0078868

SAF-RC-088
618-7 Burial Ground – Other Liquids
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Rick Kerkow	L6-06	KW 10/2/08 Initials/Date
Kathy Wendt	H4-21	KW 10/2/08 Initials/Date

COMMENTS:

SDG K1291 **SAF-RC-088**

Rad only X Chem only Rad & Chem

X Complete Partial

ADD-ON TCLP METALS FOR SAMPLE J77M4-A

WASTE SITE: 618-7 Burial Ground (drums)

RECEIVED
OCT 08 2008
EDMC

LvLI
LIONVILLE LABORATORY INC.

RECEIVED
OCT 2008

30 September 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 #	0809L050
SDG #	K1291-ADDON
SAF #	RC-088
Date Received	8/06/08
# Samples	3
Matrix	OTHER
Volatiles	
Semivolatiles	
Pest/PCB	
Glycols	
DRO/KRO/GRO	
GC Alcohols	
Herbicides	
Metals	X
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

208 Welsh Pool Road • Exton, PA 19341- 1313 • (610) 280-3000 • Fax (610) 280-3041

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
WC-HANFORD RC-088 K1291

DATE RECEIVED: 08/06/08 LVL LOT # :0809L050

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
J177M4-A						
TCLP	001	SO	08LTO090	07/31/08	09/07/08	09/08/08
SILVER, TCLP LEACHAT	002	W	08L0326	09/08/08	09/09/08	09/09/08
SILVER, TCLP LEACHAT	002 REP	W	08L0326	09/08/08	09/09/08	09/09/08
SILVER, TCLP LEACHAT	002 MS	W	08L0326	09/08/08	09/09/08	09/09/08
ARSENIC, TCLP LEACHA	002	W	08L0326	09/08/08	09/09/08	09/09/08
ARSENIC, TCLP LEACHA	002 REP	W	08L0326	09/08/08	09/09/08	09/09/08
ARSENIC, TCLP LEACHA	002 MS	W	08L0326	09/08/08	09/09/08	09/09/08
BARIUM, TCLP LEACHAT	002	W	08L0326	09/08/08	09/09/08	09/09/08
BARIUM, TCLP LEACHAT	002 REP	W	08L0326	09/08/08	09/09/08	09/09/08
BARIUM, TCLP LEACHAT	002 MS	W	08L0326	09/08/08	09/09/08	09/09/08
CADMIUM, TCLP LEACHA	002	W	08L0326	09/08/08	09/09/08	09/09/08
CADMIUM, TCLP LEACHA	002 REP	W	08L0326	09/08/08	09/09/08	09/09/08
CADMIUM, TCLP LEACHA	002 MS	W	08L0326	09/08/08	09/09/08	09/09/08
CHROMIUM, TCLP LEACH	002	W	08L0326	09/08/08	09/09/08	09/09/08
CHROMIUM, TCLP LEACH	002 REP	W	08L0326	09/08/08	09/09/08	09/09/08
CHROMIUM, TCLP LEACH	002 MS	W	08L0326	09/08/08	09/09/08	09/09/08
MERCURY, TCLP LEACHA	002	W	08C0156	09/08/08	09/09/08	09/10/08
MERCURY, TCLP LEACHA	002 REP	W	08C0156	09/08/08	09/09/08	09/10/08
MERCURY, TCLP LEACHA	002 MS	W	08C0156	09/08/08	09/09/08	09/10/08
LEAD, TCLP LEACHATE	002	W	08L0326	09/08/08	09/09/08	09/09/08
LEAD, TCLP LEACHATE	002 REP	W	08L0326	09/08/08	09/09/08	09/09/08
LEAD, TCLP LEACHATE	002 MS	W	08L0326	09/08/08	09/09/08	09/09/08
SELENIUM, TCLP LEACH	002	W	08L0326	09/08/08	09/09/08	09/09/08
SELENIUM, TCLP LEACH	002 REP	W	08L0326	09/08/08	09/09/08	09/09/08
SELENIUM, TCLP LEACH	002 MS	W	08L0326	09/08/08	09/09/08	09/09/08

LAB QC:

