A lung sampler is a handy tool for collecting air samples in Tedlar bags. It allows you to collect an air sample in a Tedlar bag without passing air directly through a pump, thereby reducing the possibility of contaminating the pump, the sample and future samples. It does this by creating a vacuum inside the container, which forces the Tedlar bag to expand and to draw in an air sample through the tube not connected to the pump. The instructions below detail how to sample with this device.

1. Record the sample identification and sampling date and time on the label of the Tedlar bag.

2. Open up the container and place the Tedlar bag on the bottom of the container with the valve pointing upwards. Using the small piece of the silicon tubing attach the valve of the bag to one of the pieces of Teflon tubing (inlet). Open the valve on the bag by turning the white portion of the valve counter clockwise approximately 1 ¼ times.

3. Seal the container.

4. On the outside of the container attach the foot pump to the second piece of Teflon tubing (i.e. the piece of tubing that is NOT attached to the Tedlar bag inlet).
5. Before pumping, position the sampler so that the piece of tubing that is attached to the Tedlar bag (inlet) is collecting the sample from the location of concern.

6. Ensure that the inlet valve is not pinched shut.

7. Pump the foot pump one to two times.

8. The bag will begin to fill as a vacuum is created inside the container. You may hear a sucking sound as air enters the bag via the inlet.

9. Once the bag is ½ to ⅔ full, pinch closed the inlet valve on the outside of the container. Break the seal on the container and immediately close the valve on the bag.

**Additional Information**

Reduced sulfur compounds (i.e. hydrogen sulfide) samples (ASTM D5504-01) have a 24 hour holding time, while volatile organic compound samples (EPA TO-15) collected in Tedlar bags have a holding time of 72 hours.

The Tedlar bags should be packed in a box and shipped by overnight courier to the laboratory. Always include a completed chain of custody form with your samples.

**Contact Information**

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