Appendix H. Sample receipt log-in and verification procedures
S-1 California Department of Health Services Manual (excerpt)
S-2 U.S. Environmental Protection Agency SOP #110
S-3 California Department of Pesticide Regulation
SOP QAQC003.01 (see section 2.2)

ENVIRONMENTAL HEALTH LABORATORY BRANCH

CALIFORNIA DEPARTMENT OF HEALTH SERVICES

QUALITY MANUAL

Environmental Health Laboratory Branch
California Department of Health Services
2151 Berkeley Way
Berkeley, California 94704

Doc./Rev. No: QM/R3
Effective Date: June 15, 1999

Approval: C. Peter Flessel 6/15/99
C. Peter Flessel, Ph.D., *Chief, EHLB* *Date*

Approval: Michael G. Volz 6/15/99
Michael G. Volz, Ph.D., *Quality Assurance Officer* *Date*

seal, illustrated in Figure 2, is completed and attached by the sample collector in such a manner that the container cannot be opened without breaking the seal, e.g., over the top of a bottle or can, over cassette plugs, over sorbent tube end caps, across the inlet tube of an impinger, or over the valve of a bag.

9.2 Sample Receipt

Samples are generally received by mail, commercial delivery service, or courier, or may be hand delivered to the sample receiving area. Samples must be submitted with an appropriate written sample submission/analysis request. Most often, clients submit samples with their own sample submission/analysis request forms. Examples of several forms provided by EHLB and suitable for this purpose are included as Attachments 3 and 4.

Samples may be received by the log-in clerk or any other EHLB staff member. The sample submission/analysis request must include, at a minimum:

1. The client and client contact
2. The reporting name, address, and phone number
3. The sample type
4. Sample description (identification or sample number) for each sample
5. The analysis requested for each sample
6. The sample air volume (air samples) or surface area (wipe samples) is required for each sample if airborne or surface area concentration is to be reported.

The laboratory sample receipt section of the sample submission/analysis request form is signed, dated and timed (as applicable) by the individual receiving the sample. This information is also recorded on a Project Tracking Form (Attachment 5) that is initiated at this time by the individual receiving the samples.

Samples are initially received without regard to acceptability unless the samples are obviously unacceptable due to condition, lack of identification, or are considered to pose a hazard to the staff and/or facility.

All proficiency testing samples are delivered to the Quality Assurance Coordinator for inspection for acceptability prior to assignment and log in.

9.3 Sample Acceptability

All samples and accompanying documentation are further inspected following initial receipt for acceptability prior to analysis. In addition, to the mandatory sample submission/analysis request elements described in Section 9.2, criteria for rejection include:

1. Damaged samples
2. Unlabeled or illegibly labeled samples
3. Insufficient sample
4. Improper container and/or sampling medium
5. Lack of, or improper preservation (chemical or temperature)
6. Discrepancies with accompanying documentation or insufficient information supplied
7. Lack of, or non-intact custody seals (for specific client project samples only)

Specimens for clinical testing have additional requirements for patient preparation, sample collection, preservation (chemical or temperature), labeling, documentation, transportation, and acceptance criteria. These criteria are provided to clients submitting clinical specimens, and are included in Attachment 4 and are addressed in the specific analytical method SOPs.

Acceptability of the group of samples is noted by a Y (Yes) or N (No) on the Project Tracking Form, as well as the presence and condition of sample custody seals. If any of the samples do not satisfy acceptance criteria, or if there are any questions associated with the samples and/or the request, a Client Action Form (Attachment 6) is initiated by the individual receiving the samples. This individual, or the Unit Supervisor, contacts the person submitting the samples and requests additional samples, information, and/or instruction before the samples can be accepted and logged in for analysis. The Client Action Form is completed by each responsible individual, and the final resolution is determined and/or approved by the Unit supervisor. If the client wishes to proceed with the analysis of samples that do not meet all criteria for acceptance, this is recorded on the Client Action Form and an appropriate data qualifier is included with the report of analysis. The Client Action Form is filed with the project information.

Rejected samples are on the Project Tracking Form with the reason documented in the Client Action Form. Rejected clinical specimens are additionally recorded in the Clinical Specimen Rejection Log (Attachment 7).

9.4 Sample Log In/Assignment

The log-in clerk or alternate determines, based on the analysis requested, the appropriate section in the laboratory to assign the samples. Any questions are referred to the Section Chief or Unit Supervisor prior to log in.

