
WATER QUALITY MEMO

TO: PROFESSOR SINTANA E. VERGARA

FROM: ALICE DE LESCURE

SUBJECT: WATER QUALITY LABORATORY

DATE: 9/25/2020

CC: NONE

OBJECTIVE OF LAB

The objective of the Lab was to test the water quality of a chosen body of water near me by recording the DO (dissolved oxygen), pH, temperature, and turbidity of the water downstream and upstream and after comparing it to my hypotheses I made before testing the water.

METHODS

To take the temperature of the water I used a thermometer that I stuck horizontally to the bottom of a big container provided with the water quality kit. I plunged the container four inches below the surface for one minute and recorded it 3 times for downstream and upstream. For the turbidity I put a Secchi disk sticker at the bottom of the big container and submerged it with water at a certain fill line that was labeled on the container. Then I compared the range of color on the Secchi disk with the provided ranking test result card and recorded the JTU 3 times for downstream and upstream. To test the pH, I filled 2 test tube to 10ml of water, for each location, and added a pH Wide Range TesTab (6459A) to each tube. I then mixed the water until the tablet was completely dissolved and compared the color of the test tubes with the ranking test result card to determine their pH number. Finally, for the DO I filled 1 test tube, each for a different location of the body of water and dropped two Dissolved Oxygen TesTabs (3976A) into the test tubes. After completely dissolving the tablets in the tubes I compared their color with the ranking test result card and recorded their dissolved oxygen by ppm.

TABLE

DISCUSSION

In my hypotheses I wrote that the DO of the Upstream water would be in the middle and for downstream it would be high, but my results showed that the DO for both the upstream and downstream was rather high. I was surprised to find out the DO was high because the location of the body of water makes it that there would be a lot of oxygen demanding matter; its located near a park and a dog park, so I assumed the DO would be lower for the upstream compared to the downstream. I was also surprised with the turbidity for the downstream, I really thought it would be high since it the water had a green color to it. But when I descended to test the water, I discovered that the water wasn't green but that there was algae floating above the water making it look green. The turbidity turned out to be in the middle with 20 to 40 JTU.