905R93010

REGION 5 STANDARD OPERATING PROCEDURE FOR VALIDATION OF CLP INORGANIC DATA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CENTRAL REGIONAL LABORATORY

SEPTEMBER, 1993

U.S. Environmental Protection Agency
Region 5, Library (PL-12J)
77 West Jackson Boulevard, 12th Floor
Chicago, IL 60604-3590

7304

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Region V
Environmental Sciences Division
Central Regional Laboratory/Laboratory Scientific Support Section
Chicago, Illinois

DOC#5)5438

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1. INTRODUCTION

Goals

The purpose of this document is to present guidelines to Region 5 inorganic data reviewers for addressing technical areas which are left open to interpretation in the "Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analysis", October 1989 revision. While this standard operating procedure (SOP) will primarily focus on samples analyzed through the Contract Laboratory Program (CLP) Inorganic Routine Analytical Services (RAS), data obtained through CLP Special Analytical Services (SAS) will be discussed.

Several goals are sought to be achieved through this standard operating procedure. These include:

- Review narratives of greater uniformity which address all deficiencies and their impact on data usability.
- Review narratives which can be used to note problems with laboratory performance and can be used by the CLP Regional Technical Project Officers (CLP TPO) for corrective action.

Guidance and Responsibility

This SOP provides technical guidance for qualification of outliers in areas which the Functional Guidelines characterizes as " professional judgement required".

The format for CLP Inorganic Data Review Narratives is outlined for order and content. No deviation will be permitted since this would increase the amount of time required for both the Inorganic Data Review Coordinator and the data users to examine results.

The SOP will also examine additional responsibilities of the front line data reviewer including review of Contract Compliance Screening (CCS) results/responses, recommendations for rejection of data or reanalysis of sample fractions, discussions with contractor laboratories, and identification of special technical requirements as found in SAS or PRP analyses.

This SOP cannot address every specific case situation but the reviewer should bring to the attention of the Inorganic Data Review Coordinator/Task Monitor problems which cannot be resolved.

Data Review Timeliness

The revised Memorandum of Agreement between Waste Management Division and the Environmental Sciences Division dated December 19, 1991 addresses timely data review. The standard turn around time is 21 days for either RAS or SAS review. This time can be shortened to 7 days for prioritized samples on an exception basis.

All data review tracking is done by the Laboratory Scientific Support Section within ESD. A weekly report is generated showing due dates and the status of the review for all cases received from contract laboratories. It is imperative that all reviews are done within the turn around time given and presented to the inorganic data review coordinator/task monitor. This will allow time to overview and make any recommendations for partial or non-payment of CLP laboratories.

Data Acceptance/Rejection

The TPO has the responsibility to initiate any data rejection or reduced useability actions for Region 5 based on the review recommendations. Most of the data is acceptable for use or acceptable for use with qualifications. For both acceptance and rejection of data SMO is notified. Acceptance is indicated through a copy of the Region 5 transmittal Form and data review sent to SMO. Rejection is indicated through the Regional Data Rejection/Reduced Value Form sent to SMO by the TPO.

2. DATA REVIEW PACKAGE FORMAT

The following will outline the components of the data package in the order that it must be returned to the USEPA Region 5 inorganic Data Review Coordinator/Task Monitor. The three major components of the data review package are:

- Inorganic Data Review Narrative
- Laboratory QC and Results
- Additional case Deliverables

The Inorganic Data Review Narrative and the Laboratory QC and Results comprise the data user package. The third component is never sent to the data user unless a copy is specifically requested (this does not apply to PRP data since the entire data review package is returned to the data user requesting assessment).

