

## Real Time Water Quality Monthly Report for Voisey's Bay Nickel Company Ltd. August 2005

### General

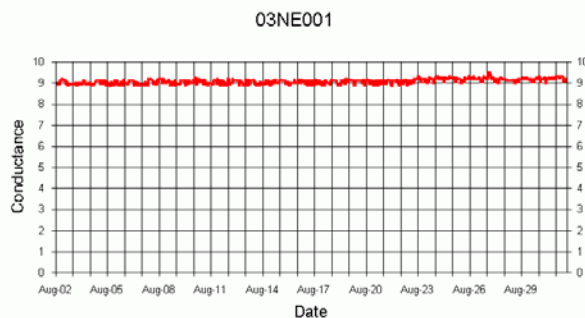
- The Water Resources Management Division staff analyses the real-time web page on a daily basis.
- Voisey's Bay Nickel Company will continue to be informed of any significant water quality events in the future in the form of a monthly report.

### Maintenance and Calibration of Instrumentation

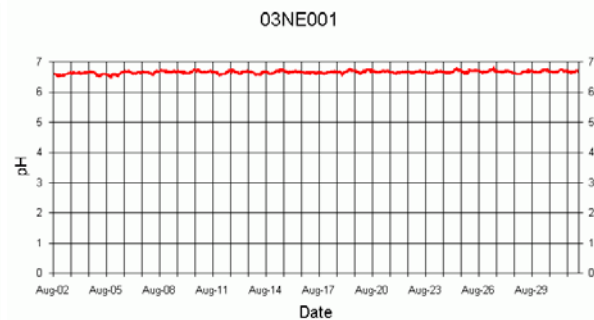
- As noted in the previous July monthly report, all three Datasondes were maintained and calibrated on July 20<sup>th</sup> and 21<sup>st</sup>, 2005. The instruments will be removed and calibrated again in September.
- The new installation for Lower Reid Brook which was installed on July 21<sup>st</sup>, 2005 appears to have corrected the problem with excessive sedimentation of the probe.

### Data Interpretation

- Throughout the month of August, most water quality parameters at the Upper Reid Brook station remained steady at expected background levels. As can be seen by the graphs (Figures 1 & 2), pH and conductivity remained very consistent throughout the month.

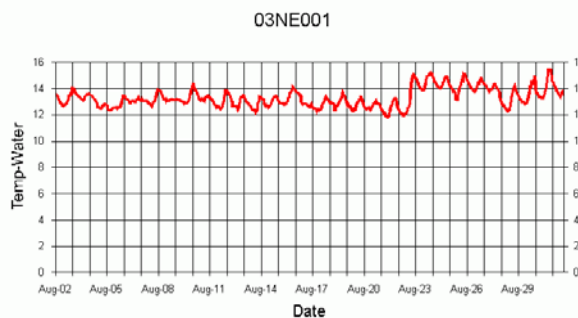


*Figure 1*

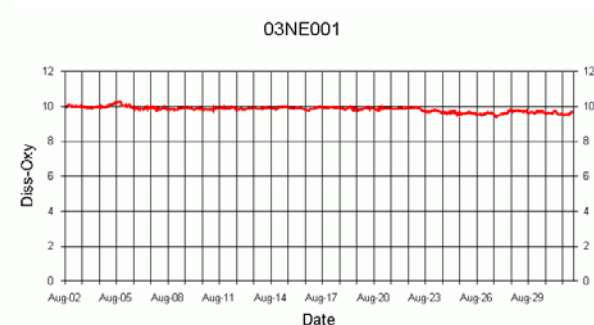


*Figure 2*

- Temperature, as expected for this time of year, is relatively stable with fluctuations throughout the day (Figure 3). The dissolved oxygen remained relatively stable throughout the month of August which is consistent with temperature readings. (Figure 4)



*Figure 3*



*Figure 4*

- Turbidity values remained at background levels (0 NTU) for the month of August with the exception of one very small insignificant spike on August 11 of 0.20 NTU (Figure 5).

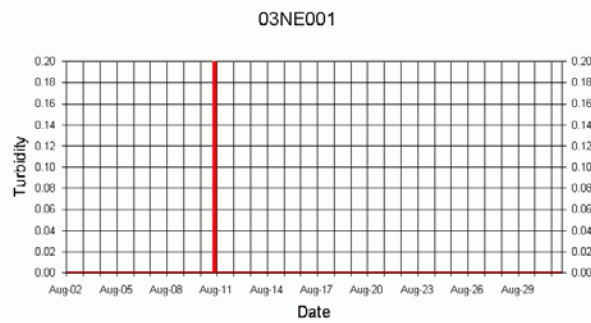


Figure 5

- Throughout the month of August, the pH in Camp Pond Brook remained stable while conductivity remained relatively consistent (Figure 6 & 7).

