



## **Environmental Lead Sampling Procedures**



## Procedure for Wipe, Soil, and Paint Samples for Lead

### A. Wipe Sampling of Settled Dust

#### 1.0 Equipment

- 1.1 Latex or plastic gloves
- 1.2 Sample collection container, 50 mL screw-capped tube
- 1.3 Ghost wipe or other ASTM E 1792-compliant wipe material
- 1.4 Sampling template with 1 square foot opening
- 1.5 Masking tape
- 1.6 Indelible marker
- 1.7 Chain of custody forms (COCs)

#### 2.0 Procedure For Unconfined Areas

- 2.1 Place the template on the surface carefully to avoid disturbing the settled dust. Tape the edges of the template to hold it in place. Alternatively, a 1 square foot area may be defined using masking tape only.
- 2.2 Put on a pair of latex or plastic gloves.
- 2.3 Open and unfold the Ghost wipe. Drape the Ghost wipe over the fingers of your gloved hand and wipe the area using a side-to-side wiping motion and starting at the corner furthest from you.
- 2.4 Turn the wipe 180 degrees and make a second side-to-side pass in the reverse direction. The 180-degree turn is made so the wiping is always in the same direction to maximize dust pickup.
- 2.5 Fold the wipe once and repeat the wiping using a top-to-bottom wiping motion. At the end of this sweep, use a slight rolling motion to pick up any ridge of dust that may have formed ahead of the wipe.
- 2.6 Fold the wipe again and use a clean side to perform a wipe around the perimeter of the template and clean the corners of any remaining dust.
- 2.7 Fold the wipe again and place in a screw-capped 50 mL tube. Cap the tube tightly.
- 2.8 Label the tube with the sample number and record the sampling information on the chain of custody.

#### 3.0 Procedure for Confined Areas

- 3.1 Wipe the area as outlined above, using side-to-side, then top-to-bottom, then the perimeter of the area.
- 3.2 Place the sample in a screw-capped 50 mL tube. Label the tube with the sample number.
- 3.3 Measure the area sampled and record this information as well as all other Sample information on the chain of custody. Make sure to include the units of measure.



#### 4.0 Shipping

- 4.1 Return ship by overnight delivery. No refrigeration or preservation is required.

### **B. Sampling of Soils**

#### 1.0 Equipment

- 1.1 Sample collection container, 50 mL screw-capped tube, clean glass 4 oz jar, or resealable plastic bag.
- 1.2 Spoon, for scoop sampling
- 1.3 Metal or plastic measuring tape or ruler
- 1.4 Core sampling device with sample removal plunger having 0.5 inch stop and plunger without stop
- 1.5 Water, drinking quality, used for cleaning coring equipment
- 1.6 Disposable towelette, used for cleaning coring equipment
- 1.7 Latex or plastic gloves
- 1.8 Indelible marker

#### 2.0 Scoop Sampling Procedure for Friable Soils Using 50 mL tubes.

- 2.1 Put on a pair of clean gloves.
- 2.2 Using a 50 mL tube, scoop the soil to a depth of ½ inch for a length of 6-12 inches.
- 2.3 Wipe away any soil clinging to the tube and cap it.
- 2.4 Label the tube with a sample number and record all sampling information on the chain of custody.

#### 3.0 Scoop Sampling Procedure for Friable Soils Using A Spoon.

- 3.1 Put on a pair of clean gloves.
- 3.2 Using a measuring tape and a spoon, dig a small test hole near the sampling area to a depth of ½ inch. Clean the spoon using a wet wipe to remove all traces of soil.
- 3.3 Scoop the soil down to the depth indicated by the test hole and place the sample in the sampling container. Continue until a hole approximately 2 inches diameter by ½ inch has been created.
- 3.4 Take 2 more samples within a 1-foot diameter circle around the first sample location using the same procedure. Add these to the same sample container.
- 3.5 Seal the container in such a manner as to minimize the air contained in the container.
- 3.6 Label the sample container with a sample number and record the sampling information on the chain of custody.
- 3.7 Clean the spoon using wipes and water to remove all traces of soil.



#### 4.0 Sampling procedure for Nonfriable Soils Using a Core Sampler

- 4.1 Put on a pair of clean gloves.
- 4.2 Grip the coring tool firmly and push it into the soil to a depth of at least two inches using a twisting motion. For very hard soils, a hammer or similar device may be used.
- 4.3 If penetration is less than ½ inch, document the actual depth achieved as part of the sampling information.
- 4.4 Carefully remove the coring tool from the ground while retaining the soil core in the tool.
- 4.5 Insert a clean plunger equipped with stop into the top end of the coring probe. Push out all but ½ inch of soil. Use a gloved finger to wipe off the excess soil protruding from the end of the probe. Do not drop the excess soil on the sampling area.
- 4.6 Using the plunger without stop, push out the remaining ½ inch of soil into the sampling container.
- 4.7 Collect two more cores within a 1-foot diameter circle around the first sample location using the same procedure. Add these to the same sample container.
- 4.8 Label the sample container with a sample number and record the sampling information on the chain of custody.
- 4.9 Clean the coring tools using water and wet wipes to remove all soil traces.

#### 5.0 Shipping

- 5.1 Return ship by overnight delivery. No refrigeration or preservation is required.

### **B. Sampling of Paint Chips**

#### 1.0 Equipment

- 1.1 Sample collection container, resealable plastic bag
- 1.2 Razor scraper
- 1.3 Latex or plastic gloves
- 1.4 Disposable towelette, used for cleaning scraper
- 1.5 Collection device (clean creased piece of paper or cleanable tray)
- 1.6 Indelible marker
- 1.7 Measuring tape or ruler

#### 2.0 Sampling Procedure

- 2.1 During this procedure, make every attempt to remove paint chips without removing the underlying substrate. Including substrate will dilute the reported lead content of the paint. A sample from 2 - 4 square inches is sufficient .
- 2.2 Put on a pair of clean gloves.
- 2.3 Use of a heat gun is recommended to remove paint without underlying substrate. Hold the heat gun at least six inches from the surface. Discontinue heating when softening or blistering is observed. Do not scorch the surface.
- 2.4 Use the razor scraper to remove the softened paint from the substrate and place the



sample in a resealable plastic bag.

- 2.5 If a result in milligrams per square centimeter ( $\text{mg}/\text{cm}^2$ ) is desired, you must measure the area sampled and include this area on the chain of custody.
- 2.6 Label the bag with a sample number and record the sampling information on the chain of custody.

### 3.0 Shipping

- 3.1 Return ship by overnight delivery. No refrigeration or preservation is required.