0059205

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 ____H2067____ SAF-B02-065

Rad only X Chem only Rad & Chem

X Complete Partial

RECEIVED
APR 28 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 #	0302L640
SDG #	H2067
SAF #	B02-065
Date Received	2-4-03
# 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\tnu-hanford\data\b_ltrs.doc

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FEB 2003

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD B02-065 H2067

DATE RECEIVED: 02/04/03 LVL LOT # :0302L640

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
J00CN1						
TCLP	001	SO	03LTO015	01/29/03	02/04/03	02/05/03
J00CN5						
TCLP	002	SO	03LTO015	01/29/03	02/04/03	02/05/03
J00CN6						
TCLP	003	SO	03LTO015	01/29/03	02/04/03	02/05/03
J00CN1						
SILVER, TCLP LEACHAT	004	W	03L0061	02/05/03	02/05/03	02/05/03
SILVER, TCLP LEACHAT	004 REP	W	03L0061	02/05/03	02/05/03	02/05/03
ARSENIC, TCLP LEACHA	004	W	03L0061	02/05/03	02/05/03	02/05/03
ARSENIC, TCLP LEACHA	004 REP	W	03L0061	02/05/03	02/05/03	02/05/03
BARIUM, TCLP LEACHAT	004	W	03L0061	02/05/03	02/05/03	02/05/03
BARIUM, TCLP LEACHAT	004 REP	W	03L0061	02/05/03	02/05/03	02/05/03
CADMIUM, TCLP LEACHA	004	W	03L0061	02/05/03	02/05/03	02/05/03
CADMIUM, TCLP LEACHA	004 REP	W	03L0061	02/05/03	02/05/03	02/05/03
CHROMIUM, TCLP LEACH	004	W	03L0061	02/05/03	02/05/03	02/05/03
CHROMIUM, TCLP LEACH	004 REP	W	03L0061	02/05/03	02/05/03	02/05/03
MERCURY, TCLP LEACHA	004	W	03C0024	02/05/03	02/06/03	02/07/03
LEAD, TCLP LEACHATE	004	W	03L0061	02/05/03	02/05/03	02/05/03
LEAD, TCLP LEACHATE	004 REP	W	03L0061	02/05/03	02/05/03	02/05/03
SELENIUM, TCLP LEACH	004	W	03L0061	02/05/03	02/05/03	02/05/03
SELENIUM, TCLP LEACH	004 REP	W	03L0061	02/05/03	02/05/03	02/05/03
J00CN5						
SILVER, TCLP LEACHAT	005	W	03L0061	02/05/03	02/05/03	02/05/03
SILVER, TCLP LEACHAT	005 MS	W	03L0061	02/05/03	02/05/03	02/05/03
ARSENIC, TCLP LEACHA	005	W	03L0061	02/05/03	02/05/03	02/05/03
ARSENIC, TCLP LEACHA	005 MS	W	03L0061	02/05/03	02/05/03	02/05/03
BARIUM, TCLP LEACHAT	005	W	03L0061	02/05/03	02/05/03	02/05/03