Pertinent information for each group of samples is recorded in the computerized sample tracking system covering:

1. Lab batch number (unique sequential number assigned by the system)
2. Date received
3. Sample Type
4. Date Required
5. Project ID
6. Study Number
7. Fund Code
8. Agency Code (Client)
9. Number of samples
10 Group Leader (Section Assignment)
11. Analysis Requested
12. Category Number

The Project Tracking Form, sample submission/analysis request, and Client Action Form (as applicable) are delivered to the section along with the samples. The staff member completing log in completes the header and sections 1 through 3a and/or 3b of the Project Tracking Form after delivering the samples to a section staff member and/or storing the samples in a designated location.

Samples within each laboratory batch are assigned a unique sequential laboratory subnumber and are labeled with this number for tracking and identification in the laboratory. The corresponding laboratory sample subnumber is recorded on the sample submission/analysis request form to reference the client sample identification and is used for all data recording in the laboratory.

9.5 Sample Storage

Samples are stored in a manner which satisfies requirements for safety, security, preservation, and ease of retrieval. The storage location is documented on the Project Tracking Form. Prior to analysis and until thirty (30) days following reporting, all samples, extracts, and digestates are stored according to analytical requirements related in the individual analytical methods or in specific client agreements.

9.6 Sample Preparation and Analysis

Analysts assume custody of samples by dating and initialing the Project Tracking Form upon either receipt of samples or removal of samples from storage for preparation and/or analysis. Unused portions of sample are returned to the sample storage area following completion of each specific phase of sample preparation or analysis.

USEPA REGION 9 LABORATORY
RICHMOND, CALIFORNIA

STANDARD OPERATING PROCEDURE #110
SAMPLE RECEIVING AND LOGIN

Signature & Title

Prepared by:	Nancy J. Wilson	Date
Reviewed by:	Ken Hendrix	Date
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Periodic Review:

Signature	Title	Date

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1.0 PURPOSE

The purpose of this SOP is to describe all activities concerning sample receipt and sample login at the USEPA Region 9 Laboratory. Samples are delivered to the Sample Control Center in Room 503. Samples are inspected, unpacked, logged in, labeled and stored in Room 503 or Room 205. Samples are kept refrigerated pending analysis and disposal. Biota samples are kept frozen in Freezer Unit 21 in Room 503 or in the freezer in Room 205 pending analysis and disposal.

2.0 APPLICABILITY

This SOP applies to the receipt of sample matrices including groundwater, surface water, drinking water, waste water, soil, sediment, biota samples and to samples received from USEPA Programs and their grantees throughout Region 9.

3.0 PROCEDURE

3.1 Notification of Sample Receipt

3.1.1 Analytical Requests and Upcoming Sampling Events Tracking Sheet

The Sample Custodian is notified of upcoming samples receipts in two ways. Analytical requests are made available to the Sample Custodian via the ESAT TDF (Environmental Services Assisstance Team Technical Direction Form) file on the Lotus Notes Workspace. Analytical requests (Appendix A) indicate the site, case number, number of samples, matrices, expected arrival dates of samples and analytical support required for a future sampling event. The Upcoming Sampling Events Tracking Sheet (Appendix B) is sent to the Sample Custodian via Lotus Notes electronic mail from the RSCC (Regional Sample Control Cooridinator) giving a more accurate estimated arrival date, numbers of samples and detailing analytical requests for upcoming sampling events.

3.1.2 Notification of Shipment of Samples

Notification of sample shipments (Appendix C) are sent to the Sample Custodian, via electronic mail or telephone message by the RSCC. Notification includes the shipment air bill number if samples are shipped using an overnight carrier service or expected arrival time if samples are to be hand delivered.

3.1.3 Sample Receipt/Chain of Custody

Samples from the field are delivered by overnight courier or by the sampler. The sample custodian is immediately notified of the sample shipment by the person accepting the shipment.

3.1.3.1 If expected shipment is not received, notify the RSCC. The number is posted by the telephone in Room 503. If the RSCC has no explanation, call the courier service and begin tracking the shipment using the air bill number. The RSCC will contact the sampler if the shipment was to be hand delivered.

3.1.3.2 Inspect the sample cooler(s) for damage, and examine the integrity of the custody seals on the lid.

3.1.3.4 Open the cooler lid and check that the samples are intact and still cold.

3.1.3.5 Sign and date the enclosed Chain of Custody form and attached air bill (Appendix D and E).

3.1.3.6 Notify the RSCC if there are any problems with the condition of the samples and document notification on Routing Sheet (See section 3.2.2.9.3).