These three major components are broken down into a number of parts described below:

2.1 Inorganic Data Review Narrative

- Region 5 Transmittal Form
- Data Qualifier Sheet(s)
- Data Qualifier Definitions
- QC Exception Summary Report
- As applicable:
  - i. CLP Regional/Laboratory Communication System Telephone Record Log initiated by the data reviewer, laboratory, or TPO/RSCC.
  - ii. CLP RAS/SAS Re-analysis Request/Approval Form
  - iii. Regional Response to Results of Contract Compliance Screen (CCS) with copy of accompanying memo.
  - iv. CLP TPO Communication Summary

2.2 Laboratory QC and Results

- Central Regional Laboratory Sample Data Report Organics/Inorganics
- Inorganic Traffic Reports (IRTs) or SAS Packing Lists
- Case Narrative from the contractor laboratory
- Cover letters for resubmitted/additional/missing data from the contractor laboratory
- Inorganic Data
  - i. Inorganic Analyses Data Sheet - Form I (including undiluted, diluted and reanalyses)
  - ii. Method Blank Summary Form III
  - ii. Spike Sample Recovery Form V (part 1)
  - iii. Post Digest Spike Sample Recovery Form V (part 2)
  - iv. Duplicates Form VI
  - v. Instrument Detection Limits Form X
- Data Tracking Form for Contract Samples

2.3 Additional case Deliverables

All other case deliverables should be in the required order specified for the current CLP Statement of Work (SOW). The contractor laboratory is required to paginate all deliverables and the data reviewer must restore the data package (minus those items listed in section 2.1 and 2.2 above) to the original order. If the original order is not restored, a great burden may be placed upon the Inorganic Data Review Coordinator or anyone required to examine the data at a later date. Please refer to Exhibit B of the SOW concerning order of deliverables.

Case deliverables also include additional submissions such as Contract Compliance Screens, laboratory responses to CCS, and additional or missing data. Case deliverables should be in the following order:

- Contract Compliance Screen
- Laboratory Response to Contract Compliance Screen (Blue Cover Sheet).
- Additional or Duplicate Data Submissions (Yellow Cover Sheets).
- Remaining Case Deliverables restored to original order according to the SOW.

The three components of the data package must be packaged as follows to expedite review by the USEPA Inorganic Data Review Coordinator and xeroxing by clerical staff:

- Inorganic Data Review Narrative - held together with a paper clip.
- Laboratory QC and Results - held together with a rubber band. Both the Inorganic Data Review Narrative and Laboratory QC and Results are held together with a rubber band.
- Additional Case Deliverables - held together with a rubber band.
- Entire data review package is held together with a rubber band (if too large, use a box).

3. INORGANIC DATA REVIEW NARRATIVE

3.1 Outline

The Inorganic Data Review Narrative is the primary description of outlier performance and reference point for all qualifications of results. The purpose is to provide a clear and concise narrative which addresses all technical and contractual areas which the data reviewer has examined. Supporting documentation such as telephone logs, reanalysis requests, and memoranda for rejection of data will also be included in this review package component.

The Inorganic Data Review Narrative consists of these major elements:

- CRL Transmittal Form: The EPA data review task monitor signs and dates this form and indicates the final disposition of the case to the user.
- Data Qualifier Sheets: This provides discussion of the technical and contractual points which each reviewer examines in each Inorganic case. Each of these points must be addressed for each sample fraction (ICP, GFAA, Mercury and Cyanide) unless otherwise indicated:

  i. Holding Time
  ii. Calibration
  iii. Blanks
  iv. Interference Check Sample
  v. Laboratory Control Sample
  vi. Lab and Field Duplicate Sample Analysis
  vii. Matrix Spike Analysis
  viii. Furnace Atomic Absorption QC
  ix. ICP Serial Dilution
  x. Sample Result Verification
  xi. Additional Case Specific Problems - only if observed

The following items are also found in the Inorganic Data Review Narrative if applicable:

- CLP Regional/Laboratory Communication System Telephone Record Log
- CLP RAS/SAS Re-analysis Request/Approval Form
- Regional Response to Results of Contract Compliance Screening (CCS). Copies of the completed green cover form and supplementary memo are inserted if either:
  i. Data has been determined to be non-compliant by CCS but is determined to be usable by the region.
  ii. Data is unusable by the Region and is both technically and contractually non-compliant.
- CLP TPO Communication Summary
  Copies of communications between laboratories, CLP TPOs and/or APOs are included if technical/contractual

problems of a potentially broad nature (i.e. internal lab problem as opposed to a matrix problem) are observed. These will be noted in the Data Qualifier Sheets for outlier performance for the case at hand.

