0077274

SAF-RC-087
618-7 Burial Ground - Soil
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Rick Kerkow	L6-06	KW 5/15/08 Initials/Date
Kathy Wendt	H4-21	KW 5/15/08 Initials/Date

RECEIVED
MAY 21 2008
EDMC

COMMENTS:

SDG K1206 **SAF-RC-087**

Rad only X Chem only Rad & Chem

X Complete Partial

WASTE SITE: 618-7 Burial Ground/Stockpiles

LvLI
LIONVILLE LABORATORY INC.

13 May 2008

RECEIVED 2008

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 #	0804L976
SDG #	K1206
SAF #	RC-087
Date Received	4/23/08
# Samples	1
Matrix	SOIL
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\tnu-hanford\data\b_ltrs.doc

RECEIVED MAY 2008

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-087 K1206

DATE RECEIVED: 04/23/08 LVL LOT # :0804L976

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
J16MH8						
TCLP	001	S	08LTO040	04/14/08	05/06/08	05/07/08
SILVER, TCLP LEACHAT	002	W	08L0180	05/07/08	05/02/08	05/05/08
SILVER, TCLP LEACHAT	002 REP	W	08L0180	05/07/08	05/02/08	05/05/08
SILVER, TCLP LEACHAT	002 MS	W	08L0180	05/07/08	05/02/08	05/05/08
ARSENIC, TCLP LEACHA	002	W	08L0180	05/07/08	05/02/08	05/05/08
ARSENIC, TCLP LEACHA	002 REP	W	08L0180	05/07/08	05/02/08	05/05/08
ARSENIC, TCLP LEACHA	002 MS	W	08L0180	05/07/08	05/02/08	05/05/08
BARIUM, TCLP LEACHAT	002	W	08L0180	05/07/08	05/02/08	05/05/08
BARIUM, TCLP LEACHAT	002 REP	W	08L0180	05/07/08	05/02/08	05/05/08
BARIUM, TCLP LEACHAT	002 MS	W	08L0180	05/07/08	05/02/08	05/05/08
CADMIUM, TCLP LEACHA	002	W	08L0180	05/07/08	05/02/08	05/05/08
CADMIUM, TCLP LEACHA	002 REP	W	08L0180	05/07/08	05/02/08	05/05/08
CADMIUM, TCLP LEACHA	002 MS	W	08L0180	05/07/08	05/02/08	05/05/08
CHROMIUM, TCLP LEACH	002	W	08L0180	05/07/08	05/02/08	05/05/08
CHROMIUM, TCLP LEACH	002 REP	W	08L0180	05/07/08	05/02/08	05/05/08
CHROMIUM, TCLP LEACH	002 MS	W	08L0180	05/07/08	05/02/08	05/05/08
MERCURY, TCLP LEACHA	002	W	08C0077	05/07/08	05/01/08	05/01/08
MERCURY, TCLP LEACHA	002 REP	W	08C0077	05/07/08	05/01/08	05/01/08
MERCURY, TCLP LEACHA	002 MS	W	08C0077	05/07/08	05/01/08	05/01/08
LEAD, TCLP LEACHATE	002	W	08L0180	05/07/08	05/02/08	05/05/08
LEAD, TCLP LEACHATE	002 REP	W	08L0180	05/07/08	05/02/08	05/05/08
LEAD, TCLP LEACHATE	002 MS	W	08L0180	05/07/08	05/02/08	05/05/08
SELENIUM, TCLP LEACH	002	W	08L0180	05/07/08	05/02/08	05/05/08
SELENIUM, TCLP LEACH	002 REP	W	08L0180	05/07/08	05/02/08	05/05/08
SELENIUM, TCLP LEACH	002 MS	W	08L0180	05/07/08	05/02/08	05/05/08
LAB QC:						
SILVER LABORATORY	LC1 BS	W	08L0180	N/A	05/02/08	05/05/08
SILVER, TCLP LEACHAT	MB1	W	08L0180	N/A	05/02/08	05/05/08
SILVER, TCLP LEACHAT	MB2	W	08L0180	N/A	05/02/08	05/05/08
SILVER, TCLP LEACHAT	MB3	W	08L0180	N/A	05/02/08	05/05/08
ARSENIC LABORATORY	LC1 BS	W	08L0180	N/A	05/02/08	05/05/08
ARSENIC, TCLP LEACHA	MB1	W	08L0180	N/A	05/02/08	05/05/08
ARSENIC, TCLP LEACHA	MB2	W	08L0180	N/A	05/02/08	05/05/08

