

SAF-RC-052
Remaining Sites Confirmation Sampling -
Water
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt

H4-21

KW 10/2/08
INITIAL/DATE

COMMENTS:

SDG K1331

SAF-RC-052

Rad only

Chem only

Rad & Chem

Complete

Partial

Waste Site: 100-D-76

RECEIVED
OCT 08 2008
EDMC



26 September 2008

RECEIVED
OCT 2008

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

Subject: Analytical Data Package

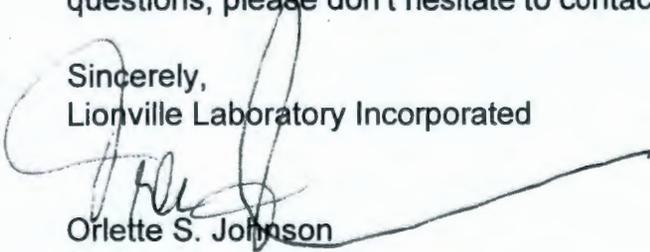
Dear Ms. Kessner:

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

LvLI Batch #	0809L104
SDG #	K1331
SAF #	RC-052
Date Received	9/12/08
# Samples	1
Matrix	WATER
Volatiles	X
Semivolatiles	
Pest/PCB	
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\hanford\data\b_ltrs.doc

OCT 2008

Lionville Laboratory, Inc.
VOA ANALYTICAL DATA PACKAGE FOR
WC-HANFORD RC-052 *K1331*

DATE RECEIVED: 09/12/08

LVL LOT # :0809L104

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
J17FH8	001	W	08LVG162	09/10/08	N/A	09/19/08
J17FH8	001 MS	W	08LVG162	09/10/08	N/A	09/19/08
J17FH8	001 MSD	W	08LVG162	09/10/08	N/A	09/19/08

LAB QC:

VBLKGY	MB1	W	08LVG162	N/A	N/A	09/19/08
VBLKGY	MB1 BS	W	08LVG162	N/A	N/A	09/19/08



Case Narrative

Client: WC-HANFORD RC-052
LVL #: 0809L104
SDG/SAF # K1331 /RC-052

W.O. #: 60049-001-001-0001-00
Date Received: 09-12-2008

GC/MS VOLATILE

One (1) water sample was collected on 09-10-2008.

The sample and the associated QC samples were analyzed according to criteria set forth in Lionville Laboratory SOPs based on SW 846 Method 8260B for TCL Volatile target compounds on 09-19-2008.

The following is a summary of QC results accompanying the sample results. Lionville Laboratory (LvL) certifies that all test results meet the requirements of NELAC except as noted below:

1. Samples were analyzed within required holding time.
2. Non-target compounds were detected in the method blank 08LVG162-MB1.
3. All surrogate recoveries were within acceptance criteria.
4. All matrix spike recoveries were within acceptance criteria.
5. All blank spike recoveries were within acceptance criteria.
6. The method blank contained the common laboratory contaminant Methylene Chloride at levels less than 2x the reporting limit..
7. All internal area and retention time criteria were met.
8. Manual integrations are performed according to SOP QA-125 to produce quality data with utmost integrity. All manual integrations are required to be technically valid and properly documented. Appropriate technical flags are defined in the Glossary ("Technical Flags For Manual Integration").
9. LvL 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.

r:\group\data\2008\voa\tnu\0809-104cw1.doc

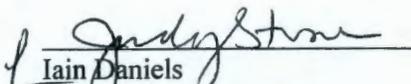
The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage.
All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of

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pages.



10. "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

9/26/08
Date

GLOSSARY

DATA QUALIFIERS

- U = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.
- J = Indicates an estimated value. This flag is used under the following circumstances: 1) when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed; or 2) when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. For example, if the limit of detection 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. This flag is also used for a TIC as well as for a positively identified TCL compound.
- E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.
- D = Identifies all compounds identified in an analysis at a secondary dilution factor.
- I = Interference.
- NQ = Result qualitatively confirmed but not able to quantify.
- N = Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.
- X = This flag is used for a TIC compound which is quantified relative to a response factor generated from a daily calibration standard (rather than quantified relative to the closest internal standard).
- Y = Additional qualifiers used as required are explained in the case narrative.

GLOSSARY

ABBREVIATIONS

- BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spike 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 = Suffix added to sample number to indicate that results are from a diluted analysis.
- NA = Not Applicable.
- DF = Dilution Factor.
- NR = Not Required.
- SP, Z = Indicates Spiked Compound.