3.2 Detailed instructions for Completion of Inorganic Data Review Narratives

The primary guidance for qualification of CLP RAS data shall be the current edition of the Inorganic Functional Guidelines. In addition to format and style, further definition of qualifiers is discussed below under the appropriate subject. Copies of all necessary forms may be found in Appendices A and B.

3.2.1 CRL Transmittal Form

The reviewer should check off at least one of the four statements on the bottom of the cover sheet which best characterizes status of the data.

- Data are acceptable for use
- Data are acceptable for use with qualifications referenced above. See Data Qualifier sheets and Calibration Outlier forms for details.
- Data are preliminary - pending verification by contractor laboratory. See case summary above.
- Data are unacceptable. See case summary above.

The first statement would be used rarely since any qualifier would void its use. The second statement is the most common in use since almost all cases will have some qualified results. The third statement is used when a deliverable is missing requires clarification, or reanalyzed/resubmitted data is required but some preliminary results may be transmitted. The fourth statement refers to samples or fractions which are determined to be unusable. Data that has been found to be both technically and contractually unusable will be returned to the Sample Management Office (SMO). The details of data rejection are described in Chapter 5.

3.2.2 Cover Sheet.

The cover sheet will present a brief summary of major case problems and the status of the data. A major problem is defined as situations where one or more sample fractions are totally estimated or unusable.

The cover sheet will categorize the number of samples, matrix type (i.e. water, soil), and analytical service (i.e. full RAS inorganics, metals only, SAS). If the analytical service is a SAS, the nature of the SAS must be described (i.e. fast turnaround, low detection limits, additional/alternate parameters, high hazard).

The cover sheet shall reference other narrative sections such as data qualifier sheets and calibration outlier forms which detail outliers of performance. The reviewer should never attempt to cram the full details on the cover sheet.

The hours required to complete the review should be noted.

3.2.3 Region 5 Data Qualifiers
This section details Region 5's variations from the inorganic National Functional Guidelines and those areas where the Region feels it can replace the "professional judgement" criteria found in the National Functional Guidelines with more definitive guidance.

3.2.3.1 Holding Times
The following table indicates the holding time criteria being used in Region 5. Soil and sediment criteria are the same as the criteria for water samples though they are not preserved.

METALS: >6 MONTHS UNUSABLE (R)

MERCURY: >28 DAYS ESTIMATED (J) >56 DAYS UNUSABLE (R)

CYANIDE >14 DAYS ESTIMATED (J) >28 DAYS UNUSABLE (R)

3.2.3.2 Calibration
The Regional guidance follows the National Functional Guidelines with respect to %recovery for the ICV and CCV.

If the calibration curve coefficient is < 0.995, check to see if the curve was generated using a computer assisted second degree fit. If not, qualify sample results > IDL (> CRDL for CN and Hg) as estimated (J) and results < IDL (< CRDL for CN and Hg) as estimated (UJ).

3.2.3.3 Blanks
This criteria applies to all calibration blanks, preparation blanks and field blanks.

For blanks with analytes having negative results whose absolute value exceeds the CRDL, all associated sample results are qualified as unusable (R).

For blanks with analytes > IDL but < 5X the CRDL, associated sample results < 5X the blank level are reported as undetected (U); sample results > 5X the blank level are qualified as estimated (J).

For blanks with analytes > 5X the CRDL, all associated samples are unusable (R) and the system is considered out of control.

3.2.3.4 Interference Check Sample
The evaluation of the interference check sample follows the current National Functional Guidelines for inorganic data validation.

3.2.3.5 Laboratory Control Sample
The evaluation of the laboratory control sample follows the current National Functional Guidelines for inorganic data validation.

