SAF-RC-154
618-10 & 618-11 Field Remediation – Soil In-Process
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21 KW 12/18/12
INITIAL/DATE

COMMENTS:

SDG KP0141 SAF-RC-154

Rad only ☑ Chem only Rad & Chem

☑ Complete Partial

Sample Location/Waste Site: 618-10 East Trench Sorted Stockpile w/Hg

LIONVILLE LABORATORY
A division of Eberline Analytical Corporation

264 Welsh Pool Road
Exton, Pennsylvania 19341
Phone (610) 280-3000
Fax (610) 280-3041

17 December 2012

Joan Kessner
WC-Hanford, Inc.
2620 Fermi Avenue
MSIN H4-21
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 #	1210077
SDG #	KP0141
SAF #	RC-154
Date Received	10/25/12
# Samples	4
Matrix	SOIL
Volatiles	
Semivolatiles	
Pest/PCB	
Glycols	
DRO/KRO/GRO	
PAHs	
Herbicides	
Metals	X
Inorganics	

The electronic data deliverable (EDD) has been emailed. If you have any questions, please don't hesitate to contact me at (610) 280-3012.

Sincerely,

Lionville Laboratory
A Division of Eberline Analytical Corporation

Orlette S. Johnson
Project Manager

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 22 pages.

R:\GROUP\PM\ORLETTE\Hanford\Data\B_ltrs.DOC

CHAIN OF CUSTODY

Lionville Laboratory Use Only

1210077

REVISION

Custody Transfer Record/Lab Work Request

Page 1 of 1

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Lionville Laboratory
A Division of Eberline Analytical Corporation

KP0141

Client WC Hanford SAF# RC-154

Est. Final Proj. Sampling Date

Project#

Project Contact/Phone#

Lionville Laboratory Project Manager O. Johnson

QC SW Del Std TAT ASAP 4 days

Date Rec'd 10-25-12 Date Due 10-29-12

		A	B
Refrigerator #		2	2
#/Type Container	Liquid		
	Solid	1AG	1AG
Volume	Liquid		
	Solid	250	250
Preservatives		—	—

ANALYSES REQUESTED →

		ORGANIC							INORG			
		VOA	BNA	Pest/PCB	Herb				Metal	CN	TCLP Met	TCLP Hg
		Lionville Laboratory Use Only										
									METALS		TCLP Metals	
Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected						
01	J1R4V1 RAD I			S	10-23-12	1520			X		X	X
02	479 RAD II					1415			X		X	X
03	480 RAD II					1440			X		X	X
04	481 RAD I					1445			X		X	X

MATRIX CODES:
W Water
WW Waste Water
GW Groundwater
WST Waste
WI Wipe
SO Solid
S Soil
SL Sludge
SE Sediment
PC Paint Chips
O Oil
NAL Non-Aqueous Liquid
L Leachate
A Air
T Tissue
F Fish

Special Instructions:

METALS = HSL + B, Mo, Si, U, Zr (NOTE)

Special Instructions:

→ 1. TCLP Leach and hold Contact Joan Kessner for further Directions.

10/31/12 2. TCLP/leachates cancelled per client

3.

4.

5.

6.

Relinquished by	Received by	Date	Time
Fed Ex	[signature]	10/25/12	1000

Relinquished by	Received by	Date	Time

Relinquished by	Received by	Date	Time

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-154-097	Page 1 of 1

Collector: B. Johnson	Company Contact: Joan Kessner	Telephone No.: 509-375-4688	Project Coordinator: KESSNER, JH
Price Code: 8L	Data Turnaround: ~~21~~ Days 3 RTC 10/23/12 ASAP		
Project Designation: 618-10 & 618-11 Field Remediation - Soil In-Process	Sampling Location: 618-10 East Trench Sorted Stockpile w/Hg		SAF No.: RC-154
Ice Chest No.: WCH-12-028	Field Logbook No.: EL-1648-02	COA: R618102600	Method of Shipment: FedEx RTC 10/23/12
Shipped To: EBERLINE SERVICES / LIONVILLE	Offsite Property No.: See ~~OSPG~~ RSR		Bill of Lading/Air Bill No.: NA

