0059206

SAF-B02-065
618-5 Burial Ground – Anomalous Waste (Solids)
FINAL DATA PACKAGE

FAX RESULTS TO:

Jeff Lerch 373-5373 _____N/A_____
INITIAL/DATE

VERIFICATION OF CLIENT RECEIPT:

Phone or CC:Mail to Jeff Lerch _____N/A_____
INITIAL/DATE

MAIL COMPLETE COPY OF DATA PACKAGE TO:

Jeff Lerch L6-06 _____N/A_____
INITIAL/DATE

Doug Bowers H9-09 _____N/A_____
INITIAL/DATE

COMMENTS: (PLEASE INCLUDE THE FOLLOWING ON THE FAX COVER SHEET)

SDG ____H2062____ SAF-B02-065

Rad only X Chem only Rad & Chem

X Complete Partial

RECEIVED
APR 2 8 2003
EDMC

LIONVILLE LABORATORY INC.

14 February 2003

Joan Kessner
Bechtel-Hanford, Inc.
3190 Washington Way
MSIN H9-03
Richland, WA 99352

Subject: Contract No. 630
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 #	0301L605
SDG #	H2062
SAF #	B02-065
Date Received	1-30-03
# Samples	3
Matrix	Other Solid
Volatiles	
Semivolatiles	
Pest/PCB	
DRO	
GRO	
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

FEB 2003

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

208 Welsh Pool Road • Lionville, PA 19341-1333 • (610) 280-3000 • Fax (610) 280-3041

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNU-HANFORD B02-065 H2062

DATE RECEIVED: 01/30/03 LVL LOT # :0301L605

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
J00CM5						
TCLP	001	SO	03LTO013	01/24/03	01/30/03	01/31/03
J00CM7						
TCLP	002	SO	03LTO013	01/24/03	01/30/03	01/31/03
J00CN0						
TCLP	003	SO	03LTO013	01/24/03	01/30/03	01/31/03
J00CM5						
SILVER, TCLP LEACHAT	004	W	03L0054	01/31/03	01/31/03	02/03/03
SILVER, TCLP LEACHAT	004 REP	W	03L0054	01/31/03	01/31/03	02/03/03
ARSENIC, TCLP LEACHA	004	W	03L0054	01/31/03	01/31/03	02/03/03
ARSENIC, TCLP LEACHA	004 REP	W	03L0054	01/31/03	01/31/03	02/03/03
BARIUM, TCLP LEACHAT	004	W	03L0054	01/31/03	01/31/03	02/03/03
BARIUM, TCLP LEACHAT	004 REP	W	03L0054	01/31/03	01/31/03	02/03/03
CADMIUM, TCLP LEACHA	004	W	03L0054	01/31/03	01/31/03	02/03/03
CADMIUM, TCLP LEACHA	004 REP	W	03L0054	01/31/03	01/31/03	02/03/03
CHROMIUM, TCLP LEACH	004	W	03L0054	01/31/03	01/31/03	02/03/03
CHROMIUM, TCLP LEACH	004 REP	W	03L0054	01/31/03	01/31/03	02/03/03
MERCURY, TCLP LEACHA	004	W	03C0019	01/31/03	02/03/03	02/04/03
MERCURY, TCLP LEACHA	004 REP	W	03C0019	01/31/03	02/03/03	02/04/03
LEAD, TCLP LEACHATE	004	W	03L0054	01/31/03	01/31/03	02/03/03
LEAD, TCLP LEACHATE	004 REP	W	03L0054	01/31/03	01/31/03	02/03/03
SELENIUM, TCLP LEACH	004	W	03L0054	01/31/03	01/31/03	02/03/03
SELENIUM, TCLP LEACH	004 REP	W	03L0054	01/31/03	01/31/03	02/03/03
J00CM7						
SILVER, TCLP LEACHAT	005	W	03L0054	01/31/03	01/31/03	02/03/03
SILVER, TCLP LEACHAT	005 MS	W	03L0054	01/31/03	01/31/03	02/03/03
ARSENIC, TCLP LEACHA	005	W	03L0054	01/31/03	01/31/03	02/03/03
ARSENIC, TCLP LEACHA	005 MS	W	03L0054	01/31/03	01/31/03	02/03/03

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNU-HANFORD B02-065

DATE RECEIVED: 01/30/03 LVL LOT # :0301L605

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
BARIUM, TCLP LEACHAT	005	W	03L0054	01/31/03	01/31/03	02/03/03
BARIUM, TCLP LEACHAT	005 MS	W	03L0054	01/31/03	01/31/03	02/03/03
CADMIUM, TCLP LEACHA	005	W	03L0054	01/31/03	01/31/03	02/03/03
CADMIUM, TCLP LEACHA	005 MS	W	03L0054	01/31/03	01/31/03	02/03/03
CHROMIUM, TCLP LEACH	005	W	03L0054	01/31/03	01/31/03	02/03/03
CHROMIUM, TCLP LEACH	005 MS	W	03L0054	01/31/03	01/31/03	02/03/03
MERCURY, TCLP LEACHA	005	W	03C0019	01/31/03	02/03/03	02/04/03
LEAD, TCLP LEACHATE	005	W	03L0054	01/31/03	01/31/03	02/03/03
LEAD, TCLP LEACHATE	005 MS	W	03L0054	01/31/03	01/31/03	02/03/03
SELENIUM, TCLP LEACH	005	W	03L0054	01/31/03	01/31/03	02/03/03
SELENIUM, TCLP LEACH	005 MS	W	03L0054	01/31/03	01/31/03	02/03/03
J00CN0						
SILVER, TCLP LEACHAT	006	W	03L0054	01/31/03	01/31/03	02/03/03
ARSENIC, TCLP LEACHA	006	W	03L0054	01/31/03	01/31/03	02/03/03
BARIUM, TCLP LEACHAT	006	W	03L0054	01/31/03	01/31/03	02/03/03
CADMIUM, TCLP LEACHA	006	W	03L0054	01/31/03	01/31/03	02/03/03
CHROMIUM, TCLP LEACH	006	W	03L0054	01/31/03	01/31/03	02/03/03
MERCURY, TCLP LEACHA	006	W	03C0019	01/31/03	02/03/03	02/04/03
MERCURY, TCLP LEACHA	006 MS	W	03C0019	01/31/03	02/03/03	02/04/03
LEAD, TCLP LEACHATE	006	W	03L0054	01/31/03	01/31/03	02/03/03
SELENIUM, TCLP LEACH	006	W	03L0054	01/31/03	01/31/03	02/03/03

LAB QC:

SILVER LABORATORY	LC1 BS	W	03L0054	N/A	01/31/03	02/03/03
SILVER, TCLP LEACHAT	MB1	W	03L0054	N/A	01/31/03	02/03/03
SILVER, TCLP LEACHAT	MB2	W	03L0054	N/A	01/31/03	02/03/03
ARSENIC LABORATORY	LC1 BS	W	03L0054	N/A	01/31/03	02/03/03
ARSENIC, TCLP LEACHA	MB1	W	03L0054	N/A	01/31/03	02/03/03
ARSENIC, TCLP LEACHA	MB2	W	03L0054	N/A	01/31/03	02/03/03
BARIUM LABORATORY	LC1 BS	W	03L0054	N/A	01/31/03	02/03/03
BARIUM, TCLP LEACHAT	MB1	W	03L0054	N/A	01/31/03	02/03/03
BARIUM, TCLP LEACHAT	MB2	W	03L0054	N/A	01/31/03	02/03/03
CADMIUM LABORATORY	LC1 BS	W	03L0054	N/A	01/31/03	02/03/03
CADMIUM, TCLP LEACHA	MB1	W	03L0054	N/A	01/31/03	02/03/03
CADMIUM, TCLP LEACHA	MB2	W	03L0054	N/A	01/31/03	02/03/03

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNU-HANFORD B02-065

DATE RECEIVED: 01/30/03 LVL LOT # :0301L605

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
CHROMIUM LABORATORY	LC1 BS	W	03L0054	N/A	01/31/03	02/03/03
CHROMIUM, TCLP LEACH	MB1	W	03L0054	N/A	01/31/03	02/03/03
CHROMIUM, TCLP LEACH	MB2	W	03L0054	N/A	01/31/03	02/03/03
MERCURY LABORATORY	LC1 BS	W	03C0019	N/A	02/03/03	02/04/03
MERCURY, TOTAL	MB1	W	03C0019	N/A	02/03/03	02/04/03
MERCURY, TCLP LEACHA	MB2	W	03C0019	N/A	02/03/03	02/04/03
MERCURY, TCLP LEACHA	MB3	W	03C0019	N/A	02/03/03	02/04/03
LEAD LABORATORY	LC1 BS	W	03L0054	N/A	01/31/03	02/03/03
LEAD, TCLP LEACHATE	MB1	W	03L0054	N/A	01/31/03	02/03/03
LEAD, TCLP LEACHATE	MB2	W	03L0054	N/A	01/31/03	02/03/03
SELENIUM LABORATORY	LC1 BS	W	03L0054	N/A	01/31/03	02/03/03
SELENIUM, TCLP LEACH	MB1	W	03L0054	N/A	01/31/03	02/03/03
SELENIUM, TCLP LEACH	MB2	W	03L0054	N/A	01/31/03	02/03/03

LIONVILLE LABORATORY INC.

Analytical Report

Client: TNU-HANFORD B02-065
LVL#: 0301L605
SDG/SAF#: H2062/B02-065

W.O.#: 11343-606-001-9999-00
Date Received: 01-30-03

METALS CASE NARRATIVE

1. This narrative covers the analyses of 3 TCLP leachate samples.

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

   All samples were run with a 6 fold dilution due to sample matrix.

3. All analyses were performed within the required holding times.

4. Please refer to the Sample Receipt Check List for sample discrepancies in LvLI's sample acceptance policy.

5. All Initial and Continuing Calibration Verifications (ICV/CCVs) were within the 90-110% control limits.

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

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

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

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

10. The duplicate analysis for 1 analyte was outside the 20% Relative Percent Difference (RPD) control limits. Refer to the Inorganics Precision Report.

11. The TCLP extracts from sample J00CM7 for ICP metals and from sample J00CN0 for Mercury were selected for the matrix spikes (MS) for this analytical batch. The matrix spike for Silver was below 50% recovery (49.0%). The recovery in the TCLP Leachate was

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 16 pages.

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 Instrument Detection Limit (IDL). Values between the IDL and the Practical Quantitation Limit (PQL) are acquired in a region of less-certain quantification.

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

02-11-03
Date

jjw/m01-605

METALS METHOD GLOSSARY

The following methods are used as reference for the digestion and analysis of samples contained within this
Lot#: C301L605

Leaching Procedure: __1310 X 1311 __1312 __Other:_____

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

Metals Digestion Methods: __3005A X 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	X 6010B	__7060A [5]	__200.7	__206.2	__3113B		__99
Barium	X 6010B		__200.7				__99
Beryllium	__6010B		__200.7				__99
Bismuth	__6010B [1]		__200.7 [1]			__1620	__99
Boron	__6010B		__200.7				__99
Cadmium	X 6010B	__7131A [5]	__200.7	__213.2			__99
Calcium	__6010B		__200.7				__99
Chromium	X 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	X 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	X 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	X 6010B	__7740 [5]	__200.7	__270.2	__3113B		__99
Silicon	__6010B [1]		__200.7			__1620	__99
Silica	__6010B		__200.7			__1620	__99
Silver	X 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, 0.1 grams of sample is taken to a final volume of 50 mL (including all reagents).

3. 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, three 0.1 gram of sample is taken to a final volume of 50 mL (including all reagents).