3.2.3.6 Laboratory Duplicates and Field Duplicates
Field duplicates are evaluated with the same acceptance criteria as the laboratory generated duplicates. If duplicate analysis results for a particular analyte fall outside the appropriate control limits, qualify the results for that analyte in all associated samples of the same matrix as estimated (J). If a field blank was used for duplicate analysis, all other QC data must be carefully checked and professional judgement used to determine any qualification of the data.

3.2.3.7 Matrix Spike Sample Analysis
The evaluation of the matrix spike sample follows the criteria specified in the current National Functional Guidelines except with regard to post digestion spikes. Post digestion spikes should be evaluated with the same criteria as the other spike samples.

3.2.3.8 ICP Serial Dilution
The %Difference between the sample and the dilution should be within 10%. If this criteria are not met the results for the effected analyte are flagged as estimated (J) regardless of whether positive interference or negative interference is indicated by the serial dilution.

4. Sample Reanalysis

Under certain circumstances it is necessary to request a laboratory to reanalyze samples. These circumstances generally fall into two categories:

4.1 First, some reanalyses are automatically required by contract. For example, when surrogate recoveries do not meet acceptance criteria the lab must rerun the sample to determine if this is a matrix problem or a lab problem.

4.2 Second, reanalysis may be necessary because of laboratory error. For example, if a lab over diluted a sample or failed to run a lab blank with that particular sample, reanalysis may be required. In this case the reviewer first must discuss the problem with the TPO and the data user to determine if reanalysis should be done.

4.3 In both cases the TPO must sign a reanalysis request form which is forwarded to the Sample Management Office and the APO in Headquarters who approves the reanalysis and determines if the lab can request payment for it. The Region can not directly request a lab to do additional work.

5. Data Rejection and Reduced Value Determination

5.1 In some cases reanalysis can not fix the defective data. This is often due to lack of sample or exceeded holding times. In these instances the data may be rejected and payment withheld from the laboratory. The decision not to use data is the sole decision of the Region. If the Region recommends that the data be rejected the rejection must be based on contractual requirements if there is to be any reduced payment to the laboratory. There are two clauses in the CLP contract that allow for reduced value and data rejection determinations: The Inspection of Services clause and the Warranty of Services clause.

5.2 Actions Under the Inspection of Services clause
This clause allows the Government to reduce the contract price to reflect the value of the services performed. The evaluation of the RAS services performed must be completed within the 30-day time period following the EPA's receipt of the data. For SAS's this time period is 45 days. Before any data is rejected the data user is consulted by the Technical Project Officer (TPO) to confirm that the data is unusable for the purpose it was collected. The TPO prepares a memo to the Sample Management Office explaining the contractual reasons for rejection or reduced payment which is sent to SMO with any rejected data and a completed Data Rejection/Reduced Value Form. The TPO's recommendation for the reduced value of the data should attempt to answer the question, "If this is the quality of the data I ordered, what would I have paid for it?" The reduced value recommendation must be resolved by EPA and the laboratory before the lab can be paid.

5.3 Actions Under the Warranty of Services Clause
The Warranty of Services clause is intended to provide protection against problems with non-compliant data fund after acceptance has occurred. This clause allows data rejection or reduced value determinations by revoking acceptance of the data for the following reasons:

- Latent defects (Detects which couldn't be discovered using normal inspection techniques)
- Contractor Fraud
- Gross Mistakes
- Warranties not met by the contractor

Revocation of acceptance must be accomplished within 90 days following the original acceptance of the data. Acceptance and the beginning of the 90-day Warranty of Services Period occurs when the Region transmits a copy of the completed data review to the Sample Management Office or 30 days after the data package is received by the Region; whichever occurs first.

5.4 Under both clauses, whether the data is being rejected or recommended for reduced value, the TPO's first action should be to notify SMO by phone that a recommendation is going to be made regarding payment for the data. This should prevent accidental payment of the lab before usability has been determined. It should also be noted that rejections under both the Inspection of Services and Warranty of Services clauses do not have to be rejections of the entire data package but may be limited to specific fractions and samples.

