

## Collection of Ground Water Samples from Domestic and Municipal Water Wells for Dissolved Gas Analysis Using IsoFlasks®

1. Sampling source: Water samples should either be collected from a pressurized water system or by using a suitable water pump. When sampling from a pressurized water system, it is recommended to use an outdoor spigot or other source which bypasses any water treatment systems (i.e. water softeners, etc.). When using a pump, it should be capable of maintaining a constant pressure at or above that which exists within the aquifer. This is to ensure that gases dissolved in the water within the aquifer remain dissolved until the water is transferred into an IsoFlask.
2. Record sample information onto the IsoFlask using the provided soft-tip, permanent pen.
3. Purge the well (see reverse side).
4. Attach the fill tube and purge with the source water. A control valve is included on the fill tube to assist in sampling. Use the control valve to stop/start flow into the IsoFlask (after purging).
5. The IsoFlasks have been evacuated in advance. A capsule filled with bactericide has also been inserted. A properly evacuated IsoFlask will be tightly held against the bactericide capsule. **There is no need to break the capsule even if you don't see it dissolving.** If the IsoFlask appears to have lost vacuum, do not use and contact Isotech for further instruction and/or replacement.
6. **While the water is flowing** attach the fill tube to an evacuated IsoFlask.
7. The IsoFlask should be filled with 600-700 cc of water (i.e. to a thickness of about 2 inches). When sufficient sample has been collected, close the sampling valve and quickly disconnect the fitting from the IsoFlask. The water flow can now be turned off and the hose disconnected. NOTE: Do not overfill the IsoFlask (the IsoFlask should not be pressurized). Sample storage: +41°F (+5°C) TO +122°F (+50°C)
8. Submission of samples: Place the IsoFlask into its protective box lying flat. Complete a Chain-of-Custody/Analysis Request Form and include it with the sample(s). Please note Isotech's receiving hours of Monday through Friday 8:00 a.m. to 4:30 p.m.

Ship samples to:

Isotech

1308 Parkland Court

Champaign, IL 61821

**These instructions have been provided to simplify the collection of samples for dissolved gas analysis. Although we try to foresee and avoid problems in the field, it is never possible to predict every situation. If you encounter any difficulties, or if any additions or changes in these instructions would be beneficial, please let us know.**

**Stratum Reservoir makes no warranty as to the applicability and/or safety of the procedures described herein.**

## How to properly fill an IsoFlask



**1**  
Purge line



**2**  
Attach fill  
tube &  
purge



**3**  
Attach  
evacuated  
IsoFlask  
(while water is  
still flowing)



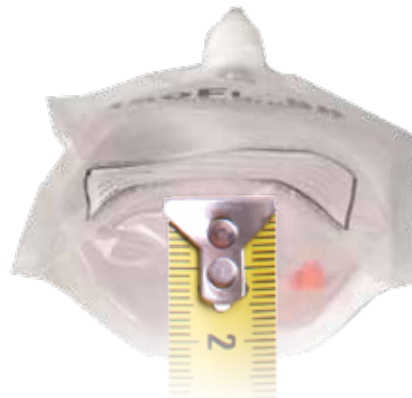
**4**  
Fill IsoFlask  
2/3 full  
(*approximatley*  
2 inches thick,  
see below)



**5**  
Detach  
IsoFlask  
from fill tube



Not full enough



Correct



Too full



**Do Not Try to Break the Capsule.**  
It does not need to be broken to release the bactericide.