POSSIBLE SAMPLE HAZARDS/REMARKS

Potentially Radioactive. DOT LTD QTY 10-24-12

Special Handling and/or Storage

Cool 4 Deg C

AJ 10-24-12

Preservation	Cool 4C	None	None									
Type of Container	aG	aG	aG									
No. of Container(s)	1	1	1									
Volume	250mL	250mL	250g									
SAMPLE ANALYSIS	See item (1) in Special Instructions.	See item (2) in Special Instructions. *	RCF GEA Shipping Screen RTC 10/23/12									
Sample No.	Matrix *	Sample Date	Sample Time				RCF					LOCATION
J1R4V1	SOIL	10/23/12	1520	X	X		34774					EAST #1

KP0141

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Brady Johnson / [signature]	10-23-12 1535	RT Coffman / [signature]	1535 10/23/12
RT Coffman / [signature]	10/23/12 1620	1060 #3 A. Freier [signature]	1620 10-23-12
WCH A. Freier [signature]	1060#3 10-24-12 1228	Fed Ex	
Fed Ex	10-25-12 1000	Victor Hernandez [signature]	10-25-12 1000

SPECIAL INSTRUCTIONS

Tranship Sample after RCF analysis is complete, to LVLI for the remaining analysis.

(1) ICP Metals - 6010TR (Client List) {Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Uranium, Vanadium, Zinc, Zirconium}; Mercury - 7471 - (CV) {Mercury}

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

TCLP LEACH AND HOLD, CONTACT JOAN KESSNER FOR FURTHER DIRECTION. AJ 10-23-12

* Cooling not maintained AJ 10-24-12

Matrix *

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

REVIEWED BY [signature] DATE 10-24-12

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

WCH-EE-011

00000004

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-154-096	Page 1 of 1

Collector: B. JOHNSON	Company Contact: Joan Kessner	Telephone No.: 509-375-4688	Project Coordinator: KESSNER, JH
Price Code: 8L	Data Turnaround: ~~21~~ 3 Days ASAP RTC 10/23/12 10/22/12		
Project Designation: 618-10 & 618-11 Field Remediation - Soil In-Process	Sampling Location: 618-10 North Trench Sorted Stockpile w/Hg		SAF No.: RC-154
Ice Chest No.: WCH-12-028	Field Logbook No.: EL-1648-02	COA: R618102600	Method of Shipment: FedEx
Shipped To: EBERLINE SERVICES, LIONVILLE	Offsite Property No.: ~~See OSPC~~ RSR		Bill of Lading/Air Bill No.: NA

POSSIBLE SAMPLE HAZARDS/REMARKS

Potentially Radioactive. DOT LTD QTY

10-24-12 CMB

Special Handling and/or Storage

Cool 4 Deg.C

AJ 10-24-12

Preservation	Cool 4C	None	None								
Type of Container	aG	aG	aG								
No. of Container(s)	1	1	1								
Volume	250mL	250mL	250g								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	See item (2) in Special Instructions. *	RCF GEA Shipping Screen RTC 10/22/12								
Sample No.	Matrix *	Sample Date	Sample Time				RCF				LOCATION
J1R479	SOIL	10/23/12	1415	X	X		34775				#1
J1R480	SOIL	10/23/12	1440	X	X		34776				#2
J1R481	SOIL	10/23/12	1445	X	X		34777				#3

KP0141

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Brady Johnson/	10-23-12 1500	RT COFFMAN/ RT Coffman	1500 10/23/12
RT COFFMAN/ RT Coffman	1620 10/23/12	A. Freier A. Freier	1620 10-23-12
A. Freier A. Freier	1060#3 10-24-12 1228	Fed Ex	
Fed Ex	10/25/12 1000	Victor Hernandez	10-25-12 1000

SPECIAL INSTRUCTIONS

Tranship Sample after RCF analysis is complete, to LVLI for the remaining analysis.