TECHNICAL FLAGS FOR MANUAL INTEGRATION

Manual quan modifications or integrations are performed routinely to improve the data quality for a variety of technical reasons. Documentation of these modifications should be clear and concise. The following 'flags' are used to indicate the technical reasons for quan modifications:

- MP - Missed Peak: Manually added peak not found by automatic quan program.
- PA - Peak Assignment: Quan report was changed to reflect correct peak assignment.
- RI - Routine Integration: Routine integrations are performed for some analytes that are consistently integrated improperly by the automatic integration programs. Examples are the Dichlorobenzene isomers on the VOA packed column and Benzo (b) fluoranthene /Benzo (k) fluoranthene which are poorly resolve on the BNA column.
- SP - Split Peak: The automatic integration improperly split the peak; a manual integration was performed to get the correct area.
- CB - Co-elution/ Background: Peak was manually integrated to eliminate contribution from co-eluting compounds, background signal, or other interference.
- PI - Proper Integration: A peak with poor or inconsistent integration (i.e., excessive tail) was properly integrated manually.

Sample Information	Cust ID:	J17FH8	J17FH8	J17FH8	VBLKGY	VBLKGY BS
	RFW#:	001	001 MS	001 MSD	08LVG162-MB1	08LVG162-MB1
	Matrix:	WATER	WATER	WATER	WATER	WATER
	D.F.:	1.00	1.00	1.00	1.00	1.00
	Units:	ug/L	ug/L	ug/L	ug/L	ug/L
Surrogate	Toluene-d8	102	103	107	103	103
Recovery	Bromofluorobenzene	111	112	115	107	110
	1,2-Dichloroethane-d4	85	94	88	86	84
-----fl-----fl-----fl-----fl-----fl-----fl-----fl-----						
Chloromethane		10 U	72 %	73 %	10 U	77 %
Bromomethane		10 U	57 %	54 %	10 U	57 %
Vinyl Chloride		10 U	73 %	77 %	10 U	82 %
Chloroethane		10 U	54 %	53 %	10 U	59 %
Methylene Chloride		1 JB	91 %	89 %	6	82 %
Acetone		10 U	101 %	77 %	10 U	124 %
Carbon Disulfide		5 U	100 %	106 %	5 U	112 %
1,1-Dichloroethene		5 U	97 %	103 %	5 U	109 %
1,1-Dichloroethane		5 U	91 %	89 %	5 U	92 %
1,2-Dichloroethene (total)		5 U	97 %	96 %	5 U	101 %
Chloroform		5 U	94 %	93 %	5 U	94 %
1,2-Dichloroethane		5 U	92 %	84 %	5 U	86 %
2-Butanone		10 U	96 %	78 %	10 U	84 %
1,1,1-Trichloroethane		5 U	83 %	87 %	5 U	91 %
Carbon Tetrachloride		5 U	83 %	90 %	5 U	95 %
Bromodichloromethane		5 U	93 %	89 %	5 U	95 %
1,2-Dichloropropane		5 U	96 %	91 %	5 U	93 %
cis-1,3-Dichloropropene		5 U	101 %	97 %	5 U	104 %
Trichloroethene		5 U	97 %	98 %	5 U	103 %
Dibromochloromethane		5 U	105 %	101 %	5 U	105 %
1,1,2-Trichloroethane		5 U	106 %	99 %	5 U	100 %
Benzene		5 U	91 %	89 %	5 U	94 %
Trans-1,3-Dichloropropene		5 U	99 %	94 %	5 U	99 %
Bromoform		5 U	108 %	103 %	5 U	105 %
4-Methyl-2-pentanone		10 U	101 %	89 %	10 U	94 %
2-Hexanone		10 U	98 %	82 %	10 U	108 %
Tetrachloroethene		5 U	91 %	96 %	5 U	100 %
1,1,2,2-Tetrachloroethane		5 U	107 %	99 %	5 U	102 %
Toluene		5 U	101 %	104 %	5 U	107 %

*= Outside of EPA CLP QC limits.

