

0074050

SAF-RC-093
300-274 & 300-275 in Process &
Verification
FINAL DATA PACKAGE

RECEIVED
OCT 05 2007

COMPLETE COPY OF DATA PACKAGE TO:

EDMC

Rick Kerkow L6-06

KW 9/25/07
Initials/Date

Jeanette Duncan H4-21

KW 9/25/07
Initials/Date

COMMENTS:

SDG K0954

SAF-RC-093

Rad only

Chem only

Rad & Chem

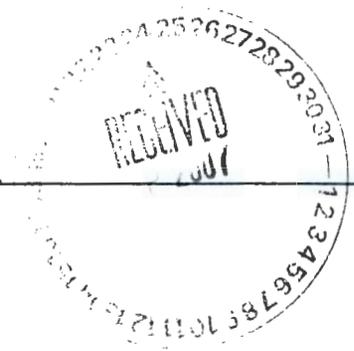
Complete

Partial

Waste Site: 300-274-1



21 September 2007



Joan Kessner
WC-Hanford
2620 Fermi Avenue
MSIN H9-03
Richland, WA 99354

Subject: Analytical Data Package

Dear Ms. Kessner:

Enclosed are the hard copy analytical reports for the batch number/fraction indicated (marked X) in the following table:

LvLI Batch #	0709L886
SDG #	K0954
SAF #	RC-093
Date Received	9/11/07
# Samples	20
Matrix	SOIL
Volatiles	
Semivolatiles	
Pest/PCB	X
Glycols	
DRO/KRO/GRO	
GC Alcohols	
Herbicides	
Metals	
Inorganics	

The electronic data deliverable (EDD) will be emailed shortly. If you have any questions, please don't hesitate to contact me at (610) 280-3012.

Sincerely,
Lionville Laboratory Incorporated

Orlette S. Johnson
Project Manager

r:\group\pm\orlette\tnu-hanford\data\b_ltrs.doc



Case Narrative

Client: TNU-HANFORD RC-093
LVL #: 0709L886
SDG/SAF # K0954 / RC-093

W.O. #: 11343-606-001-9999-00
Date Received: 09-11-2007

PCB

Twenty (20) soil sample were collected on 09-10-2007.

The samples and their associated QC samples were extracted on 09-11-2007 and analyzed according to Lionville Laboratory SOPs based on SW846, 3rd Edition procedure on 09-12,13,14-2007. The extraction procedure was based on method 3540C and the extracts were analyzed based on method 8082.

All soil samples are reported on a dry weight basis unless requested by the client, required by the method, or noted otherwise. The following is a summary of the QC results accompanying the sample results. Lionville Laboratory Inc (LvLI) certifies that all test results meet the requirements of NELAC except as noted below:

1. The samples were extracted and analyzed within required holding time.
2. The samples and their associated QC samples received Copper-Sulfur and Sulfuric Acid cleanups according to Lionville Laboratory SOPs based on SW846 methods 3660A and 3665A respectively.
3. The method blank was below the reporting limits for all target compounds.
4. Seven (7) of forty-eight (48) surrogate recoveries were outside acceptance criteria. However, the surrogate recovery acceptance criteria were met (i.e. no more than one outlier per sample).
5. The blank spike recoveries were within acceptance criteria.
6. All matrix spike recoveries were within acceptance criteria.
7. Eighteen (18) samples required 2 to 2000-fold dilution due to high concentrations of target analytes.
8. The initial calibrations associated with this data set were within acceptance criteria.

r:\group\data\pest\tnu hanford\0709-886ks2.pcb.doc

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of **13** pages.



9. The continuing calibration standards analyzed prior to sample extracts were within acceptance criteria.
10. LvLI is NELAP accredited by the state of Pennsylvania. For a complete listing of accrediting authorities and the corresponding analytes/methods, please contact your Project Manager.
11. I certify that this sample data package is in compliance with SOW requirements, both technically and for completeness, other than the conditions detailed above. Release of the data contained in this hard-copy data package has been authorized by the laboratory Manager or a designee, as verified by the following signature.


Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

9/18/07
Date



GLOSSARY OF DATA

DATA QUALIFIERS

- U** = Indicates that the compound was analyzed for but not detected. The minimum detection limit for the sample (not the method detection limit) is reported with the U (e.g., 10U).
- J** = Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.
- B** = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination.
- E** = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.
- I** = Interference.
- .I** = Indicates an interference on one analytical column only. Result is reported from remaining analytical column.

ABBREVIATIONS

- BS** = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.
- BSD** = Indicates blank spike duplicate.
- MS** = Indicates matrix spike.
- MSD** = Indicates matrix spike duplicate.
- DL** = Indicates that recoveries were not obtained because the extract had to be diluted for analysis.
- NA** = Not Applicable.
- DF** = Dilution Factor.
- NR** = Not Required.
- NS** = Not Spiked.
- SP** = Indicates Spiked Compound.
- P** = This flag is used for an PESTICIDE/PCB target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported on Form I and flagged with a "P".
- D** = This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- C** = This flag applies to a compound that has been confirmed by GC/MS.
- = No pattern match for multi-component target analytes.

000000006

Cust ID:	J15J07	J15J08	J15J09	J15J10	J15J11	J15J12
Sample Information	RFW#: 011	012	013	014	015	016
	Matrix: SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.: 2.00	1.00	10.0	5.00	200	100
	Units: UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Surrogate:	Tetrachloro-m-xylene	112 %	111 %	121 * %	117 %	D %
	Decachlorobiphenyl	83 %	90 %	112 %	93 %	D %
=====fl=====fl=====fl=====fl=====fl=====fl=====fl=====						
Aroclor-1016	27 U	13 U	130 U	67 U	2700 U	1300 U
Aroclor-1221	27 U	13 U	130 U	67 U	2700 U	1300 U
Aroclor-1232	27 U	13 U	130 U	67 U	2700 U	1300 U
Aroclor-1242	27 U	13 U	130 U	67 U	2700 U	1300 U
Aroclor-1248	27 U	13 U	130 U	67 U	2700 U	1300 U
Aroclor-1254	27 U	13 U	130 U	67 U	2700 U	1300 U
Aroclor-1260	460	260	2200	660	64000	18000

Cust ID:	J15J13	J15J14	J15J15	J15J16	PBLKGC	PBLKGC BS
Sample Information	RFW#: 017	018	019	020	07LE0518-MB1	07LE0518-MB1
	Matrix: SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.: 20.0	10.0	20.0	1.00	1.00	1.00
	Units: UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Surrogate:	Tetrachloro-m-xylene	130 * %	123 * %	124 * %	91 %	103 %
	Decachlorobiphenyl	102 %	100 %	97 %	76 %	84 %
=====fl=====fl=====fl=====fl=====fl=====fl=====fl=====						
Aroclor-1016	270 U	130 U	270 U	13 U	13 U	93 %
Aroclor-1221	270 U	130 U	270 U	13 U	13 U	13 U
Aroclor-1232	270 U	130 U	270 U	13 U	13 U	13 U
Aroclor-1242	270 U	130 U	270 U	13 U	13 U	13 U
Aroclor-1248	270 U	130 U	270 U	13 U	13 U	13 U
Aroclor-1254	270 U	130 U	270 U	13 U	13 U	13 U
Aroclor-1260	3900	2400	3000	220	13 U	97 %

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked. % = Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

Lionville Laboratory Use Only
0709L886

Custody Transfer Record/Lab Work Request



FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

See SRC

Client TNU Hanford RC-093

Est. Final Proj. Sampling Date _____

Project# 11343-606-001-9999-00

Project Contact/Phone# _____

Lionville Laboratory Project Manager Delette Johnson

Del SW846 Del ESP STD TAT 3 days

Date Rec'd 9-11-07 Date Due 9-14-07

Refrigerator #	3					
#/Type Container	Liquid					
	Solid	191				
Volume	Solid	350				
Preservatives		1				
ANALYSES REQUESTED →	ORGANIC				INORG.	
	VOA	BVA	PCB	Herb	Metal	CG