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-087 K1206

DATE RECEIVED: 04/23/08 LVL LOT # :0804L976

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
ARSENIC, TCLP LEACHA	MB3	W	08L0180	N/A	05/02/08	05/05/08
BARIUM LABORATORY	LC1 BS	W	08L0180	N/A	05/02/08	05/05/08
BARIUM, TCLP LEACHAT	MB1	W	08L0180	N/A	05/02/08	05/05/08
BARIUM, TCLP LEACHAT	MB2	W	08L0180	N/A	05/02/08	05/05/08
BARIUM, TCLP LEACHAT	MB3	W	08L0180	N/A	05/02/08	05/05/08
CADMIUM LABORATORY	LC1 BS	W	08L0180	N/A	05/02/08	05/05/08
CADMIUM, TCLP LEACHA	MB1	W	08L0180	N/A	05/02/08	05/05/08
CADMIUM, TCLP LEACHA	MB2	W	08L0180	N/A	05/02/08	05/05/08
CADMIUM, TCLP LEACHA	MB3	W	08L0180	N/A	05/02/08	05/05/08
CHROMIUM LABORATORY	LC1 BS	W	08L0180	N/A	05/02/08	05/05/08
CHROMIUM, TCLP LEACH	MB1	W	08L0180	N/A	05/02/08	05/05/08
CHROMIUM, TCLP LEACH	MB2	W	08L0180	N/A	05/02/08	05/05/08
CHROMIUM, TCLP LEACH	MB3	W	08L0180	N/A	05/02/08	05/05/08
MERCURY LABORATORY	LC1 BS	W	08C0077	N/A	05/01/08	05/01/08
MERCURY, TOTAL	MB1	W	08C0077	N/A	05/01/08	05/01/08
MERCURY, TCLP LEACHA	MB2	W	08C0077	N/A	05/01/08	05/01/08
MERCURY, TCLP LEACHA	MB3	W	08C0077	N/A	05/01/08	05/01/08
LEAD LABORATORY	LC1 BS	W	08L0180	N/A	05/02/08	05/05/08
LEAD, TCLP LEACHATE	MB1	W	08L0180	N/A	05/02/08	05/05/08
LEAD, TCLP LEACHATE	MB2	W	08L0180	N/A	05/02/08	05/05/08
LEAD, TCLP LEACHATE	MB3	W	08L0180	N/A	05/02/08	05/05/08
SELENIUM LABORATORY	LC1 BS	W	08L0180	N/A	05/02/08	05/05/08
SELENIUM, TCLP LEACH	MB1	W	08L0180	N/A	05/02/08	05/05/08
SELENIUM, TCLP LEACH	MB2	W	08L0180	N/A	05/02/08	05/05/08
SELENIUM, TCLP LEACH	MB3	W	08L0180	N/A	05/02/08	05/05/08

LIONVILLE LABORATORY INC.

Analytical Report

Client: TNU-HANFORD RC-087
LVL#: 0804L976
SDG/SAF#: K1206/RC-087

W.O.#: 11343-606-001-9999-00
Date Received: 04-23-08

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 analysis of 1 TCLP leachate.

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

   All samples for ICP metals were run at a 6-fold dilution.

3. All analyses 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

9. All duplicate analyses were within the 20% Relative Percent Difference (RPD) control limits. Refer to the Inorganics Precision Report.

10. The TCLP extract from sample J16MH8 was selected for the matrix spike (MS) for this analytical batch.

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.

11. The matrix spike for Silver was below 50% recovery (12.6%). The recovery in the TCLP Leachate was below 80-120% of the action level so standard addition was not required per Federal Register, Vol.57, No.227, Nov. 24, 1992, page 55117.

