

**WES-EDA-QP-219**

Supersedes: EP-ERSS-SOP-5058, R0

Revision: **0**

Effective Date: 10/20/2010

Next Review Date: 10/20/2013

**Environment, Safety, Health & Quality Directorate****Waste and Environmental Services****Standard Operation Procedure****Title: Sample Control and Field Documentation****Reviewers:**

Name: S. Schmeer	Organization: TPMC	Signature: Signature on File	Date: 10/19/2010
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Derivative Classifier:  Classified  Unclassified

Name: Jean Dewart	Organization: WES-EDA	Signature: Signature on File	Date: 10/20/2010
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**Approval Signatures:**

Subject Matter Expert: Keith Greene	Organization: WES-EDA	Signature: Signature on File	Date: 10/19/2010
Responsible Line Manager: Chris Echohawk	Organization: WES-EDA	Signature: Signature on File	Date: 10/20/2010

*The Waste and Environmental Services work is categorized as low hazard/risk operation. Any work to be performed in a Moderate or High Hazard Facility shall be coordinated through the appropriate Facility Manager.*

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## 1.0 HISTORY OF REVISIONS

<b>Document Number</b>	<b>Effective Date</b>	<b>Description</b>	<b>Type of Change (Technical [T] or Editorial [E])</b>
EP-ERSS-SOP-5058, R0.0	02/09/07	New document number, reformatted and renumbered. Supersedes SOP-01.04	E
WES-EDA-QP-219, R0		Procedure transferred to WES-Division from ADEP. New number assigned.	T/E

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## 2.0 PURPOSE AND SCOPE

This standard operating procedure (SOP) states the responsibilities and describes the process for documenting the traceability of samples collected for Los Alamos National Laboratory (LANL or Laboratory) using sample control and field documentation.

All LANL employees and their responsible subcontractors shall implement this procedure when collecting samples.

## 3.0 BACKGROUND AND PRECAUTIONS

Following the steps in this procedure assures that samples and field documentation are collected in a manner that creates and maintains legal defensibility. Following the procedure also assures that the field data generated during sample collection are correctly entered into the environmental databases for data analysis, compliance reporting, and long-term storage.

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

## 4.0 EQUIPMENT AND TOOLS

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

- Sample Management Database
- computer
- printer
- Sample Containers
- Custody Seals

## 5.0 STEP-BY-STEP PROCESS DESCRIPTION

### 5.1 Notify the Sample Management Office

#### User

1. Notify the Sample Management Office (SMO) of the sampling campaign by completing and submitting the SMO Request spreadsheet found on the WES Homepage at <http://int.lanl.gov/orgs/wes/index.shtml>. Notify the SMO staff at least two days in advance of work.
2. Instructions for filling out the spreadsheet (also known as the Sampling Plan) are included in the download. Requestor must complete fields in sheets 1 (General Request Info) and 2 (Analytical Request Info). Guidance for allowable codes are provided on sheets 3 (Field Code Values to Print) and 4 (Analytical Methods and Analytes).
3. Email finished spreadsheet to [smoorderrequest@lanl.gov](mailto:smoorderrequest@lanl.gov)
4. Contact Sample Management staff if questions arise while completing the SMO Request spreadsheet.

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## 5.2 Sample Request and Paperwork Creation

### SMO Staff

1. Enter Sampling Plan into the database according to client specifications on SMO Request spreadsheet.

### User

2. Review the sampling paperwork or summaries. Approve for final printing, or coordinate with the SMO staff to correct problems.

### SMO Staff

3. Print the approved Sample Collection Log/Field Chain of Custody Forms and Sample container Labels.
4. Call requestor for paperwork receipt. (It is not possible to e-mail the paperwork.).

## 5.3 Sample Collection and Documentation

### Field Team Member

1. Obtain the appropriate sample containers and custody seals from the SMO, when applicable.

Collect samples according to applicable sampling procedures.

2. Complete all the blank fields in the Sample Collection Log/Field Chain of Custody Form prior to sample submission to SMO. Complete the sample container labels and seal sample containers with sample custody seals when the sample is collected. [NOTE: Summa canisters and silica gel containers do not require custody seals.]
3. Record "OK" in the "as collected" spaces if the "as planned" information is accurate. [NOTE: To fill in multiple spaces with "OK", draw an arrow from the first "OK" through the remainder of the spaces.]  
[NOTE: Write "N/A" for "Not Applicable" in the field, as appropriate.]
4. Correct the information listed under "as planned" on the Sample Collection Log/Field Chain of Custody Form by filling in the information listed under "as collected", based on field observations.
5. Special conditions for filling out Sample Collection Log/Field Chain of Custody Form:
  - a. Priority – use this portion of the form for Stormwater sampling or cases of limited sample volume. This informs the analytical laboratory in which order you prefer the tests to be analyzed until sample is consumed. If your sample does not fall into one of these cases, mark N/A.
  - b. Special Instructions – use this portion of the form to provide special instructions to the analytical laboratory; i.e. quicker turnaround time, additional analyses requested from that bottle, etc.  
[NOTE: All information entered in writing on the Sample Collection log will be entered into the database. PLEASE WRITE LEGIBLY]
6. Record all sample field data required by the sampling procedure on the sample collection log. This may include silica gel weights, silica gel bound water, and other parameters required by the sampling procedure.
7. If a sample was planned and not collected, mark the sample collection log/field chain of custody form with the words "not collected" across the forms and draw a diagonal line across the form. Record the reason for not collecting the sample, and initial and date the form.