SILVER LABORATORY	LC1 BS	W	08L0326	N/A	09/09/08	09/09/08
SILVER, TCLP LEACHAT	MB1	W	08L0326	N/A	09/09/08	09/09/08
SILVER, TCLP LEACHAT	MB2	W	08L0326	N/A	09/09/08	09/09/08
ARSENIC LABORATORY	LC1 BS	W	08L0326	N/A	09/09/08	09/09/08
ARSENIC, TCLP LEACHA	MB1	W	08L0326	N/A	09/09/08	09/09/08
ARSENIC, TCLP LEACHA	MB2	W	08L0326	N/A	09/09/08	09/09/08
BARIUM LABORATORY	LC1 BS	W	08L0326	N/A	09/09/08	09/09/08

OCT 2008

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
WC-HANFORD RC-088 K1291

DATE RECEIVED: 08/06/08 LVL LOT # :0809L050

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
BARIUM, TCLP LEACHAT	MB1	W	08L0326	N/A	09/09/08	09/09/08
BARIUM, TCLP LEACHAT	MB2	W	08L0326	N/A	09/09/08	09/09/08
CADMIUM LABORATORY	LC1 BS	W	08L0326	N/A	09/09/08	09/09/08
CADMIUM, TCLP LEACHA	MB1	W	08L0326	N/A	09/09/08	09/09/08
CADMIUM, TCLP LEACHA	MB2	W	08L0326	N/A	09/09/08	09/09/08
CHROMIUM LABORATORY	LC1 BS	W	08L0326	N/A	09/09/08	09/09/08
CHROMIUM, TCLP LEACH	MB1	W	08L0326	N/A	09/09/08	09/09/08
CHROMIUM, TCLP LEACH	MB2	W	08L0326	N/A	09/09/08	09/09/08
MERCURY LABORATORY	LC1 BS	W	08C0156	N/A	09/09/08	09/10/08
MERCURY, TOTAL	MB1	W	08C0156	N/A	09/09/08	09/10/08
MERCURY, TCLP LEACHA	MB2	W	08C0156	N/A	09/09/08	09/10/08
LEAD LABORATORY	LC1 BS	W	08L0326	N/A	09/09/08	09/09/08
LEAD, TCLP LEACHATE	MB1	W	08L0326	N/A	09/09/08	09/09/08
LEAD, TCLP LEACHATE	MB2	W	08L0326	N/A	09/09/08	09/09/08
SELENIUM LABORATORY	LC1 BS	W	08L0326	N/A	09/09/08	09/09/08
SELENIUM, TCLP LEACH	MB1	W	08L0326	N/A	09/09/08	09/09/08
SELENIUM, TCLP LEACH	MB2	W	08L0326	N/A	09/09/08	09/09/08

LIONVILLE LABORATORY INC.

Analytical Report

Client: TNU-HANFORD RC-088
LVL#: 0809L050
SDG/SAF#: K1291/RC-088

W.O.#: 11343-606-001-9999-00
Date Received: 08-06-08

METALS CASE NARRATIVE

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

1. This narrative covers the analyses of 1 TCLP leachate sample. The sample was relogged from LvLI batch# 0808L015.

2. The samples were prepared and analyzed in accordance with methods checked on the attached glossary.

   The sample was prepped with a 5-fold dilution for ICP metals, and with a 2-fold dilution for Mercury, due to limited sample volume.

3. The samples were relogged past hold for the TCLP procedure for Mercury. The analyses of all leachates were performed within the required holding times.

4. All Initial and Continuing Calibration Verifications (ICV/CCVs) were within the 90-110% control limits (80-120% for Mercury).

5. All Initial and Continuing Calibration Blanks (ICB/CCBs) were within control limits (less than the LOQ).

6. All preparation/method blanks (MB) were within method criteria {less than the Limit of Quantitation (3-10X the LOD), MB value less than 5% of the RCRA limit, or samples greater than 20X MB value}. Refer to the Inorganics Method Blank Data Summary.

7. All ICP Interference Check Standards were within control limits.

8. All laboratory control samples (LCS) were within the 80-120% control limits. Refer to the Inorganics Laboratory Control Standards Report.

9. The duplicate analyses for 4 analytes were outside the 20% Relative Percent Difference (RPD) control limits. Refer to the Inorganics Precision Report.

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 17 pages.

10. The TCLP extract from sample J177M4-A was selected for the matrix spike (MS) for this analytical batch. All MS recoveries were greater than 50% as per method criteria.

11. For the purposes of this report, the data has been reported to the Limit of Detection (LOD). Values between the LOD and the Limit of Quantitation (LOQ) are acquired in a region of less-certain quantification.

