

## Sampling Instructions for Low Level Mercury (LLHg) - EPA 1669 and EPA 1631E-

Please read and understand this entire procedure prior to sample collection.

NOTE: EPA methods [1669](#) and [1631E](#) require that at least one Field Blank and at least one Field Duplicate (sample duplicate) be collected for every 10 or fewer samples collected at a single site (or facility with uniform environment), per sampling event.

### **SAMPLING PROCEDURE**

#### BEFORE YOU BEGIN

- (1) Become familiarized with [EPA 1669](#) using the "Dirty Hands" / "Clean Hands" sampling procedure, which requires a 2-person team. This procedure MUST be used throughout the sampling process.
- (2) Gather and wear proper PPE, nitrile gloves, safety glasses, etc.
- (3) Each LLHg kit includes double Ziploc bagged containers for the Sample, the Sample Duplicate and a Field Blank Kit which includes DI Water. There may be additional containers per sampling plan requirements.
- (4) Each bottle is double bagged; DO NOT SWAP the bags when re-bagging. The outer bag bags should be labeled as Sample, Sample Duplicate and Field Blank. The bottles should be returned to the same bags, in reverse of how they were removed (bottle into inner bag, zip-sealed, bagged bottle into outer bag, then zip-sealed).

#### SAMPLING STEPS

- (1) Field Blank: In the Field Blank Kit is a Sample Container and a container with DI Water. Label the outer Ziploc bag as "Field Blank." Stand near the Effluent sample point or the sample point in general and pour the DI Water into the Sample Container. Place that container back in the Ziploc bag and place that Ziploc bag into the outer bag labeled "Field Blank." The intent of the Field Blank is to capture any Mercury that is in the air during sample collection.
- (2) Sample: Label the outer bag as the Sample or Outfall ID, remove the cap (protect from contamination). Fill the bottle to the neck with sample. Place the cap back on the bottle.
- (3) Sample Duplicate: Immediately after the Sample has been collected, label the outer bag as Sample Duplicate or Outfall ID Duplicate and collect the sample. This Sample Duplicate should be collected exactly as the Sample, with minimal time lapse.

### **FINAL STEPS**

- (1) Record the sampling date, time, sample name, and name of sampler on the Chain-of-Custody (CoC). Ensure this information matches the information on the container labels located on the outer bag of each sample.
- (2) Return all double-bagged samples to the cooler. If samples will be shipped, package with plenty of material to prevent breaking.
- (3) These samples do not require refrigeration. They can be shipped or stored without ice. Samples must be received by the lab within 28 days. The hold time is extended to 28 days per method EPA 1631E, as Trace performs a whole bottle oxidation at the laboratory.