

STANDARD OPERATING PROCEDURE  
Procedure for Collecting Sediment Samples for Pesticide Analysis

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**KEY WORDS**

Sediment, trowel

**APPROVALS**

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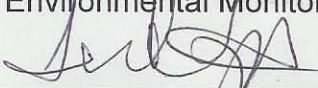


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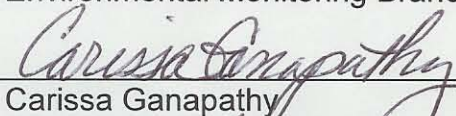


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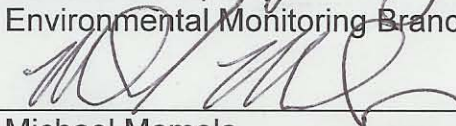


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Environmental Monitoring Branch organization and personnel, such as management, senior scientist, quality assurance officer, project leader, etc., are defined and discussed in SOP ADMN002.

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**1.0 INTRODUCTION**

**1.1 Purpose**

This Standard Operation Procedure provides instructions for the proper collection of sediment for chemical analysis. Here are two procedures designed to collect the very top layer of fine sediment; one for still water and the other for flowing water. If sediment is not present, neither method can be used.

**1.2 Definitions**

- 1.2.1 Sediment – A mixture of fine organic and inorganic material deposited on the bottom of a body of water.
- 1.2.2 Trowel – A flat-bladed hand tool used for scraping and scooping substances.
- 1.2.3 Polycarbonate cylinder – A clear core tube approximately 3 feet long by 3 inches in diameter.

**2.0 MATERIALS**

- 2.1 Pint Mason jar(s) labeled as in SOP QAQC005.00
- 2.2 Trowel
- 2.3 Polycarbonate cylinder
- 2.4 Disposable gloves

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**3.0 PROCEDURES**

**3.1 Still Water Collection Procedure**

- 3.1.1 Choose collection sites per project protocol
- 3.1.2 Locate area in which fine sediment is present on the riverbed surface.
- 3.1.3 Use trowel to collect the top layer of sediment by gently scraping off the top layer of the sediment column.
- 3.1.4 Using a gloved hand scrape 1-2 cm of the sediment off trowel and into a pint Mason jar.

**3.2 Flowing Water Collection Procedure**

- 3.2.1 Choose collection sites per project protocol
- 3.2.2 Insert one end of polycarbonate cylinder tube into top 3 inches sediment.
- 3.2.3 Prevent major loss of sample by placing gloved hand under opening of cylinder containing the sediment.
- 3.2.4 Remove the core tube with sediment and gently pour the water from the top. Be careful not to greatly disturb the top-layer of sediment in the core tube.
- 3.2.5 Remove the top 2 cm of sediment from the bottom of the core tube with a gloved hand.
- 3.2.6 Place the sediment into pint mason jar.

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**3.3 Collection Amount and Transport**

- 3.3.1 Repeat still or flowing sediment collection method until the jar has the amount of sediment needed for analysis (see analytical method or lab liaison).
- 3.3.2 Place sediment samples in ice chest with wet or dry ice for transport.

**4.0 REFERENCES**

Starnes, K., Bacey, J., Kelley, K. 2005. Continuing Assessment of Pyrethroid Contamination of Surface Waters and Bed Sediments in High Pyrethroid-Use Regions of California. Available at <http://www.cdpr.ca.gov/docs/sw/protocol.htm>