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10 January 2013

Protocol for Centrifugation/Pore Water Sample Handling

To minimize the potential for sample contamination, or cross-contamination, the following sample handling protocol will be followed for the Lower Passaic River project:

Core samples will be stored in a chilled storage area (0° to 6° C.) in their original sealed sleeves.

The cores will be processed in a single batch for each sample (a single sample may consist of several soil cores that are composited into one sample) to negate any cross-contamination of samples.

The soil from each core will be removed using an acid-washed stainless steel scoop. The soil/water mixture will be homogenized in an acid-washed stainless steel pan, or an acid-washed aluminum tray.

Artifacts will be removed and cataloged manually using clean gloves.

Soil will be packed into acid-washed anodized aluminum centrifuge buckets (4 in. diameter x 6 in.).

Any free-water generated during the homogenization step will be poured into an acid-cleaned glass Carboy (5 gallons).

Following centrifuging, the centrate will be decanted into the glass carboy.

The centrifuge solids will be removed into a waste bucket using a stainless steel scoop. The centrifuge bucket will be re-packed with the next fraction. Once an entire sample has completed the centrifugation process, the centrifuge buckets and all other pans, scoops, and carboys will be thoroughly cleaned with soapy water, DI water, acid washed, and triple rinsed with DI water prior to commencing processing of the next sample.

For acid washing, a 5% solution of trace metals grade nitric acid (JT Baker 9598-34 or equivalent) in DI water will be utilized. All surfaces will subsequently be triple rinsed with DI water prior to use.