



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 8/22/2014  
Invoice #: 25039  
API#: 05-123-39179  
Foreman: Calvin Reimers

Customer: Anadarko Petroleum Corporation

Well Name: Burkhardt 38N-3HZ

County: Weld  
State: Colorado  
Sec: 3  
Twp: 1N  
Range: 66W

Consultant: Bob  
Rig Name & Number: Major 42  
Distance To Location: 27 Miles  
Units On Location: 4023-3104/4024-3203  
Time Requested: 630pm  
Time Arrived On Location: 515pm  
Time Left Location: 6:15

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft.) : 1,635  
Total Depth (ft) : 1645  
Open Hole Diameter (in.) : 13.50  
Conductor Length (ft) :  
Conductor ID :  
Shoe Joint Length (ft) : 44  
Landing Joint (ft) : 8

Max Rate: 7  
Max Pressure: 2500

## Cement Data

Cement Name: BFN III  
Cement Density (lb/gal) : 14.2  
Cement Yield (cuft) : 1.49  
Gallons Per Sack: 7.48  
% Excess: 15%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit: 2 with Top Job  
Fluid Ahead (bbls): 30.0  
H2O Wash Up (bbls): 20.0

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

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

**cuft of Casing** 919.73 cuft  
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length )

**Total Slurry Volume** 938.83 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

**bbls of Slurry** 167.21 bbls  
(Total Slurry Volume) X (.1781)

**Sacks Needed** 630 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

**Mix Water** 112.22 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

**Displacement:** 123.62 bbls

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

## Pressure of cement in annulus

**Hydrostatic Pressure:** 1206.14 PSI

## Pressure of the fluids inside casing

**Displacement:** 686.01 psi

**Shoe Joint:** 32.46 psi

**Total** 718.47 psi

**Differential Pressure:** 487.67 psi

**Collapse PSI:** 2020.00 psi

**Burst PSI:** 3520.00 psi

**Total Water Needed:** 285.83 bbls

Authorization To Proceed





**Bison Oil Well Cementing**  
**Single Cement Surface Pipe**

Customer  
Well Name

Anadarko Petroleum Corporation  
Burkhardt 38N-3HZ

INVOICE #  
LOCATION  
FOREMAN  
Date

25039  
Weld  
Calvin Reimers  
8/22/2014

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**DESCRIPTION OF JOB EVENTS**

Safety Meeting MIRU CIRCULATE Drop Plug 258am M & P Time Sacks 228am 256am 455am 524am % Excess Mixed bbls Total Sacks bbl Returns Water Temp	204am 130am 222am	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
		0	259am	80	0			0			0			0		
		10	302am	20	10			10			10			10		
		20	304am	30	20			20			20			20		
		30	306am	70	30			30			30			30		
		40	308am	70	40			40			40			40		
		50	310am	120	50			50			50			50		
		60	312am	190	60			60			60			60		
		70	314am	270	70			70			70			70		
		80	315am	320	80			80			80			80		
		90	317am	400	90			90			90			90		
		100	319am	420	100			100			100			100		
		110	321am	450	110			110			110			110		
		120	330am	430	120			120			120			120		
		130	Bump	940	130			130			130			130		
		140			140			140			140			140		
		150			150			150			150			150		

Notes:

The day

1/2 BBL Back on Bleed Off

Top Job used 200 ft of 1 in and 150 sks 39.8 bbls slurry

total used 780 sks 206.99 bbls slurry

X Bob J. Porter m42.  
Work Performed

X \_\_\_\_\_  
Title

X \_\_\_\_\_  
Date

## SERIES 2000