12. 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.

13. 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

9/15/08
Date

jjw/m09-050

LVLI
LIONVILLE LABORATORY INC.

METALS METHOD GLOSSARY

e following methods are used as reference for the digestion and analysis of samples contained within th

t#: aem 9/15/08 080~~8~~9L050
Incorrect number

aching Procedure: __1310 ✓1311 __1312 __Other:_____

.P Metals __ Digestion and __ Analysis Methods: __ILM03.0 __ILM04.0

etals Digestion Methods: __3005A ✓3010A __3015 __3020A __3050B __3051 __200.7 __SS17
__Other: _____

Metals Analysis Methods

	SW846		EPA		STD MTD	EPA OSWR	USATHAMA
uminum	__6010B		__200.7				__99
ıtimony	__6010B	__7041 [5]	__200.7	__204.2			__99
-senic	✓6010B	__7060A [5]	__200.7	__206.2	__3113B		__99
ırium	✓6010B		__200.7				__99
:ryllium	__6010B		__200.7				__99
smuth	__6010B [1]		__200.7 [1]			__1620	__99
ɔron	__6010B		__200.7				__99
admium	✓6010B	__7131A [5]	__200.7	__213.2			__99
alcium	__6010B		__200.7				__99
hromium	✓6010B	__7191 [5]	__200.7	__218.2			__SS17
obalt	__6010B		__200.7				__99
opper	__6010B	__7211 [5]	__200.7	__220.2			__99
on	__6010B		__200.7				__99
ead	✓6010B	__7421 [5]	__200.7	__239.2	__3113B		__99
ithium	__6010B	__7430 [4]	__200.7			__1620	__99
lagnesium	__6010B		__200.7				__99
langanese	__6010B		__200.7				__99
lercury	✓7470A [3]	__7471A [3]	__245.1 [2]	__245.5 [2]			__99
lolybdenum	__6010B		__200.7				__99
ickel	__6010B		__200.7				__99
otassium	__6010B	__7610 [4]	__200.7	__258.1 [4]			__99
are Earths	__6010B [1]		__200.7 [1]			__1620	__99
elenium	✓6010B	__7740 [5]	__200.7	__270.2	__3113B		__99
ilicon	__6010B [1]		__200.7			__1620	__99
ilica	__6010B		__200.7			__1620	__99
ilver	✓6010B	__7761 [5]	__200.7	__272.2			__99
odium	__6010B	__7770 [4]	__200.7	__273.1 [4]			__99
trontium	__6010B		__200.7				__99
hallium	__6010B	__7841 [5]	__200.7	__279.2	__200.9		__99
in	__6010B		__200.7				__99
itanium	__6010B		__200.7				__99
Jranium	__6010B [1]		__200.7 [1]			__1620	__99
anadium	__6010B		__200.7				__99
inc	__6010B		__200.7				__99
irconium	__6010B [1]		__200.7 [1]			__1620	__99

Method: _____

METHOD REFERENCES AND DATA QUALIFIERS

DATA QUALIFIERS

U = Indicates that the parameter was not detected at or above the reported limit. The associated numerical value is the sample detection limit.

* = Indicates that the original sample result is greater than 4x the spike amount added.

ABBREVIATIONS

MB = Method or Preparation Blank.
MS = Matrix Spike.
MSD = Matrix Spike Duplicate.
REP = Sample Replicate
LCS = Laboratory Control Sample.
NC = Not calculated.

ANALYTICAL METAL METHODS

1. Not included in the method element list.

2. Modified Hg: Hg1 and Hg2 require less total volume of digestate due to the autosampler analysis. Sample volumes and reagents for mercury determinations in water and soil have been proportionately scaled down to adapt to this semi-automated technique. The sample volume used for water analysis is 33 mL. For soils, approximately 0.3 grams of sample is taken to a final volume of 50 mL (including all reagents).