3.1.4 Unpacking and Inspection

Sample containers are usually received in plastic containment bags and glass containers are generally wrapped in bubble wrap to prevent breakage. Samples that are labeled as high concentration or those suspected of containing elevated concentrations of toxic materials (packed in paint cans) are unpacked under the fume hood.

3.1.4.1 Record the temperature of the samples on the Chain of Custody. If a temperature blank is provided, insert the thermometer into the blank water and allow it to equilibrate for one minute before taking a reading. If no temperature blank has been provided, use the Cole Parmer, 39650-02 Standard Model, Infrared Thermometer by pointing it at the sample label and pulling the trigger. The temperature will be displayed in the digital display window on the top of the thermometer. Both thermometers are stored in the drawer labeled *Thermometers,* in Room 503.

3.1.4.2 Remove the samples from plastic containment bags and packing material.

3.1.4.3 Set the samples on the bench in the order they appear on the Chain of Custody form. Set the samples on K-Dry table top soaker paper to absorb condensation moisture.

3.1.4.4 If samples arrive broken, wear thick rubber gloves while handling broken sample containers. Discard the broken glass into the cardboard container in Room 503 that has been designated for broken glass. Pour any aqueous sample remaining in either the sample container or the cooler into the carboy labeled for aqueous waste located under the fume hood in Room 503. See SOP Number 125 for detailed instructions for disposal of hazardous waste. Record the identification numbers of the broken samples on the Chain of Custody and the Sample Routing Sheet (see 3.2.4.13). Immediately notify the RSCC with the identities of the broken samples.

3.1.4.5 Measure and record the pH of chemically preserved aqueous samples is to be measured and recorded (VOC samples excepted). Fill a 10 mL disposable beaker with sample and immerse a 0-14 pH indicator strip into the aliquot until there is no further color change on the strip. Match the colors on the strip with the colors on the package for the pH of the sample. If a sample pH is other than that indicated for that particular analysis by EPA-600/4-80-055, "Technical Additions to Methods for Chemical Analysis of Water & Waste", immediately notify the RSCC and the Chemistry Team Leader and note any problem on the Sample Routing Sheet (Appendix F). Dispose of the liquid from the disposable beaker in the carboy labeled for aqueous sample waste stored under the fume hood.

3.1.4.6 Preserve drinking water samples with HNO3 to a pH less than 2 if not already done so by sampler (EPA Methods 200.7, 200.8, 200.9).

3.1.4.6.1 In the pH and Turbidity Run Log, enter the date, time, case number,, sample number (ABXXXXX), and the initial pH.

3.1.4.6.2 Using 1:1 Nitric Acid and a pipet, add 3 mL of the acid to each 1 liter sample container and re-check the pH. If necessary, add drops of 1:1 Nitric Acid until a pH of <2 is reached. Record the corrected pH in the Run Log in the column titled *pH after preservation.* Following acidification, the sample should be held for 16 hours before analysis and the pH re-checked. If the sample(s) pH is >2, add more acid and re-check after an additional 16 hours.

3.1.4.6.2 Measure the turbidity for all drinking water samples submitted to the lab for metals analysis. See SOP 401.

3.1.4.8 Compare the information on the sample labels with that on the Chain of Custody (sample ID, sample location, date sampled, time sampled). If any information recorded on the sample label fails to match that on the Chain of Custody, immediately notify the RSCC. Resolution of any problems must be written on or accompany the Sample Routing Sheet.

3.2 Sample Login/LIMS

The following procedures provide basic instruction for entering sample information into LABWORKS Enterprise, software dedicated for assigning laboratory identification numbers, maintaining the samples database, generating Routing Forms and sample labels.

3.2.1 Case Definition

A Case usually refers to samples from one sampling event, and may consist of any number of samples. Cases are defined by number, with the case number being assigned by the RSCC.

3.2.1.1 Determine the case number and analyses requested from the ESAT

TDF file and/or the Chain(s) of Custody. The RSCC will assign case numbers for non-ESAT projects and notify the Sample Custodian.

3.2.1.2 Log on to Labworks by double clicking on the Labworks icon on the Windows desktop. At the Labworks login prompt, enter in your name and password (already assigned by Region 9 Laboratory's Computer Specialist).