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8. Ensure that Sample collector and coworker (who participated in the sample collection and can verify the accuracy of the data) have reviewed and signed the appropriate lines so that if corrections are needed the sampler can be identified for future contact.
9. Submit the Sample Collection Log/Field Chain of Custody Forms to SMO staff when the samples are submitted.
10. Photocopy the Sample Collection Log/Field Chain of Custody Form for the project records, as appropriate.

#### **5.4 Delivery of Samples to the SMO**

##### Field Team Member

1. When transporting sample to the SMO from the field all the requirements of EP-ERSS-SOP 5057 must be followed. These requirements include proper packing and any required radiation screening PRIOR to sample submission to SMO.
2. Ensure that all Sample Collection Log/Field Chain of Custody Form accompany the sample(s) when samples are delivered to the SMO.
3. Print name and sign the Sample Collection Log/Field Chain of Custody Form in the “Relinquished by” block.

##### SMO Staff

4. Print name and sign the Sample Collection Log/Field Chain of Custody Form in the “Received by” block.

##### Field Team Member/SMO Staff

5. Note the date and time of the transfer on the Sample Collection Log/Field Chain of Custody Form. The date and time of field team sample delivery must exactly match the date and time for sample receipt by the SMO.

#### **5.5 Sample Collection Log Updates after Sample Submission**

##### Field Team Leader/Member

1. If situations are found after sample submission, the field team leader or field team member must return to the SMO and update the original Sample Collection Log/Field Chain of Custody Form.
2. Initial and date the Sample Collection Log change.
3. Photocopy the changed Sample Collection Log for the project files.

#### **6.0 RECORDS**

##### SMO Staff

1. Submit the following records generated from this procedure following SOP-5269.
  - Sample Collection Log/Field Chain of Custody forms

#### **7.0 ATTACHMENTS**

Attachment 1: Sample Collection Log/Field Chain of Custody Form

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[If you have read and understand the preceding document, click here to receive EDS credit.](#)

## ATTACHMENT 1 – SAMPLE COLLECTION LOG/FIELD CHANGE-OF-CUSTODY

Los Alamos National Laboratory

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### SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2553

EVENT NAME: 051 Sampling 2010

SAMPLE ID: NPDES051-10-13566

WORK ORDER:

	<u>AS PLANNED</u>	<u>AS COLLECTED</u>		<u>AS PLANNED</u>	<u>AS COLLECTED</u>
DATE COLLECTED(MM/DD/YYYY):			MEDIA:	NA	
TIME COLLECTED (HH:MM)			SUB-MEDIA:	OTHER	
PRS ID:	TA-50		SAMPLE TECH CODE:	DC	
LOCATION ID:	NPDES Outfall 051051		FIELD QC TYPE:	NA	
LOCATION TYPE:	OUT		FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	COMP	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		
FIELD MATRIX:	WOE		EXCAVATED: YES / NO / NA		
COMPOSITE TYPE:			COMPOSITE TIME INTERVAL:		
			WATER FLOWING: YES / NO / NA		
BOREHOLE: YES / NO / NA			BOREHOLE DECLINATION:		
			BOREHOLE DIRECTION:		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		NPDES-051 MET	250 ML POLY	Nitric Acid		
1		NPDES-CIO4	500 ML POLY	Ice		
1		NPDES-Ra-226+Ra-228	1 GAL POLY	Nitric Acid		
2		NPDES-PCBCONG	1 LITER AMBER GLASS	Ice		

SAMPLE DESC:

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) \_\_\_\_\_

REVIEWED BY (PRINT) \_\_\_\_\_

<b>RELINQUISHED BY</b> (Printed Name) (Signature)	Date/Time	<b>RECEIVED BY</b> (Printed Name) (Signature)	Date/Time
<b>RELINQUISHED BY</b> (Printed Name) (Signature)	Date/Time	<b>RECEIVED BY</b> (Printed Name) (Signature)	Date/Time