3. Flame AA.

4. Graphite Furnace AA.

L-WI-033/N-04/98

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 09/15/08

CLIENT: WC-HANFORD RC-088 K1291 LVL LOT #: 0809L050

WORK ORDER: 60049-001-001-0001-00

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
-002	J177M4-A	Silver, TCLP Leachate	5.3		UG/L	5.0	1.0
		Arsenic, TCLP Leachate	25.0	u	UG/L	25.0	1.0
		Barium, TCLP Leachate	71.7		UG/L	5.0	1.0
		Cadmium, TCLP Leachate	2.6		UG/L	2.5	1.0
		Chromium, TCLP Leachate	10.0	u	UG/L	10.0	1.0
		Mercury, TCLP Leachate	0.12	u	UG/L	0.12	2.0
		Lead, TCLP Leachate	32.2		UG/L	15.0	1.0
		Selenium, TCLP Leachate	30.0	u	UG/L	30.0	1.0

Lionville Laboratory, Inc.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 09/15/08

CLIENT: WC-HANFORD RC-088 K1291 LVL LOT #: 0809L050

WORK ORDER: 60049-001-001-0001-00

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK1	08L0326-MB1	Silver, TCLP Leachate	1.0	u	UG/L	1.0	1.0
		Arsenic, TCLP Leachate	5.0	u	UG/L	5.0	1.0
		Barium, TCLP Leachate	4.6		UG/L	1.0	1.0
		Cadmium, TCLP Leachate	0.50	u	UG/L	0.50	1.0
		Chromium, TCLP Leachate	2.0	u	UG/L	2.0	1.0
		Lead, TCLP Leachate	6.2		UG/L	3.0	1.0
		Selenium, TCLP Leachate	6.0	u	UG/L	6.0	1.0
BLANK2	08L0326-MB2	Silver, TCLP Leachate	5.0	u	UG/L	5.0	5.0
		Arsenic, TCLP Leachate	25.0	u	UG/L	25.0	5.0
		Barium, TCLP Leachate	9.1		UG/L	5.0	5.0
		Cadmium, TCLP Leachate	2.5	u	UG/L	2.5	5.0
		Chromium, TCLP Leachate	10.0	u	UG/L	10.0	5.0
		Lead, TCLP Leachate	20.9		UG/L	15.0	5.0
		Selenium, TCLP Leachate	30.0	u	UG/L	30.0	5.0
BLANK1	08C0156-MB1	Mercury, Total	0.06	u	UG/L	0.06	1.0
BLANK2	08C0156-MB2	Mercury, TCLP Leachate	0.06	u	UG/L	0.06	1.0

Lionville Laboratory, Inc.

INORGANICS ACCURACY REPORT 09/15/08

CLIENT: WC-HANFORD RC-088 K1291 LVL LOT #: 0809L050

WORK ORDER: 60049-001-001-0001-00

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-002	J177M4-A	Silver, TCLP Leachate	16600	5.3	25000	66.4	1.0
		Arsenic, TCLP Leachate	24200	25.0 u	25000	96.7	1.0
		Barium, TCLP Leachate	500000	71.7	500000	100	6.0
		Cadmium, TCLP Leachate	4940	2.6	5000	98.8	1.0
		Chromium, TCLP Leachat	25000	10.0 u	25000	99.9	1.0
		Mercury, TCLP Leachate	156	0.12u	200	78.0	100
		Lead, TCLP Leachate	24900	32.2	25000	99.4	1.0
		Selenium, TCLP Leachat	4750	30.0 u	5000	95.1	1.0

Lionville Laboratory, Inc.

INORGANICS PRECISION REPORT 09/11/08

CLIENT: WC-HANFORD RC-088 K1291 LVL LOT #: 0809L050

WORK ORDER: 60049-001-001-0001-00

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR(REP)
-002REP	J177M4-A	Silver, TCLP Leachate	5.3	5.0 u	* ~~NC~~ 200	1.0
		Arsenic, TCLP Leachate	25.0 u	25.0 u	NC	1.0
		Barium, TCLP Leachate	71.7	77.2	7.4	1.0
		Cadmium, TCLP Leachate	2.6	4.6	55.6	1.0
		Chromium, TCLP Leachate	10.0 u	11.4	* ~~NC~~ 200	1.0
		Mercury, TCLP Leachate	0.12u	0.12u	NC	2.0
		Lead, TCLP Leachate	32.2	24.1	28.8	1.0
		Selenium, TCLP Leachate	30.0 u	30.0 u	NC	1.0

* corrected values
MW 9/12/08

Lionville Laboratory, Inc.