(1) ICP Metals - 6010TR (Client List) {Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Uranium, Vanadium, Zinc, Zirconium}; Mercury - 7471 - (CV) {Mercury}

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

TCLP LEACH AND HOLD, CONTACT JOAN KESSNER FOR FURTHER DIRECTION. AJ 10-23-12

*Cooling not maintained AJ 10-24-12

Matrix *: S=Soil, SE=Sediment, SO=Solid, Sl=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	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

REVIEWED BY CMB DATE 10-24-12

WCH-EE-011

Lionville Laboratory

SAMPLE RECEIPT CHECKLIST (SRC)

CLIENT: WC Hanford
Project/SAF/SOW/Release #: RC-154

Date: 10/25/12

LvL Batch #: 1210 077

Sample Custodian:

NOTE: EXPLAIN ALL DISCREPANCIES

1. Samples Hand Delivered or Shipped?	Carrier FedEx		Airbill # 7939 2383 1047
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 3.1°	°C	Cooler # WCA-12-028
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 & LvL) 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 LvL 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 _____

SR-002-B.doc

METALS

264 Welsh Pool Road
Exton, PA 19341
Phone: 610-280-3000
Fax: 610-280-3041

WC-Hanford, Inc.	Project: RC-154	
2620 Fermi Avenue	Project Number: KP0141	**Reported:**
Richland WA, 99354	Project Manager: Joan Kessner	10/30/2012 13:18

Analytical Report for Metals by SW846 6000/7000 series

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
J1R4V1	1210077-01	Soil	10/23/2012 15:20	10/25/2012 10:00
J1R479	1210077-02	Soil	10/23/2012 14:15	10/25/2012 10:00
J1R480	1210077-03	Soil	10/23/2012 14:40	10/25/2012 10:00
J1R481	1210077-04	Soil	10/23/2012 14:45	10/25/2012 10:00

LIONVILLE LABORATORY
A division of Eberline Analytical Corporation

264 Welsh Pool Road
Exton, Pennsylvania 19341
Phone (610) 280-3000
Fax (610) 280-3041

Case Narrative

Client: WC-HANFORD RC-154
LVL#: 1210077
SDG/SAF#: KP0141/RC-154

W.O.#: 60049-001-001-0001-00
Date Received: 10-25-12

METALS

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

All soil samples are reported on a dry weight basis unless requested by the client, required by the method, or noted otherwise.

1. This narrative covers the analyses of 4 soil samples.

2. The samples were prepared and analyzed in accordance with methods listed on the data report forms.

   The samples were analyzed and reported with 3-fold dilutions for ICP metals due to sample matrix.

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

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

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

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

7. All preparation/method blanks (MB) were within method criteria {less than the Limit of Quantitation, samples greater than 20X MB value}.

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

9. All Standard Reference Material (SRM) analytes were within the Prediction Interval control limits supplied by the manufacturer.

10. The matrix spike (MS) recoveries for 5 analytes were outside the 75-125% control limits.

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 pages.

11. For analytes where the MS is out of control, a post-digestion MS (PDS) is performed. A PDS was prepared at meaningful concentration levels for the following analytes: Aluminum, Antimony, Calcium, Iron, and Manganese. The Calcium and Iron post digestion spike recoveries were outside the 75-125% control limit possibly due to matrix effect.

12. All duplicate analyses were within the 20% Relative Percent Difference (RPD) control limits. The ± 20% RPD control limit applies to sample results greater than ten times the MDL. The sample result for Nickel was less than ten times the MDL.

13. For the purposes of this report, the data have 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.

14. LvL is NELAP accredited by the State of Pennsylvania. For a complete listing of accrediting authorities and the corresponding analytes/methods, please contact your Project Manager.