MATRIX CODES:	Lab ID	Client ID/Description	Matrix QC Chosen (✓)		Matrix	Date Collected	Time Collected	Lionville Laboratory Use Only						
			MS	MSD				VOA	BVA	PCB	Herb	Metal	CG	
	001	J15HY7			S	9-10-07	0900			X				
	002	J15HY8					0902			X				
	003	J15HY9					0904			X				
	004	J15J00					0906			X				
	005	J15J01					0908			X				
	006	J15J02					0910			X				
	007	J15J03					0912			X				
	008	J15J04					0914			X				
	009	J15J05					0916			X				
	010	J15J06					0918			X				

Special Instructions:

- _____
- _____
- _____
- _____
- _____
- _____

Raw matrix qc

Relinquished by	Received by	Date	Time
FedEx	D. Smith	9-11-07	0940

Relinquished by	Received by	Date	Time

Relinquished by	Received by	Date	Time
ORIGINAL	COMPOSITE		
REWRITTEN	WASTE		

Director: R. Kerkow / W. Sexsmith / B. Lawrence
 Company Contact: Joan Kessner Telephone No. 509-375-4688
 Project Coordinator: KESSNER, JH
 Price Code: **SK 9/6/07** Data Turnaround: **15 Days 3 DAYS** (with handwritten **RE 9/11/07**)

Project Designation: 300-274 & 300-275 in Process & Verification (with handwritten **RE 9/6/07**)
 Sampling Location: 300-274-1
 SAF No. RC-093
 Chest No. **AFS-04-004**
 Field Logbook No. EL-1395-12 COA R302742600
 Method of Shipment: **FED EX**

Shipped To: **RE 9/6/07**
 EDERLINE SERVICES / LIONVILLE
 Offsite Property No. **A070910**
 Bill of Lading/Air Bill No. **SI OSR**

Special Handling and/or Storage <i>None</i>	Preservation	Cool 4C																		
	Type of Container	aG																		
	No. of Container(s)	1																		
	Volume	250ml.																		

POSSIBLE SAMPLE HAZARDS/REMARKS

SAMPLE ANALYSIS

PCBs - 8082: **Positive - 8082 RE 9/6/07**

Sample No.	Matrix *	Sample Date	Sample Time																		
5HY7	SOIL	9-10-07	0900	X																	1
5HY8	SOIL	9-10-07	0902	X																	2
5HY9	SOIL	9-10-07	0904	X																	3
5J00	SOIL	9-10-07	0906	X																	4
5J01	SOIL	9-10-07	0908	X																	5

CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS		Matrix * S=Soil SB=Soil/Inert SO=Solid SI=Sediment W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Acquired By/Removed From	Date/Time	Received By/Stored In	Date/Time	None RE 9/6/07 X DELETE PESTICIDES 8081		
<i>W. Lawrence</i>	9-10-07 1000	<i>R. Kerkow</i>	9-10-07 1000			
<i>B. Kerkow</i>	9-10-07 1025	<i>K. Singleton</i>	9-10-07 1025			
<i>W. Sexsmith</i>	9-11-07 0940	<i>W. Sexsmith</i>	9-11-07 0940			
Acquired By/Removed From	Date/Time	Received By/Stored In	Date/Time			

LABORATORY SECTION	Received By	Title	Date/Time
	Disposal Method	Disposed By	Date/Time

00000000

Collector R. Kerkow / W. Sexsmith / B. Lawrence	Company Contact Joan Kessner	Telephone No. 509-375-4688	Project Coordinator KESSNER, JH	Price Code 8K 9/6/07 OI	Data Turnaround 15 Days 3 DAYS
Project Designation 300-274 & 300-275 In Process & Verification 9/6/07	Sampling Location 300-274-1	SAF No. RC-093	Method of Shipment FEDEX		
Field Logbook No. EL-1395-12	COA R302742600	Bill of Lading/Air Bill No. 520 DSPC			
Offsite Property No. A 070 410	Shipped To BERKLINE SERVICES / LIONVILLE				

Special Handling and/or Storage None	Preservation	Cool 4C																		
	Type of Container	aG																		
	No. of Container(s)	1																		
	Volume	250mL																		

SAMPLE ANALYSIS		PCBs - 8082 -Pesticides- -0002 9/6/07																		
-----------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Sample No.	Matrix *	Sample Date	Sample Time																		
5J02	SOIL	9-10-07	0910	X																	
5J03	SOIL	9-10-07	0912	X																	
5J04	SOIL	9-10-07	0914	X																	
5J05	SOIL	9-10-07	0916	X																	
5J06	SOIL	9-10-07	0918	X																	

CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS				Matrix *	
Acquired By/Removed From <i>[Signature]</i> B. Lawrence	Date/Time 1000 9-10-07	Received By/Stored In <i>[Signature]</i> RB Kerkow	Date/Time 1000 9-10-07	None RK 9/6/07 * DELETE PESTICIDES 8081				S=Soil SE=Soilment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wt=Wipe L=Liquid V=Vegetation X=Other	
Acquired By/Removed From <i>[Signature]</i> RB Kerkow	Date/Time 1025 9-10-07	Received By/Stored In <i>[Signature]</i> RB Kerkow	Date/Time 1025 9-10-07						
Acquired By/Removed From <i>[Signature]</i> W. Sexsmith	Date/Time WCA 9-10-07/1900	Received By/Stored In FEDEX	Date/Time						
Acquired By/Removed From <i>[Signature]</i> W. Sexsmith	Date/Time 9-11-07/0940	Received By/Stored In <i>[Signature]</i> W. Sexsmith	Date/Time 9-11-07/0940						
Acquired By/Removed From	Date/Time	Received By/Stored In	Date/Time						

LABORATORY SECTION	Received By	Title	Date/Time
NAT. SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

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Director R. Kerkow / W. Seasmith / B. Lawrence	Company Contact Joan Kessner	Telephone No. 509-375-4688	Project Coordinator KESSNER, JH	Price Code SK ^{9/6/07}	Data Turnaround ^{9/6/07}
Project Designation 300-274 & 300-275 In Process & Verification ^{9/6/07}	Sampling Location 300-274-1	SAF No. RC-093	15 Days 3 Days		
Chest No. AFS-04-004	Field Logbook No. EL-1395-12	COA R302742600	Method of Shipment FEDEX		
Shipped To BERLINE SERVICES / LIONVILLE ^{9/6/07}	Offsite Property No. A070410	Bill of Lading/Air Bill No. see OSC C			

00000001

Special Handling and/or Storage None	Preservation	Cool 4C																		
	Type of Container	uG																		
	No. of Container(s)	1																		
	Volume	250mL																		
POSSIBLE SAMPLE HAZARDS/REMARKS																				
SAMPLE ANALYSIS		PCBs - 8082: Pesticides RK 9/6/07																		

Sample No.	Matrix *	Sample Date	Sample Time																		
5J07	SOIL	9-10-07	0920	X																	11
5J08	SOIL	9-10-07	0922	X																	12
5J09	SOIL	9-10-07	0924	X																	13
5J10	SOIL	9-10-07	0926	X																	14
5J11	SOIL	9-10-07	0928	X																	15

CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *			
Received By/Removed From	Date/Time	Received By/Stored In	Date/Time	* DELETE PESTICIDES 8081				Se=Soil SE=Soil/mst SO=Soil SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other			
<i>[Signature]</i>	1000 9-10-07	RB Kerkow	1000 9-10-07								
<i>[Signature]</i>	1025 9-10-07	<i>[Signature]</i>	1025 9-10-07								
<i>[Signature]</i>	uG 9-10-07 1500	FEDEX									
<i>[Signature]</i>	9-11-07 0940	<i>[Signature]</i>	9-11-07/0940								
Received By/Removed From	Date/Time	Received By/Stored In	Date/Time								
Received By/Removed From	Date/Time	Received By/Stored In	Date/Time								
Received By/Removed From	Date/Time	Received By/Stored In	Date/Time								

LABORATORY SECTION	Received By	Title	Date/Time
DISPOSAL SAMPLE POSITION	Disposal Method	Disposed By	Date/Time

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		RC-093-008	Page 4 of 4
Collector R. Kerkow / W. Sexsmith / B. Lawrence		Company Contact Joan Kessner		Telephone No. 509-375-4688	
Project Designation 300-274 & 300-275 In Process & Verification		Sampling Location 300-274-1		Project Coordinator KESSNER, JH	
Field Chest No. AFS-04-004		Field Logbook No. EL-1395-12		COA R302742600	
Shipped To EDERLINE SERVICES / LIONVILLE		Offsite Property No. A 070 410		Method of Shipment FED EX	
Price Code BK 9/6/07		Data Turnaround 15 Days 3 DAYS		Bill of Lading/Air Bill No. See O5PC	

000000012

Special Handling and/or Storage None	Preservation	Cool 4C																		
	Type of Container	aG																		
	No. of Container(s)	1																		
	Volume	250mL																		

POSSIBLE SAMPLE HAZARDS/REMARKS		SAMPLE ANALYSIS		PCBs - 8082; Pesticides - 8081 RK 9/6/07															
---------------------------------	--	-----------------	--	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Sample No.	Matrix *	Sample Date	Sample Time																	
5J12	SOIL	9-10-07	0930	X																
5J13	SOIL	9-10-07	0932	X																
5J14	SOIL	9-10-07	0934	X																
5J15	SOIL	9-10-07	0936	X																
5J16	SOIL	9-10-07	0938	X																

16
17
18
19
20

CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS		Matrix *	
Acquired By/Removed From B. Lawrence	Date/Time 1000 9-10-07	Received By/Stored In RB Kerkow / RB Kerkow	Date/Time 1000 9-10-07	None RK 9/6/07 * DELETE PESTICIDES 8081		So=Soil SE=Soilment SO=Solid Sl=Sludge W=Water O=Oil A=Air DS=Dry Solids DL=Dry Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other	
Acquired By/Removed From B. Kerkow / B. Kerkow	Date/Time 1025 9-10-07	Received By/Stored In M. Sexsmith	Date/Time 1025 9-10-07				
Acquired By/Removed From W. Sexsmith	Date/Time 1500 9-10-07	Received By/Stored In FED EX	Date/Time				
Acquired By/Removed From FED EX	Date/Time 10940 9-11-07	Received By/Stored In D. Smith	Date/Time 10940 9-11-07				
Acquired By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Acquired By/Removed From	Date/Time	Received By/Stored In	Date/Time				

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Lionville Laboratory Incorporated
 SAMPLE RECEIPT CHECKLIST (SRC)

CLIENT: TNU Hanford
 Project/SAE/SOW/Release #: RC-093

Date: 9-11-07

LvLI Batch #: 0709L886

Sample Custodian: D. Ymurb

NOTE: EXPLAIN ALL DISCREPANCIES

- | | | |
|---|---|---|
| 1. Samples Hand Delivered or <u>Shipped?</u> | Carrier: <u>Fed Ex</u> | Airbill #: <u>7987 5960 01</u> |
| 2. Custody Seals on coolers or shipping containers intact, signed & dated? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> No Seals |
| 3. Outside of coolers or shipping containers are free from damage? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Comments: |
| 4. All expected paperwork received (COC & other client specific information) sealed in plastic bag and easily accessible? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| 5. Samples received <u>cooled</u> or ambient? | Temp: <u>2.6</u> °C | Cooler #: <u>AFS-04-004</u> |
| How was the temperature taken? | <input checked="" type="checkbox"/> IR <input type="checkbox"/> Temp. Blank | <input type="checkbox"/> Other (Specify): |
| Is the Temp. Criteria met for these samples? (Hg in soils @ 4°C) | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| 6. Custody seals on sample containers intact, signed and dated? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> No Seals |
| 7. COC (Client & LvLI) signed & dated? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| 8. Sample containers are intact? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| 9. All samples on COC received? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| All samples received on COC? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| 10. All sample label information matches COC? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| 11. Samples properly preserved? (if #5 is no, then this is no.) | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| 12. Samples received within hold times? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| Short holds taken to wet lab? | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input checked="" type="checkbox"/> N/A |
| 13. VOA, TOC, TOX free of headspace? | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input checked="" type="checkbox"/> N/A |
| 14. QC stickers placed on bottles designated by client? | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input checked="" type="checkbox"/> N/A |
| 15. Shipment meets LvLI Sample Acceptance Policy? (Identify all bottles that do not meet the policy, which is on the reverse of this page.) | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| 16. Project Manager contacted concerning any discrepancies? | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input checked="" type="checkbox"/> N/A |
| Person Contacted _____ | Date _____ | |

