





# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 6/5/2015  
 Invoice # 80085  
 API# \_\_\_\_\_  
 Foreman: Kirk Kallhoff

**Customer:** Anadarko Petroleum Corporation  
**Well Name:** viper pyro 26n2-14hz

County: Weld  
 State: Colorado  
 Sec: 15  
 Twp: 3n  
 Range: 67w

Consultant: sam  
 Rig Name & Number: pinnergy 4  
 Distance To Location: 26  
 Units On Location: 4038-3103/4024-3210  
 Time Requested: 530 am  
 Time Arrived On Location: 400 am  
 Time Left Location: 9:30am

WELL DATA	
Casing Size OD (in) :	9.625
Casing Weight (lb) :	36.00
Casing Depth (ft.) :	806
Total Depth (ft) :	826
Open Hole Diameter (in.) :	13.50
Conductor Length (ft) :	60
Conductor ID :	16
Shoe Joint Length (ft) :	40
Landing Joint (ft) :	10
Max Rate:	
Max Pressure:	

Cement Data	
Cement Name:	BFN III
Cement Density (lb/gal) :	14.2
Cement Yield (cuft) :	1.49
Gallons Per Sack:	7.48
% Excess:	20%
Displacement Fluid lb/gal:	8.3
BBL to Pit:	
Fluid Ahead (bbls):	30.0
H2O Wash Up (bbls):	10.0
Spacer Ahead Makeup	

Calculated Results	Displacement: 59.99 bbls (Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)
cuft of Shoe <b>17.36</b> cuft (Casing ID Squared) X (.005454) X (Shoe Joint ft)	Pressure of cement in annulus <b>Hydrostatic Pressure: 594.59 PSI</b>
cuft of Conductor <b>53.46</b> cuft (Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)	
cuft of Casing <b>437.51</b> cuft (Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)	Pressure of the fluids inside casing <b>Displacement: 330.28 psi</b> <b>Shoe Joint: 29.51 psi</b> <b>Total 359.79 psi</b>
<b>Total Slurry Volume 508.33</b> cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	
<b>bbls of Slurry 90.53</b> bbls (Total Slurry Volume) X (.1781)	
<b>Sacks Needed 341</b> sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	<b>Differential Pressure: 234.79 psi</b>
<b>Mix Water 60.76</b> bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42	<b>Collapse PSI: 2020.00 psi</b> <b>Burst PSI: 3520.00 psi</b>
	<b>Total Water Needed: 160.75 bbls</b>

X *[Signature]*  
 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.



# M/D TOTCO 2000 SERIES