15. 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

11/2/12
Date

alm/10-077hg%

264 Welsh Pool Road
Exton, PA 19341
Phone: 610-280-3000
Fax: 610-280-3041

WC-Hanford, Inc.	Project: RC-154	
2620 Fermi Avenue	Project Number: KP0141	**Reported:**
Richland WA, 99354	Project Manager: Joan Kessner	10/30/2012 13:18

Notes and Definitions

U	Analyte included in the analysis, but not detected
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
B	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag)
*	Value outside QC acceptance criteria
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
wet	Sample results reported on a wet weight basis
RPD	Relative Percent Difference

264 Welsh Pool Road
Exton, PA 19341
Phone: 610-280-3000
Fax: 610-280-3041

WC-Hanford, Inc.	Project: RC-154	
2620 Fermi Avenue	Project Number: KP0141	**Reported:**
Richland WA, 99354	Project Manager: Joan Kessner	10/30/2012 13:18

J1R4V1
1210077-01 (Soil)

Lionville Laboratory

Metals by SW846 6000/7000 series

Analyte	Result and Qualifier		Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Aluminum	**5210**		12.4	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Antimony	1.49	U	1.49	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Arsenic	**1.75**	B	2.48	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Barium	**57.6**		1.24	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Beryllium	**0.247**	B	0.495	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Boron	4.95	U	4.95	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Cadmium	0.495	U	0.495	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Calcium	**6690**		248	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Chromium	**5.34**		0.495	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Cobalt	**8.29**		4.95	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Copper	**13.0**		2.48	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Iron	**27500**		49.5	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Lead	**2.99**		1.24	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Magnesium	**4470**		186	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Manganese	**327**		12.4	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Molybdenum	4.95	U	4.95	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Nickel	**6.59**	B	9.91	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Potassium	**684**	B	991	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Selenium	0.743	U	0.743	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Silicon	**499**		4.95	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Silver	0.495	U	0.495	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Sodium	**300**		124	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Uranium	49.5	U	49.5	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Vanadium	**81.6**		6.19	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Zinc	**50.6**		24.8	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Zirconium	**26.7**		12.4	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Mercury	**0.0191**	B	0.0260	mg/kg dry	1	L210214	10/25/2012	10/25/2012	7471A

264 Welsh Pool Road
Exton, PA 19341
Phone: 610-280-3000
Fax: 610-280-3041

WC-Hanford, Inc.	Project: RC-154	
2620 Fermi Avenue	Project Number: KP0141	**Reported:**
Richland WA, 99354	Project Manager: Joan Kessner	10/30/2012 13:18

J1R479

1210077-02 (Soil)

Analyte	Result and Qualifier		Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
			Lionville Laboratory						
Metals by SW846 6000/7000 series									
Aluminum	**4950**		12.7	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Antimony	1.53	U	1.53	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Arsenic	**1.81**	B	2.55	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Barium	**62.0**		1.27	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Beryllium	**0.262**	B	0.509	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Boron	5.09	U	5.09	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Cadmium	0.509	U	0.509	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Calcium	**6770**		255	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Chromium	**4.99**		0.509	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Cobalt	**8.26**		5.09	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Copper	**11.6**		2.55	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Iron	**27100**		50.9	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Lead	**3.03**		1.27	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Magnesium	**4130**		191	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Manganese	**323**		12.7	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Molybdenum	**0.529**	B	5.09	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Nickel	**6.15**	B	10.2	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Potassium	**656**	B	1020	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Selenium	0.764	U	0.764	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Silicon	**463**		5.09	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Silver	0.509	U	0.509	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Sodium	**305**		127	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Uranium	50.9	U	50.9	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Vanadium	**80.0**		6.36	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Zinc	**50.8**		25.5	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Zirconium	**28.1**		12.7	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Mercury	**0.270**		0.0249	mg/kg dry	1	L210214	10/25/2012	10/25/2012	7471A