4. Flame AA.

5. Graphite Furnace AA.

RFW 21-21L-033/N-10/96

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 02/06/03

CLIENT: TNU-HANFORD B02-065 LVL LOT #: 0301L605

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

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
-004	J00CM5	Silver, TCLP Leachate	4.8	u	UG/L	4.8	6.0
		Arsenic, TCLP Leachate	23.2		UG/L	21.0	6.0
		Barium, TCLP Leachate	287		UG/L	0.60	6.0
		Cadmium, TCLP Leachate	19.9		UG/L	2.4	6.0
		Chromium, TCLP Leachate	3.6	u	UG/L	3.6	6.0
		Mercury, TCLP Leachate	0.10	u	UG/L	0.10	1.0
		Lead, TCLP Leachate	119		UG/L	15.6	6.0
		Selenium, TCLP Leachate	21.6	u	UG/L	21.6	6.0
-005	J00CM7	Silver, TCLP Leachate	4.8	u	UG/L	4.8	6.0
		Arsenic, TCLP Leachate	21.0	u	UG/L	21.0	6.0
		Barium, TCLP Leachate	405		UG/L	0.60	6.0
		Cadmium, TCLP Leachate	129		UG/L	2.4	6.0
		Chromium, TCLP Leachate	3.6	u	UG/L	3.6	6.0
		Mercury, TCLP Leachate	0.10	u	UG/L	0.10	1.0
		Lead, TCLP Leachate	19200		UG/L	15.6	6.0
		Selenium, TCLP Leachate	21.6	u	UG/L	21.6	6.0
-006	J00CN0	Silver, TCLP Leachate	4.8	u	UG/L	4.8	6.0
		Arsenic, TCLP Leachate	21.0	u	UG/L	21.0	6.0
		Barium, TCLP Leachate	547		UG/L	0.60	6.0
		Cadmium, TCLP Leachate	29.9		UG/L	2.4	6.0
		Chromium, TCLP Leachate	5.4		UG/L	3.6	6.0
		Mercury, TCLP Leachate	0.10	u	UG/L	0.10	1.0
		Lead, TCLP Leachate	53.3		UG/L	15.6	6.0
		Selenium, TCLP Leachate	21.6	u	UG/L	21.6	6.0

Lionville Laboratory, Inc.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 02/06/03

CLIENT: TNU-HANFORD B02-065

LVL LOT #: 0301L605

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK1	03L0054-MB1	Silver, TCLP Leachate	0.80 u	UG/L	0.80	1.0
		Arsenic, TCLP Leachate	3.5 u	UG/L	3.5	1.0
		Barium, TCLP Leachate	0.32	UG/L	0.10	1.0
		Cadmium, TCLP Leachate	0.40 u	UG/L	0.40	1.0
		Chromium, TCLP Leachate	0.60 u	UG/L	0.60	1.0
		Lead, TCLP Leachate	2.6 u	UG/L	2.6	1.0
		Selenium, TCLP Leachate	3.6 u	UG/L	3.6	1.0
BLANK2	03L0054-MB2	Silver, TCLP Leachate	4.8 u	UG/L	4.8	6.0
		Arsenic, TCLP Leachate	21.0 u	UG/L	21.0	6.0
		Barium, TCLP Leachate	1.7	UG/L	0.60	6.0
		Cadmium, TCLP Leachate	2.4 u	UG/L	2.4	6.0
		Chromium, TCLP Leachate	3.6 u	UG/L	3.6	6.0
		Lead, TCLP Leachate	15.6 u	UG/L	15.6	6.0
		Selenium, TCLP Leachate	21.6 u	UG/L	21.6	6.0
BLANK1	03C0019-MB1	Mercury, Total	0.10 u	UG/L	0.10	1.0
BLANK2	03C0019-MB2	Mercury, TCLP Leachate	0.10 u	UG/L	0.10	1.0
BLANK3	03C0019-MB3	Mercury, TCLP Leachate	0.10 u	UG/L	0.10	1.0

Lionville Laboratory, Inc.

INORGANICS ACCURACY REPORT 02/06/03

CLIENT: TNU-HANFORD B02-065

LVL LOT #: 0301L605

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

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-005	J00CM7	Silver, TCLP Leachate	2450	4.8 u	5000	49.0	6.0
		Arsenic, TCLP Leachate	5260	21.0 u	5000	105.2	6.0
		Barium, TCLP Leachate	101000	405	100000	100.8	6.0
		Cadmium, TCLP Leachate	1160	129	1000	103.3	6.0
		Chromium, TCLP Leachat	5060	3.6 u	5000	101.2	6.0
		Lead, TCLP Leachate	24500	19200	5000	105.5	6.0
		Selenium, TCLP Leachat	1080	21.6 u	1000	107.7	6.0
-006	J00CN0	Mercury, TCLP Leachate	170	0.10u	200	85.1	50.0

Lionville Laboratory, Inc.

