

**Savings for The Week: \$1,590.66**

**Costs for the Week: \$5,777.12**

**Mill 1 & 2 Coolant Sump**

**Mar 14, 2011 to Mar 20, 2011**

### Analyst Comments

- 1) Coolant cost control program is working very well.
- 2) All process charts indicated good control for the entire week.
- 3) Program to automate make-up water will be reviewed this Friday.

### Usages for the Week

Parameter	03/14	03/15	03/16	03/17	03/18	03/19	03/20	Total
<b>Operating Hours</b>	<b>23.00</b>	<b>20.67</b>	<b>21.83</b>	<b>16.50</b>	<b>20.83</b>	<b>0.00</b>	<b>1.00</b>	<b>103.83</b>
<b>Coolant</b>	<b>49.43</b>	<b>41.36</b>	<b>35.36</b>	<b>10.50</b>	<b>91.32</b>	<b>56.21</b>	<b>10.93</b>	<b>295.11</b>
<b>Water Make-up gallons</b>	<b>886.54</b>	<b>679.88</b>	<b>1,196.39</b>	<b>890.19</b>	<b>1,311.80</b>	<b>0.00</b>	<b>0.00</b>	<b>4,964.80</b>
<b>Mill 1 Electric Welder 1000 kW</b>	<b>26,603.39</b>	<b>17,735.30</b>	<b>21,221.76</b>	<b>14,247.94</b>	<b>13,383.17</b>	<b>0.00</b>	<b>1,029.50</b>	<b>94,221.06</b>
<b>Mill 2 Electric Welder 1000 kW</b>	<b>8,394.88</b>	<b>4,148.67</b>	<b>6,482.75</b>	<b>4,264.96</b>	<b>6,004.22</b>	<b>0.00</b>	<b>702.34</b>	<b>29,997.82</b>

### Cost for the Week

Parameter	03/14	03/15	03/16	03/17	03/18	03/19	03/20	Total
<b>Coolant</b>	<b>\$553.12</b>	<b>\$462.82</b>	<b>\$395.68</b>	<b>\$117.50</b>	<b>\$1,021.87</b>	<b>\$628.99</b>	<b>\$122.31</b>	<b>\$3,302.28</b>
<b>Water Make-up gallons</b>	<b>\$11.60</b>	<b>\$8.90</b>	<b>\$15.66</b>	<b>\$11.65</b>	<b>\$17.17</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$64.99</b>
<b>Mill 1 Electric Welder 1000 kW</b>	<b>\$516.11</b>	<b>\$344.06</b>	<b>\$411.70</b>	<b>\$276.41</b>	<b>\$259.63</b>	<b>\$0.00</b>	<b>\$19.97</b>	<b>\$1,827.89</b>
<b>Mill 2 Electric Welder 1000 kW</b>	<b>\$162.86</b>	<b>\$80.48</b>	<b>\$125.77</b>	<b>\$82.74</b>	<b>\$116.48</b>	<b>\$0.00</b>	<b>\$13.63</b>	<b>\$581.96</b>
<b>Daily Total</b>	<b>\$1,243.69</b>	<b>\$896.27</b>	<b>\$948.81</b>	<b>\$488.30</b>	<b>\$1,415.16</b>	<b>\$628.99</b>	<b>\$155.90</b>	<b>\$5,777.12</b>

### Cost per Hour

Parameter	03/14	03/15	03/16	03/17	03/18	03/19	03/20	Avg/hr
<b>Coolant</b>	<b>\$24.05</b>	<b>\$22.39</b>	<b>\$18.13</b>	<b>\$7.12</b>	<b>\$49.06</b>		<b>\$122.31</b>	<b>\$25.75</b>
<b>Water Make-up Gal</b>	<b>\$0.50</b>	<b>\$0.43</b>	<b>\$0.72</b>	<b>\$0.71</b>	<b>\$0.82</b>		<b>\$0.00</b>	<b>\$0.63</b>
<b>Mill 1 Electric Welder 1000 kW</b>	<b>\$22.44</b>	<b>\$16.65</b>	<b>\$18.86</b>	<b>\$16.75</b>	<b>\$12.46</b>		<b>\$19.97</b>	<b>\$17.60</b>
<b>Mill 2 Electric Welder 1000 kW</b>	<b>\$7.08</b>	<b>\$3.89</b>	<b>\$5.76</b>	<b>\$5.01</b>	<b>\$5.59</b>		<b>\$13.63</b>	<b>\$5.60</b>

