
Turbidity
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SUMMARY

This procedure is used for measuring turbidity in water samples using a LaMotte 2020 turbidity kit.

EQUIPMENT AND SUPPLIES

| | |
|---------------------------|---------------------------|
| LaMotte 2020 turbidimeter | 10 NTU turbidity standard |
| Stir bars | kimwipes |
| Gloves | Stir plate |

NOTES

- Samples need to be analyzed as soon as possible (within 6 hours of receipt at the lab).
- Make sure glass vials used in this procedure are free from scratches.
- **Stir bars used in this method are to be cleaned by triple rinsing with DI water. Do not acid wash!**

STANDARDS

1. 10 NTU turbidity standard (EPA compliant) is purchased from the Fisher company (product # 03920554). This solution is replaced on an annual basis. This solution is used to calibrate the turbidimeter at the beginning of each sampling date. **The calibration must be completed and standard must read within 10% error (blank must read <0.1) before any samples can be run!**

SAMPLE PREPARATION AND STORAGE

Sample are collected in coolers containing ice packs to keep them as cool as possible in the field and should be stored at 4° C immediately upon arrival in the lab. Samples are to be analyzed within 6 hours of arrival at the lab.

SAMPLE ANALYSIS

1. Make sure turbidimeter is on and ready to take a measurement. If this is not the case, find a lab manager and inform them of the issue.
2. Place the plastic cup containing your sample on the stir plate and insert a stir bar into the sample. Let the sample mix before pouring it into the sample vial.
3. Fill the vial to the line with the sample. Pour sample down the side of the vial to avoid bubbles. Cap the vial and wipe with a Kimwipe to remove any residual.
4. Insert the vial into the turbidimeter, making sure to line up the notch on the tube with the arrow on the instrument. If you are not sure what this means, please see a lab manager before proceeding.
5. Close the lid, and press OK to scan the sample. Record the results on the datasheet.
6. Give the plastic cup containing the remaining sample and the stir bar to the person at the conductivity station.
7. Discard the water from the vial into the waste container. Rinse 3 times with DI water. This vial can be re-used for the remaining samples today as long as you rinse 3 times between each one.
8. Repeat steps 2 through 7 for the remaining samples.

CLEAN UP

Throw used kimwipes, and alcohol swabs in the trash. Straighten bench space. Dump waste container and turn off all equipment.