





# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 3/10/2019  
 Invoice # 200424  
 API# \_\_\_\_\_  
 Foreman: KirkKallhoff

**Customer:** Anadarko Petroleum Corporation

**Well Name:** jdb 15-9hz

County: Weld  
 State: Colorado  
 Sec: 30  
 Twp: 2N  
 Range: 65w

Consultant: brent  
 Rig Name & Number: Cartel 88  
 Distance To Location: 34  
 Units On Location: 4047/4044/4027  
 Time Requested: 500 pm  
 Time Arrived On Location: 200 pm  
 Time Left Location: 7:30pm

WELL DATA	Cement Data
Casing Size OD (in) : <u>9.625</u>	Cement Name: <u>BFN III</u>
Casing Weight (lb) : <u>36.00</u>	Cement Density (lb/gal) : <u>14.2</u>
Casing Depth (ft.) : <u>1,875</u>	Cement Yield (cuft) : <u>1.48</u>
Total Depth (ft) : <u>1885</u>	Gallons Per Sack: <u>7.40</u>
Open Hole Diameter (in.) : <u>13.50</u>	% Excess: <u>10%</u>
Conductor Length (ft) : <u>80</u>	Displacement Fluid lb/gal: <u>8.3</u>
Conductor ID : <u>15.25</u>	BBL to Pit:
Shoe Joint Length (ft) : <u>40</u>	Fluid Ahead (bbls): <u>30.0</u>
Landing Joint (ft) : <u>8</u>	H2O Wash Up (bbls): <u>10.0</u>
Max Rate: <u>8</u>	Spacer Ahead Makeup
Max Pressure: <u>2000</u>	<u>30 bbl with Die in 2nd 10</u>

Casing ID 8.921 Casing Grade J-55 only used

Calculated Results	Pressure of cement in annulus
<b>cuft of Shoe</b> <u>17.36</u> <b>cuft</b> (Casing ID Squared) X (.005454) X (Shoe Joint ft)	<b>Displacement:</b> <u>142.48</u> <b>bbls</b> (Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)
<b>cuft of Conductor</b> <u>61.05</u> <b>cuft</b> (Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)	<b>Hydrostatic Pressure:</b> <u>1383.19</u> <b>PSI</b>
<b>cuft of Casing</b> <u>965.00</u> <b>cuft</b> (Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length )	<b>Pressure of the fluids inside casing</b>
<b>Total Slurry Volume</b> <u>1043.41</u> <b>cuft</b> (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	<b>Displacement:</b> <u>791.22</u> <b>psi</b>
<b>bbls of Slurry</b> <u>185.83</u> <b>bbls</b> (Total Slurry Volume) X (.1781)	<b>Shoe Joint:</b> <u>29.51</u> <b>PSI</b>
<b>Sacks Needed</b> <u>705</u> <b>sk</b> (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	<b>Total</b> <u>820.73</u> <b>psi</b>
<b>Mix Water</b> <u>124.22</u> <b>bbls</b> (Sacks Needed) X (Gallons Per Sack) ÷ 42	<b>Differential Pressure:</b> <u>562.46</u> <b>psi</b>
	<b>Collapse PSI:</b> <u>2020.00</u> <b>psi</b>
	<b>Burst PSI:</b> <u>3520.00</u> <b>psi</b>
	<b>Total Water Needed:</b> <u>306.69</u> <b>bbls</b>

X [Signature]  
 Authorization To Proceed

MO-10

### SERIES 2000