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WC-Hanford, Inc.	Project: RC-154	
2620 Fermi Avenue	Project Number: KP0141	**Reported:**
Richland WA, 99354	Project Manager: Joan Kessner	10/30/2012 13:18

J1R480
1210077-03 (Soil)

Lionville Laboratory

Metals by SW846 6000/7000 series

Analyte	Result and Qualifier		Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Aluminum	**5690**		11.1	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Antimony	1.34	U	1.34	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Arsenic	**2.07**	B	2.23	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Barium	**63.6**		1.11	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Beryllium	**0.271**	B	0.445	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Boron	4.45	U	4.45	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Cadmium	0.445	U	0.445	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Calcium	**9800**		223	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Chromium	**6.95**		0.445	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Cobalt	**8.04**		4.45	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Copper	**14.0**		2.23	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Iron	**26200**		44.5	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Lead	**3.19**		1.11	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Magnesium	**4300**		167	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Manganese	**350**		11.1	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Molybdenum	**0.487**	B	4.45	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Nickel	**9.16**		8.91	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Potassium	**695**	B	891	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Selenium	0.668	U	0.668	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Silicon	**341**		4.45	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Silver	0.445	U	0.445	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Sodium	**327**		111	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Uranium	44.5	U	44.5	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Vanadium	**78.7**		5.57	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Zinc	**54.5**		22.3	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Zirconium	**27.0**		11.1	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Mercury	**0.262**		0.0256	mg/kg dry	1	L210214	10/25/2012	10/25/2012	7471A

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WC-Hanford, Inc.	Project: RC-154	
2620 Fermi Avenue	Project Number: KP0141	**Reported:**
Richland WA, 99354	Project Manager: Joan Kessner	10/30/2012 13:18

J1R481
1210077-04 (Soil)

Analyte	Result and Qualifier		Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Lionville Laboratory									
Metals by SW846 6000/7000 series									
Aluminum	**5420**		12.6	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Antimony	1.51	U	1.51	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Arsenic	**2.03**	B	2.52	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Barium	**65.0**		1.26	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Beryllium	**0.258**	B	0.504	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Boron	5.04	U	5.04	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Cadmium	0.504	U	0.504	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Calcium	**5760**		252	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Chromium	**5.66**		0.504	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Cobalt	**8.08**		5.04	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Copper	**12.1**		2.52	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Iron	**24900**		50.4	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Lead	**3.30**		1.26	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Magnesium	**4090**		189	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Manganese	**322**		12.6	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Molybdenum	5.04	U	5.04	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Nickel	**9.18**	B	10.1	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Potassium	**745**	B	1010	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Selenium	0.756	U	0.756	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Silicon	**459**		5.04	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Silver	0.504	U	0.504	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Sodium	**322**		126	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Uranium	50.4	U	50.4	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Vanadium	**74.5**		6.30	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Zinc	**50.2**		25.2	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Zirconium	**26.2**		12.6	mg/kg dry	3	L210213	10/25/2012	10/26/2012	6010B
Mercury	**0.149**		0.0276	mg/kg dry	1	L210214	10/25/2012	10/25/2012	7471A

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WC-Hanford, Inc.	Project: RC-154	
2620 Fermi Avenue	Project Number: KP0141	Reported:
Richland WA, 99354	Project Manager: Joan Kessner	10/30/2012 13:18

