

## **LEAD PIPE HARVESTING PROCEDURE**

### **Pilot Harvested Pipe Studies and Scale Analysis**

The following protocol is recommended for removal and transport of lead service lines (LSLs) from the distribution system for pilot harvested pipe studies and scale analysis. For sites not having scale analysis completed follow all steps except those regarding the scale analysis pipe.

1. Avoid the pull method of extraction while instead favoring a trenching method at least in the area where the pipe section will be removed. To the greatest extent possible, minimize



impact and vibration to the LSL when removing from the trench. If necessary, field cut the LSL so that a 5-foot minimum length is available. Cut the pipe with a pipe cutter or pipe shearing device. Do not use a saw. Do not pinch the ends.

2. Label the pipe's location by tying a tag to it with the house address and extraction date. Also label the direction of flow. Take in-situ pictures if possible.
3. Collect a 1 L sample of water at the residence or nearby. If water comes from a hose bib let run 5 minutes first or longer if not clear. The sample should be labeled with the address and time of collection. This sample should be analyzed for pH, chlorine, and orthophosphate if used. Measurements should be taken in the field if possible.
4. Place the lead pipe section as carefully as possible in bubble wrap for transport to the office/shop.
5. Within 24 hours of harvesting, at the shop:
  - a. Trim the harvested section to a 4-foot length again using a pipe cutter or pipe shearing device. This 4-foot section is to be used for flow through studies.
  - b. Prepare a second 1-foot section for scale analysis, separate from the 4-foot section already cut.

- c. The exterior surfaces should be cleaned of any remaining attached soil. The figure at right shows a lead pipe prior to and after cleaning.
  - d. Carefully drain any water in each pipe.
  - e. Cut one commercial or utility sponge such that it will fit in one end of pipe and submerge in water collected at the house until saturated. Squeeze excess water from sponges.
  - f. Insert one sponge into end of the LSL, and seal with parafilm and tape or similar.
  - g. Insert remaining sponge into other end of the LSL, and seal with parafilm and tape.
  - h. Wrap the 1-foot harvested LSL in bubble wrap to minimize jostling during shipping and package securely.
6. Ship the 1-foot pipe for scale analysis same day if possible, to the following address:
- Cornwell Engineering Group  
Attn: Pipe Division  
712 Gum Rock Ct.  
Newport News, VA 23606
7. For the pipe to be used for flow through studies, place in the rig with water flowing as soon as possible. Until that time, every two weeks rewet the sponges with water collected from the home.