INORGANICS PRECISION REPORT 02/06/03

CLIENT: TNU-HANFORD B02-065 LVL LOT #: 0301L605

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

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR(REP)
-004REP	J00CM5	Silver, TCLP Leachate	4.8 u	4.8 u	NC	6.0
		Arsenic, TCLP Leachate	23.2	21.0 u	~~NC~~ 20.0	6.0
		Barium, TCLP Leachate	287	284	0.84 NW 2/6/03	6.0
		Cadmium, TCLP Leachate	19.9	21.2	6.3	6.0
		Chromium, TCLP Leachate	3.6 u	3.6 u	NC	6.0
		Mercury, TCLP Leachate	0.10u	0.10u	NC	1.0
		Lead, TCLP Leachate	119	113	5.4	6.0
		Selenium, TCLP Leachate	21.6 u	21.6 u	NC	6.0

Lionville Laboratory, Inc.

INORGANICS LABORATORY CONTROL STANDARDS REPORT 02/06/03

CLIENT: TNU-HANFORD B02-065 LVL LOT #: 0301L605

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

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
LCS1	03L0054-LC1	Silver, LCS	506	500	UG/L	101.2
		Arsenic, LCS	10100	10000	UG/L	100.9
		Barium, LCS	5080	5000	UG/L	101.6
		Cadmium, LCS	253	250	UG/L	101.3
		Chromium, LCS	513	500	UG/L	102.6
		Lead, LCS	2540	2500	UG/L	101.5
		Selenium, LCS	9940	10000	UG/L	99.4
LCS1	03C0019-LC1	Mercury, LCS	5.0	5.0	UG/L	99.3

Lionville Laboratory Use Only

0301L605

Custody Transfer Record/Lab Work Request

Page 1 of 1

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

LVLT LIONVILLE LABORATORIES INC

Client: TNU Hanford B02-065

Est. Final Proj. Sampling Date:

Project #: 1343-606-001-9999-00

Project Contact/Phone #:

Lionville Laboratory Project Manager: Charlotte Johnson

QC: SPEC Del: STD TAT: 7 days

Date Rec'd: 1-30-03 Date Due: 2-6-03

Refrigerator #		A													
#/Type Container	Liquid								S						
	Solid								1qt		LEACHATE				
Volume	Liquid								1						
	Solid								60						
Preservatives									—						
ANALYSES REQUESTED →		ORGANIC							INORG						
		VOA	BNA	Pest/PCB	Herb				TCLP Metal	CN	TCLP				
		Lionville Laboratory Use Only													
									TCLP		RCRA(CN)				

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

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected													
001	J00CM5			SO	1-24-03	0920							X						
002	J00CM7					0926							X						
003	J00CN0					0934							X						
004	J00CM5 tclp of 001			L	*										✓				
005	M7 002														✓				
006	N0 003														✓				

Special Instructions: SAF # B02-065

Run Matrix QC

DATE/REVISIONS:

* 1. See labchron

2.

3.

4.

5.

6.

Lionville Laboratory Use Only

Samples were:
1) Shipped ✓ or
Hand Delivered ___
Airbill # 7906-8623 0888
2) Ambient or Chilled
3) Received in Good Condition (Y) or N
4) Samples Properly Preserved (Y) or N
5) Received Within Holding Times (Y) or N

Tamper Resistant Seal was:
1) Present on Outer Package (Y) or N
2) Unbroken on Outer Package (Y) or N
3) Present on Sample (Y) or N
4) Unbroken on Sample (Y) or N

COC Record Present Upon Sample Rec't (Y) or N

Cooler Temp. 9.8 °C

Discrepancies Between Samples Labels and COC Record? Y or (N)