6. Actual Damages

In some cases the laboratory does not deliver any data because it did not analyze the samples. This may be due to sample loss or destruction, instrument breakage or missed holding times. In such cases, when the Government does not receive the data, it may pursue actual damages under the Authority of the Risk of Loss to Government Samples. To make a claim for actual damages the TPO informs the Regional Project Manager (RPM) of the situation who then submits a written claim to the APO in Headquarters detailing the actual sampling costs that the Government will incur by resampling. The APO will forward the request and documentation to the CO who will then negotiate the actual damages amount with the CLP laboratory.

APPENDIX A

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Region V CLP Data
Received for Review on _____

FROM: Charles T. Elly, Director(5SCRL)
Central Regional Laboratory

TO: Data User:_____

_____

We have reviewed the data for the following case(s).

SITE NAME:_____SMO Case No._____

EPA Data Set No._____No. of Samples_____DU/Activity Numbers _____/_____

CRL No._____

SMO Traffic No._____

CLP Laboratory:_____Hrs. for Review_____

Following are our findings:

( ) Data are acceptable for use.
( ) Data are acceptable for use with qualifications.
( ) Data are preliminary - pending verification by laboratory.
( ) Data are unacceptable.

cc: Elenor McLean, Sample Mgmt.Office
Edward Kantor, EMSL-Las Vegas

WESTON

DATA QUALIFIERS PAGE OF

CONTRACTOR: CASE

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

Reviewed by: _____

Phone: _____ Hrs. Required for Review: _____

Date: _____

DATA QUALIFIERS

Contractor: _____

Case

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

Reviewed by: _____

Phone: _____

Date:

In Reference to Case No(s):

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date of Call: _____

Laboratory Name: _____

Lab Contact: _____

Region: _____

Regional Contact: _____

Call Initiated By: ____ Laboratory ____ Region

In reference to data for the following sample number(s):

_____

_____

_____

Summary of Questions/Issues Discussed:

_____

_____

_____

_____

_____

_____

_____

Summary of Resolution:

_____

_____

_____

_____

_____

_____

_____

_____

_____ _____

Signature Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

CONTRACT LABORATORY PROGRAM
SAS RE-ANALYSIS REQUEST/APPROVAL RECORD

SECTION A

#1. SAS No. _____ #2. DPO or RSCC _____

#3. Details of Re-Analysis Request:

- o Laboratory Name: _____
- o Sample No(s). + Parameter(s): _____

_____

_____

- o Reason for Re-Analysis: _____

_____

_____

- o Procedure for Re-Analysis: _____

_____

_____

#4. Name of SMO Contact: _____ Date ___/___/___

REQUEST: Approved ____ Not Approved ____

RE-ANALYSIS: Billable ____ Not Billable ____

SECTION B (TO BE COMPLETED BY SMO)

#1. Date of Laboratory Notification (Verbal) ___/___/___

#2. Re-Analysis Start Date ___/___/___ #3. Data Due Date ___/___/___

SECTION C (COORDINATOR CONCURRENCE)

Concurrence By _____ Date ___/___/___
SMO Coordinator Signature

Return intact form to:

Sample Management Office
P.O. Box 818
Alexandria, Virginia 22313

Distribution: (1) DPO/RSCC Copy (2) SMO File Copy (3) Lab Copy

7/22/86

COVER SHEET

REJECTED/REDUCED VALUE DATA FROM THE TECHNICAL REVIEW OF ROUTINE ANALYTICAL SERVICES OF THE NATIONAL CONTRACT LABORATORY PROGRAM

Response date _____ USEPA Region _____

Data Rejected _____ Reduced Value Considerations ____ (check one)

Technical Project Officer _____

Technical Data Reviewer _____

Laboratory Name _____

Case Number _____

Affected SDGs and Sample Numbers _____

_____

_____

_____

Data rejected or reduced value recommended for: (check appropriate sections)

All Organics _____ Pesticides _____ Cyanide _____

Volatiles _____ All Inorganics _____

Semi-Volatiles _____ Metals _____

THIS IS A COVER SHEET ONLY. It is used to identify the Regional response to the technical data review where data is rejected or considered to have reduced value.

