Collecting Groundwater Samples with IsoFlasks®

For Dissolved Gas Analysis

Water samples for dissolved gas analysis should be collected from either a pressurized water system or a suitable water pump.

- When sampling from a pressurized water system, we recommend using an outdoor spigot, hose bibb, or other source that bypasses any water treatment systems (water softeners, etc.).
- When using a water pump, the pumping system should be capable of maintaining constant pressure at or above the aquifer pressure to ensure that gases dissolved in the aquifer water remain dissolved until the water has been collected in the IsoFlask.

Although IsoFlasks are designed and built to be durable, they can be damaged if not handled properly.

- Take care not to crease or puncture the pouches. **There is no need to manually break the bactericide capsule –** it will dissolve after the sample has been collected.
- IsoFlasks should be stored at temperatures between +5°C and +50°C (+41°F to +122°F). Significant temperature excursions can compromise the function of the valve.

1. BEFORE FILLING, record sample information directly onto the IsoFlask using a soft-tip permanent marker (one is provided with IsoFlask kits). Also record this information on a chain-of-custody form (Isotech provides a paper COC with IsoFlask kits, and a printable and fillable version can be found at isotechlabs.com).

2. Purge the water source to be sampled by allowing the water to flow for several seconds.

3. Attach the included fill tube to the water source. Purge the fill tube by opening the control valve and allowing water to flow for several seconds.

4. **While the water is flowing**, attach the fill tube to a new, evacuated IsoFlask. Simply press the male Luer fitting at the end of the fill tube into the Luer-fit valve of the IsoFlask. Connecting the Luer fittings depresses the valve stem and opens the valve. The fitting is not threaded – the design of the fitting allows for a leak-tight friction fit.

5. Fill the IsoFlask with 600-700 mL of water – this will make the IsoFlask about 2 inches thick at the base. Once sufficient sample has been collected, close the control valve on the fill tube and quickly disconnect the IsoFlask. Take care not to overfill the IsoFlask – it should not be pressurized.

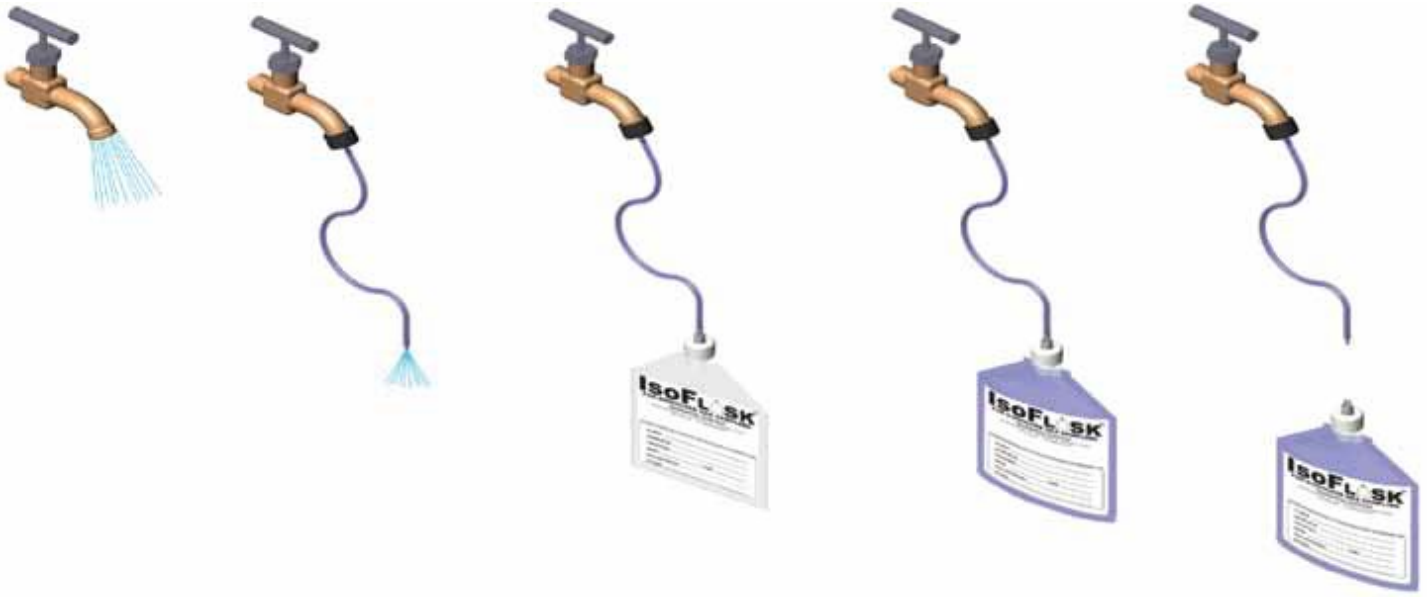
6. DO NOT BREAK THE BACTERICIDE CAPSULE. It will dissolve in the water. Attempting to break the capsule manually can puncture the pouch of the IsoFlask.

7. Place the filled IsoFlask back in its box lying flat. Ship samples, along with the chain-of-custody form, to Isotech at the address below.

ISOTECH
a Stratum Reservoir brand

1308 Parkland Court
Champaign, IL 61821

(217) 398-3490
isotechlabs.com



1.
Purge line

2.
Attach fill tube and purge

3.
Attach IsoFlask while water is flowing

4.
Fill about 2/3 full (approx. 2 inches thick)

5.
Detach IsoFlask

Underfilled

Perfect!

Overfilled

DO NOT BREAK THE CAPSULE! It will dissolve after the sample is collected.