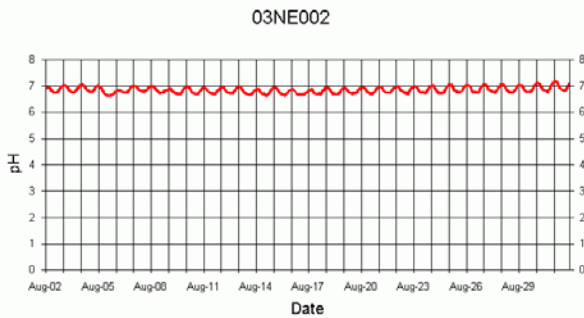


Figure 6

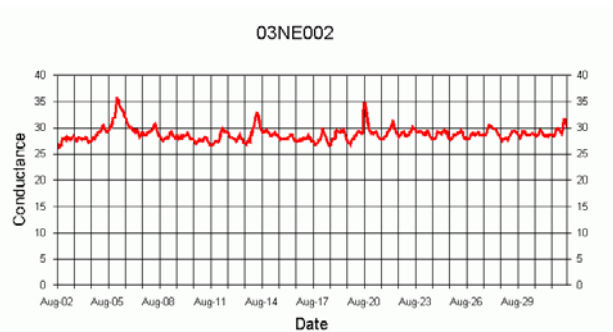


Figure 7

- Temperature showed fluctuations during the month of August but only within a range of 6°C (Figure 8). The dissolved oxygen showed relatively stable values with some small fluctuations consistent with the fluctuations seen in temperature throughout the month (Figure 9).

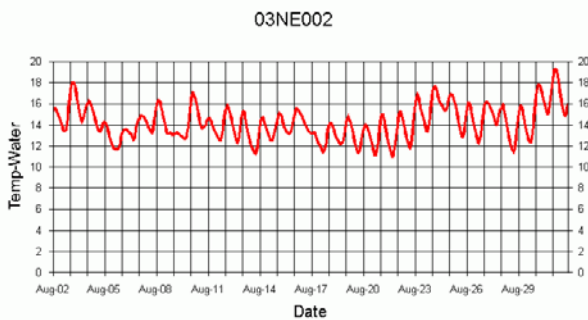


Figure 8

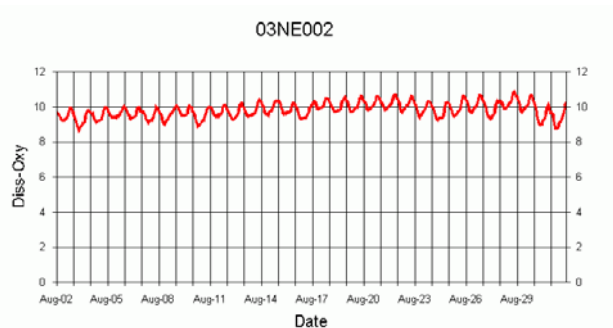


Figure 9

- Until August 23<sup>rd</sup>, 2005, Camp Pond Brook showed turbidity values (Figure 10) at background levels with the exception of three turbidity spikes (less than 75 NTU) which are consistent with increases in the stage graphs (Figure 11). On August 23<sup>rd</sup> until the end of the month, there were increasing turbidity spikes with the highest concentration of 436 NTU on August 31<sup>st</sup>. There is no explanation for this incident at this time. The investigation into this incident is on going.

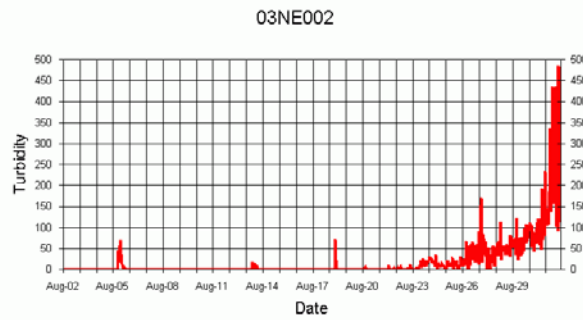


Figure 10

- Throughout the month of August, the pH in Lower Reid Brook remained stable (Figure 11). The conductivity values showed small fluctuations but remained relatively consistent (Figure 12).

