

Group Four Lab Results

Question:

Is there a difference in the ammonium ion concentration in the Kangerlussuaq landfill different from the ammonium ion concentration in Lake Ferguson? Is the pH different between the two? And can the two be related?

Procedures:

We went down to the Kangerlussuaq landfill and collected three samples of water from the near-by run off. We also took three samples from Lake Ferguson at three different locations. We then took these samples and using the Vernier ammonium ion probe, found the ammonium ion concentration in the six samples in Mg/L. We also used the pH data that Group five collected and compared the results.

Results/Conclusion:

We found that the concentration of ammonium ions in the landfill was much higher than that of Lake Ferguson. The ammonium ion concentration in the landfill could range from 1.5 Mg/L to 5.5 Mg/L. We had samples that measured 1.5 Mg/L, 2.4 to 2.6 Mg/L, and 5.5 to 5.7 Mg/L. However in Lake Ferguson the ammonium ion concentration was much lower. Ranging from 0.1 Mg/L to 0.2 Mg/L. Also using the pH data collected by Group five, we learned that the pH value of the water in the landfill was 6.4 and the pH value of the water in Lake Ferguson was 7. A possible partial explanation we came up with is the fact that Ammonium ions (NH_4) are acidic and may be giving H^+ ions to the water, making it more acidic. Although, it is not that simple it may be a short explanation.