



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 5/12/2018

Invoice # 200280

API#

Foreman: Kirk Kallhoff

Customer: Anadarko Petroleum Corporation

Well Name: gracie 24-13hz

County: Weld

State: Colorado

Sec: 24

Twp: 2n

Range: 66w

Consultant: levi

Rig Name & Number: CARTEL 88

Distance To Location: 31

Units On Location: 4028/4024/4030

Time Requested: 500 pm

Time Arrived On Location: 430 pm

Time Left Location: 9:00 pm

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.) :	1,865	Cement Yield (cuft) :	1.48
Total Depth (ft) :	1875	Gallons Per Sack:	7.48
Open Hole Diameter (in.) :	13.50	% Excess:	10%
Conductor Length (ft) :	80	Displacement Fluid lb/gal:	8.3
Conductor ID :	15.5	BBL to Pit:	
Shoe Joint Length (ft) :	40	Fluid Ahead (bbls):	30.0
Landing Joint (ft) :	8	H2O Wash Up (bbls):	10.0
Max Rate:	8	<b>Spacer Ahead Makeup</b>	
Max Pressure:	2000	<b>30 BBL WATER, DYE IN 2ND 10</b>	

Calculated Results	Displacement:	141.71 bbls
<b>cuft of Shoe</b> 17.36 cuft (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</b> 64.40 cuft (Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)	<b>Pressure of cement in annulus</b>	
<b>cuft of Casing</b> 959.62 cuft (Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)	<b>Hydrostatic Pressure:</b> 1375.81 PSI	
<b>Total Slurry Volume</b> 1041.39 cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	<b>Pressure of the fluids inside casing</b>	
<b>bbls of Slurry</b> 185.47 bbls (Total Slurry Volume) X (.1781)	<b>Displacement:</b> 786.91 psi	
<b>Sacks Needed</b> 704 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	<b>Shoe Joint:</b> 29.51 psi	
<b>Mix Water</b> 125.31 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42	<b>Total</b> 816.41 psi	
	<b>Differential Pressure:</b> 559.40 psi	
	<b>Collapse PSI:</b> 2020.00 psi	
	<b>Burst PSI:</b> 3520.00 psi	
	<b>Total Water Needed:</b> 307.02 bbls	

X *Bg/Bmw*  
Authorization to Proceed



# SERIES 2000

- PSI
- Barrels / Minute
- Barrels
- Lbs / Gallon
- Stage Volume