1. If data are rejected this cover sheet must be sent to SMO, CCS Section Leader accompanied by:

   a) A signed memo from the Regional TPO describing the rejection of the data

   b) All rejected data

2. If data are recommended for reduced value, this cover sheet must be accompanied by a signed memo from the Regional TPO describing the justification for reduced value recommendation. DO NOT RETURN THIS DATA TO SMO.

3. SMO will check the Regional recommendations for reduced value considerations against the results from CCS.

CONTRACT LABORATORY PROGRAM

Deputy Project Officer Communication Summary

Date DPO Notified of Issue: _____ DPO Notified By: _____

Subject Laboratory: _____ Case/Sas No: _____

Contact for Resolution: _____
(Laboratory or PO)

Date of Contact: _____ Call or Visit (Circle One)

Summary of Issues & Resolutions:

Document the issue(s), resolution(s), and action deadlines, if any.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____ _____
Signature Date

_____
Region

(1) DPO Copy (2) Project Officer Copy (3) SMO Copy (4) Lab Copy

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APPENDIX B

CENTRAL REGIONAL LABORATORY SAMPLE DATA REPORT
ORGANICS/INORGANICS
THIS FORM IS TO BE USED FOR SAMPLES SENT TO CONTRACT ONLY

SITE NUMBER/SAS No. _____ SITE NAME _____ LABORATORY _____ DATE SHIPPED _____

SUPERFUND DU NUMBER _____ EPA RPM or OSC (S.M.S.) (CES) _____ CERCLIS NUMBER _____ PAGE ____ OF ____

ACTIVITY NUMBER

CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER	INORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	WATER OR LIQUIDS												SEDIMENTS or SOILS										
			ACID/BASE NEUTRAL CPDS ORGANIC SCAN UG/L TOX17574	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG/L TOX17544	WATER POLYCHLORINATED BIPHENYLS UG/L PES17144	WATER CHLORINATED PESTICIDES UG/L PES17134	TOTAL METALS IN WATER UG/L MET111	WATER CYANIDE UG/L MET4019	NITRATE/NITRITE MG/L MET7194	AMMONIA MG/L MET7294	RESIDUE, FILTERABLE TDS MG/L MET7062	RESIDUE, NONFILT TSS MG/L MET777			ACID/BASE NEUTRAL CPDS ORGANIC SCAN MG/KG TOX15722	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN MG/KG TOX15422	SEDIMENTS POLYCHLORINATED BIPHENYLS MG/KG PES11422	SEDIMENT CHLORINATED PESTICIDES MG/KG 211222	TOTAL METALS MG/KG MET413	CYANIDE MG/KG MM4130	EP TOXICITY METALS MG/KG	AMMONIA MG/KG MM7925				

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Inorganic Traffic Report & Chain of Custody Record

(For Inorganic CLP Analysis)

SAS No. (if applicable)

Case No.

1. Project Code | Account Code

2. Region No. | Sampling Co.

4. Date Shipped | Carrier

Regional Information

Sampler *(Name)*

Airbill Number

Non-Superfund Program

Sampler Signature

5. Ship To

Site Name

3. Type of Activity

	Lead	Pre-Remedial	Remedial		Removal	
SF	☐		RIFS	☐	CLEM	☐
PRP	☐	PA ☐	RD	☐	REMA	☐
ST	☐	SSI ☐	RA	☐	REM	☐
FED	☐	LSI ☐	O&M	☐	OIL	☐
			NPLD	☐	UST	☐

City, State | Site Spill ID

ATTN:

6. Preservative *(Enter in Column D)*
1. HCl
2. HNO_3
3. NaOH
4. H_2SO_4
5. $K_2CR_2O_7$
6. Ice only
7. Other *(Specify)*
N. Not preserved

7. Sample Description *(Enter In Column A)*
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other *(Specify)*

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E - RAS Analysis: Metals Total	Metals Dissolved	Metals Cyanide	Low Conc. only Nitrate/ Nitrite	Low Conc. only Fluoride	High only pH	High only Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC

B = Blank S = Spike
D = Duplicate
PE = Perform. Eval.
— = Not a QC Sample

Shipment for Case complete? (Y/N)

Page 1 of ____

Sample used for a spike and/or duplicate

Additional Sampler Signatures

Chain of Custody Seal Number

CHAIN OF CUSTODY RECORD

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)*	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted *(Signature)*

EPA Form 9110-1 (Rev. 5-91) Replaces EPA Form (2075-6), previous edition which may be used

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703 557-2490 FTS 557 2490

Special Analytical Service

Packing List/Chain of Custody

SAS No

1. Project Code	Account Code	2. Region No	Sampling Co	4 Date Shipped	Carrier
Regional Information		Sampler *(Name)*		Airbill Number	
Non-Superfund Program		Sampler Signature		5. Ship To	
Site Name		3 Type of Activity	Lead / Pre Remedial / Remedial / Removal		
City, State	Site Spill ID	SF / PRP / ST / FED	PA / SSI / LSI	RIFS / RD / RA / O&M / NPLD	CLEM / REMA / REM / OIL / UST

6. Sample Description *(Enter in Column A)*

1 Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6 Oil
7 Waste
8 Other *(Specify)*

7. Preservative *(Enter in Column C)*

1. HCl
2. HNO_3
3. $NAHSO_4$
4. H_2SO_4
5 NaOH
6. Other (SAS) *(Specify)*
7 Ice only
N Not preserved

Sample Numbers	A Matrix Enter from Box 6	B Conc Low Med High	C Preserv-ative Used from Box 7	D Analysis	E Sample used for spike and/or duplicate	F Regional Specific Tracking Number or Tag Number	G Station Location Identifier	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Designated Field QC
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
Shipment for SAS complete? (Y/N)										

CHAIN OF CUSTODY RECORD

Relinquished by *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date / Time	Received by. *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Received by *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)*	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted *(Signature)*
☐ Declined

EPA Form

DISTRIBUTION
White - Region Copy Yellow - SMO Copy Gold - Lab Copy Pink - Lab Copy for Return to SMO

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No._____CERCLIS No._____

Case No._____Site Name Location:_____

Contractor or EPA Lab:_____Data User:_____

No. of Samples:_____Date Samples or Data Received:_____

Have Chain-of-Custody records been received? YES____NO____
Have traffic reports or packing lists been received? YES____NO____
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES_____NO_____
If no, which traffic report or packing list numbers are missing?

_____ _____ _____ _____
_____ _____ _____ _____

Are basic data forms in? YES_____NO_____
No. of samples claimed: _____ No. of samples received: _____

Received by:_____Date:_____

Received by LSSS:_____Date:_____

Review started:_____Reviewer Signature:_____

Total time spent on review:_____Date review completed:_____

Copied by:_____Date:_____

Mailed to user by:_____Date:_____

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, 5SCRL

Data received by:_____Date:_____

Data review received by:_____Date:_____
Inorganic Data Complete[ ] Suitable for Intended Purpose[ ] ✓if OK
Organic Data Complete [ ] Suitable for Intended Purpose[ ] list
Dioxin Data Complete [ ] Suitable for Intended Purpose[ ] prblms
SAS Data Complete [ ] Suitable for Intended Purpose[ ] below.
PROBLEMS: Please indicate reasons why data are not suitable for your uses.

_____

_____

Received by Data Mgmt. Coordinator for Files Date:_____

U.S. Environmental Protection Agency
Region 5, Library (PL-12J)
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