### Benchmarks

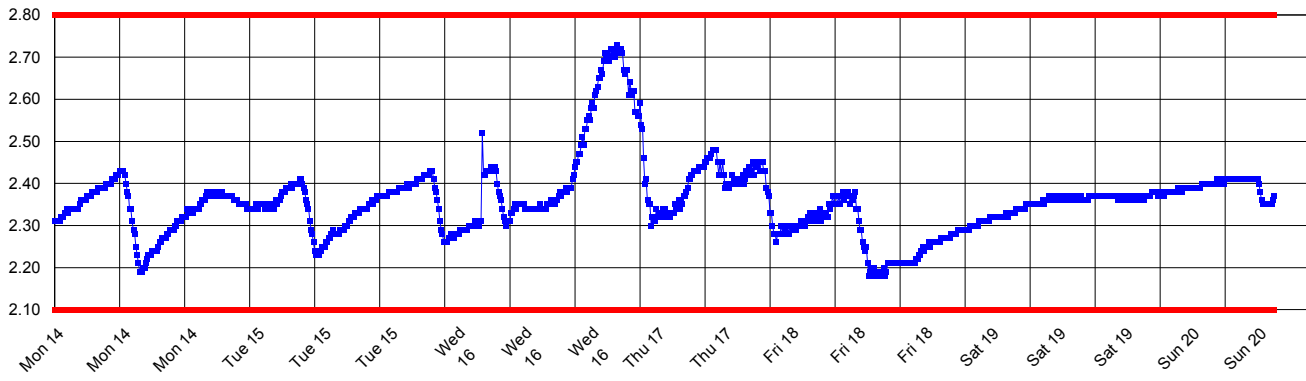
Benchmark	Description	Cost per Hour
Coolant \$/hr	11/15/2010 to 2/14/2011	\$ 44.9100
Water Make-up \$/hr	11/15/2010 to 2/14/2011	\$ 0.6000
Mill 1 Electric Welder 1000 \$/hr	11/15/2010 to 2/14/2011	\$ 16.7100
Mill 2 Electric Welder 1000 \$/hr	11/15/2010 to 2/14/2011	\$ 8.7400

## Cost Inputs

Input	Unit	Cost
Coolant	gallons	\$ 11.1900000000
Water Make-up	gallons	\$ 0.0130899000
Mill 1 Electric Welder 1000	kW	\$ 0.0194000000
Mill 2 Electric Welder 1000	kW	\$ 0.0194000000

