

1. The sampler will receive a sample kit from our lab.
2. **WHEN SAMPLING, BRING WET ICE IN SEALED BAGS TO CHILL SAMPLES DURING SAMPLE COLLECTION.**
3. Put on nitrile gloves. If sampling from a faucet, remove the aerator and screen.
4. Open the tap and let the water run at fast flow for approximately 5 minutes.
5. The sample kit will include bottles as described below. Volumes and preservatives required for the test are as follows:

Hydrogen Sulfide (S-2DIS):

(2) 250 mL poly + 4 drops NaOH + dropper bottle of AlCl ₃ soln	(S-2DIS initial sampling containers)
(1) 125 mL poly + 2 drops NaOH (25%) + 3 drops Zn Acetate (2N)	(S-2DIS final container)

6. Use indelible ink (i.e. Sharpie pens) to clearly identify the sample bottles with the information listed below (if not already on the label).

- | | |
|---------------------|---|
| - Client Name | - <u>Date and Time of collection</u> |
| - Sample ID | - Preservative used |
| - Analysis required | |

7. Slow water flow to thickness of a pencil (to minimize splashing) and fill bottle.
8. Fill sample bottle up to the shoulder. Make sure the mouth of the bottle does not come in contact with anything other than the sample water. **DO NOT RINSE OUT PRESERVATIVE.**
9. Measure turbidity (of source water with meter or visibly check for particulates in sample).
 - A) Turbidity <1 NTU or visibly not turbid (no fine particles in suspension or at bottom of samples). Fill 125 mL S-2DIS final container directly from sample tap.
 - B) Turbidity >1 NTU or visibly turbid (presence of fine particles in suspension or at the bottom of sample).
Sampling procedure:
 1. Fill both 250 mL S-2DIS initial containers with sample in order to have a sufficient final volume. (The initial containers contain NaOH only. The pH of the sample should be about 10 at this time.)
 2. Add 10 drops AlCl₃ * 6 H₂O solution (pH should change to ≈7 as the gelatinous flocculate forms.)
 3. After the flocculate settles (no longer than ≈15 min.), decant or pipet off the supernatant layer into the 125 mL S-2DIS final container that has NaOH and ZnAc as the preservative. (The supernatant layer is the clear liquid above the settled flocculate.)
 4. The final container should be at least 3/4 full to have sufficient volume for testing.
 5. pH > 9 is required in the final sample.

Note: If the sample is not turbid, the flocculate will be too light to settle. For non-turbid samples (no particulates), all sulfides are in the dissolved form – pour directly into 125 mL S-2DIS final container.

10. Cap and invert the bottles at least 5 times to mix the sample with the preservative.

11. Store at $\leq 6^{\circ}\text{C}$ but above freezing until transported to the lab.

SAMPLE SHIPPING AND STORAGE

1. If shipping samples on the same day of sampling, chill samples until $\leq 6^{\circ}\text{C}$ by exchanging the wet ice used during sampling with available sealed bags of fresh wet ice.
2. **Pack chilled samples** in a cooler and add enough **FRESH** wet ice to take up 30-50% of the cooler (e.g. most of the remaining space) as recommended in our "Wet Ice Packing Instructions."
3. Complete the Chain of Custody during sample collection. Place Kit Order and completed Chain of Custody in a Ziploc style bag in the cooler on top of packing material. The following information is required on the completed Chain of Custody.

- Collector's name
- Client Name
- Sample site

- Date and time of collection
- Comments about the sample, if applicable
- Sample type

4. **Ship via overnight service such as FEDEX, UPS, or DHL, etc.** Maintain an environment at $\leq 6^{\circ}\text{C}$ but above freezing during transit. It is recommended that samples arrive within 48 hours of sampling, with no more than 40 hours for transit.
5. If samples are received on the same day as collection, temperature may be $>10^{\circ}\text{C}$ with evidence of cooling.
6. Maximum **HOLDING TIME FOR SAMPLES** is **7 days** from time of collection.
7. Alternatively, cool the samples down by placing them **overnight** in a cooler with wet ice, or in a refrigerator (store chilled for at least 12 hours before packing for shipment). Maintain the cold samples until repacked in the cooler for shipment to the lab.

ADDITIONAL NOTES

- Try to collect only on a Monday, Tuesday or Wednesday and ship no later than Thursday of each week, and try to **NOT** collect samples **on Friday**, Saturday, or Sunday unless special arrangements have been made for the receipt of samples at the laboratory within 48-hours of collection.
- If shipping to the laboratory with **frozen gel packs** rather than wet ice, please be sure that the gel packs have **been frozen for at least 48 hours** prior to the shipment time.