurry back to surface

X

*M. Reimers*

Work Performed

X

Title

X

Date