INORGANICS LABORATORY CONTROL STANDARDS REPORT 09/15/08

CLIENT: WC-HANFORD RC-088 K1291 LVL LOT #: 0809L050

WORK ORDER: 60049-001-001-0001-00

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
LCS1	08L0326-LC1	Silver, LCS	499	500	UG/L	99.8
		Arsenic, LCS	9800	10000	UG/L	98.0
		Barium, LCS	4550	5000	UG/L	91.0
		Cadmium, LCS	232	250	UG/L	92.7
		Chromium, LCS	469	500	UG/L	93.8
		Lead, LCS	2330	2500	UG/L	93.4
		Selenium, LCS	9520	10000	UG/L	95.2
LCS1	08C0156-LC1	Mercury, LCS	5.0	5.0	UG/L	99.2

Lionville Laboratory Incorporated

Logbook #: 482

SAMPLE DIGESTION RECORD

SOP: L-SPI-3020 Rev. 00

Digestion Batch #: 08L0326
Date/Time Initiated: 9/9/08 0830
Date/Time Completed: 9/9/08 1200
Analyst(s): MW
Matrix: Soil Water Other: TCLP
Instr. Type: AA (ICP)
Parameters: Pb only / RCRA (049)
(Digested) / Undigested (circle one)
Balance #: N/A
Balance Cal Verif: Y (NA)
Hot Plate Temp: 94°

Method: SW (circle)
3005A
(3010A)
3015
3020A
7060A (As/Se)
7760A (Ag)
3050B
3051
CLP ILMO3.0
ILMO4.0

DW 200.7 (1994)
200.9
3113B
MCAWW 200.7 (1982)
200 (AA)
206.2 (As/Se)
SM 3030C (NC)
Other Pb glass

Jwtich / TW / Elva - Almae

COC Batch #	Spike Vol(s) (mL)	Initial Wt/Vol (g/mL)	Final Vol (mL)	pH <2	Type: To/So/TC	Texture	Color/Appearance	Artifact	Turb
0809L049-002		10ml	50ml	>2	TC	N/A	clear/colorless	(ltd. vol)	
002S	0.5ml *			+					
0809L050-002				>2					
002R									
8 002S	0.5ml								
0809L146-004							/yellow		
004S	0.5ml						+		
005							/amber		
006							/yellow		
08LT0090-LB1		50ml					/colorless		
08L0326-MB1									
LC1	0.5ml								

MW 9/9/08

Spiking IDs:
MS #: 6072-078-06 (Ba)
6072-078-05 (TCLP-1)

LCS #: 6072-78-08
09
10
11

Reagent IDs:
HNO_3 G07057
HCL
H_2O_2
1:1 HNO_3
1:1 HCL 9789-069-03

File ID#: IC03601
LIMS Transfer: (Y) N
Updated
Data Review By/Date: PMP, 09/09/08

* no Ba added, sample for Pb only

Lionville Laboratory Incorporated

MERCURY PREPARATION

Logbook # 498

Analyst: TEB
Date 9/9/08
Start Time/Temp: 1130 | 99°
End Time/Temp: 1330 | 92°

Instrument ID 1163.1
Balance #: NA
Pipette Calibration (Daily) Y ✓

Prep Batch: OXC 0156
Worksheet: Hg091001
SOP No. ME-HgCVAA, Rev. 02

pH < 2 for Liquids? ✓ Yes __ No (If no: designate affected samples in Comments column, and initiate an SDR)

NOTE: The Inital/Final Volume for water samples = 33mL, unless otherwise noted.
The Final volume for soil samples = 50mL, unless otherwise noted.

LvLI Batch #	Container Number	Spike Volume (mL)	Spike Conc. (µg/L)	Initial Wt. or Volume (g or mL)	Final Sample Volume (mL)	Comments, % Solids, etc.
Blank	CB2			33mL	33mL	
0.2 µg/L	JS	0.0667				
1.0	DR	0.334				
2.0	303	0.667				
5.0	TR	1.667				
10.0	RZ	3.334				
ICV	UT	0.0834	2.5			
CCV	711	0.167	5.0			
ICB/CCB	X3					
MB1	LV					PB156
LCI	676	0.167	5.0			LCSW156
0808L120-002	E					
002R	183					
002S	997	0.334	1.0			
004	CT					
0809L042-008	297					
0809043-001	BP PT					
001R	AT SE					
001S	SE 194	0.334	1.0			
002	194 XO					
0809L025-012	XO 3P					
0809L050-002	AB			16.5		
002R	857					
002S	A9	0.667	200			
0808L146-004	2V			33mL		
004S	55	0.667	200			
005	Z					