Metals by SW846 6000/7000 series - Quality Control

Lionville Laboratory

Analyte	Result and Qualifiers		Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch L210213 - SW 3050B										
Blank (L210213-BLK1)				Prepared: 10/25/2012 Analyzed: 10/26/2012						
Aluminum	4.63	U	4.63	mg/kg wet						
Antimony	0.556	U	0.556	mg/kg wet						
Arsenic	0.926	U	0.926	mg/kg wet						
Barium	0.463	U	0.463	mg/kg wet						
Beryllium	0.185	U	0.185	mg/kg wet						
Boron	1.85	U	1.85	mg/kg wet						
Cadmium	0.185	U	0.185	mg/kg wet						
Calcium	92.6	U	92.6	mg/kg wet						
Chromium	0.185	U	0.185	mg/kg wet						
Cobalt	1.85	U	1.85	mg/kg wet						
Copper	0.926	U	0.926	mg/kg wet						
Iron	18.5	U	18.5	mg/kg wet						
Lead	0.463	U	0.463	mg/kg wet						
Magnesium	69.4	U	69.4	mg/kg wet						
Manganese	4.63	U	4.63	mg/kg wet						
Molybdenum	1.85	U	1.85	mg/kg wet						
Nickel	3.70	U	3.70	mg/kg wet						
Potassium	370	U	370	mg/kg wet						
Selenium	0.278	U	0.278	mg/kg wet						
Silicon	1.85	U	1.85	mg/kg wet						
Silver	0.185	U	0.185	mg/kg wet						
Sodium	46.3	U	46.3	mg/kg wet						
Uranium	18.5	U	18.5	mg/kg wet						
Vanadium	2.31	U	2.31	mg/kg wet						
Zinc	9.26	U	9.26	mg/kg wet						
Zirconium	4.63	U	4.63	mg/kg wet						
Duplicate (L210213-DUP2)		**Source: 1210077-01**		Prepared: 10/25/2012 Analyzed: 10/26/2012						
Aluminum	4910		13.2	mg/kg dry		5210			6	20
Antimony	1.59	U	1.59	mg/kg dry		1.49 U				20
Arsenic	1.61	B	2.65	mg/kg dry		1.75			8	20
Barium	59.4		1.32	mg/kg dry		57.6			3	20
Beryllium	0.246	B	0.529	mg/kg dry		0.247			0.3	20
Boron	5.29	U	5.29	mg/kg dry		4.95 U				20
Cadmium	0.529	U	0.529	mg/kg dry		0.495 U				20
Calcium	6230		265	mg/kg dry		6690			7	20
Chromium	6.31		0.529	mg/kg dry		5.34			17	20

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WC-Hanford, Inc.	Project: RC-154	
2620 Fermi Avenue	Project Number: KP0141	**Reported:**
Richland WA, 99354	Project Manager: Joan Kessner	10/30/2012 13:18

Metals by SW846 6000/7000 series - Quality Control

Lionville Laboratory

Analyte	Result and Qualifiers		Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch L210213 - SW 3050B										
Duplicate (L210213-DUP2)		**Source: 1210077-01**		Prepared: 10/25/2012 Analyzed: 10/26/2012						
Cobalt	8.86		5.29	mg/kg dry		8.29			7	20
Copper	12.7		2.65	mg/kg dry		13.0			2	20
Iron	27000		52.9	mg/kg dry		27500			2	20
Lead	3.16		1.32	mg/kg dry		2.99			6	20
Magnesium	4710		198	mg/kg dry		4470			5	20
Manganese	327		13.2	mg/kg dry		327			0.1	20
Molybdenum	5.29	U	5.29	mg/kg dry		4.95 U				20
Nickel	10.8		10.6	mg/kg dry		6.59			49*	20
Potassium	653	B	1060	mg/kg dry		684			5	20
Selenium	0.794	U	0.794	mg/kg dry		0.743 U				20
Silicon	510		5.29	mg/kg dry		499			2	20
Silver	0.529	U	0.529	mg/kg dry		0.495 U				20
Sodium	306		132	mg/kg dry		300			2	20
Uranium	52.9	U	52.9	mg/kg dry		49.5 U				20
Vanadium	82.4		6.61	mg/kg dry		81.6			1	20
Zinc	50.7		26.5	mg/kg dry		50.6			0.3	20
Zirconium	26.6		13.2	mg/kg dry		26.7			0.2	20
Matrix Spike (L210213-MS2)		**Source: 1210077-01**		Prepared: 10/25/2012 Analyzed: 10/26/2012						
Aluminum	6640		11.6	mg/kg dry	155.29	5210	919*	75-125		
Antimony	17.1		1.40	mg/kg dry	38.823	1.49 U	44*	75-125		
Arsenic	141		2.33	mg/kg dry	155.29	1.75	89	75-125		
Barium	197		1.16	mg/kg dry	155.29	57.6	90	75-125		
Beryllium	3.77		0.466	mg/kg dry	3.8823	0.247	91	75-125		
Boron	66.6		4.66	mg/kg dry	77.646	4.95 U	86	75-125		
Cadmium	3.65		0.466	mg/kg dry	3.8823	0.495 U	94	75-125		
Calcium	9430		233	mg/kg dry	1941.1	6690	141*	75-125		
Chromium	19.3		0.466	mg/kg dry	15.529	5.34	90	75-125		
Cobalt	42.9		4.66	mg/kg dry	38.823	8.29	89	75-125		
Copper	29.9		2.33	mg/kg dry	19.411	13.0	87	75-125		
Iron	28700		46.6	mg/kg dry	77.646	27500	1520*	75-125		
Lead	36.0		1.16	mg/kg dry	38.823	2.99	85	75-125		
Magnesium	6210		175	mg/kg dry	1941.1	4470	89	75-125		
Manganese	388		11.6	mg/kg dry	38.823	327	158*	75-125		
Molybdenum	70.6		4.66	mg/kg dry	77.646	4.95 U	91	75-125		
Nickel	41.0		9.32	mg/kg dry	38.823	6.59	89	75-125		
Potassium	2500		932	mg/kg dry	1941.1	684	93	75-125		

