

Standard Operating Procedure 810 Decontamination of Sampling Equipment

Purpose

Reusable equipment involved in ground water or soil sampling activities must be properly decontaminated in order to provide chemical analysis results which are reflective of the actual concentrations present at sampling locations. Proper decontamination will minimize the potential for cross-contamination between sampling locations and the transfer of contamination offsite.

Be sure to follow the site-specific sampling plan that may call for special handling and disposal of wash and rinse water.

Safety Equipment

- Wear nitrile gloves to reduce the incidence of skin contact with potentially contaminated soil and to reduce the risk of cross-contamination.
- Refer to the site-specific Health and Safety Plan for safety concerns and applicable personal protective equipment.

Required Equipment

- Adequate clean tap water for washing and rinsing (can substitute distilled or de-ionized water)
- Adequate distilled or de-ionized water for rinsing
- Clean container for wash water (bucket, spray bottle, etc.)
- Clean container for tap water rinse (bucket, spray bottle, etc.)
- Clean container for distilled or de-ionized water rinse (bucket, spray bottle, etc.)
- Alconox
- Scrub brush (soil decontamination)

- Paper toweling

Procedures

Ground Water Sampling Equipment – Used for Sampling

This procedure applies to reusable equipment that will be used to obtain a water sample. The equipment includes any reusable pump and tubing used to collect a laboratory sample. After each sample, the equipment will be cleaned as follows:

1. Pump an Alconox and tap water wash through the pump and tubing.
2. Pump tap water through the pump and hosing.
3. Pump distilled or de-ionized water through the pump and tubing.
4. Wash the exterior with a mix of Alconox and tap water.
5. Rinse with tap water.
6. Rinse with distilled or de-ionized water.
7. Inspect for remaining particles or surface film and repeat cleaning and rinsing procedures if necessary.

Ground Water Sampling Equipment – Not for Sampling

This procedure applies to equipment that will be placed into the well, but will not be used to obtain a water sample. The equipment includes water level indicators, pumps used to develop or purge the well, transducers, and slugs. After each sample, the equipment will be cleaned as follows:

1. Wash or spray the exterior surface of the portion of the equipment that contacted the water with a mix of Alconox and tap water.
2. Rinse with tap water.
3. Rinse with distilled or de-ionized water.
4. Inspect for remaining particles or surface film and repeat cleaning and rinsing procedures if necessary.

Ground Water Sampling Equipment – Product Interface Probe

The product interface probe is only used in wells that have previously contained free product. After each well is measured the equipment will be cleaned as follows:

1. Wipe the probe and tape with a paper towel.

Soil Sampling Equipment – Hand Tools

Hand tools used for sampling include shovels, hand trowels, hand augers, etc. Before collecting a new sample the equipment will be cleaned as follows:

1. Remove loose or attached soil from the tool with a gloved hand, paper towel or brush.
2. Wash and brush the tool in an Alconox and tap water wash.
3. Rinse the tool with tap water.
4. Inspect for remaining particles or surface film and repeat cleaning and rinsing procedures if necessary.

Soil Sampling Equipment – Sampling Probe Equipment

The probe contractor is responsible for cleaning reusable sampling equipment; however Peer personnel must ensure that proper procedures are followed. Prior to collecting each sample the reusable sampling equipment should be cleaned as follows:

1. Remove loose or attached soil.
2. Wash the sampler components in a soap and tap water wash.
3. Rinse the sampler components with tap water.

Soil Sampling Equipment - Drill Rig Split Spoon Sampler

The drilling contractor is responsible for cleaning reusable split spoon soil sampling equipment; however Peer personnel must ensure that proper procedures are followed. Prior to collecting each sample the split spoon sampler should be cleaned as follows:

1. Remove loose or attached soil.
2. Wash the sampler components in a soap and tap water wash.
3. Rinse the sampler components with tap water.

Soil Sampling Equipment - Drill Rig Auger Flights

The drilling contractor is responsible for providing clean auger equipment; however Peer personnel must ensure that proper procedures are followed. Prior to each use the auger flights should be cleaned as follows:

1. Remove loose or attached soil.
2. Wash the auger flight with a pressure washer and clean water.