





# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 2/28/2020  
 Invoice # 900481  
 AFE # 2147195  
 Foreman: Corey Barras

**Customer:** Anadarko Petroleum Corporation

**Well Name:** Prowant 18-2HZ

County: Weld Consultant: Will  
 State: Colorado Rig Name & Number: CARTEL 88  
 Sec: 18 Distance To Location: 15  
 Twp: 5n Units On Location: 4028/3107-4020/3203-4033/3201  
 Range: 67w Time Requested: 2200  
 Time Arrived On Location: 2130  
 Time Left Location: \_\_\_\_\_

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>1,876</u>	Cement Yield (cuft) : <u>1.48</u>
Total Depth (ft) : <u>1886</u>	Gallons Per Sack: <u>7.48</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>42</u>	Fluid Ahead (bbls): <u>30.0</u>
Landing Joint (ft) : <u>8</u>	H2O Wash Up (bbls): <u>20.0</u>
Max Rate: <u>8</u>	Spacer Ahead Makeup
Max Pressure: <u>2000</u>	<u>30 BBL WATER, DYE IN 2ND 10</u>

Casing ID 8.921 Casing Grade J-55 only used

Calculated Results	Displacement: <u>142.40 bbls</u>
<b>cuft of Shoe</b> <u>18.23</u> <b>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</b> <u>61.05</u> <b>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</b> <u>965.53</u> <b>cuft</b> (Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length )	<b>Hydrostatic Pressure:</b> <u>1383.93 PSI</u>
<b>Total Slurry Volume</b> <u>1044.81</u> <b>cuft</b> (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	<b>Pressure of the fluids inside casing</b>
<b>bbls of Slurry</b> <u>186.08</u> <b>bbls</b> (Total Slurry Volume) X (.1781)	<b>Displacement:</b> <u>790.79 psi</u>
<b>Sacks Needed</b> <u>706</u> <b>sk</b> (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	<b>Shoe Joint:</b> <u>30.98 psi</u>
<b>Mix Water</b> <u>125.73</u> <b>bbls</b> (Sacks Needed) X (Gallons Per Sack) ÷ 42	<b>Total</b> <u>821.77 psi</u>
	<b>Differential Pressure:</b> <u>562.16 psi</u>
	<b>Collapse PSI:</b> <u>2020.00 psi</u>
	<b>Burst PSI:</b> <u>3520.00 psi</u>
	<b>Total Water Needed:</b> <u>318.13 bbls</u>

X   
 Authorization To Proceed

# Prowant 18-2HZ

