Is True Glacier Water Really More Pure?

Allegood, Brecken (School: Hillcrest High School)
Elison, Nathan (School: Hillcrest High School)

In this experiment we tested the purity of several different sources of water including spring water from Cress Creek, water from the Snake River, water directly from a glacier lake located at Grewingk Glacier in Alaska, water from a well that draws from the Snake River Aquifer, and two kinds of bottled waters, one expensive ($4 per 24 fluid ounce bottle) and the other cheaper (97 cents per gallon). We tested several factors of these waters to determine purity with the goal of finding out if glacier water, directly from the source, is really more pure than other sources of water without purification. This is important to test because there is much interest from the general public in pursuing optimal water to drink. People often spend large sums of money to buy water that is marketed as being purer or better for you, while in reality natural water may be better. Our results concluded that while glacial water overall had a higher level of purity than the other sources of water, it also had a lower quantity of polluting ions (conductivity rating of 59 microsiemens compared to the average of 309.4 microsiemens), nitrate content (0 nitrates compared to nitrates present in all other water except the expensive bottled water), and bacteria (less than 1% coverage compared to above 50% for all samples except well water, which was still more covered than glacial), it also had a considerably lower pH (5.91 compared to the average of 7.214 of the other waters), and higher turbidity than other waters (117.6 NTU compared to an average of 9.68 NTU of the other waters), which was probably caused by the minerals that are abundant in glacial water. In conclusion, the true glacier water straight from the source without being processed is more pure than other kinds of water.

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