3.2.1.3 To enter a new case number into the database, single click on " Maintenance" from the Labworks Enterprise Desktop. From the drop - down menu single click on "Case Number List". From the "Labworks Case Number Maintenance" screen, single click on the "Create/Modify Case Number" bar. This brings up the "Case Number Information Editing" options. In the "Header Info" screen, enter in the assigned case number and highlight the submittal date button. Click on the "User Fields" tab on the bottom of the screen and enter in the Site ID in the " Field Name" section. Next single click on the "Analysis Order" tab at the bottom of the page. If you know the analysis code, enter it in the field titled "Anl Code". If the analysis code is unknown, click on the first line of the "Anl Code" section. The next screen that appears is a scrolling list of all analysis codes and their descriptions. Scroll down the list until the appropriate analysis code is found. When it is highlighted, click on "OK", and repeat this process until all desired analysis codes are entered. Click on the "Save" button and then click on the "Exit" button.

3.2.2 Sample Information Entry/Sample Login

The following procedures include entering sample information into the Labworks database, assignment of laboratory identification numbers, printing of the Login Routing Sheet (Sample Login Report, Appendix F) and sample labels.

3.2.2.1 Log onto Labworks by double clicking on the Labworks Desktop icon. Enter your assigned user identification and password where indicated.

3.2.2.2 From the Labworks Desktop menu single click on "Login" and then single click on "Multi - Sample Login" from the drop-down menu.

3.2.2.3 Enter the following information on the Multi-Sample Login template:
-the case number
-the EPA ID (sample ID)
-the sample matrix (H2O, soil, sediment, etc.)
-Submit date
-collection date
-Sample Delivery Group (see section5.2.2.4.1)
-number of containers
-comments (if applicable)

This information must be entered for each sample so a unique laboratory tracking number can be assigned to each one. Make an entry for one additional sample (Lab Blank) per matrix, per SDG, (i.e. if 10 samples are received, 11 entries will be made).

3.2.2.3.1 SDGs are comprised of 20 samples from a given case (i.e., if 60 samples are received, there will be 3 SDGs). The SDG number is the day number of the year, preceded by the last 2 digits of the year, found on the "Activity Schedule, Optional Form 67" calendar. For example, June 5, 1998 is day 156. Therefore an SDG begun on this day would be 98156. If more than one SDGs are issued on a particular day, the SDG is to be further distinguished by a letter of the alphabet (98156b, 98156c, etc.).

3.2.2.3.2 If there is a 14 day gap from the last day a group of samples was received to the next delivery of samples from that case, then a new SDG is assigned.

3.2.2.4 Single click on the "Login" button on the bottom of the page. Copy the "Login Record File" number that appears in the box, on to the top of the Chain(s) of Custody.

3.2.2.5 A spreadsheet insert will appear on the screen showing the samples that were logged in and the corresponding Labworks - issued ID numbers. Single click on the "OK" button. Next, single click on "File" on the menu on the top of the screen. Single click "Exit"on the drop-down menu.

3.2.2.6 From the Labworks Desktop main menu single click on "Maintenance". From the drop - down menu single click on "Modify/Delete Sample".

3.2.2.7 Select "Login Record File" from the "Sample Selection Options". Double click on the desired login record file and single click on the "OK" button.

3.2.2.8 To print sample labels, single click on the "Labels" button. A scroll - down spreadsheet will appear displaying 6 columns. In the column titled "Count" type in the number of labels needed for each sample. Next, single click on the " OK" button. When asked if you want to select a printer, click on the "YES" button. In the "Select a Printer" box, highlight the *Epson FX-850* bar and single click on the "OK" button.

3.2.2.8.1 Place the sample labels on the corresponding sample containers, being certain not to cover the EPA (field) IDs. Match the sample numbers on the Chain(s) of Custody with the numbers printed on the sample container. Double check each container after labels have been affixed to insure the right labels are on the right samples.

3.2.2.9 To print the Sample Login Report/Routing Sheet, double click on the *Access Reports for Labworks* button in the Labworks Enterprise group on the desktop screen. Single click on the Login Record File needed and single click on the *Build the Sample Login Report* button. Print the report.

3.2.2.9.1 The Routing Sheet will print the case number, the SDG, the login date, the samples' Client ID and corresponding unique Laboratory ID, requested analysis, due date and matrix.

3.2.2.9.2 When applicable, in handwritting, note that the pH was measured and make special note of any incorrect pH.

3.2.2.9.3 When applicable, in handwritting, note any problems with samples, (i.e. incorrect labeling, broken containers, inefficient sample quantity, compromised sample integrity, etc.). Make this notation in the area designated as "comments" at the top of page 1.

3.3 Sample Login Report/Routing Sheet Distribution

Laboratory Routing Sheets, detailing the work for each laboratory department generated by Labworks are routed to the EPA and ESAT personnel responsible for the assigned analyses. The EPA Chemistry Team Leader receives a copy to check for login accuracy.

