

Identifier: **EP-ERSS-SOP-5058**  
(was SOP-01.04)

Revision: **0.0**



Effective Date: **02/09/07**

## Environment & Remediation Support Services

### Standard Operating Procedure

# for **SAMPLE CONTROL AND FIELD DOCUMENTATION**

#### APPROVAL SIGNATURES:

Subject Matter Expert:	Organization	Signature	Date
Keith Greene	ERSS	Signature on File	11/28/06
Quality Assurance Specialist:	Organization	Signature	Date
Ed Webb	ERSS	Signature on File	12/13/06
Responsible Line Manager:	Organization	Signature	Date
Craig Eberhart	ERSS	Signature on File	12/11/06

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## 1.0 PURPOSE AND SCOPE

This purpose of this procedure is to describe the process for documenting the traceability of samples collected for the Environment & Remediation Support Services (ERSS) Division using sample control and field documentation (e.g., container labels, Sample Collection Logs, Chain of Custody/Request for Analysis forms, and Daily Activity Log forms or field notebooks).

## 2.0 BACKGROUND AND PRECAUTIONS

### 2.1 Background

All work performed for the ERSS must be thoroughly and accurately documented. Sample control and field documentation are necessary to document the work performed in the field and to ensure traceability and defensibility of resulting data. Lack of complete documentation may render the fieldwork invalid.

***Samples are to be identified and controlled to ensure proper documentation.***

Use this procedure in conjunction with an approved Site-Specific Health and Safety Plan (SSHASP).

### 2.2 Precautions

None.

## 3.0 EQUIPMENT AND TOOLS

The list below represents the equipment necessary to complete the tasks defined within this procedure:

- computer; and
- printer.

## 4.0 STEP-BY-STEP PROCESS DESCRIPTION

### 4.1 Request Notification

User	1.	Notify the Sample Management Office (SMO) and Data Management by completing and submitting the SMO Analytical Order and Field Paperwork Request spreadsheet in accordance with DI-4.11.
	2.	Notify the SMO and Data Management staff at least two weeks in advance of work.
	3.	Document any special instructions or requests on the Field Paperwork Request spreadsheet.
	4.	Contact Data Management staff if questions arise while completing the SMO Analytical Order and Field Paperwork Request spreadsheet.

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## 4.2 Sample Control and Field Documentation

Data Management Staff	1.	Generate draft paperwork.
SMO Staff	2.	Generate the order templates.
User	3.	Review the draft sampling paperwork or summaries, either approving for final printing, or coordinating with the Data Management staff to correct problems.
SMO Staff	4.	Print the approved paperwork.
	5.	Pull the required sample containers.
	6.	Provide the sampling kits to the user.
Field Team Leader	7.	Complete all the blank fields in the sample control and field documentation while collecting the samples.
	8.	Correct the planned values by filling in the “as collected” spaces, based on field observations.
	9.	Record “OK” in the “as collected” spaces if the planned values are accurate. [NOTE: To fill in multiple spaces with “OK”, draw an arrow from the first “OK” through the remainder of the spaces.]
	10.	Ensure that sample labels (see Attachment 1) that provide the following information regarding the samples are affixed to the sample containers before or immediately following the sampling activity: <ul style="list-style-type: none"> <li>• Location – a unique number that allows the entry of location information into the ERSS database;</li> <li>• Container Code – the type of container assigned to this sample;</li> <li>• Special Instructions – special instructions requested of the laboratory;</li> <li>• Date and Time – date and time of sample collection;</li> <li>• Sample ID – sample identification number and container number for each sample in a shipment;</li> <li>• Analysis – analytical method requested for type of contaminant for which the sample is analyzed;</li> <li>• Preservative – type of preservative required for a particular analysis (e.g., ice, HNO<sub>3</sub>, none); and</li> <li>• Field POC, Initials – printed name and initials of point of contact.</li> </ul>
	11.	Ensure that all fields are completed, including “Date” and “Time” of sample collection and the “Field Point of Contact (POC)”.

