Lake Ferguson & Local landfill

Some waters/(lakes) are polluted in Kangerlussuaq. Mostly from the planes landing and departing, and the landfill being burned. We are investigating two different sources of water. One is the water coming out of the landfill, and the other is water from Lake Ferguson. We are hoping to find differences between those waters, by making some samples.

Material:
Aquanal – Ökotest Water Laboratory (Fluka Analytical kit)
Bottles
Pipette
Microscope

Procedure:
1. Local Landfill
- We went to the landfill and took some samples from the water over there.
- Used the Ökotest Water Laboratory kit to find out the pH-value.

- Then we made another sample to find out the NO_3-value (Nitrat)
- Took another sample with a bottle to take home with us.

2. Lake Ferguson
- We made a sample to figure out the pH-value.
- NO_3-value

3. At home at the classroom

Data:

	pH	ppm	NO_3	PO_4
Landfill	6,4	40	15	0
Lake Ferguson	7	40	0	0

Calculations:

To figure out the pH-value, we: 1. Filled the tube up to the mark with water sample.
2. Add 3 drops of reagent solution and mix.
3. Match colour.

To figure out the NO_3 – value:1. Fill test tube up to the mark with water sample.
2. Add 2 level measuring spoons of reag. 1 and dissolve.
3. Add 1 level measuring spoon of reag. 2, shake for a minute. Undissolved

residue is negligible.

4. Match colour after 10 minutes.

To figure out the PO$_4$ – value:1. Fill test tube of to the mark with water sample.

2. Add 10 drops of reag. 1 and mix.

3. Add 1 drop of reag. 2 and mix.

4. Match colour after 5 minutes.

Results/Conclusion

These results show that because the landfill is dirty, the water is nutritious, which makes plants green/live. Compared to Lake Ferguson, there is more nutrition to make plants live, while Ferguson has 0 value of NO$_3$ that concludes, the lake is clean. Clean enough to drink.

The environment at the landfill is filled with <u>green</u> grass, and a lot of junk! While the environment at the Ferguson is clean and green (not as green as landfill's grass).