3.3.1 Group the Routing Sheets by analytical department (volatiles, metals, inorganic/general chemistry, etc.) With each Routing Sheet, attach a copy of the Chain (s) of Custody and the air bill.

3.3.2 Deliver one copy of the Laboratory Routing Sheet with attachments to the applicable analysts or technicians. Samples with short holding times (i.e., pH, nitrate) are a priority. Laboratory Routing Sheets and samples should be delivered to the analyst immediately.

3.3.3 Keep all original paperwork, including Routing Sheets, Chain(s) of Custody, air bills and any other applicable paperwork in the case logbooks stored in Room 503. There is a separate logbook for each EPA program (Superfund, RCRA, NPDES, WQM, etc.). Each logbook is kept in order by case numbers and date.

3.4 Sample Storage and Sign Out

3.4.1 Soil and water samples are stored in the refrigerators located in Room 503. Tissue samples are stored in freezers in Room 503 or in Room 205.

3.4.1.1 After samples have been logged in and labeled, place them on a shelf in one of the walk - in refrigerators in Room 503 or in one the freezers in Room 503 or Room 205.

3.4.1.2 All samples placed in a refrigerator or freezer must be signed into the Internal Chain of Custody logbook (Appendix G) located on the login bench directly across from the walk - in refrigerators. Enter the lab identification number, their initials, the date the sample was logged into the storage unit, the refrigerator letter and the shelf number the sample(s) was placed.

3.4.1.3 VOA samples are delivered to Room 201 by the Sample Custodian where they are stored and analyzed. VOA samples have a unique Internal Chain of Custody. Air samples are delivered to Room 203 where they are stored and analyzed. Air samples have a unique Internal Chain of Custody. In both cases, log samples into the Internal Chain of Custody at the time the samples are delivered.

3.4.1.4 Most tissue samples are stored in Freezer Unit 21 in Room 503. Those samples are logged in and out of the regular Internal Chain of Custody logbook found on the login bench across from the cold rooms in Room 503. When Freezer Unit 21 reaches capacity, tissue samples are stored in Freezer Unit 3 in Room 205. Log samples stored in Room 205 into the Internal Chain of Custody logbook located on the bench to the right of Freezer Unit 3.

3.4.1.5 The refrigerators and freezer temperatures are monitored daily to insure they are operating correctly. This is performed by an ESAT employee assigned to the task of recording the temperature of each refrigeration unit in logbooks located in Room 503. Any observable irregularities are to be reported immediately to the building engineer.

3.4.1.5.1 If a cold room or a freezer fails to maintain the samples at the required temperature, move the samples to another appropriate location (cold room/freezer), remembering to note the new location in the Internal Chain of Custody logbook.

3.4.2 To insure proper chain of custody procedure, samples must be signed out before being removed from Room 503 or Room 205 by all analysts and technicians. Prior to removing samples for analysis, the analysts or Technician must sign-out on the Internal Chain of Custody logbook. Signing-out samples is to include the date and the analysts initials. The samples must be returned and signed back in by the end of each working day.

3.4.2.1 Review the Internal Chain of Custody logbook weekly to monitor the sign - in/sign - out process.

4.0 Sample Login Health and Safety Warnings

Samples received at the lab are of unknown toxicity and/or preserved with acids or bases that can harm the skin and eyes, therefore personal protective equipment is to be worn.

4.1 Lab coats, gloves and safety glasses are to be worn at all times while logging in samples.

4.2 Upon opening the cooler, if any odor is detected, the cooler is to be promptly moved to the fume hood for unpacking, inspection and login.

4.3 Samples received in paint cans are to be moved to the fume hood for unpacking, inspection and login.

5.0 Materials and Apparatus

5.1 KayDry Tabletop soaker paper.

5.2 10 m/L disposable beakers.

5.3 ColorpHast indicator strips pH 0-14.

5.4 1:1 nitric acid (Reagent grade concentrated HNO3 and DI water).

5.5 1:1 sulfuric acid (Reagent grade concentrated H2SO4 and DI water).

5.6 3 m/L transfer pipettes.

5.7 Hach 2100N Turbimeter (see SOP 401).

5.8 -20 degrees C to 70 degrees C digital thermometer.