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WC-Hanford, Inc.	Project: RC-154	
2620 Fermi Avenue	Project Number: KP0141	Reported:
Richland WA, 99354	Project Manager: Joan Kessner	10/30/2012 13:18

Metals by SW846 6000/7000 series - Quality Control

Lionville Laboratory

Analyte	Result and Qualifiers	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch L210213 - SW 3050B									
Matrix Spike (L210213-MS2)		**Source: 1210077-01**	Prepared: 10/25/2012 Analyzed: 10/26/2012						
Selenium	135	0.699	mg/kg dry	155.29	0.743 U	87	75-125		
Silicon	569	4.66	mg/kg dry	77.646	499	89	75-125		
Silver	3.43	0.466	mg/kg dry	3.8823	0.495 U	88	75-125		
Sodium	2330	116	mg/kg dry	1941.1	300	105	75-125		
Uranium	338	46.6	mg/kg dry	388.23	49.5 U	87	75-125		
Vanadium	124	5.82	mg/kg dry	38.823	81.6	109	75-125		
Zinc	88.0	23.3	mg/kg dry	38.823	50.6	96	75-125		
Zirconium	366	11.6	mg/kg dry	388.23	26.7	87	75-125		
Post Spike (L210213-PS2)		**Source: 1210077-01**	Prepared: 10/25/2012 Analyzed: 10/26/2012						
Aluminum	118000		ug/L	66000	63100	83	75-125		
Antimony	274		ug/L	300.00	4.40	90	75-125		
Calcium	125000		ug/L	62400	81100	70*	75-125		
Iron	416000		ug/L	126000	333000	66*	75-125		
Manganese	6300		ug/L	3000.0	3960	78	75-125		
Reference (L210213-SRM1)			Prepared: 10/25/2012 Analyzed: 10/26/2012						
Aluminum	10500	14.4	mg/kg wet	6670.0		157	0-200.89		
Antimony	36.9	1.73	mg/kg wet	53.000		70	0-235.8		
Arsenic	122	2.88	mg/kg wet	114.00		107	82.8-117.54		
Barium	299	1.44	mg/kg wet	307.00		97	79.8-120.2		
Beryllium	111	0.577	mg/kg wet	108.00		103	82.8-117.6		
Boron	79.9	5.77	mg/kg wet	85.100		94	67.5-132.8		
Cadmium	238	0.577	mg/kg wet	225.00		106	83.6-116.4		
Calcium	3200	288	mg/kg wet	3360.0		95	83.3-116.9		
Chromium	87.5	0.577	mg/kg wet	77.200		113	73.3-126.4		
Cobalt	170	5.77	mg/kg wet	166.00		102	80.7-118.7		
Copper	271	2.88	mg/kg wet	271.00		100	80.8-119.2		
Iron	8550	57.7	mg/kg wet	8420.0		102	78.6-121.1		
Lead	180	1.44	mg/kg wet	190.00		95	81.6-118.4		
Magnesium	7720	216	mg/kg wet	8570.0		90	83.2-116.7		
Manganese	820	14.4	mg/kg wet	965.00		85	69.3-130.5		
Molybdenum	254	5.77	mg/kg wet	235.00		108	76.2-123.8		
Nickel	230	11.5	mg/kg wet	221.00		104	79.6-120.8		
Potassium	14400	1150	mg/kg wet	14400		100	81.9-118.1		
Selenium	203	0.865	mg/kg wet	187.00		108	75.9-124.6		
Silicon	808	5.77	mg/kg wet	807.00		100	0-219.3		
Silver	83.3	0.577	mg/kg wet	83.500		100	82.7-117.1		