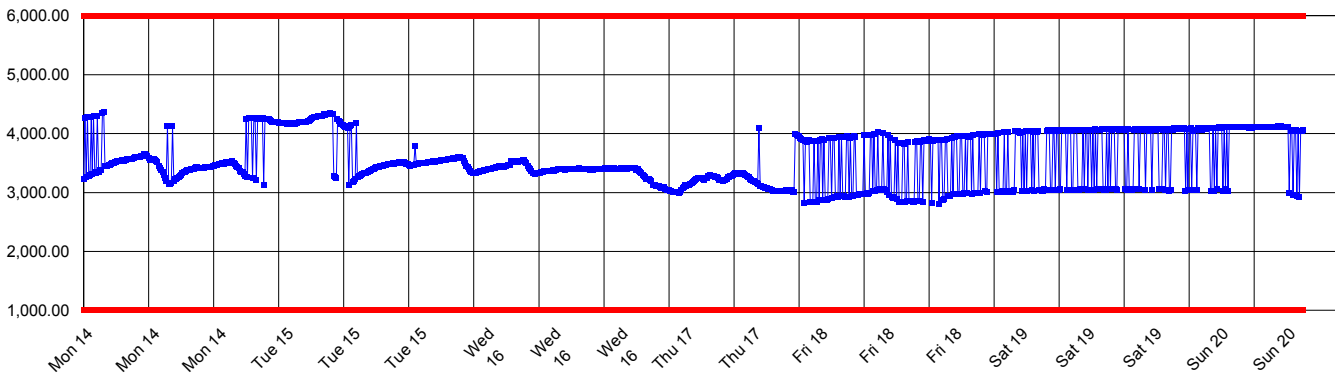
Mill 1 & 2 Coolant Sump

Brix



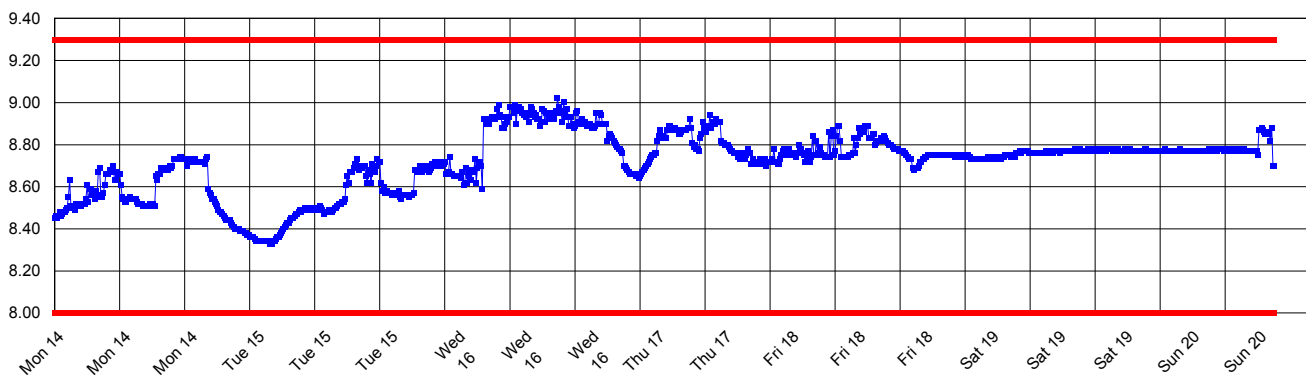
Mill 1 & 2 Coolant Sump

Coolant Conductivity



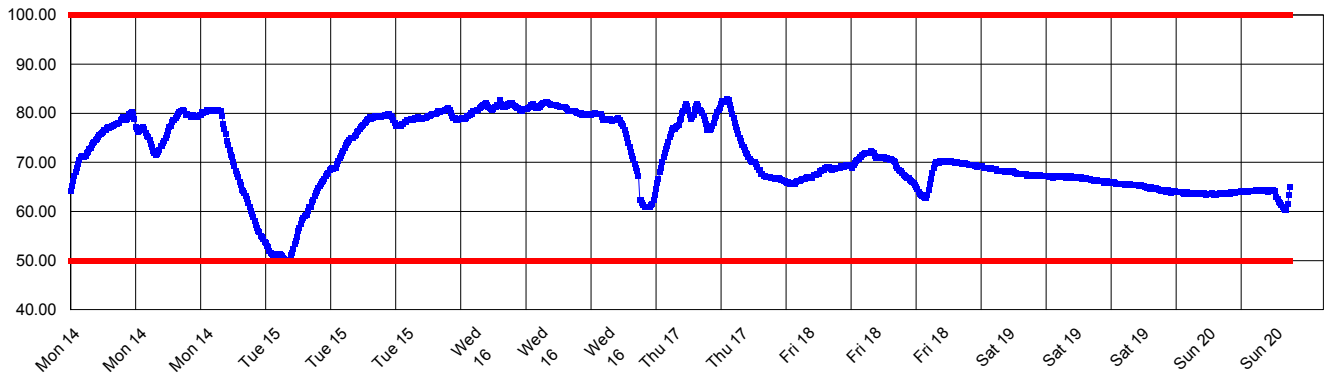
Mill 1 & 2 Coolant Sump

Coolant pH



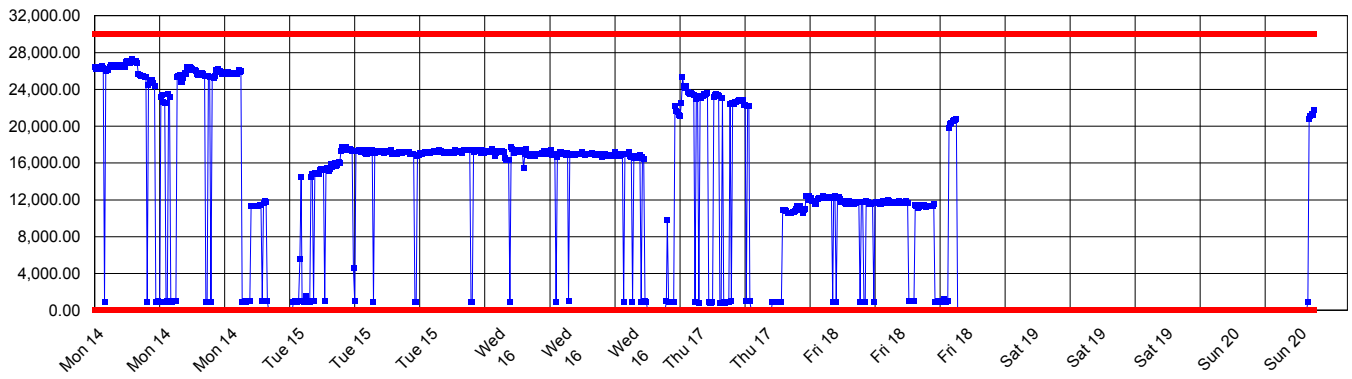
Mill 1 & 2 Coolant Sump

Coolant Temperature



Mill 1 & 2 Coolant Sump

Mill 1 Electric Welder Rate



Mill 1 & 2 Coolant Sump

Mill 2 Electric Welder Rate

