



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 7/20/2014  
Invoice #: 65003  
API#: 05-123-3809300  
Foreman: Lee Sharp

Customer: Peterson Energy Management  
Well Name: Grant Hurt 1E-14H-G268

County: Weld  
State: Colorado  
Sec: 14  
Twp: 2N  
Range: 68W  
Consultant: MIKE Q  
Rig Name & Number: PATERSON 326  
Distance To Location: 21  
Units On Location: 4023-3104 & 4017-3211  
Time Requested: 9:30  
Time Arrived On Location: 10:30  
Time Left Location: 0:50

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 40.00  
Casing Depth (ft.) : 825  
Total Depth (ft) : 880  
Open Hole Diameter (in.) : 12.25  
Conductor Length (ft) : 80  
Conductor ID : 15.25  
Shoe Joint Length (ft) : 43  
Landing Joint (ft) : 35

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: 50%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit: 0.0  
Fluid Ahead (bbls): 30.0  
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup  
10F-10D-10F

Casing ID 8.835 Casing Grade J-55 only used

## Calculated Results

**cuft of Shoe 18.31 cuft**  
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

**cuft of Conductor 61.05 cuft**  
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

**cuft of Casing 349.98 cuft**  
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

**Total Slurry Volume 429.34 cuft**  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

**bbls of Slurry 76.47 bbls**  
(Total Slurry Volume) X (.1781)

**Sacks Needed 338 sk**  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

**Mix Water 47.41 bbls**  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

**Displacement: 61.95 bbls**

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

## Pressure of cement in annulus

**Hydrostatic Pressure: 651.42 PSI**

## Pressure of the fluids inside casing

**Displacement: 337.18 psi**

**Shoe Joint: 33.96 psi**

**Total 371.14 psi**

**Differential Pressure: 280.28 psi**

**Collapse PSI: 2570.00 psi**

**Burst PSI: 3950.00 psi**

**Total Water Needed: 159.36 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

Peterson Energy Management  
Grant Hurt 1E-14H-G268

INVOICE #  
LOCATION  
FOREMAN  
Date

65003  
Weld  
Lee Sharp  
7/20/2014

Treatment Report Page 2

**DESCRIPTION OF JOB EVENTS**

		Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
		BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI
Safety Meeting	23:00															
MIRU	22:25															
CIRCULATE	23:15	0	23:42	0	0			0			0			0		
Drop Plug		10	23:44	64	10			10			10			10		
23:40		20	23:50	90	20			20			20			20		
		30	23:52	220	30			30			30			30		
		40	23:54	360	40			40			40			40		
M & P		50	23:56	390	50			50			50			50		
Time	Sacks	60	23:58	330	60			60			60			60		
11:22	338	70	0:01	700	70			70			70			70		
		80			80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	52%	120			120			120			120			120		
Mixed bbls	48	130			130			130			130			130		
Total Sacks	342	140			140			140			140			140		
bbl Returns	16	150			150			150			150			150		
Water Temp	60															

Notes:

JOB WENT WELL

X

Work Preformed

X

Title

X

Date