12. 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.

13. 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.

14. 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.

Judy Stone

Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

5/7/08
Date

alm/m04-976

LVLI
LIONVILLE LABORATORY INC.

METALS METHOD GLOSSARY

The following methods are used as reference for the digestion and analysis of samples contained within this Lot#: 08041976

Leaching Procedure: __1310 __1311 __1312 __Other:_____

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

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

Metals Analysis Methods

	SW846		EPA		STD MTD	EPA OSWR	USATHAMA
Aluminum	__6010B		__200.7				__99
Antimony	__6010B	__7041 [5]	__200.7	__204.2			__99
Arsenic	✓6010B	__7060A [5]	__200.7	__206.2	__3113B		__99
Barium	✓6010B		__200.7				__99
Beryllium	__6010B		__200.7				__99
Bismuth	__6010B [1]		__200.7 [1]			__1620	__99
Boron	__6010B		__200.7				__99
Cadmium	✓6010B	__7131A [5]	__200.7	__213.2			__99
Calcium	__6010B		__200.7				__99
Chromium	✓6010B	__7191 [5]	__200.7	__218.2			__SS17
Cobalt	__6010B		__200.7				__99
Copper	__6010B	__7211 [5]	__200.7	__220.2			__99
Iron	__6010B		__200.7				__99
Lead	✓6010B	__7421 [5]	__200.7	__239.2	__3113B		__99
Lithium	__6010B	__7430 [4]	__200.7			__1620	__99
Magnesium	__6010B		__200.7				__99
Manganese	__6010B		__200.7				__99
Mercury	✓7470A [3]	__7471A [3]	__245.1 [2]	__245.5 [2]			__99
Molybdenum	__6010B		__200.7				__99
Nickel	__6010B		__200.7				__99
Potassium	__6010B	__7610 [4]	__200.7	__258.1 [4]			__99
Rare Earths	__6010B [1]		__200.7 [1]			__1620	__99
Selenium	✓6010B	__7740 [5]	__200.7	__270.2	__3113B		__99
Silicon	__6010B [1]		__200.7			__1620	__99
Silica	__6010B		__200.7			__1620	__99
Silver	✓6010B	__7761 [5]	__200.7	__272.2			__99
Sodium	__6010B	__7770 [4]	__200.7	__273.1 [4]			__99
Strontium	__6010B		__200.7				__99
Thallium	__6010B	__7841 [5]	__200.7	__279.2	__200.9		__99
Tin	__6010B		__200.7				__99
Titanium	__6010B		__200.7				__99
Uranium	__6010B [1]		__200.7 [1]			__1620	__99
Vanadium	__6010B		__200.7				__99
Zinc	__6010B		__200.7				__99
Zirconium	__6010B [1]		__200.7 [1]			__1620	__99

Other:_____ 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 05/07/08

CLIENT: TNUHANFORD RC-087 K1206

LVL LOT #: 0804L976

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
-002	J16MH8	Silver, TCLP Leachate	6.0	u	UG/L	6.0	6.0
		Arsenic, TCLP Leachate	30.0	u	UG/L	30.0	6.0
		Barium, TCLP Leachate	492		UG/L	6.0	6.0
		Cadmium, TCLP Leachate	9.8		UG/L	3.0	6.0
		Chromium, TCLP Leachate	12.0	u	UG/L	12.0	6.0
		Mercury, TCLP Leachate	0.06	u	UG/L	0.06	1.0
		Lead, TCLP Leachate	18.0	u	UG/L	18.0	6.0
		Selenium, TCLP Leachate	36.0	u	UG/L	36.0	6.0

Lionville Laboratory, Inc.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 05/07/08

CLIENT: TNUHANFORD RC-087 K1206 LVL LOT #: 0804L976

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK1	08L0180-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	1.1		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	3.0	u	UG/L	3.0	1.0
		Selenium, TCLP Leachate	6.0	u	UG/L	6.0	1.0
BLANK2	08L0180-MB2	Silver, TCLP Leachate	6.0	u	UG/L	6.0	6.0
		Arsenic, TCLP Leachate	30.0	u	UG/L	30.0	6.0
		Barium, TCLP Leachate	6.0	u	UG/L	6.0	6.0
		Cadmium, TCLP Leachate	3.0	u	UG/L	3.0	6.0
		Chromium, TCLP Leachate	12.0	u	UG/L	12.0	6.0
		Lead, TCLP Leachate	18.0	u	UG/L	18.0	6.0
		Selenium, TCLP Leachate	36.0	u	UG/L	36.0	6.0
BLANK3	08L0180-MB3	Silver, TCLP Leachate	6.0	u	UG/L	6.0	6.0
		Arsenic, TCLP Leachate	30.0	u	UG/L	30.0	6.0
		Barium, TCLP Leachate	6.0	u	UG/L	6.0	6.0
		Cadmium, TCLP Leachate	3.0	u	UG/L	3.0	6.0
		Chromium, TCLP Leachate	12.0	u	UG/L	12.0	6.0
		Lead, TCLP Leachate	18.0	u	UG/L	18.0	6.0
		Selenium, TCLP Leachate	36.0	u	UG/L	36.0	6.0
BLANK1	08C0077-MB1	Mercury, Total	0.06	u	UG/L	0.06	1.0
BLANK2	08C0077-MB2	Mercury, TCLP Leachate	0.06	u	UG/L	0.06	1.0
BLANK3	08C0077-MB3	Mercury, TCLP Leachate	0.06	u	UG/L	0.06	1.0

Lionville Laboratory, Inc.

INORGANICS ACCURACY REPORT 05/07/08

CLIENT: TNUHANFORD RC-087 K1206 LVL LOT #: 0804L976

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-002	J16MH8	Silver, TCLP Leachate	628	6.0 u	5000	12.6	6.0
		Arsenic, TCLP Leachate	5110	30.0 u	5000	102.2	6.0
		Barium, TCLP Leachate	96800	492	100000	96.3	6.0
		Cadmium, TCLP Leachate	1070	9.8	1000	106.1	6.0
		Chromium, TCLP Leachat	5210	12.0 u	5000	104.2	6.0
		Mercury, TCLP Leachate	196	0.06u	200	98.2	50.0
		Lead, TCLP Leachate	5300	18.0 u	5000	106.1	6.0
		Selenium, TCLP Leachat	1010	36.0 u	1000	100.8	6.0

Lionville Laboratory, Inc.

INORGANICS PRECISION REPORT 05/07/08

CLIENT: TNUHANFORD RC-087 K1206 LVL LOT #: 0804L976

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR(REP)
-002REP	J16MH8	Silver, TCLP Leachate	6.0 u	6.0 u	NC	6.0
		Arsenic, TCLP Leachate	30.0 u	30.0 u	NC	6.0
		Barium, TCLP Leachate	492	471	4.5	6.0
		Cadmium, TCLP Leachate	9.8	10.9	10.6	6.0
		Chromium, TCLP Leachate	12.0 u	12.0 u	NC	6.0
		Mercury, TCLP Leachate	0.06u	0.06u	NC	1.0
		Lead, TCLP Leachate	18.0 u	22.1	NC	6.0
		Selenium, TCLP Leachate	36.0 u	36.0 u	NC	6.0

Lionville Laboratory, Inc.

INORGANICS LABORATORY CONTROL STANDARDS REPORT 05/07/08

CLIENT: TNUHANFORD RC-087 K1206

LVL LOT #: 0804L976

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
LCS1	08L0180-LC1	Silver, LCS	490	500	UG/L	98.0
		Arsenic, LCS	9340	10000	UG/L	93.4
		Barium, LCS	4890	5000	UG/L	97.9
		Cadmium, LCS	240	250	UG/L	96.0
		Chromium, LCS	487	500	UG/L	97.5
		Lead, LCS	2410	2500	UG/L	96.6
		Selenium, LCS	9280	10000	UG/L	92.8
LCS1	08C0077-LC1	Mercury, LCS	5.1	5.0	UG/L	102.0

Lionville Laboratory Incorporated Logbook #: 440

SAMPLE DIGESTION RECORD

SOP: L-SPI-3020 Rev. 00

Digestion Batch #: 08L0180
Date/Time Initiated: 5/2/08 1245
Date/Time Completed: 5/2/08
Analyst(s): LB
Matrix: Soil Water Other:
Instr. Type: AA ICP
Parameters: Pb/Cr

Digested / Undigested (circle one)
Balance #: NA
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

TNL

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
08041L929-002		100	100	<2	TC	NA	clear	NA	NA
002R									
002S	1.0								
08041L989-003									
003R									
003S	1.0								
004									
08041L991-002		50	50					limited Vol.	
002R									
* 002S	1.0								
08041L976-002		100	100					NA	NA
002R									
002S	1.0								
08041L019-005							yellow/clear		
005R									
005S	1.0								
006									
007									
008									
08L0180-MB1							Clear		
MB2									
MB3									
LC1	1.0								

Ken 5/2/08

Spiking IDs:
MS #: 60078-73-05
78-06

LCS #: 60072-78-08
09
10
11

Reagent IDs:
HNO_3 E46025
HCL
H_2O_2
1:1 HNO_3
1:1 HCL 60078-069-03

File ID#: IC018001
LIMS Transfer: Y N Updated
Data Review By/Date: PMP, 05/05/08

* spiked w/ 1.0mL of TCLP Spike & 0.5mL Ba spike

ville Laboratory
rporated

MERCURY PREPARATION

Logbook # 422

st: CRB
5/1/08
Time/Temp: 1315 | 98°
Time/Temp: 1515 | 98°

Instrument ID H63.1
Balance #: (NA)
Pipette Calibration (Daily) Y ✓

Prep Batch: 08C0077
Worksheet: HG050101
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	JI			33mL	33mL	
0.2 µg/L	A27	0.0667				
1.0	PC	0.334				
2.0	BLV	0.667				
5.0	508	1.667				
10.0	A1	3.334				
ICV	194	0.0834	2.5			
CCV	B14	0.167	5.0			
ICB/CCB	K17					
MB1	R					PBW177
LC1	A901	0.167	5.0			LCSW177
08041002-001	WK					
001R	573					
001S	ET	0.334	1.0			
08041998-004	76					
004R	154					
004S	R2	0.334	1.0			
009	AP					
014	X0					
08041023-004	CM					
08041020-006	L53					
017	71L					
08041958-004	P18					
004S	297	0.667	200			
005	857					
006	N60					
08041929-002	AIR					

dard:	ID	Prep Date/Time
/MS	R16072-78-14B	5/1/08 1105
CCV/LCS	45 6072-78-15A	

Reviewed By/Date: 5/7/08

see book # 9368 for std traceability information

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

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

gCVAA-Prep1007

Page #:

onville Laboratory
corporated

MERCURY PREPARATION

Logbook # 422

nalyst: CB
ate 5/1/08
art Time/Temp:
nd Time/Temp: See page 090

Instrument ID H63.1
Balance #: NA
Pipette Calibration (Daily) Y ✓

Prep Batch: 08C0077
Worksheet: H6050101
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.
08041929-002R	H5			33mL	33mL	
002S	BG	0.667	200			
08041989-003	JS					
003R	5T					
003S	95	0.667	200			
004	S					
08041991-002	HW			16.5mL		Lint's vol
002R	55					
002S	TR	0.667	200			
08041976-002	3T			33mL		
002R	PT					
002S	KX	0.667	200			
08LT0032-LB1	F8					
08LT0034-LB1	I4					
TRR 5/1/08						

See SRC

Lionville Laboratory Use Only

0804L976

Custody Transfer Record/Lab Work Request

Page 1 of 1

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

LVLI LIONVILLE LABORATORY INC.

Client INU HANFORD SAF# RC-087

Est. Final Proj. Sampling Date

Project# 11343-606-001-9999-00

Project Contact/Phone#

Lionville Laboratory Project Manager O-JOHNSON

QC SW846 Del STO TAT 7days

Date Rec'd 4-23-08 Date Due 4-30-08

Refrigerator #												A							
#/Type Container	Liquid											3							
	Solid											1P							
Volume												500							
Preservatives												—							
ANALYSES REQUESTED →		ORGANIC										INORG							
		VOA	BNA	Pest/PCB	Herb							TCLP Metal Hg	CN	LEACHATE					
		Lionville Laboratory Use Only																	
												ITCLP		RCRA					
Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected													
001	J16MH8	/	/	Soil	4/14/08	0740						X							
002	⊥ TCLP of 001			L	x									X					

MATRIX CODES:
S- Soil
SE- Sediment
SO- Solid
SL- Sludge
W- Water
O- Oil
A- Air
DS- Drum Solids
DL- Dium Liquids
L- EP/TCLP Leachate
WI- Wipe
X- Other
F- Fish

Special Instructions: *See Labchron

Special Instructions:
1.
2.
3.
4.
5.
6.

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
[signature]	[signature]	4/23/08	0930					ORIGINAL REWRITTEN		COMPOSITE WASTE	

000000815

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-087-114	Page 1 of 1

Collector B Lawrence, E. Harries	**Company Contact** Joan Kessner	**Telephone No.** 509-375-4688	**Project Coordinator** KESSNER, JH
Project Designation 618-7 Burial Ground - Soil	**Sampling Location** 618-7 Burial Ground/Stockpiles		**SAF No.** RC-087
Ice Chest No. BH1-94	**Field Logbook No.** EL-1395-12	**COA** RG61872600	**Method of Shipment** Fed Ex
Shipped To EBERLINE SERVICES / LIONVILLE	**Offsite Property No.** A080239		**Bill of Lading/Air Bill No.** see ospe

Price Code 8F

Data Turnaround ~~15~~ 7 Days

POSSIBLE SAMPLE HAZARDS/REMARKS

Potential Radiological and Beryllium contamination

Special Handling and/or Storage

None

Preservation	None
Type of Container	P
No. of Container(s)	1
Volume	500mL

SAMPLE ANALYSIS

See item (1) in Special Instructions.

TIE to

Sample No.	Matrix *	Sample Date	Sample Time										
J16MH8	SOIL	4/14/08	0740	X						J16m82	~~J16m78~~	~~SEG~~ 4/14/08	~~I-003~~
~~J16MH9~~	~~SOIL~~	~~4/14/08~~	~~0745~~	~~X~~							~~J16m79~~	~~"~~	~~I-002~~
~~J16MJ0~~	~~SOIL~~	~~4/14/08~~	~~0750~~	~~X~~							~~J16m80~~	~~"~~	~~I-001~~

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
E. Harries/E. Harries	4/14/08 0835	RT Coffman/RT Coffman	4/14/08 0835
RT Coffman/RT Coffman	4/14/08 1300	Refer# 1A, 1060 Bldg,	4/14/08 1300
Ref 1A (1060)	4/21/08 1155	RB Kerkow/RB Kerk	4/21/08 1155
RB Kerkow/RB Kerk	4/21/08 1200	Ref 1B (1060)	4/21/08 1200
1060/1B	4/22/08 0945	MStankovich	4/22/08 0945
WCH MStankovich	4/22/08 1500	Fed Ex	

SPECIAL INSTRUCTIONS

None

(1) Metals by ICP (TCLP) - 1311/6010 {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}; Mercury (TCLP) - 1311/7470

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

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

LABORATORY SECTION	Received By [signature] 4-23-08 0930	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

Lionville Laboratory Incorporated

SAMPLE RECEIPT CHECKLIST (SRC)

CLIENT: TNU HANFORD
Project/SAP/SOW/Release #: RC-087

Date: 4/23/08

LvLI Batch #: 0804L976

Sample Custodian: [signature]

NOTE: EXPLAIN ALL DISCREPANCIES

1. Samples Hand Delivered or Shipped?	Carrier Fed Ex		Airbill # 7918886 9554
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°	°C	Cooler # BHI-94
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 4-23-08	☐ 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.