

WATER CHEMISTRY DATA SHEET

Complete this data sheet and keep for your records. Data can be submitted online at mostreamteam.org.

Site # _____ Stream _____ County _____

Site Location _____

Date ____/____/____ Time (military time) _____ Rainfall (inches in last 7 days) _____ Water Temp. (°C) _____

Trained Data Submitter (responsible volunteer) _____ Stream Team Number _____

Participants _____

	Calibration and/or Expiration Date	Measurement
Weather Conditions (cloud cover)		
NO₃ - N (mg/L) - Nitrate	Reagent 1 (Mixed Acid or Tablet #1) Expiration Date: _____/_____/_____	
	Reagent 2 (Nitrate Reducing Reagent or Tablet #2) Expiration Date: _____/_____/_____	
Air Temperature (°C)		
Water Temperature (°C)		
Dissolved O₂ (mg/L)	DO #1 Expiration Date: _____/_____/_____	
	DO #2 Expiration Date: _____/_____/_____	
	DO #3 Expiration Date: _____/_____/_____	
	Sodium Thiosulfate Expiration Date: _____/_____/_____	
Dissolved O₂ % Saturation		
pH	Date Calibrated: _____/_____/_____	
	pH 7.0 Solution Expiration Date: _____/_____/_____	
	pH 10.0 Solution Expiration Date: _____/_____/_____	
Conductivity (µS/cm)	Date Calibrated: _____/_____/_____	
	Sodium Chloride Standard Expiration Date: _____/_____/_____	
Transparency (cm)		
Chlorides (mg/L)	Quantab Titration Strip Expiration Date: _____/_____/_____	
Hardness (mg/L)		
Alkalinity (mg/L)		
PO₄ (mg/L)	PhosVer3 Expiration Date: _____/_____/_____	
NH₃ - N (mg/L) - Ammonia	Ammonia Salicylate Expiration Date: _____/_____/_____	
	Ammonia Cyanurate Expiration Date: _____/_____/_____	
Other Parameter (list) Write in kit type and model #		
Comments (mention any changes from your usual readings) _____ _____ _____		
Fish Present (Please Mark) Yes <input type="checkbox"/> or No <input type="checkbox"/>		

Acceptable Ranges for Chemical Parameters

Certain water quality measurements usually tend to fall within a well-defined range. Values outside this range are due to unusual water quality conditions or analyst error. **If any of your water quality measurements fall outside the following range, please make two more measurements of that water quality parameter and report all three measurements on the data sheet.**

Nitrate (NO₃-N) Nitrogen

An unusual reading for most streams is one greater than 2mg/L. If the sampling site is less than 2 miles downstream of a wastewater treatment plant discharge, and unusual reading would be one greater than 10 mg/L.

- The test tube must be in the protective foil sleeve when adding Nitrate Tablet #2. This test is sensitive to sunlight. Results will not be accurate if exposed to sunlight; the reaction will turn yellow instead of pink.
- If using the cadmium reduction method test kit (LaMotte model #3110-01), waste is hazardous and must be containerized. This waste needs to be returned to the Missouri Stream Team program for proper disposal. Contact Stream Team for return instructions

Water Temperature 0°-34° C **is within the normal range**

Be sure to read water temperature while the thermometer is submerged and shaded.

Dissolved Oxygen 5-15 mg/L **is within the normal range**

Troubleshooting procedure for an unusual DO reading:

Repeat the procedure with the following considerations:

- Be sure to rinse all glassware 3 times in the stream water prior to collecting another sample.
- It is critical that no air bubbles are in the bottle in steps 2 and 3. If there are bubbles, discard the sample and start over.
HINT: Over fill the bottle in step #1 prior to stoppering the bottle.
- If the second result is not within 1 mg/L of the first result, repeat the procedure a third time and report all three readings on your Water Chemistry Data Sheet.

Dissolved Oxygen % Saturation >80% DO saturation **is normal for Ozark streams**; >60% DO saturation **is normal for prairie streams**

This value is automatically calculated when entering data online or you may reference the DO % Saturation chart on the Stream Team website.

pH 6.5-9.0 Standard units **is within the normal range.**

- Always perform a two-point calibration of the pH meter to 7.00 with the yellow Buffer Solution, and 10.01 with the blue Buffer Solution prior to each sampling event (**within 12 hours**). Before calibrating, you may want to soak the meter (no deeper than the cap line) for several minutes in tap water to ensure the bulb is hydrated and to remove any white residue from built up potassium chloride.
- To calibrate, follow the instructions enclosed with your pH meter.
Do not re-use calibration solutions. Dispose of the calibration solutions down a drain while flushing thoroughly with cold water.

Conductivity

- Always calibrate the conductivity meter with the Sodium Chloride Standard Solution prior to each sampling event (**within 12 hours**). It should be calibrated to read the value specified on the Sodium Chloride Standard Solution bottle.
Do not re-use calibration solution. Dispose of the calibration solution down a drain while flushing thoroughly with water.
- After calibration, turn the meter off and rinse the probes.

Transparency

When analyzing water for clarity, be sure to read the sample immediately. If the transparency tube is full and the black and white Secchi disc can be distinguished on the bottom, record 60 cm. Report in whole numbers with no decimals.

Do not use any of the multipliers mentioned at the end of the directions found in the chemical kits.

To order new reagents go to www.mostreamteam.org/reporting-forms.html or call 800-781-1989.

**SUBMIT DATA ONLINE:
www.mostreamteam.org/reporting-forms.html**

Data may be mailed to:

VWQM Coordinator, Water Protection Program, Department of Natural Resources, P.O. Box 176, Jefferson City, MO 65102

Missouri Stream Team

mostreamteam.org

800-781-1989