NOTES:

Relinquished by	Received by	Date	Time
[illegible]	[illegible]	1-30-03	0930

Relinquished by	Received by	Date	Time
COMPOSITE WASTE	ORIGINAL REWRITTEN		

13

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B02-065-09	Page 1

Collector: Doug Bowers	Company Contact: Jeff Lerch	Telephone No.: 373-5904	Project Coordinator: KESSNER, JH
Price Code: 9J	Data Turnaroun: 7 day		
Project Designation: 618-5 Burial Ground - Anomalous Waste (Solids)	Sampling Location: 300-FF-1 618-5 Burial Ground	SAF No.: B02-065	Air Quality ☐
Ice Chest No.: TJ-9	Field Logbook No.: EL 1395-6	COA: RG61852600	Method of Shipment: Federal Express
Shipped To: TMA/(RECRA)	Offsite Property No.: A030 123	Bill of Lading/Air Bill No.: 7906 8623 0188	

POSSIBLE SAMPLE HAZARDS/REMARKS
Radioactive
SEE ATTACHED REPORT

Special Handling and/or Storage
None

Preservation	None										
Type of Container	sG										
No. of Container(s)	1										
Volume	60mL										
SAMPLE ANALYSIS	See item (1) in Special Instructions										

Sample No.	Matrix *	Sample Date	Sample Time									
~~J00CM3~~	~~OTHER SOLID~~	~~1-24-03~~	~~0914~~	~~X~~								
~~J00CM4~~	~~OTHER SOLID~~	~~1-24-03~~	~~0916~~	~~X~~								
J00CM5	OTHER SOLID	1-24-03	0920	X								
~~J00CM6~~	~~OTHER SOLID~~	~~1-24-03~~	~~0922~~	~~X~~								
J00CM7	OTHER SOLID	1-24-03	0926	X								

1-29-03

CHAIN OF POSSESSION	Sign/Print Names
Relinquished By/Removed From: Doug Bowers Date/Time: 1-24-03/1500	Received By/Stored In: Ref IA 3728 Date/Time: 1-24-03/1500
Relinquished By/Removed From: IA 3728 1-29-03 Date/Time: 1000	Received By/Stored In: R. Fahlberg 1-29-03 Date/Time: 1000
Relinquished By/Removed From: R. Fahlberg 1-29-03 Date/Time: 1000	Received By/Stored In: Fed Ex Date/Time:
Relinquished By/Removed From: Fed Ex 1-30-03/0930 Date/Time:	Received By/Stored In: 1-30-03/0930 Date/Time:
Relinquished By/Removed From: Date/Time:	Received By/Stored In: Date/Time:
Relinquished By/Removed From: Date/Time:	Received By/Stored In: Date/Time:

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

Personnel not available to relinquish samples from the 372[illegible]
Ref # IA on 1/29/03

Matrix
S=Soil
SE=Sedim
SO=Solid
SI=Sludge
W = Wate
O=Oil
A=Air
DS=Drum
DL=Drum
T=Tissue
WI=Wipe
L=Liquid
V=Vegeta
X=Other

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

BHI-EE-011 (03/01/2002)

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		B02-065-09	Page 1
Collector: Doug Bowers	Company Contact: Jeff Lerch	Telephone No.: 373-5904	Project Coordinator: KESSNER, JH	Price Code: 9 J; Data Turnaround: 7 day; Air Quality: ☐
Project Designation: 618-5 Burial Ground - Anomalous Waste (Solids)	Sampling Location: 300-FF-1 618-5 Burial Ground		SAF No.: B02-065	
Ice Chest No.: TJ-9	Field Logbook No.: EL 1395-6	COA: RG61852600	Method of Shipment: Federal Express	
Shipped To: TMA/RECRA	Offsite Property No.: A030 123		Bill of Lading/Air Bill No.: 7906 86230188	

POSSIBLE SAMPLE HAZARDS/REMARKS
Radioactive
SEE Attached Report

Special Handling and/or Storage
None

Preservation	None									
Type of Container	sG									
No. of Container(s)	1									
Volume	60mL									
SAMPLE ANALYSIS	See item (1) in Special Instructions.									

Sample No.	Matrix *	Sample Date	Sample Time									
~~J00CM8~~	~~OTHER SOLID~~	~~1-24-03~~	~~0928~~	~~X~~								
~~J00CM9~~	~~OTHER SOLID~~	~~1-24-03~~	~~0932~~	~~X~~								
J00CN0	OTHER SOLID	1-24-03	0934	X								
	OTHER SOLID											
	OTHER SOLID											

1-29-03

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By/Removed From: Doug Bowers	Date/Time: 1500 1-24-03	Received By/Stored In: Art 1A 3728	Date/Time: 1-24-03 / 1500
Relinquished By/Removed From: 1A 3728	Date/Time: 1-29-03 1000	Received By/Stored In: R. Fahlberg R. Fahlberg	Date/Time: 1000 1-29-03
Relinquished By/Removed From: ERC R. Fahlberg R. Fahlberg	Date/Time: 1000 1-29-03	Received By/Stored In: Fed Ex	Date/Time:
Relinquished By/Removed From: Fed Ex	Date/Time: 1-30-03 / 0930	Received By/Stored In: [signature]	Date/Time: 1-30-03 / 0930
Relinquished By/Removed From:	Date/Time:	Received By/Stored In:	Date/Time:
Relinquished By/Removed From:	Date/Time:	Received By/Stored In:	Date/Time:

SPECIAL INSTRUCTIONS

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

Personnel not available to relinquish samples from the 3728 [initials]
Ref # 1A on 1/29/03

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

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

BHI-EE-011 (03/01/2002)

15

LIONVILLE LABORATORY INCORPORATED
SAMPLE RECEIPT CHECKLIST

ENT: TNU Hanford

:hase Order/Project:

DATE: 1.30.03

:#) SOW# / Release #: B02-065

ıoratory SDG #: 0301L605

TE: ALL ENTRIES MARKED "NO" MUST BE EXPLAINED IN THE COMMENT SECTION

1.	Custody seals on coolers or shipping container intact, signed and dated?	☒ Yes	☐ No	☐ N/A	☐ see Comment #
2.	Outside of coolers or shipping containers are free from damage?	☒ Yes	☐ No	☐ N/A	☐ see Comment #
3.	Airbill # recorded?	☒ Yes	☐ No	☐ N/A	☐ see Comment #
4.	All expected paperwork received (coc and other client specific: historical data, alpha/beta or other screening data as applicable)? (paperwork sealed in plastic bag and taped to inside lid)	☒ Yes	☐ No	☐ N/A	☐ see Comment #
5.	Sample containers are intact?	☒ Yes	☐ No	☐ N/A	☐ see Comment #
6.	Custody seals on sample containers intact, signed and dated?	☒ Yes	☐ No	☐ N/A	☐ see Comment #
7.	All samples on coc received?	☒ Yes	☐ No	☐ N/A	☐ see Comment #
8.	All sample label information matches coc?	☒ Yes	☐ No	☐ N/A	☐ see Comment #
9.	Laboratory QC samples designated on coc? (QC stickers placed on bottles?)	☐ Yes	☐ No	☒ N/A	☐ see Comment #
10.	Shipment meets LvLl Sample Acceptance Policy? (identify all bottles not within policy. See reverse side for policy)	DS 1.30.03 ~~☒ Yes~~	☒ No	☐ N/A	☒ see Comment #
11.	Where applicable, bar code labels are affixed to coc?	☐ Yes	☐ No	☒ N/A	☐ see Comment #
12.	coc signed and dated?	☒ Yes	☐ No	☐ N/A	☐ see Comment #
13.	coc will be faxed or emailed to client?	☒ Yes	☐ No	☐ N/A	☐ see Comment #
14.	Project Manager/Client contacted concerning discrepancies? (name/date)	☐ Yes	☐ No	☒ N/A	☐ see Comment #

Cooler # / temp (°C) and Comments:

7906 8623 0188 / 9.8°C

1 samples received @ 9.8°C

Laboratory Sample Custodian:

Laboratory Project Manager: