



# Cryptosporidium & Giardia in Water

## Cryptosporidium & Giardia Description

The protozoan parasites Cryptosporidium (“crypto”) and Giardia are found in water which contains feces from a variety of host animals, including birds, reptiles (Crypto) and/or amphibians (Giardia), and many wild and domestic mammals.

Humans can become infected when water contaminated with oocysts or cysts is ingested. The resulting illness is referred to as Cryptosporidiosis or Giardiasis. Symptoms usually develop within 2 to 12 days of infection and include diarrhea, abdominal cramps, nausea, headaches, vomiting, and mild fever. These parasites usually leave the body within one month, however, they can pose a more serious threat to people with suppressed immune systems. Public water supplies have been the source of outbreaks in North America, most famously in 1993 in Milwaukee, Wisconsin, where approximately 400,000 people became ill with Cryptosporidiosis and more than 70 deaths occurred in the high-risk group.

The ALS laboratory in Winnipeg is CALA accredited for the detection of Cryptosporidium and Giardia in water using EPA Method 1623.1. Clients can submit whole water samples (10 L) or filter samples on-site and submit the filter for processing and analysis. ALS will provide the sample containers. Please contact the laboratory for more information.

## Sampling Instructions

- Handle containers with care and ship to laboratory on the same day the sample is collected whenever possible.
- Fill containers to the neck only, taking care not to touch the inside of the neck or lid.
- Store and ship cold but not frozen (between 1°C and 10°C).

### Use the following codes when submitting samples:

CRYPTO-WP	10L water samples to be tested for Cryptosporidium sp. only
CRYPTO-FILTER-WP	Field filters to be tested for Cryptosporidium sp. only
GIARDIA-WP	10L water samples to be tested for Giardia sp. only
GIARDIA-FILTER-WP	Field filters to be tested for Giardia sp. only
CRYPTO,GIARDIA-WP	10L water samples to be tested for both Crypto sp. and Giardia sp.
CRYPTO,GIARDIA-FI-WP	Field filters to be tested for both Crypto sp. and Giardia sp.

The EPA reference method requests that matrix spike (MS) and matrix spike duplicate (MSD) samples be submitted when samples are first received from a source, and at a minimum frequency of 1 MS sample per sample set, in order to identify potential method performance issues with the matrix. Contact the laboratory for additional sampling supplies and instructions.

## SERVICE

- On-time data delivery and rapid TAT
- Experienced staff with expertise
- Available after-hours and weekends

## VALUE

- Instant access to data with Webtrieve™ and Webtrieve™ Mobile App
- Custom bottle kits with pre-printed labels and COCs

## RELIABILITY

- Technical experts that can answer your most difficult questions
- A real focus on quality and process control with a rigorous QA/QC program

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