5.9 Cole Parmer 39650 Infrared thermometer.

APPENDIX A

Site Name:	HUALAPAI INDIAN RES.	**Case #:**	R98W13
City/State:	PEACH SPRINGS, AZ	**Date Assign:**	5/5/98
CERCLIS #:	N/A	**SSID:**	N/A
Project:	WQM	**Purpose:**	
Sampling Dates:	APR 23 - MAY 5, 1998	**TAT:**	35 days
Sampler Name:	ANNETTE MORGAN	**Agency:**	HUALAPAI TRIBE

Phone: (520) 769-2255 **Fax:** (520) 769-2309

RPM/Section/Phone: DILLON BANERJEE WTR-10 4-1945

//

# Samples	Matrix	Analyses/Method	Lab Name
50	W	CLPAS METALS/CN	R9L
50	W	TDS	R9L
50	W	ALK, CARB, BICARB	R9L
50	W	ANIONS	R9L
50	W	HARDNESS	R9L

Comments:

anions = chloride, fluoride, sulfate, o-phosphate

hardness & TDS if sufficient sample volume is provided

APPENDIX B

APPENDIX C

To: NancyJ Wilson/R9/USEPA/US@EPA
cc:
Subject: Shipping - SF Rive Mine, R98S47

Date # of # of

Shipped	Coolers	Samples	Matrix	Analysis	Airbill #
7/30	2	14	W	TDS, sulfate	5621237322 805784082565

case complete

Note: coolers were repacked and sent "hold for p/u"

APPENDIX D

APPENDIX E

APPENDIX F

APPENDIX G

California Department of Pesticide Regulation
Environmental Hazards Assessment Program
830 K Street
Sacramento, CA 95814

STANDARD OPERATING PROCEDURE
Sample Tracking Procedures

KEY WORDS

Sample Tracking, Sample Tracking Database, Chain-of custody, Sample

APPROVALS

APPROVED BY: ______________________ DATE: 7/28/99
Management

APPROVED BY: Lisa J. Ross DATE: 7/19/99
EHAP Senior Scientist

APPROVED BY: ______________________ DATE: 7/15/99
EHAP Quality Assurance Officer

PREPARED BY: Andrea Hoffman, Johanna Walters DATE: ~~7/15~~ 7/7/99

Environmental Hazards Assessment Program (EHAP) organization and personnel such as management, senior scientist, quality assurance officer, project leader, etc. are defined and discussed in SOP ADMIN002

1.0 INTRODUCTION

1.1 Purpose

This Standard Operating Procedure (SOP) discusses sample check-in and check-out procedures; the recording of chemistry data; sample disposal procedures; and the Sample Tracking Database.

1.2 Definitions

- **1.2.1** **Sample** is any environmental substance collected and analyzed for chemical content, toxicity, soil texture analysis, etc.
- **1.2.2** **Sample Tracking Database** is a relational database designed in Microsoft Access to trace a sample from the time it is checked into the storage facility until the sample is submitted to a laboratory for analysis or disposed of after a study is completed.
- **1.2.3** **Chain-of-custody** is a record describing in detail all pertinent information specific to each sample, including dates and signatures of persons handling the sample.
- **1.2.4** **Sample Custodians** are personnel, under direction of the lab liaison, responsible for receiving samples from field staff, delivering samples to the laboratory, and tracking samples in the Sample Tracking Database.

2.0 SAMPLE TRACKING

2.1 Sample Tracking Codes

Sample tracking codes are abbreviations for fields in the database that refer to specific information about each sample. The study number in combination with the sample number is identified as the key field and all information specific to the sample is referenced by the following codes back to the key field.

SAMPLE CODES:

P= Primary	R= Replicate	B= Backup	FB= Field Blank
* = Split	S= Spike	BG= Background	BM= Blank Matrix
A= Acidified	U= Unacidified	RB= Rinse Blank	

STORAGE LOCATION CODES refer to the storage location of each sample and the storage facility.

F= Fresno	R= Refrigerator	SR10= Sacramento Refrigerator #10
S= Sacramento	F= Freezer	SF05= Sacramento Freezer #05
W= Warehouse	A= Air Temp	SF06= Sacramento Freezer #06
L= Lab	I=Ice Chest	SF07= Sacramento freezer #07
D= Deep Freeze	FZ= Freezesafe	

SAMPLE TYPE CODES refer to the sample matrix collected.

FRU= Fruit	DVEG= Dislodgeable Vegetation	TWG= Twigs
SOI= Soil	SSS= Stainless Steel Sheets	EXT= Extract
WAT= Water	STD= Standard	VEG= Vegetation
SUR= Surrogate	SED= Sediment	FILT= Filtrate
TUR= Turf	TAN= Tank	KIM= Kimbie
SAN= Sand	AIR= Air	TRP= Air Cassettes
BRA= Branch		

SAMPLE CONTAINER CODES refer to the type of container each sample is placed in during storage.

QMSJ= Quart Mason Jar	1LAMBR= 1 Liter Amber Bottle
PMSJ= Pint Mason Jar	HPMSJR= Half Pint Mason Jar
PBAG= Plastic Bag	HIVJAR= Hi-Vol Jar
FOIL= Aluminum Sheets	P500mL= Plastic Bottle (500 mL)
CAS= Air Cassettes	1LPC= 1 Liter Polycarb. Bottle

1LPP= 1 Liter Polyprop. Container
XADT= XAD Tube (small)
Summa= Summa Canister
HIV= High Volume Air Sampler
500mLPC= 500mL Polycarb. Container
250mLAMBR= 250mL Amber Bottle
500mLAMBR= 500mL Amber Bottle
500mLHDPP= 500mL High Density Polyprop.
VIAL= Small Standard Vial
XAD4= Large XAD 4 Tube
LOV= Low Volume Air Sampler

LABORATORY CODES refer to the specific laboratory each sample is shipped to for analysis.

QUAN= Quanterra Laboratory
ATL= Aquatic Toxicology Lab
FMC= FMC Corporation
ZEN= Zeneca Ag Products
APPL= Apple Labs
NCL= North Coast Labs
FRES= Fresno Soils Lab
CDFA= CA Dept. of Food & Agr.
CDFG= CA Dept. of Fish & Game
ALTA= ALTA Analytical Laboratory
VAL= Valent Dublin Laboratory
MOR= Mores Laboratories Inc.
UCD= University California Davis
WSAC= W. Sacramento Soils Lab

ANALYSIS TYPE refers to the type of test method to be performed on each sample.

C= Chemical
O= Organic
T= Texture
F= Tracer
P= pH
B= Bulk Density
E= Elisa
M= Moisture
V= Various

CHEMICAL ANALYSIS refers to the chemical analysis to be performed on each sample, if applicable.

OP=Organophosphate Screen
CB= Carbamate Screen
DI= Diazinon
EN/DI= Endosulfan/ Diazinon Screen
TOX= Biotoxicity
HEX=Hexazinone
TRI= Triclopyr
GLY= Glyphosate
TRIAZ= Triazine Screen

TDM= Triclopyr, 2,4-D, MCPA
PIC= Chloropicrin
MOL= Molinate
CARBO= Carbofuran
MeBr= Methyl Bromide
PROP= Propanil
THIO= Thiobencarb
MP/MN= Methyl Parathion/Malathion

COMMENTS refers to any additional information regarding samples.

BS= Blind Spike
ACT TOX= Acute Tox
CHN TOX= Chronic Tox
RB= Rinse Blank
GF= Golden Fleece
BB=Buck Brush
BF= Bracken Fern
MB= Manzanita Berry
SR= Soap Root
DB= Deer Brush
EB= Elderberry
DG= Deergrass
RD= Redbud
PE= Pearly Everlasting

2.2 Sample Check-in Procedures

All samples received at the storage facility are immediately put in a refrigerator or freezer depending on the matrix specific storage requirements. The field crew fills out a three part check-in sheet (Figure A) using the sample tracking codes (Section 2.1).

The check-in sheet must be complete in order to properly track environmental samples. The following is a description of each key component of the check-in sheet.

Portion Filled Out By Field Staff

Project ID: The study number or name.
Date Received: The date the sample was received from the field crew.
Checked-in by: The initials of the person who fills out the check-in sheet.
Remarks: List ice chest number where samples were stored, Hobo Temp® temperature logger number (if necessary), and any additional or necessary information regarding the samples listed on the check-in sheet. For GLP studies, the ice chest number along with the maximum temperature samples were stored at in the ice chest must be marked on Hobo Temp® print-out as noted in SOP EQOT001.01. If temperature exceeded 6° C for refrigerated samples or 0° C for frozen samples, this must be documented on the sample check-in sheet in the comments section.
EHAP Sample No.: The number assigned to a labeled sample container.
Sample Code: List sample code (Section 2.1 for codes).

Date Sample Collected: Note the sample collection date from the Chain-of-Custody.
Sample Type: Specify the type of sample collected (Section 2.1).
Container Type: What the sample is stored in (Section 2.1).
Analysis Type: The type of analysis the sample is intended for (Section 2.1).
Analysis: List the type of chemical or screen the sample is to be analyzed for.
Comment: Space provided for additional information regarding individual samples (Section 2.1).

Portion Filled Out By Sample Custodian

Date/Logged in by: The date and person who enters information into the Sample Tracking Database.
Storage Location: List where the sample is being stored (Section 2.1).

After the check-in sheet is completed, the white and yellow copy are used to enter the information into the Sample Tracking Database and then filed with the QA/QC officer. The pink copy is given to the project leader in order to track ice chests and corresponding samples entering the storage facility (GLP studies only).

Each field sample is compared against it's corresponding Chain-of-custody (COC), then the COC is signed and dated by the person receiving the sample at the storage facility. The white and yellow copy of each COC is removed and sent with it's corresponding field sample to the laboratory. The pink COC copy is given to the Project Leader. Any remaining samples held at the storage facility are stored under their required storage conditions with the white and yellow copy of their corresponding COC's.

2.3 Sample Check-out Procedures

A three part check-out sheet is filled out for any sample leaving the storage facility (Figure B). The check-out sheet must be complete in order to properly track environmental samples leaving the storage facility. The check-out sheet is filled out by the sample custodian only.

The check-out sheet is similar to the check-in sheet but differs in three components.

Date Delivered: The date the sample is taken to the laboratory.
Checked-out by: The initials of the person filling out and transporting the sample to the laboratory.
Laboratory Delivering to: Specify the destination code for the sample scheduled for analysis (Section 2.1).

A pink copy of the check-out sheet and the white and yellow copies of each COC are placed in a plastic bag and accompany samples transported to the laboratory. The samples are placed in ice chests and maintained at their required temperatures during transport using blue ice, wet ice or dry ice. The white and yellow copies of the check-out sheet are retained by the QA/QC officer and are used to enter information into the Sample Tracking Database.

2.4 Chemistry Results

After results are received from the laboratory, the laboratory sample number, and the extraction and analysis date for each sample are entered into the Sample Tracking Database using the appropriate Microsoft Access query.

2.5 Sample Disposal

After each study is completed, and with the approval of the Project Leader, all remaining samples stored in the storage facility may be disposed of by the sample custodian. A two part Sample Disposal Sheet is completed and includes information similar to the check-out sheet (Figure C). This information is then entered into the Sample Tracking Database using the appropriate Microsoft Access query. The white copy of the Sample Disposal Sheet is retained by the QA/QC officer while the yellow copy is used to enter the information into the database.

3.0 Sample Tracking Database

All the information reported on the check-in, check-out, and sample disposal sheets is entered in the Sample Tracking Database using tables in Microsoft Access. Queries, forms and reports are designed specifically for each study to access fields for summarizing data.

3.1 Computer Generated Backups

Weekly backups are conducted by copying the database to a zip drive disk.

FIGURE A

SAMPLE **CHECK-IN** SHEET

ENVIRONMENTAL HAZARDS ASSESSMENT PROGRAM

Study Number (Project ID):________

Date Received (Warehouse):_________

Checked-In By:________

Page ____ of ____

Sample Tracking Staff Only:

Logged In By (data entry):________

Data Entry Date:__________

Storage Location Code:__________

Remarks:

Samples were stored in ice chest # __________ at check-in.

EHAP Sample #	Sample Code	Date Sample Collected	Sample Type	Container Type	Analysis Type	Analysis	Comments

(3/99)

White copy-Lab Liaison, Yellow-Sample Tracking Staff, Pink-Project leader

FIGURE B

STATE OF CALIFORNIA

DEPARTMENT OF PESTICIDE REGULATION
ENVIRONMENTAL HAZARDS ASSESSMENT PROGRAM
West Sacramento Field Office
3971 Commerce Drive, Suite D
West Sacramento, CA 95691 (916) 322-3082

SAMPLE **CHECK-OUT** SHEET

Study Number (Project ID):________

Logged Out By (data entry):________

Date Delivered:_________

Data Entry Date:__________

Checked-Out By:________

Storage Location Code:__________

Laboratory Delivering To:________

Page ____ of ____

Remarks:

EHAP Sample #	Sample Code	Date Sample Collected	Sample Type	Container Type	Analysis Type	Analysis	Comments

(5/98)

White copy-Lab Liaison, Yellow-Sample Tracking Staff, Pink-Laboratory

FIGURE C

California Dept. of Pesticide Regulation
Environmental Hazards Assessment Program
3971 Commerce Drive, Suite D
West Sacramento, CA 95691
(916) 322-3082

Today's Date:________

Sample Disposal Sheet

Project ID (Study no.): __________ Disposed by: ______________

Date Disposed: _____________ Storage location: __________

===
Remarks:

===

EHAP Sample #	Sample Code	EHAP Sample #	Sample Code	EHAP Sample #	Sample Code	EHAP Sample #	Sample Code