

5.0 SAMPLE CUSTODY

5.0.0.1. To ensure that samples are identified correctly and remain representative of the environment, the sample documentation and custody procedures outlined in this section shall be used during the sampling program to maintain and document sample integrity during collection, transportation, storage, and analysis. Field sampling personnel shall be responsible for ensuring that proper documentation and custody procedures are initiated at the time of sample collection, and that individual samples can be tracked from the time of sample collection until custody of the samples is transferred to the laboratory. The laboratory shall be responsible for maintaining sample custody and documentation from the time the laboratory receives samples until final sample disposition.

5.1 FIELD COC PROCEDURES

5.1.0.1. Field chain-of-custody and sample handling and shipping procedures are detailed in SOPs 4 and 15, which are included in Appendix I of this QAPP. These SOPs may be included by reference or as an attachment to the project-specific workplans. Any deviations to these SOPs shall be described in the project-specific work plans.

5.2 LABORATORY COC PROCEDURES

5.2.0.1. Each Contract Laboratory shall follow their standard operating procedures for sample log-in, storage, tracking, and control. These procedures shall be documented and available for review, and at a minimum include the criteria described in the following paragraphs.

5.2.0.2. Upon receipt by the Contract Laboratory, the integrity of the shipping container shall be checked by verifying that the custody seal is not broken (if samples were shipped via commercial carrier). The cooler shall be opened and examined for evidence of proper cooling, and the presence of trip blanks and temperature blanks (as appropriate). The individual sample containers shall be checked for breakage, damage, or leakage. The contents of the shipping container shall then be verified against the chain-of-custody (COC). If any problems are found, they shall be documented on the sample custody form(s) and the Prime Contractor's Project Manager or designee shall be notified

immediately. The shipping receipts shall be placed with the COC records and stored in the project file.

5.2.0.3. If the samples and documentation are acceptable, each sample container shall be assigned a unique laboratory identification number and entered into the laboratory's sample tracking system. Sample tracking shall be documented in the laboratory information management system (LIMS), or other appropriate tracking system. Other information that shall be recorded includes date and time of sampling, sample description, due dates, and required analytical tests.

5.2.0.4. When sample log-in has been completed, the samples shall be transferred to limited-access temperature controlled storage areas. The sample storage areas (coolers, refrigerators) shall be kept at $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ and their temperatures shall be recorded daily with thermometers calibrated against National Institute of Standards and Technology (NIST) thermometers. Storage blanks shall be used to assess the cleanliness of sample storage areas. Separate refrigerators shall be used for samples suspected of containing high concentrations of organic compounds. Samples for VOC analysis shall be stored separately from other samples, standards, and sample extracts.

5.2.0.5. Sample custody shall be maintained within the Contract Laboratory's secure facility until the samples are disposed. The Contract Laboratory shall be responsible for sample disposal, which shall be conducted in accordance with all applicable local, state, and federal regulations. All sample disposal shall be documented and the records shall be maintained by the Contract Laboratory in the project file.

5.3 PROJECT FILE CUSTODY PROCEDURES

5.3.0.1. The final project files for Hill AFB project data are maintained by the Prime Contractor and shall be under the custody of the Prime Contractor's Project Manager in a secured area. At a minimum, the project file shall contain all relevant records including:

- Field logbooks
- Field data and data deliverables

- Photographs
- Design drawings
- All original field logs
- All construction details
- Laboratory data deliverables
- Data validation reports
- Data assessment reports
- Progress reports, QA reports, interim project reports, etc.
- All custody documentation (tags, forms, airbills, etc.).