



**California Integrated Waste Management Board
Environmental Field Sampling Training
Description of Exercises
September 2006**

Exercise 1 DQO Worksheet

Timing: This exercise is executed during the morning of day 1 after the completion of the DQO lecture. Total exercise time is expected at 30 minutes.

Purpose: Reinforce the DQO process by practicing on a hypothetical site investigation.

Description: Participants will complete the DQO Worksheet during class as individuals or in groups of two. Group discussions are encouraged between individuals and teams. The Worksheet provides an investigation scenario and participants complete the seven step DQO process for the scenario. Upon completion the class will provide answers in a group forum. There are no absolute correct answers as there are numerous approaches to the scenario.

Exercise 2 Soil Sampling

Timing: This exercise is executed during the afternoon of day 1 after the completion of the sampling and sample location lecture. Total exercise time is expected at 30 minutes.

Purpose: Demonstrate the proper techniques for the collection of a surface soil sample with a hand trowel and collection of a subsurface soil sample with a slam bar with corer and a hand auger.

Description: The instructor will demonstrate the proper techniques for the collection of a surface soil sample using a hand trowel and subsurface soil samples with a slam bar with corer and a hand auger. After the completion of the demonstrations, each participant will practice collection of a surface soil sample with a hand trowel.



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Exercise 3 Instrumentation

Timing: This exercise is executed during the afternoon of day 2 after the completion of the health and safety module. Total exercise time is expected at 60 minutes.

Purpose: Allow participants the opportunity to use various CIWMB health and safety instruments.

Description: Several stations with instruments will be setup in the classroom so that small groups of participants can practice using each instrument. The instructor will provide individual instruction and guidance as needed. Station One will have radiation instruments with an alpha, beta, and gamma radioactive check source. Station Two will have the GMI 442R and Scott Scout with five vials of various volatile (but harmless) liquids to test the detectors. Station Three will have the MiniRae 2000 and Daeger pump which will share the five vials of various liquids with Station Two to test the detectors. Station Three will have the Gilian Gilair-5 pump and equipment to practice collection of an air sample with a Tedlar bag. Station Four will have the Garmin GPS units for practice of obtaining a waypoint.