

## SECTION 8.3

### SEDIMENT SAMPLING

#### 1.0 Purpose

To describe the procedures for collecting samples of sediment.

#### 2.0 Responsibilities

- The site coordinator is responsible for assuring that this procedure is implemented.
- Survey team personnel are responsible for following this procedure.

#### 3.0 Procedure

##### 3.1 Equipment

- ✓ Digging implement: garden trowel, post-hole digger, etc.
- ✓ Thin walled metal or plastic tube (shelby tube).
- ✓ Ponar "clam-shell" dredge (with rope).
- ✓ Wide-mouth plastic bottle (approximately 1 liter size).
- ✓ Labels and security seals.
- ✓ Record forms and/or logbook.
- ✓ Indelible pen.
- ✓ Cleaning supplies, as appropriate (see Section 4.5).

##### 3.2 Sample Collection

**NOTE:** This procedure applies to the usual requirements for sediment samples for radiological contamination measurement. Special requirements other than those described below will necessitate other sampling procedures and considerations; these will be evaluated and described in detail in site-specific survey plans as the need arises.

### 3.2.1 Shallow Sediment Sampling

3.2.1.1 For shallow streams, wade into stream and facing upstream, use a collecting tool to obtain approximately 1 kg of sediment by scraping the material in an upstream direction. Include all material collected - rocks and foreign objects can be discarded during sample preparation, as appropriate. Alternatively, a shelby tube with an “egg shell” insert may be advanced into the sediment to obtain the sample. The sample may be collected remotely from the stream bank if water levels are too deep or the current is too strong for wading—by attaching extension handles to the collecting tool.

### 3.2.2 Deep Water Sediment Sampling

3.2.2.1 Deep water sediment samples are collected using a Ponar dredge sampler or similar device.

3.2.2.2 Attach adequate length of rope to dredge.

3.2.2.3 Open dredge and insert locking bar into cut out on hinge.

3.2.2.4 Lower dredge at a rate of descent adequate to ensure penetration of the dredge into the sediment but without displacing lighter sediments.

3.2.2.5 Release tension on the rope to allow closure of dredge.

3.2.2.6 Retrieve dredge, decant excess liquids, open dredge and collect contents.

3.2.3 Place the sediment into a plastic bottle and tighten the screw cap.

3.2.4 Label and secure the sample container in accordance with Section 8.15 and the chain-of-custody procedures in Section 8.16. Record pertinent information on the Chain-of-Custody Form (Figure B-16 or equivalent).

3.2.5 Record sample identification, location, depth, and other pertinent information on the Miscellaneous Sample Record Forms (Figure B-17 or equivalent) and/or logbook.

3.2.6 Clean collecting equipment, as necessary, before proceeding with further sample collection, in accordance with instruction in Section 4.5.