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD B02-065 H2067

DATE RECEIVED: 02/04/03 LVL LOT # :0302L640

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
BARIUM, TCLP LEACHAT	005 MS	W	03L0061	02/05/03	02/05/03	02/05/03
CADMIUM, TCLP LEACHA	005	W	03L0061	02/05/03	02/05/03	02/05/03
CADMIUM, TCLP LEACHA	005 MS	W	03L0061	02/05/03	02/05/03	02/05/03
CHROMIUM, TCLP LEACH	005	W	03L0061	02/05/03	02/05/03	02/05/03
CHROMIUM, TCLP LEACH	005 MS	W	03L0061	02/05/03	02/05/03	02/05/03
MERCURY, TCLP LEACHA	005	W	03C0024	02/05/03	02/06/03	02/07/03
MERCURY, TCLP LEACHA	005 REP	W	03C0024	02/05/03	02/06/03	02/07/03
MERCURY, TCLP LEACHA	005 MS	W	03C0024	02/05/03	02/06/03	02/07/03
LEAD, TCLP LEACHATE	005	W	03L0061	02/05/03	02/05/03	02/05/03
LEAD, TCLP LEACHATE	005 MS	W	03L0061	02/05/03	02/05/03	02/05/03
SELENIUM, TCLP LEACH	005	W	03L0061	02/05/03	02/05/03	02/05/03
SELENIUM, TCLP LEACH	005 MS	W	03L0061	02/05/03	02/05/03	02/05/03
J00CN6						
SILVER, TCLP LEACHAT	006	W	03L0061	02/05/03	02/05/03	02/05/03
ARSENIC, TCLP LEACHA	006	W	03L0061	02/05/03	02/05/03	02/05/03
BARIUM, TCLP LEACHAT	006	W	03L0061	02/05/03	02/05/03	02/05/03
CADMIUM, TCLP LEACHA	006	W	03L0061	02/05/03	02/05/03	02/05/03
CHROMIUM, TCLP LEACH	006	W	03L0061	02/05/03	02/05/03	02/05/03
MERCURY, TCLP LEACHA	006	W	03C0024	02/05/03	02/06/03	02/07/03
LEAD, TCLP LEACHATE	006	W	03L0061	02/05/03	02/05/03	02/05/03
SELENIUM, TCLP LEACH	006	W	03L0061	02/05/03	02/05/03	02/05/03

LAB QC:

SILVER LABORATORY	LC1 BS	W	03L0061	N/A	02/05/03	02/05/03
SILVER, TCLP LEACHAT	MB1	W	03L0061	N/A	02/05/03	02/05/03
SILVER, TCLP LEACHAT	MB2	W	03L0061	N/A	02/05/03	02/05/03
ARSENIC LABORATORY	LC1 BS	W	03L0061	N/A	02/05/03	02/05/03
ARSENIC, TCLP LEACHA	MB1	W	03L0061	N/A	02/05/03	02/05/03
ARSENIC, TCLP LEACHA	MB2	W	03L0061	N/A	02/05/03	02/05/03
BARIUM LABORATORY	LC1 BS	W	03L0061	N/A	02/05/03	02/05/03
BARIUM, TCLP LEACHAT	MB1	W	03L0061	N/A	02/05/03	02/05/03
BARIUM, TCLP LEACHAT	MB2	W	03L0061	N/A	02/05/03	02/05/03
CADMIUM LABORATORY	LC1 BS	W	03L0061	N/A	02/05/03	02/05/03
CADMIUM, TCLP LEACHA	MB1	W	03L0061	N/A	02/05/03	02/05/03
CADMIUM, TCLP LEACHA	MB2	W	03L0061	N/A	02/05/03	02/05/03

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD B02-065 H2067

DATE RECEIVED: 02/04/03 LVL LOT # :0302L640

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
CHROMIUM LABORATORY	LC1 BS	W	03L0061	N/A	02/05/03	02/05/03
CHROMIUM, TCLP LEACH	MB1	W	03L0061	N/A	02/05/03	02/05/03
CHROMIUM, TCLP LEACH	MB2	W	03L0061	N/A	02/05/03	02/05/03
MERCURY LABORATORY	LC1 BS	W	03C0024	N/A	02/06/03	02/07/03
MERCURY, TOTAL	MB1	W	03C0024	N/A	02/06/03	02/07/03
MERCURY, TCLP LEACHA	MB2	W	03C0024	N/A	02/06/03	02/07/03
LEAD LABORATORY	LC1 BS	W	03L0061	N/A	02/05/03	02/05/03
LEAD, TCLP LEACHATE	MB1	W	03L0061	N/A	02/05/03	02/05/03
LEAD, TCLP LEACHATE	MB2	W	03L0061	N/A	02/05/03	02/05/03
SELENIUM LABORATORY	LC1 BS	W	03L0061	N/A	02/05/03	02/05/03
SELENIUM, TCLP LEACH	MB1	W	03L0061	N/A	02/05/03	02/05/03
SELENIUM, TCLP LEACH	MB2	W	03L0061	N/A	02/05/03	02/05/03

LIONVILLE LABORATORY INC.

Analytical Report

Client: TNU-HANFORD B02-065
LVL#: 0302L640
SDG/SAF#: H2067/B02-065

W.O.#: 11343-606-001-9999-00
Date Received: 02-04-03

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.

   The samples were run with a 6 fold dilution for ICP metals due to sample matrix.

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

4. All results presented in this report are derived from samples that met 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 extract from sample J00CN5 was selected for the matrix spike (MS) for this analytical batch. All MS recoveries were greater than 50% as per method criteria.

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.

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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

02-13-03
Date

jjw/m02-640

METALS METHOD GLOSSARY

The following methods are used as reference for the digestion and analysis of samples contained within this Lot#: 03021640

Leaching Procedure: __1310 X1311 __1312 __Other:_____

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

Metals Digestion Methods: __3005A X3010A __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	X6010B	__7060A [5]	__200.7	__206.2	__3113B		__99
Barium	X6010B		__200.7				__99
Beryllium	__6010B		__200.7				__99
Bismuth	__6010B [1]		__200.7 [1]			__1620	__99
Boron	__6010B		__200.7				__99
Cadmium	X6010B	__7131A [5]	__200.7	__213.2			__99
Calcium	__6010B		__200.7				__99
Chromium	X6010B	__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	X6010B	__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	X7470A [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	X6010B	__7740 [5]	__200.7	__270.2	__3113B		__99
Silicon	__6010B [1]		__200.7			__1620	__99
Silica	__6010B		__200.7			__1620	__99
Silver	X6010B	__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 02/13/03

CLIENT: TNUHANFORD B02-065 H2067

LVL LOT #: 0302L640

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

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
-004	J00CN1	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	376		UG/L	0.60	6.0
		Cadmium, TCLP Leachate	53.6		UG/L	2.4	6.0
		Chromium, TCLP Leachate	7.9		UG/L	3.6	6.0
		Mercury, TCLP Leachate	0.22		UG/L	0.10	1.0
		Lead, TCLP Leachate	1600		UG/L	15.6	6.0
		Selenium, TCLP Leachate	21.6	u	UG/L	21.6	6.0
-005	J00CN5	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	132		UG/L	0.60	6.0
		Cadmium, TCLP Leachate	38.9		UG/L	2.4	6.0
		Chromium, TCLP Leachate	8.8		UG/L	3.6	6.0
		Mercury, TCLP Leachate	0.51		UG/L	0.10	1.0
		Lead, TCLP Leachate	86.7		UG/L	15.6	6.0
		Selenium, TCLP Leachate	21.6	u	UG/L	21.6	6.0
-006	J00CN6	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	165		UG/L	0.60	6.0
		Cadmium, TCLP Leachate	194		UG/L	2.4	6.0
		Chromium, TCLP Leachate	5.8		UG/L	3.6	6.0
		Mercury, TCLP Leachate	0.49		UG/L	0.10	1.0
		Lead, TCLP Leachate	131		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 02/13/03

CLIENT: TNUHANFORD B02-065 H2067

LVL LOT #: 0302L640

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

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK1	03L0061-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	0.14		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	03L0061-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	1.3		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	03C0024-MB1	Mercury, Total	0.10	u	UG/L	0.10	1.0
BLANK2	03C0024-MB2	Mercury, TCLP Leachate	0.10	u	UG/L	0.10	1.0

Lionville Laboratory, Inc.