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### 4.3 Sample Collection Logs

- |                      |   |
|----------------------|---|
| Field Team<br>Leader | <ol style="list-style-type: none"> <li>1. Ensure the completion of the Sample Collection Log (SCL) (see Attachment 2) recording all information pertinent to the collection of sample media on this log.</li> <li>2. Ensure that all fields on the SCL are complete and sufficient information has been supplied for each.<br/><br/>[NOTE: Write “n/a” for “Not Applicable” in the field, as appropriate.]</li> <li>3. Record additional information, as necessary, on either an attachment to the SCL, the Daily Activity Log, or the Field Notebook, as appropriate.</li> <li>4. Complete the SCL by signing it, signifying the collection of the sample.</li> <li>5. Request an independent team member to review the SCL to ensure its completeness and accuracy, indicating review with an approval signature.</li> <li>6. Submit the SCLs to SMO staff when the samples are submitted.</li> <li>7. Return the SCLs and Field COC forms to the SMO with the words “not collected” written across the forms for samples that were planned, but were not collected.</li> <li>8. Photocopy the log at the SMO for the project records, as appropriate.</li> <li>9. Perform the following steps if collecting only field screening/measurement results: <ul style="list-style-type: none"> <li>• Note that the sample container(s) is not collected by lining through the container(s) and writing in “container(s) not collected”;</li> <li>• Change the sample usage code to “SCR” to indicate a screening sample;</li> <li>• Ensure that all required signatures are applied; and</li> <li>• List the field screening/measurement results in the field screening/measurement results section on the SCL.</li> </ul> </li> </ol> |
|----------------------|---|

### 4.4 SCL Change Control

- |                      |  |
|----------------------|--|
| Field Team<br>Leader | <ol style="list-style-type: none"> <li>1. Return to the SMO and update the original SCL when SCLs require an update after sample and field paperwork submittal.</li> <li>2. Initial and date the SCL change.</li> <li>3. Photocopy the changed SCL for the project files.</li> </ol> |
|----------------------|--|

#### 4.5 SCL Change Control

- |                   |    |  |
|-------------------|----|--|
| Field Team Leader | 1. | Ensure the use of the Field COC forms (see Attachment 3) to document the integrity of all samples and to maintain a record of sample collection and transfer between personnel.  |
|                   | 2. | Ensure the Field COC contains a unique control number.   |
|                   | 3. | Complete a Field COC for each sample collected.  |
|                   | 4. | Ensure that information is supplied in all blank spaces on the Field COC form; if the space is not applicable, enter "n/a".  |
|                   | 5. | Verify the individual accepting custody of a sample or set of samples confirmed that all containers identified on the Field COC form were contained in the package(s) requiring acceptance, and that the receipt of all sample containers was acknowledged by signature on the form. |
|                   | 6. | Inspect Field COC forms for completeness and accuracy.   |

#### 4.6 Delivery of Samples to the SMO

- |                             |    |   |
|-----------------------------|----|---|
| Field Team Leader           | 1. | Ensure that all copies of the Field COC form accompany the sample(s) on delivery to the SMO.  |
|                             | 2. | Print name and sign the Field COC form in the "Relinquished by" block.  |
| SMO Staff                   | 3. | Print name and sign the Field COC form in the "Received by" block.  |
| Field Team Leader/SMO Staff | 4. | Note the date and time of the transfer on the Field COC form.   |
| Field Team Leader           | 5. | Acknowledge the receipt of samples by signing the form, and submit the form with the samples.   |
|                             | 6. | Keep a photocopy of the Field COC form.   |
|                             | 7. | Submit the samples to the radiation-screening supplier for screening, and ensure the results are provided to the SMO prior to shipment to the contracted laboratory.  |
|                             | 8. | Complete a Radiological Screening Data Release Form (see Attachment 4) for samples that do not require radiation screening based on historical knowledge or previous radiation screening done in the sampling area. |
|                             | 9. | List the sample numbers previously screened within the "Reason" section of the form if previously sampled area received radiation screening.  |

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#### 4.7 Delivery of Samples to Another Analytical Laboratory

- |                      |    |   |
|----------------------|----|---|
| Field Team<br>Leader | 1. | Print name and sign the Field COC form in the “Relinquished by” block.  |
|                      | 2. | Obtain the printed name and signature of the individual at the mobile analytical laboratory on the Field COC form in the “Received by” block. |
|                      | 3. | Ensure the date and time of the transfer was noted on the Field COC form.   |
|                      | 4. | Keep a photocopy of the Field COC form.   |

#### 4.8 Custody Seals

- |                      |    |  |
|----------------------|----|--|
| Field Team<br>Leader | 1. | Ensure the use of Sample Custody Seals (see Attachment 5) in order to guarantee that samples were not tampered with during transport to the SMO or shipment to the analytical laboratories.        |
| Sample<br>Collector  | 2. | Apply custody seals to the lid of every sample container by ensuring the seal securely contacts both the sample container and the lid.   |
|                      | 3. | Initial and date each custody seal.  |
|                      | 4. | Contact SMO personnel to verify the requirements for custody seals based on the contracted laboratory to be used. [NOTE: Summa canisters and silica gel containers may not require custody seals.] |
|                      | 5. | Document in field notebooks whether or not custody seals were used and the reason they were not used.  |
| Field Team<br>Leader | 6. | Ensure delivery of the sealed sample container(s) to the SMO and/or to the mobile analytical laboratory(s).  |

#### 4.9 Sample Collection

- |                      |    |  |
|----------------------|----|--|
| Field Team<br>Leader | 1. | Follow applicable procedures for media-specific sample collection.<br>[NOTE: These procedures may require adherence to special instructions or for completing additional forms.] |
|----------------------|----|--|

#### 4.10 Complete Sample Control and Field Documentation

- Field Team Leader
1. Ensure the collection of all required field data and completeness of the sample control and field documentation.  
[NOTE: If the information is not applicable, put “n/a” as appropriate.]
  2. Do not destroy or discard documents even if they are illegible or contain inaccuracies that require replacement documents.
  3. Resolve any inaccuracies upon discovery by crossing through the error with a single line, correcting it on the original document, and initialing and dating the correction.
  4. Assign a number to the correction and attach a sheet to the original that fully describes the correction if the correction is not self-explanatory.

#### 4.11 Complete Field Investigation Summaries

- Field Team Members
1. Use bound field notebooks or Daily Activity Log forms (for use in loose-leaf notebooks), in addition to the sample control and field documentation, to record all pertinent field data, including detailed summaries of information pertaining to the field investigation and additional field data (e.g., unusual events such as storms).
  2. Follow procedure EP-ERSS-SOP-5009, Notebook Documentation for Environmental Restoration Technical Activities, if field notebooks are used.
  3. Ensure the field notebook has been assigned a unique identifier (i.e., ER Document Catalog Number) in order to be tracked as a controlled document.
  4. Paginate each sheet of the Daily Activity Log form (see Attachment 6) for each day (e.g., 1 of 4, 2 of 4, etc.).
  5. Ensure the following information is included within field logbooks or Daily Activity Log forms:
    - Date—month, day, and year at the start of each day and at the top of each page;
    - Time—the time of each activity;
    - Technical Area—two-digit number indicating the TA in which the sampling activities are executed;
    - Operable Unit—four-digit number indicating the OU in which the sampling activities are executed;
    - Site Work Plan—include the Site Work Plan number, if applicable;
    - Signature—preparer must sign the entries at the end of each day; and
    - Comments.

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- Field Team Members (Continued)
6. Include the following information within the Comment section of the field logbooks or Daily Activity Log forms:
- a general description of work performed;
  - deviations from approved plans or procedures;
  - names and affiliations of all participants on site (field team members and/or visitors);
  - a description of general field conditions (i.e., weather) encountered;
  - problems encountered/resolutions implemented;
  - sketches and calculations pertaining to the job;
  - supplies and equipment used;
  - photographic information, including time, date, and location photo was taken; roll identification number; frame number; general compass direction; a description of the subject matter; and the photographer's name;
  - decontamination practices (i.e., time at which decontamination was performed);
  - a description of waste generated as a result of the field investigation; and/or
  - any additional field observations pertinent to the investigation.

#### 4.12 Field Closeout

- Field Team Members
1. Ensure that field team members follow procedure EP-ERSS-SOP-5024, Field Site Closeout Checklist, to close out field activities.

#### 4.13 Records

- Field Team Leader
1. Submit the following records generated from this procedure to the Records Processing Facility:
- Field Notebooks;
  - Daily Activity Logs; and
  - Chain-of-Custody/Request for Analysis forms (i.e., for sample containers delivered to laboratories other than the SMO).
2. Submit the following records generated from this procedure to the SMO:
- Completed SCLs and Field COC forms (i.e., for sample containers delivered to the SMO and for samples planned, but not collected).
- 
- SMO Staff
3. Submit the following records generated from this procedure to the Records Processing Facility:
- SCLs and Field COCs/Request for Analysis forms (i.e., for sample containers delivered to the SMO and for samples planned, but not collected); and
  - Sampling Paperwork Approval form.



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## 5.0 PROCESS FLOW CHART

Flow chart is to be included at a later date.

## 6.0 ATTACHMENTS

Attachment 1: 5058-1 Sample Labels (1 page)

Attachment 2: 5058-2 Sample Collection Log (1 page)

Attachment 3: 5058-3 Sample Field Chain-of-Custody (1 page)

Attachment 4: 5058-4 Radiological Screening Data Release Form (1 page)

Attachment 5: 5058-5 Sample Custody Seal (1 page)

Attachment 6: 5058-6 Daily Activity Log (1 page)

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## 7.0 REVISION HISTORY

Author: Felicia Aguilar

Revision No. <i>(Enter current revision number, beginning with Rev.0.0)</i>	Effective Date <i>(DCC inserts effective date for revision)</i>	Description of Changes <i>(List specific changes made since the previous revision)</i>	Type of Change <i>(Technical [T] or Editorial [E])</i>
0.0	02/09/07	New document number, reformatted and renumbered. Supersedes SOP-01.04	E

[Using a CRYPTOCard, click here to record "self-study" training to this procedure.](#)  
 If you do not possess a CRYPTOCard or encounter problems, contact the ERSS training specialist.

**ATTACHMENT 1: SAMPLE LABELS**

**5058-1**

**Sample Labels**

Records Use only



LOS ALAMOS NATIONAL LAB		LOS ALAMOS NATIONAL LAB		LOS ALAMOS NATIONAL LAB	
Location: 09-02-19548	Date: Time:	Location: 09-02-19548	Date: Time:	Location: 09-02-19548	Date: Time:
Container Code: 500 ML AMBER GLASS		Container Code: 500 ML AMBER GLASS		Container Code: 500 ML AMBER GLASS	
Special Instructions:		Special Instructions:		Special Instructions:	
GW09-02-44028	1	GW09-02-44028	4	GW09-02-44029	2
Analysis: EPA:300		Analysis: SW-846:7196A		Analysis: EPA:365.2	
Preservative: NONE		Preservative: NONE		Preservative: NONE	
Field POC: Katzman, Danny		Field POC: Katzman, Danny		Field POC: Katzman, Danny	
Initials:		Initials:		Initials:	
LOS ALAMOS NATIONAL LAB		LOS ALAMOS NATIONAL LAB		LOS ALAMOS NATIONAL LAB	
Location: 09-02-19548	Date: Time:	Location: 09-02-19548	Date: Time:	Location: 09-02-19548	Date: Time:
Container Code: 500 ML AMBER GLASS		Container Code: 500 ML AMBER GLASS		Container Code: 500 ML AMBER GLASS	
Special Instructions:		Special Instructions:		Special Instructions:	
GW09-02-44028	2	GW09-02-44028	5	GW09-02-44029	3
Analysis: EPA:365.2		Analysis: SW-846:9250		Analysis: EPA:376.1	
Preservative: NONE		Preservative: NONE		Preservative: NONE	
Field POC: Katzman, Danny		Field POC: Katzman, Danny		Field POC: Katzman, Danny	
Initials:		Initials:		Initials:	
LOS ALAMOS NATIONAL LAB		LOS ALAMOS NATIONAL LAB		LOS ALAMOS NATIONAL LAB	
Location: 09-02-19548	Date: Time:	Location: 09-02-19548	Date: Time:	Location: 09-02-19548	Date: Time:
Container Code: 500 ML AMBER GLASS		Container Code: 500 ML AMBER GLASS		Container Code: 500 ML AMBER GLASS	
Special Instructions:		Special Instructions:		Special Instructions:	
GW09-02-44028	3	GW09-02-44029	1	GW09-02-44029	4
Analysis: EPA:376.1		Analysis: EPA:300		Analysis: SW-846:7196A	
Preservative: NONE		Preservative: NONE		Preservative: NONE	
Field POC: Katzman, Danny		Field POC: Katzman, Danny		Field POC: Katzman, Danny	
Initials:		Initials:		Initials:	

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**ATTACHMENT 2: SAMPLE COLLECTION LOG**

**5058-2**

**Sample Collection Log**

Records Use only



Los Alamos National Laboratory  
Environmental Restoration Project  
Los Alamos, NM 87545

