

# WATER CHEMISTRY DATA SHEET

Complete this data sheet and keep for your records. (\*) fields are required. Submit data online at [mostreamteam.org](http://mostreamteam.org)

*Site #:	*State:	*County:	Trib of <input type="checkbox"/> *Stream Name:
*Site Description:			
*Data Submitter:		*Stream Team:	
*Sampling Date:		*Time (Military Time):	
Number of Participants:		Rainfall (inches in the last 7 days):	
Parameter	Calibration and/or Expiration Date		Measurement
Weather conditions (cloud cover)			
NO <sub>3</sub> - N Nitrate (mg/L)	Reagent 1 expiration date:		mg/L
	Reagent 2 expiration date:		
Air temperature in shade (°C)			°C
Water temperature in shade (°C)			°C
O <sub>2</sub> dissolved oxygen (mg/L) in flowing water	Reagent 1 expiration date:		mg/L
	Reagent 2 expiration date:		
	Reagent 3 expiration date:		
	Reagent 4 expiration date:		
O <sub>2</sub> dissolved oxygen Saturation (%)			%
pH	Date calibrated:		
	Reagent 1 expiration date:		
	Reagent 2 expiration date:		
Conductivity (µS/cm)	Date calibrated:		µS/cm
	Reagent 1 expiration date:		
Transparency (cm)			cm
Cl- Chloride (mg/L)	Expiration date:		mg/L
PO <sub>4</sub> Phosphate (mg/L)	Reagent 1 expiration date:		mg/L
NH <sub>3</sub> - N Ammonia (mg/L)	Reagent 1 expiration date:		mg/L
	Reagent 2 expiration date:		
Other parameter <i>Write in kit type and units</i>	Date calibrated:		
	Reagent 1 expiration date		
<b>Comments:</b>			
Fish present during sampling event? <input type="checkbox"/> Yes <input type="checkbox"/> No			

## ACCEPTABLE RANGES FOR CHEMICAL PARAMETERS

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

<b>Nitrate (NO<sub>3</sub>-N) Nitrogen</b>	<p><b>Less than 2 mg/L is normal for most streams. 10 mg/L or less is normal if sampling less than 2 miles downstream of a wastewater treatment facility</b></p> <ul style="list-style-type: none"> <li>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.</li> </ul>
<b>Water Temperature</b>	<p><b>0 °C - 34 °C is within the normal range</b></p> <p>Be sure to read water temperature while the thermometer is submerged and shaded</p>
<b>Dissolved Oxygen</b>	<p><b>5 mg/L - 15 mg/L is within the normal range</b></p> <p>Troubleshooting procedure for an unusual DO reading:</p> <ul style="list-style-type: none"> <li>Be sure to rinse all glassware 3 times in the stream water prior to collecting another sample</li> <li>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</li> </ul> <p><b>Tip:</b> Overfill the bottle in step #1 prior to stoppering the bottle</p> <ul style="list-style-type: none"> <li>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</li> </ul>
<b>Dissolved Oxygen Saturation</b>	<p><b>Greater than 80% DO saturation is normal for Ozark streams</b></p> <p><b>Greater than 60% DO saturation is normal for Plains streams</b></p> <p>This value is automatically calculated when entering data online, but you may reference the DO % Saturation chart on the Stream Team website to calculate it yourself.</p>
<b>pH</b>	<p><b>6.5 - 9.0 standard units is within the normal range</b></p> <ul style="list-style-type: none"> <li>The colored end of the pH strips should be placed in water for 3-5 seconds</li> <li>Once removed, shake off excess water and let the colors change and settle. This process may take up to a few minutes, especially in colder temperatures or lower conductivity</li> <li>Once the colors appear to have settled, compare the results to the color chart on the pH strip container. Do this within one minute of the colors stabilizing, as prolonged exposure to air may alter the colors further</li> <li>If you think the results are between two color combinations on the container, choose that which appears to be the best fit</li> </ul>
<b>Conductivity</b>	<ul style="list-style-type: none"> <li>Always calibrate the conductivity meter with the Sodium Chloride Standard Solution prior to each sampling event (<b>within 12 hours</b>). It should be calibrated to read the value specified on the Sodium Chloride Standard Solution bottle</li> <li>Do not re-use calibration solution. Dispose of the calibration solution down a drain while flushing thoroughly with water</li> <li>After calibration, turn the meter off and rinse the probes</li> </ul>
<b>Transparency</b>	<p>When analyzing water for clarity, be sure to read the sample immediately.</p> <p>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.</p>

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](http://www.mostreamteam.org/reporting-forms.html) or call 800-781-1989.



[mostreamteam.org](http://mostreamteam.org)

**SUBMIT DATA ONLINE:**  
[mostreamteam.org/reporting-forms.html](http://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  
 800-781-1989