INORGANICS ACCURACY REPORT 02/13/03

CLIENT: TNUHANFORD B02-065 H2067

LVL LOT #: 0302L640

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

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-005	J00CN5	Silver, TCLP Leachate	4440	4.8 u	5000	88.7	6.0
		Arsenic, TCLP Leachate	4870	21.0 u	5000	97.5	6.0
		Barium, TCLP Leachate	69000	132	100000	68.8	6.0
		Cadmium, TCLP Leachate	1010	38.9	1000	96.7	6.0
		Chromium, TCLP Leachat	4790	8.8	5000	95.6	6.0
		Mercury, TCLP Leachate	173	0.51	200	86.1	50.0
		Lead, TCLP Leachate	4880	86.7	5000	95.8	6.0
		Selenium, TCLP Leachat	987	21.6 u	1000	98.7	6.0

Lionville Laboratory, Inc.

INORGANICS PRECISION REPORT 02/13/03

CLIENT: TNUHANFORD B02-065 H2067

LVL LOT #: 0302L640

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

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR(REP)
-004REP	J00CN1	Silver, TCLP Leachate	4.8 u	4.8 u	NC	6.0
		Arsenic, TCLP Leachate	21.0 u	21.0 u	NC	6.0
		Barium, TCLP Leachate	376	363	2.3	6.0
		Cadmium, TCLP Leachate	53.6	55.3	3.1	6.0
		Chromium, TCLP Leachate	7.9	3.6 u	~~NC~~ 200	6.0
		Lead, TCLP Leachate	1600	1630	1.6	6.0
		Selenium, TCLP Leachate	21.6 u	21.6 u	NC	6.0
-005REP	J00CN5	Mercury, TCLP Leachate	0.51	0.51	0.98	1.0

2/13/03

Lionville Laboratory, Inc.

INORGANICS LABORATORY CONTROL STANDARDS REPORT 02/13/03

CLIENT: TNUHANFORD B02-065 H2067

LVL LOT #: 0302L640

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

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
LCS1	03L0061-LC1	Silver, LCS	500	500	UG/L	100.0
		Arsenic, LCS	9800	10000	UG/L	98.0
		Barium, LCS	4970	5000	UG/L	99.5
		Cadmium, LCS	247	250	UG/L	98.6
		Chromium, LCS	503	500	UG/L	100.6
		Lead, LCS	2460	2500	UG/L	98.3
		Selenium, LCS	9640	10000	UG/L	96.4
LCS1	03C0024-LC1	Mercury, LCS	5.1	5.0	UG/L	101.8

Lionville Laboratory Use Only

0302L-640

Custody Transfer

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

LIONVILLE LABORATORY INC

Client: TNU-Hanford B02-0165

Est. Final Proj. Sampling Date:

Project #: 11343-606-001-9999-00

Project Contact/Phone #:

Lionville Laboratory Project Manager: OJ

QC: Spec. Del: Std. TAT: 7 day

Date Rec'd: 02/04/03 Date Due: 02/11/03

Refrigerator #																			
											A								
#/Type Container	Liquid										5								
	Solid										1AGL								
Volume	Liquid																		
	Solid										60ML								
Preservatives																			

ANALYSES REQUESTED →

ORGANIC				INORG		
VOA	BNA	Pest/PCB	Herb	TCLP Metal	CN	Leachate Recommenks

Lionville Laboratory Use Only

MATRIX CODES:	Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	TCLP	Leachate Recommenks
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	001	J00CN1			So	1/29/03	0945	1	
	002	J00CN5			⊥	⊥	0957	1	
	003	J00CN6			⊥	⊥	0959	1	
	004	J00CN1 tclp of 001			L	*			✓
	005	J00CN5 tclp of 002			⊥	⊥			✓
	006	J00CN6 tclp of 003			⊥	⊥			✓

Special Instructions:

saf # B02-0165

Run matrix QC

DATE/REVISIONS:

* 1. Se Labchron

2.

3.

4.

5.

6.

