





# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 10/4/2019  
 Invoice # 200517  
 API# \_\_\_\_\_  
 Foreman: Kirk Kallhoff

**Customer:** Anadarko Petroleum Corporation

**Well Name:** mae j 8-2hz

County: Weld  
 State: Colorado  
 Sec: 12  
 Twp: 1n  
 Range: 68w

Consultant: bryan  
 Rig Name & Number: Cartel 88  
 Distance To Location: 39  
 Units On Location: 4047/4024/4044  
 Time Requested: 1200 am  
 Time Arrived On Location: 1000 pm  
 Time Left Location: 3:30 pm

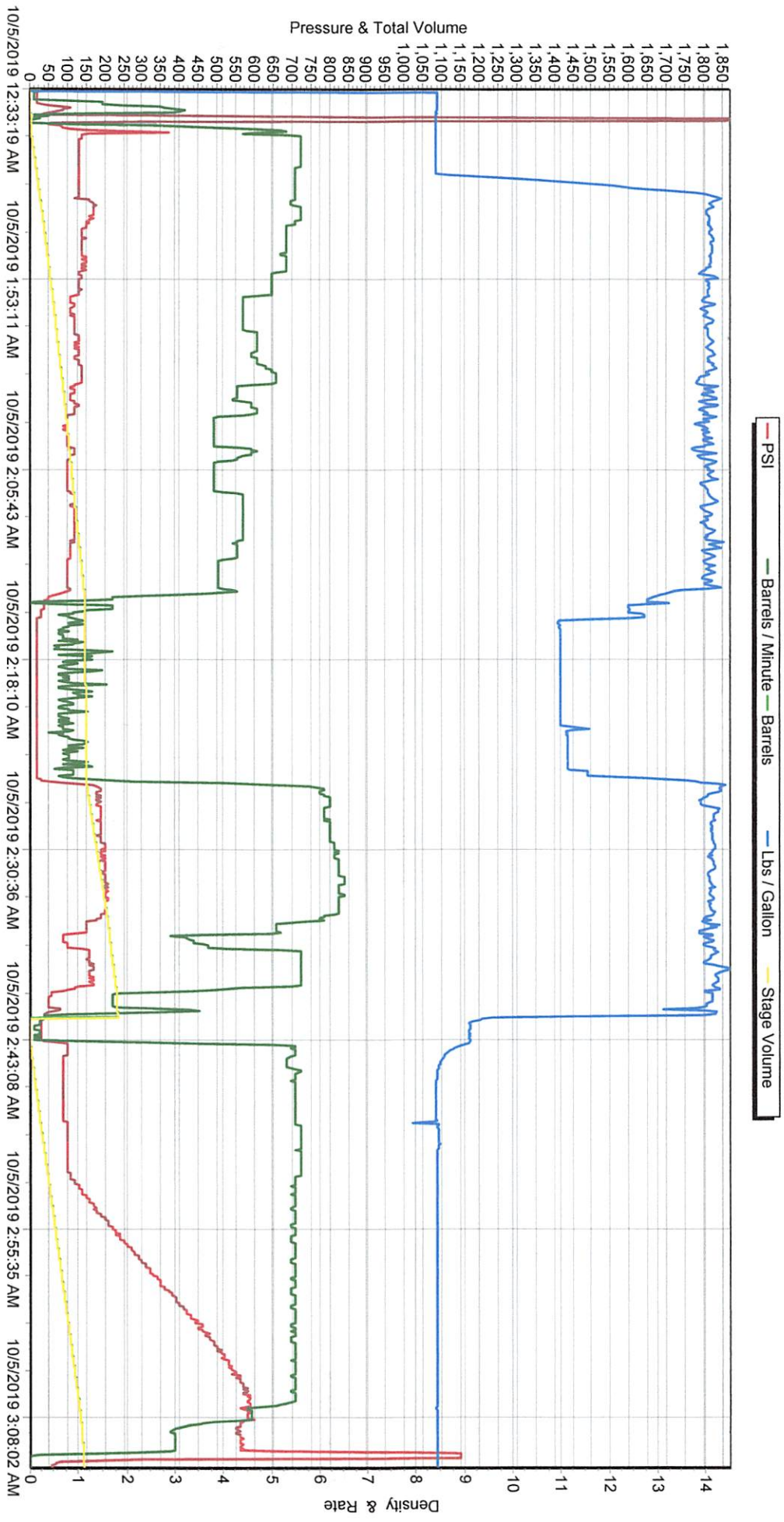
WELL DATA	Cement Data
Casing Size OD (in) : <u>9.625</u>	Cement Name: <u>BFN III</u>
Casing Weight (lb) : <u>36.00</u>	Cement Density (lb/gal) : <u>14.2</u>
Casing Depth (ft.) : <u>1,888</u>	Cement Yield (cuft) : <u>1.48</u>
Total Depth (ft) : <u>1898</u>	Gallons Per Sack: <u>7.40</u>
Open Hole Diameter (in.) : <u>13.50</u>	% Excess: <u>15%</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>41</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>

Calculated Results	Pressure of cement in annulus
Casing ID <u>8.921</u> Casing Grade <u>J-55 only used</u>	Displacement: <u>143.41 bbls</u>
<b>cuft of Shoe</b> <u>17.80</u> <b>cuft</b>	(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)
(Casing ID Squared) X (.005454) X (Shoe Joint ft)	<b>Pressure of cement in annulus</b>
<b>cuft of Conductor</b> <u>61.05</u> <b>cuft</b>	Hydrostatic Pressure: <u>1392.78 PSI</u>
(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)	<b>Pressure of the fluids inside casing</b>
<b>cuft of Casing</b> <u>1016.17</u> <b>cuft</b>	Displacement: <u>796.39 psi</u>
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length )	Shoe Joint: <u>30.25 PSI</u>
<b>Total Slurry Volume</b> <u>1095.01</u> <b>cuft</b>	Total <u>826.64 psi</u>
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	Differential Pressure: <u>566.14 psi</u>
<b>bbls of Slurry</b> <u>195.02</u> <b>bbls</b>	Collapse PSI: <u>2020.00 psi</u>
(Total Slurry Volume) X (.1781)	Burst PSI: <u>3520.00 psi</u>
<b>Sacks Needed</b> <u>740</u> <b>sk</b>	<b>Total Water Needed:</b> <u>313.77 bbls</u>
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	
<b>Mix Water</b> <u>130.36</u> <b>bbls</b>	
(Sacks Needed) X (Gallons Per Sack) ÷ 42	

X   
 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.

# SERIES 2000



B120M