00000007

Cust ID:	J17FH8	J17FH8	J17FH8	VBLKGY	VBLKGY BS
RFW#:	001	001 MS	001 MSD	08LVG162-MB1	08LVG162-MB1

Chlorobenzene	5 U	99 %	96 %	5 U	101 %
Ethylbenzene	5 U	103 %	105 %	5 U	108 %
Styrene	5 U	108 %	105 %	5 U	111 %
Xylenes (total)	5 U	101 %	102 %	5 U	107 %
cis-1,2-dichloroethene	5 U	100 %	96 %	5 U	100 %
trans-1,2-dichloroethene	5 U	94 %	96 %	5 U	101 %

*= Outside of EPA CLP QC limits.

00000000

1E
VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

J17FH8

Lab Name: Lionville Labs, Inc. Contract: 60049001001

Lab Code: Lionvi Case No.: _____

SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 0809L104-001

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: g091916

Level: (low/med) LOW

Date Received: 09/12/08

% Moisture: not dec. _____

Date Analyzed: 09/19/08

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

1E
VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKGY

Lab Name: Lionville Labs, Inc. Contract: 60049001001

Lab Code: Lionvi Case No.: _____

SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 08LVG162-MB1

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: q091906

Level: (low/med) LOW

Date Received: 09/19/08

% Moisture: not dec. _____

Date Analyzed: 09/19/08

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	20.118	5	J

Collector *ERL*
C. Martinez *D. Rios* Company Contact R. Nielson Telephone No. 372-9051 Project Coordinator KESSNER, JH Price Code **7G** Data Turnaround **15 Days**

Project Designation Remaining Sites Confirmation Sampling - Water Sampling Location 100-D-76 SAF No. RC-052

Ice Chest No. *ERL-02-007* Field Logbook No. 1601-2 COA 010D76A000 Method of Shipment Fed Ex

Shipped To EBERLINE SERVICES / LIONVILLE Offsite Property No. *4090349* Bill of Lading/Air Bill No. *SEE OSPC*

POSSIBLE SAMPLE HAZARDS/REMARKS <i>None</i>	Preservation	HCl or H2SO4 to pH <2 Conc											
	Type of Container	aGs*											
	No. of Container(s)	3											
	Volume	40mL											

SAMPLE ANALYSIS		VOA - R260A (TCL)											
-----------------	--	-------------------	--	--	--	--	--	--	--	--	--	--	--

Sample No.	Matrix *	Sample Date	Sample Time										
J17FH8	WATER	09/10/08	0800	✓									

CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From	Date/Time 1545	Received By/Stored In	Date/Time 1545	<p>Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.</p>				<ul style="list-style-type: none"> S=Soil SE=Soil/Sediment SO=Solid SL=Sediment W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Trace W/W=Wipe L=Liquid V=Vegetation X=Other
<i>[Signature]</i>	9-10-08	<i>C. Martinez / C. Martinez</i>	09/10/08					
Relinquished By/Removed From	Date/Time 1650	Received By/Stored In	Date/Time 1650					
<i>C. Martinez / C. Martinez</i>	09/10/08	1060 Bldg 2B	09/10/08					
Relinquished By/Removed From	Date/Time 0940	Received By/Stored In	Date/Time 0940					
1060 2B / J.E. Bamhard	9-11-08	J.E. Bamhard	9-11-08					
Relinquished By/Removed From	Date/Time 0945	Received By/Stored In	Date/Time					
J.E. Bamhard	9-11-08	FED EX						
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
<i>[Signature]</i>	9-12-08 0940	<i>[Signature]</i>	9-12-08 0940					
Relinquished 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

000000012

**Lionville Laboratory Incorporated
SAMPLE RECEIPT CHECKLIST (SRC)**

CLIENT: W.C. Hanford
Project/SAE/SOW/Release #: RC-052

Date: 9-12-08

LvLI Batch #: 0809L104

Sample Custodian: Pat Kennedy

NOTE: EXPLAIN ALL DISCREPANCIES

- | | | |
|---|--|---|
| 1. Samples Hand Delivered or <u>Shipped?</u> | Carrier <u>Fed Ex</u> | Airbill # <u>799 4945 7503</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 cooled or ambient? | Temp <u>2-3</u> °C | Cooler # <u>ERC-02-007</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?
All samples received on COC? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<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?
Short holds taken to wet lab? | <input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Yes <input type="checkbox"/> No | <input checked="" type="checkbox"/> N/A |
| 13. VOA, TOC, TOX free of headspace? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> N/A |
| 14. QC stickers placed on bottles designated by client? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <input 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?
Person Contacted _____ | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input checked="" type="checkbox"/> N/A |
| | Date _____ | |