Lionville Laboratory Use Only

Samples were: 1) Shipped ✓ or Hand Delivered ___

Airbill # see below

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. 14.6 °C

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

NOTES: COC # ERL-96-079 / 7928 2333 5500

Relinquished by	Received by	Date	Time
FedEx	JRuny	2/4/03	0930

Relinquished by	Received by	Date	Time
ORIGINAL REWRITTEN		COMPOSITE WASTE	

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B02-065-09	Page 2

Collector: Doug Bowers	Company Contact: Jeff Lerch	Telephone No.: 373-5904	Project Coordinator: KESSNER, JH
Price Code: 9J	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.: ERC-96-079	Field Logbook No.: EL 1395-6	COA: RG61852600	Method of Shipment: Federal Express - overnight
Shipped To: TMA/RECRA	Offsite Property No.: A030125	Bill of Lading/Air Bill No.: FED EX # 7928 2333 5500	

POSSIBLE SAMPLE HAZARDS/REMARKS

< 2,000 pCi/gm

Special Handling and/or Storage

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										
J00CN1	OTHER SOLID	1-29-03	0945	X									
~~J00CN2~~	~~OTHER SOLID~~	~~1-29-03~~	~~0947~~	~~X~~	DAS 2/3/03								
~~J00CN3~~	~~OTHER SOLID~~	~~1-29-03~~	~~0951~~	~~X~~	DAS 2/3/03								
~~J00CN4~~	~~OTHER SOLID~~	~~1-29-03~~	~~0953~~	~~X~~	DAS 2/3/03								
J00CN5	OTHER SOLID	1-29-03	0957	X									

CHAIN OF POSSESSION	Sign/Print Names	Date/Time
Relinquished By/Removed From: 1049 Doug Bowers (Bowers)	Received By/Stored In: Ref 1A 3728	1-29-03 / 1530
Relinquished By/Removed From: 3728 Ref 1A	Received By/Stored In: David St. John	2/3/03 1000
Relinquished By/Removed From: David St. John ERC	Received By/Stored In: FED EX	2/3/03 1000
Relinquished By/Removed From: FED EX	Received By/Stored In: JPerry	2/4/03 0930
Relinquished By/Removed From:	Received By/Stored In:	
Relinquished By/Removed From:	Received By/Stored In:	

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 Ref# 1A on 2/3/03

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

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

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

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

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.: ERC-96-079	Field Logbook No.: EL 1395-6	COA: RG61852600	Method of Shipment: Federal Express - overnight.
Shipped To: TMA/RECRA	Offsite Property No.: A030125		Bill of Lading/Air Bill No.: FED EX # 7928 2333 5500

POSSIBLE SAMPLE HAZARDS/REMARKS: < 2,000 pCi/g

Special Handling and/or Storage

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										
J00CN6	OTHER SOLID	1-29-03	0959	X									
~~J00CN7~~	~~OTHER SOLID~~	1-29-03	1001	X	DAS 2/3/03								
	OTHER SOLID												
	OTHER SOLID												
	OTHER SOLID												

CHAIN OF POSSESSION	Sign/Print Names	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From: Doug Bowers	Doug Bowers	1-29-03 1530	Ref/A 3728	1-29-03 1530
Relinquished By/Removed From: 3728 Ref 1A		2/3/03 1000	Received By/Stored In: David St. John	2/3/03 1000
Relinquished By/Removed From: David St. John ERC	David St. John	2/3/03 1000	Received By/Stored In: FED EX	2/3/03 1000
Relinquished By/Removed From: FED EX			Received By/Stored In: J Perry	2/4/03 0930
Relinquished By/Removed From			Received By/Stored In	
Relinquished By/Removed From			Received By/Stored In	

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 Ref # 1A on 2/3/03

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

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

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

LIONVILLE LABORATORY INCORPORATED
SAMPLE RECEIPT CHECKLIST

:T: TNU Hanford

ase Order/Project:

DATE: 2/4/03

/ SOW# / Release #: B02-065

oratory SDG #: 03022640

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? 798223335500	☑ 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 LvL1 Sample Acceptance Policy? (identify all bottles not within policy. See reverse side for policy)	☑ 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:

ERC-96-079 / 14.6°C

↳ sent ambient
No ice in cooler.

Laboratory Sample Custodian: JRemy 2/4/03

Laboratory Project Manager: