

Trip Blanks

SAMPLE COLLECTION PROCEDURE

Pre-Collection Information

- Trip blanks are required when the reference methods dictate it.
 - Currently, the following methods require the use of trip blanks (these will be referred to as “target analyte” in this document):
 - Regulated volatile organic compounds (VOCs) analyzed by reference method EPA 524.3.
 - Ethylene dibromide (EDB) analyzed by reference method EPA 504.1.
- The Public Health Laboratory (PHL) prepares the trip blanks.
- Trip blanks must accompany the target analyte samples throughout the entire trip.
- Do not open trip blanks in the field.
- You must submit a set of trip blanks (number and container type can be found on the target analyte SCP) for each chain of custody (COC) when a target analyte sample is collected.
- If a trip blank forms a bubble that appears to be greater than 6 millimeters (mm) in diameter, dispose of it and use another trip blank set.

Bottle Label Information

- Trip blank bottle labels are pre-printed for each required set of target analyte samples.
 - If submitting only one COC per PWS, you do not need to write anything on the bottle, “Trip Blank” on the Drinking Water Protection (DWP) pre-printed label serves as the unique identifier.
 - If you are submitting multiple sets of trip blanks for the same PWS (i.e., multiple COCs), you must write a unique identifier on the trip blank bottle labels. This can be the time associated with the trip blanks or you can assign the trip blanks a field number and write that on the trip blank bottle labels and COC(s).
- If pre-printed DWP bottle labels are not available, you must write the PWS identification (PWSID) number, PWS name, and the unique identifier on the trip blank bottle labels.

Chain of Custody (COC) Information

- You must write “Trip Blank” on a line of the COC. You must mark the analysis required (i.e., VOC, EDB, etc.).
 - PHL uses this information to log the trip blank set into their database, track it throughout the lab, and analyze it as a quality control sample.
- Do not enter anything in the Location ID field.
- Only one set of trip blanks is required per COC, regardless of the number of target analyte samples requested on that COC.
- You must write down a time for the trip blanks on the COC’s “Time Collected” field and the trip blank bottle labels.
 - The time should be the same time as the time the first target analyte is collected.
 - If you chose to use a field number as the unique identifier, you must write that on the COC and the trip blank bottle labels.

1	Field Number XYZ123A	Time Collected 1:15 am	Location ID E01	Sampling Point Well #1 Entry Point															
2	Field Number XYZ123B	Time Collected 1:20 am	Location ID E02	Sampling Point Well #2 Entry Point															
3	Field Number XYZ123C	Time Collected 1:25 am	Location ID E03	Sampling Point Well #3															
4	Field Number XYZ123D	Time Collected 1:15 am	Location ID Trip Blank	Sampling Point Trip Blank															

Leave blank – do not add a Location ID

	INORGANIC				METALS				ORGANIC				
	1	2	3	4	1	2	3	4	1	2	3	4	
Unpreserved													
Alkalinity SM 2358B												X	
Bromide EPA 306.1												X	
Chloride EPA 306.1												X	
Conductivity SM 2510B												X	
DOC SM 5319C												X	X
												X	X

Field number is only required if being used as the unique identifier.

Unique COC Examples

- If a COC *already has four sample points* identified, the trip blanks must be documented on a second COC.
 - In this case it is necessary to mark the COCs "1 of 2" and "2 of 2" on the COCs.
- Ship both COCs and containers in the same box to PHL.
- The images below show examples. You can write across the Sample Point section or you can write in the Sampler Comment section.

1	2		3			4																																																																											
Minnesota Department of Health Chain-of-Custody Form																																																																																	
Program Code XX		PWSID XXXXXX		System Name ABC system		City, Town, Township XXXXXXXX																																																																											
Date Collected (for all samples on form) YYMMDD		Collector ID XXXX		Collector Name (please print) XXXXXXXX		Original Sample Number		Comm. Sanitary Survey Date																																																																									
Sample Type B	Your Chlorine Residual Result mg/l		Sampler Comments																																																																														
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3	Field Number XYZ123C	Time Collected 1:40	in-CI in-CI	Location ID EG3	Sampling Point Well #3 Entry Point																																																																												
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Post-Collection Information

- If a target analyte sample arrives at PHL without a trip blank or with a trip blank that is canceled, the target analyte sample will **not** be canceled. It will be analyzed and the data qualified if needed.
- If multiple sets of trip blanks from the same PWS arrive in the same shipment and are not uniquely identified, all trip blanks of the shipment will be canceled; samples will still be analyzed and qualified if needed.
- If a trip blank is documented on the COC but no time is documented, PHL will contact compliance staff and request a time. In these cases, the trip blank and the sample will **not** be canceled.
- PWSs may see two data qualifiers (B6 and B7) associated with trip blanks on their final reports. If you receive questions about these, please refer the PWS to the compliance officer for clarification on how the result is used for compliance determination. Information about what the new data qualifiers mean:
 - B6: The analyte was found in both trip blank and sample.
 - B7: The result is suspect. It was not confirmed as a positive detection because there was no trip blank to evaluate for possible contamination.

If you have questions, call 651-201-4700, or email health.drinkingwater@state.mn.us.

Minnesota Department of Health
 Drinking Water Protection
 651-201-4700
health.drinkingwater@state.mn.us
www.health.state.mn.us

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To obtain this information in a different format, call 651-201-4700.