



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 4/19/2017  
Invoice #: 900083  
API#: 05-123-43810  
Foreman: Corey B.

Customer: Anadarko Petroleum Corporation  
Well Name: Babcock 12N-33HZ

County: Weld  
State: Colorado  
Sec: 4  
Twp: 2N  
Range: 67W  
Consultant: Matt  
Rig Name & Number: 252  
Distance To Location: 36  
Units On Location: 1027-3103/4020-3212/4019-321  
Time Requested: 200  
Time Arrived On Location: 115  
Time Left Location:

WELL DATA	Cement Data
Casing Size OD (in) : 9.625	Cement Name: BFN III
Casing Weight (lb) : 36.00	Cement Density (lb/gal) : 14.2
Casing Depth (ft.) : 1,840	Cement Yield (cuft) : 1.48
Total Depth (ft) : 1850	Gallons Per Sack: 7.49
Open Hole Diameter (in.) : 13.50	% Excess: 15%
Conductor Length (ft) : 80	Displacement Fluid lb/gal: 8.3
Conductor ID : 15.25	BBL to Pit:
Shoe Joint Length (ft) : 44	Fluid Ahead (bbls): 30.0
Landing Joint (ft) : 15	H2O Wash Up (bbls): 20.0
Max Rate: 8bm	Spacer Ahead Makeup
Max Pressure: 2000	30 bbl /2nd 10 BBL with Die

Casing ID	8.921	Casing Grade	J-55 only used
<b>Calculated Results</b>		<b>Displacement: 140.01 bbls</b>	
<b>cuft of Shoe 19.10 cuft</b> (Casing ID Squared) X (.005454) X (Shoe Joint ft)		(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)	
<b>cuft of Conductor 61.05 cuft</b> (Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)		<b>Pressure of cement in annulus</b>	
<b>cuft of Casing 989.19 cuft</b> (Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length )		<b>Hydrostatic Pressure: 1357.37 PSI</b>	
<b>Total Slurry Volume 1069.34 cuft</b> (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)		<b>Pressure of the fluids inside casing</b>	
<b>bbls of Slurry 190.45 bbls</b> (Total Slurry Volume) X (.1781)		<b>Displacement: 774.40 psi</b>	
<b>Sacks Needed 723 sk</b> (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)		<b>Shoe Joint: 32.46 psi</b>	
<b>Mix Water 128.85 bbls</b> (Sacks Needed) X (Gallons Per Sack) ÷ 42		<b>Total 806.86 psi</b>	
		<b>Differential Pressure: 550.51 psi</b>	
		<b>Collapse PSI: 2020.00 psi</b>	
		<b>Burst PSI: 3520.00 psi</b>	
		<b>Total Water Needed: 318.86 bbls</b>	

X   
Authorization to Proceed



Bison Oil Well Cementing  
Single Cement Surface Pipe

Customer  
Well Name

Anadarko Petroleum Corporation  
Babcock 12N-33HZ

INVOICE #  
LOCATION  
FOREMAN  
Date

900083  
Weld  
Corey B.  
4/19/2017

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DESCRIPTION OF JOB EVENTS

Amount Pumped	Time/Date	Event	Description	Rate	BBLs	Pressure
% Excess 15%						
Mixed bbls 128.85						
Total Sacks 723	115	What rig is doing upon Bison Arrival	Rig was broke down/ran wiper trip/ran casing			
bbl Returns 20	120	JSA	Bison Crew			
Water Temp 65	130	Rig up				
	300	Safety Meeting	Bison and Rig crew			
Notes:	330	Start Job				
	332	Pressure Test				
	334	Spacer Ahead	2nd 10 with die	5	30	80
	340	Lead Cement	14.2 ppg	7	190	180
	408	Shutdown				
	410	Drop Plug	Preloaded in plug container			
	412	Start Displacement		7	90	420
	435	Bump Plug	500 psi over final lift (1100psi)	2	140	520
	438	Floats Held	Held for 3 min with 1/2 BBL Back			
	440	End Job				
	445	Rig Down				
	515	Leave Location				

Work Preformed

X   
Title

X 4-19-17  
Date

# Babcock 12N-33HZ