**SAMPLE COLLECTION LOG**

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SAMPLE ID: CAPU-02-45071

EVENT ID: 102

EVENT NAME: Round 4 Pueblo Cyn Surface Water sampling

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED (MM/DD/YYYY):	_____	_____	_____	EVAL CLASS: WS	_____	_____	_____
TIME COLLECTED (HH:MM):	_____	_____	_____	SAMPLE TECH CODE: DC	_____	_____	_____
PRS ID: PRS: C-00-005	_____	_____	_____	FIELD QC TYPE: NA	_____	_____	_____
LOCATION ID: 00-10241	_____	_____	_____	COMPOSITE TYPE: NA	_____	_____	_____
LOCATION TYPE: GENERIC	_____	_____	_____	FIELD PREP: F	_____	_____	_____
TOP DEPTH (FT): 0.0000	_____	_____	( FT / cm / NA )	SAMPLE USAGE:	_____	_____	_____
BOTTOM DEPTH (FT): 0.0000	_____	_____	( FT / cm / NA )	WATER FLOWING :	_____	YES ___ NO ___ NA ___	_____
FIELD MATRIX: WS	_____	_____	_____	SCREEN/PORT DESC (wells only):	_____	_____	_____
				ER SOP Followed:	_____	_____	_____

#	CONTAINER	PRESERVATIVE	ORDER	ANALYTICAL SPECIAL INSTRUCTIONS
4	250 ML AMBER GLASS	H2SO4	DOC	
5	1 L POLY	HNO3	METALS+Mo+Si GEL	
6	1 L POLY	H2SO4	NH3+PO4+NO3NO2	
7	1 L POLY	ICE	Alk+Anions+Perchlorate	
8	1 GAL POLY	HNO3	AM241+GS+ISOPU+IS OU+SR90	

ADDITIONAL INFORMATION (optional): Special Instructions: \_\_\_\_\_

SAMPLE DESC: \_\_\_\_\_

SAMPLE LOCATION DESC: 00-10241

Location Description: \_\_\_\_\_

FIELD SCREENING/MEASUREMENT RESULTS: \_\_\_\_\_

COLLECTED BY: (PRINTED NAME) \_\_\_\_\_ (SIGNATURE) \_\_\_\_\_ (DATE) \_\_\_\_\_

REVIEWED BY: (PRINTED NAME) \_\_\_\_\_ (SIGNATURE) \_\_\_\_\_ (DATE) \_\_\_\_\_

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**ATTACHMENT 3: SAMPLE FIELD CHAIN-OF CUSTODY**

5058-3

Records Use only

**Sample Field Chain-of-Custody**



Los Alamos National Laboratory  
Environmental Restoration Project  
Los Alamos, MN 87545

EVENT NAME:   
COC ID:

**FIELD CHAIN OF CUSTODY**

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ER TEAM LEADER:   
FIELD TEAM LEADER:   
DESTINATION:   
DEST. POC:

SAMPLE ID:   
SAMPLE ORDER MATRIX:

**ANALYSES REQUESTED**

CONT. ID	ORDER	CONTAINER DESCRIPTION	PRESERVATIVE	COLLECTED Y/N	REASON	SPECIAL INSTRUCTIONS
1	EPA-300	500 ML AMBER GLASS	None			
2	EPA-365.2	500 ML AMBER GLASS	None			
3	EPA-376.1	500 ML AMBER GLASS	None			
4	SW-946:7196A	500 ML AMBER GLASS	None			
5	SW-946:9250	500 ML AMBER GLASS	None			

RELINQUISHED BY (printed name): (signature):	Date/Time:	RELINQUISHED BY (printed name): (signature):	Date/Time:
RECEIVED BY (printed name): (signature):	Date/Time:	RECEIVED BY (printed name): (signature):	Date/Time:

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**ATTACHMENT 5: SAMPLE CUSTODY SEAL**

<p><b>5058-5</b></p> <p align="center"><b>Sample Custody Seal</b></p>	<p>Records Use only</p> 
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**LAB SAMPLE**

**Los Alamos**  
LOS ALAMOS NATIONAL LABORATORY

**DO NOT TAMPER**

Date \_\_\_\_\_

Initials \_\_\_\_\_

**ATTACHMENT 6: DAILY ACTIVITY LOG**

**5058-6**

**Daily Activity Log**

Records Use only



Sheet of

Date: \_\_\_\_\_

Technical Area: \_\_\_\_\_

Operable Unit: \_\_\_\_\_

Site Work Plan: \_\_\_\_\_

Signature: \_\_\_\_\_

(print name and title, then sign)

Comments: \_\_\_\_\_

\_\_\_\_\_

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