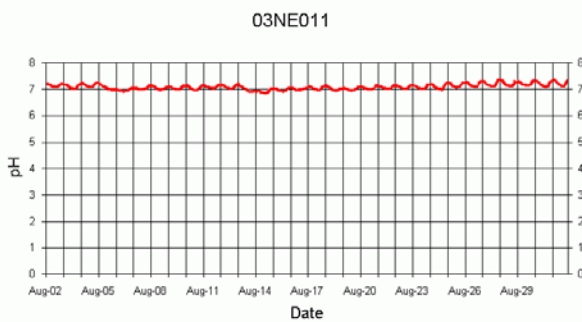


Figure 11

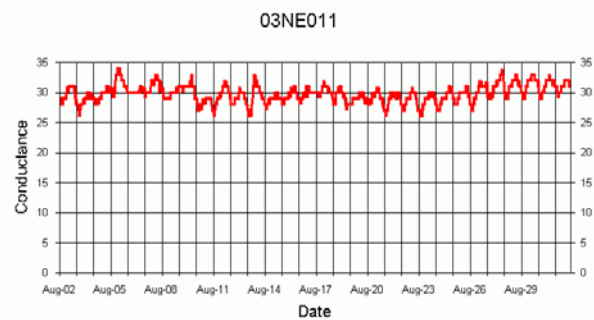


Figure 12

- Temperature showed fluctuations during the month of August in Lower Reid Brook but only in a range of 4°C (Figure 13). The dissolved oxygen showed relatively consistent values with some small fluctuations consistent with the fluctuations seen in temperature throughout the month (Figure 14).

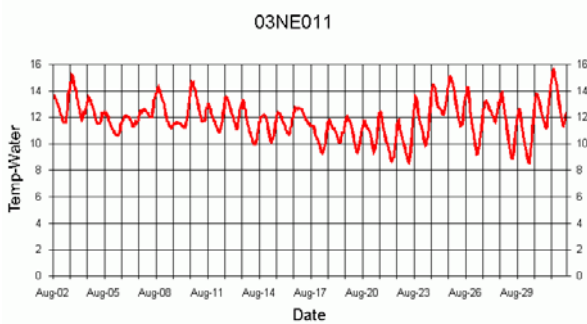


Figure 13

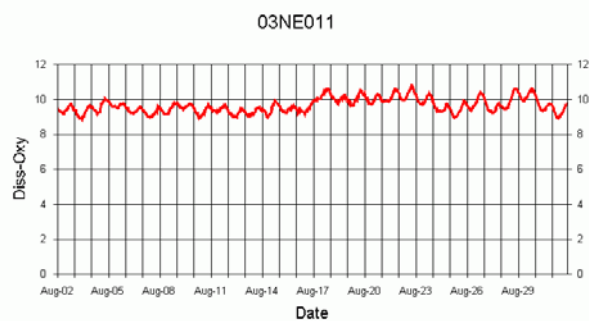


Figure 14

- Turbidity values for Lower Reid Brook in August generally remained at background conditions. The spikes that are seen on August 5<sup>th</sup>, 13<sup>th</sup>, 17<sup>th</sup>-20<sup>th</sup> are consistent with increased stage levels due to precipitation shown in Figure 16.

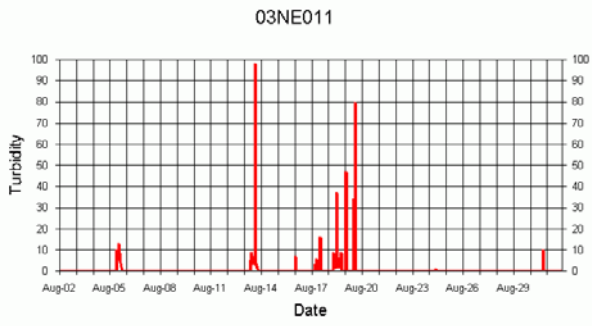


Figure 15

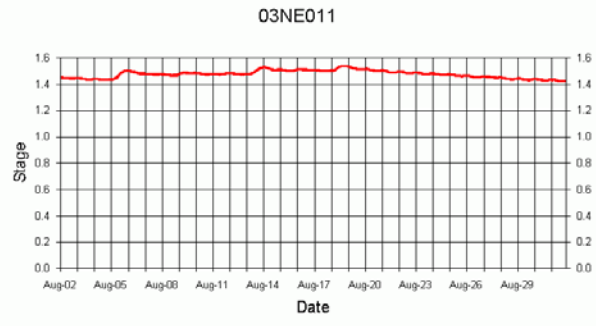


Figure 16

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 September 7th, 2005  
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