Standard:	ID	Prep Date/Time
CAL/MS	RI 6072-78-14B	9/9/08 0830
CV/CCV/LCS	US 6072-78-15A	

Reviewed By/Date: [signature] 9/12/08

see book # 9368 for std traceability information

Soil LCS =US Metals in soil No.3; True Value = 4.70 mg/Kg
Catalogue #1RM-021, Lot # E021

Water Matrix Spiking Solution Concentration = 0.1 µg/ml
Water LCS Spiking Concentration: 1.0 µg/ml

ionville Laboratory
ncorporated

MERCURY PREPARATION

Logbook # 498

nalyst: TLB
ate 9/9/08
Start Time/Temp:
nd Time/Temp: see page 014

Instrument ID HG-3.1
Balance #: NA
Pipette Calibration (Daily) Y ✓

Prep Batch: 08C0156
Worksheet: HG091001
SOP No. ME-HgCVAA, Rev. 02

pH < 2 for Liquids? ✓ Yes __ No (If no: designate affected samples in Comments column, and initiate an SDR)

NOTE: The Inital/Final Volume for water samples = 33mL, unless otherwise noted.
The Final volume for soil samples = 50mL, unless otherwise noted.

LvLI Batch #	Container Number	Spike Volume (mL)	Spike Conc. (µg/L)	Initial Wt. or Volume (g or mL)	Final Sample Volume (mL)	Comments, % Solids, etc.
0808L146-006	BB			33mL	33mL	
0808L117-005	21					
005S	401	0.667	200			
005T	A1	0.667	200			
08LT0090-LB1	K35			33mL	33mL	

9/9/08

ndard:	ID	Prep Date/Time
AL/MS		
/CCV/LCS	see page 014	

Reviewed By/Date: [signature] 9/12/08

see book # 9368 for std traceability information

LCS =US Metals in soil No.3; True Value = 4.70 mg/Kg
alogue #1RM-021, Lot # E021

Water Matrix Spiking Solution Concentration = 0.1 µg/ml
Water LCS Spiking Concentration: 1.0 µg/ml

-HgCVAA-Prep1007

Page #:

onville Laboratory Use Only

)809L050

Custody Transfer Record/Lab Work Request

Page 1 of 1

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

LVLI LIONVILLE LABORATORY INC.

ent Washington Closure Hanford RC-088

. Final Proj. Sampling Date

ject# 60049-001-001-0001-00

ject Contact/Phone#

nville Laboratory Project Manager Orlette Johnson

SW846 Del STD TAT 3 days

te Rec'd 8.6.08 Date Due 9-10-08

Refrigerator #														A 3					
#/Type Container	Liquid																		
	Solid													1gl					
Volume	Solid													250					
Preservatives														—					
ANALYSES REQUESTED →		ORGANIC												INORG					
		VOA	BNA	Pest/PCB	Herb									TCLP Metal	CN		LEACHATE		
		Lionville Laboratory Use Only																	
														ITCLP		9-8-08	~~RCRA~~	RCRA	

TRIX DES: Soil, Sediment, Solid, Sludge, Water, Oil, Air, Drum, Solids, Drum, Liquids, EP/TCLP, Leachate, Wipe, Other, Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	ITCLP			~~RCRA~~	RCRA			
001	J177M4-A	✓	✓	SO	7.31.08	1510	X							
002	↓ TCLP 05-001			L	*					X				

ecial Instructions: *See Lab Chron

Special Instructions:

1. Relog of 0808L015-002
2.
3.
4.
5.
6.

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
..F	[signature]	9.6.08	—					ORIGINAL REWRITTEN		COMPOSITE	

Vashington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-088-056 | Page 1 of 1

:tor Lawrence / E. Harries	Company Contact Joan Kessner	Telephone No. 509-375-4688	Project Coordinator KESSNER, JH
:t Designation -7 Burial Ground - Other Liquids	Sampling Location 618-7 Burial Ground (drums)		SAF No. RC-088
iest No. AFS-04-121	Field Logbook No. EL-1395-12	COA RG61878500	Method of Shipment Fed Ex
ed To ERLINE SERVICES / LIONVILLE	Offsite Property No. A080311		Bill of Lading/Air Bill No. see ospc

Price Code: 9F

Data Turnaround: ~~15~~ 7 Days

SIBLE SAMPLE HAZARDS/REMARKS

ntial Radioactive contamination, potential beryllium mination

ial Handling and/or Storage

Preservation	Cool 4C	Cool 4C	None	None	None
Type of Container	aG	aG	P	P	P
No. of Container(s)	1	X 0	X 0	X 0	1
Volume	250mL	125mL	125mL	60mL	500mL
SAMPLE ANALYSIS	Semi-VOA - 8270A (TCL)	PCBs - 8082	See item (1) in Special Instructions.	Ignitability - 1010	See item (2) in Special Instructions.

JRD 7-10-08

JRD 7-31-08

Sample No.	Matrix *	Sample Date	Sample Time									RLF#	Drum
44	OTHER LIQUID	7-31-08	~~1310~~ 1510	X	X	X	X					J177K4	5204
~~45~~	~~OTHER LIQUID~~		JRD 7-31-08										
~~46~~	~~OTHER LIQUID~~	JRD 7-31-08											
~~47~~	~~OTHER LIQUID~~												

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Lawrence	7-31-08 1530	JRDeBrigner	7-31-08 1530
DeBrigner	7-31-08 1640	1060 1A	7-31-08 1640
0/1A	AUG 05 2008 0920	mstankouch	AUG 05 2008 0920
Dmstankouch wcht	AUG 05 2008 0920	Fed EX	
	8-6-08 0945		8-6-08 0945

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010A (TAL) {Aluminum, Antimony, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Magnesium, Manganese, Nickel, Potassium, Silver, Sodium, Vanadium, Zinc}; ICP Metals - 6010A (Add-on) {Arsenic, Lead, Selenium, Thallium, Tin, Zirconium}; Mercury - 7471 - (CV)

(2) Gross Alpha; Gross Beta; Gamma Spectroscopy (TCL List) {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155}; Isotopic Uranium; Isotopic Thorium; Americium-241; Isotopic Plutonium; Strontium-89,90 -- Total Sr

Sampler unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.

JRD

Matrix *
S=Soil
SE=Sediment
SO=Solid
SI=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

ORATORY CTION	Received By	Title	Date/Time
L SAMPLE OSITION	Disposal Method	Disposed By	Date/Time

EE-011

Lionville Laboratory Incorporated

SAMPLE RECEIPT CHECKLIST (SRC)

CLIENT: TNU HANFORD

Project/SAP/SOW/Release #: RC-088

Date: 8/6/08

LvLI Batch #: 0808L 015

Sample Custodian: Vidal Hernandez

NOTE: EXPLAIN ALL DISCREPANCIES

1. Samples Hand Delivered or Shipped?	Carrier FED EX		Airbill # 798490870922
2. Custody Seals on coolers or shipping containers intact, signed & dated?	☑ Yes	☐ No	☐ No Seals
3. Outside of coolers or shipping containers are free from damage?	☑ Yes	☐ No	Comments:
4. All expected paperwork received (coc & other client specific information) sealed in plactic bag and easily accessible?	☑ Yes	☐ No	
5. Samples received cooled or ambient?	Temp 2-2°	°C	Cooler # AFS-04-121
How was the temperature taken?	☑ IR	☐ Temp. Blank	☐ Other (Specify):
Is the Temp. Criteria met for these samples? (Hg in soils @ 4°C)	☑ Yes	☐ No	
6. Custody seals on sample containers intact, signed and dated?	☑ Yes	☐ No	☐ No Seals
7. COC (Client & LvLI) signed & dated?	☑ Yes	☐ No	
8. Sample containers are intact?	☑ Yes	☐ No	
9. All samples on COC received?	☑ Yes	☐ No	
All samples received on COC?	☑ Yes	☐ No	
10. All sample label information matches COC?	☑ Yes	☐ No	
11. Samples properly preserved? (If #5 is no, then this is no.)	☑ Yes	☐ No	
12. Samples received within hold times?	☑ Yes	☐ No	
Short holds taken to wet lab?	☐ Yes	☐ No	☑ N/A
13. VOA, TOC, TOX free of headspace?	☐ Yes	☐ No	☑ N/A
14. QC stickers placed on bottles designated by client?	☑ Yes	☐ No	☐ 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.)	☑ Yes	☐ No	
16. Project Manager contacted concerning any discrepancies?	☐ Yes	☐ No	☑ N/A

Person Contacted _____ Date _____

LvLI LIONVILLE LABORATORY INC.

SR-002-B.doc