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WC-Hanford, Inc.	Project: RC-154	
2620 Fermi Avenue	Project Number: KP0141	**Reported:**
Richland WA, 99354	Project Manager: Joan Kessner	10/30/2012 13:18

Metals by SW846 6000/7000 series - Quality Control

Lionville Laboratory

Analyte	Result and Qualifiers		Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch L210213 - SW 3050B										
Reference (L210213-SRM1)				Prepared: 10/25/2012 Analyzed: 10/26/2012						
Sodium	9730		144	mg/kg wet	9730.0		100	82.5-117.2		
Vanadium	108		7.21	mg/kg wet	98.700		110	75.9-123.6		
Zinc	209		28.8	mg/kg wet	199.00		105	78.4-121.6		
Batch L210214 - SW 7471A Prep										
Blank (L210214-BLK1)				Prepared & Analyzed: 10/25/2012						
Mercury	0.0300	U	0.0300	mg/kg wet						
Duplicate (L210214-DUP2)		**Source: 1210077-01**		Prepared & Analyzed: 10/25/2012						
Mercury	0.0179	B	0.0275	mg/kg dry		0.0191			6.34	20
Matrix Spike (L210214-MS2)		**Source: 1210077-01**		Prepared & Analyzed: 10/25/2012						
Mercury	0.179		0.0253	mg/kg dry	0.14060	0.0191	113	75-125		
Reference (L210214-SRM1)				Prepared & Analyzed: 10/25/2012						
Mercury	1.25		0.0281	mg/kg wet	1.2900		96.9	62.6-138		

Lionville Laboratory

Logbook #: 1154

SAMPLE DIGESTION RECORD

Digestion Batch #: L210213
Date/Time Initiated: 10/25/12 1130
Date/Time Completed: 10/25/12 1945
Analyst: MW
Matrix (circle): Soil Water Other
Method (circle one): 3005A 3010A 3050 200.7 (1994)
pH/Turbidity: N/A for Solids.
NOTE: All temperatures are recorded as corrected temperatures

Digested / Undigested (circle one)
Balance #: B4
Balance Cal Verification: Y NA
Temp: 96°
BLOCK 1 2 (circle one)
3

Work Order #	Spike Vol (mL)	Initial Wt/Vol (g/mL)	Final Vol (mL)	pH <2	Type: To/Sol/TC	Texture	Color / Appearance W.E. MW 10/25/12	Artifact	Turb
1210074-01		0.56			TO	not fine	brown / soil	rocks	
L210213-DUP1		0.58					lt. brown / soil		
MS1	0.5	0.63							
1210074-02		0.67				fine	lt. brown / soil	rocks	
03		0.60				not fine	lt. brown / soil	rocks	
04		0.55				fine	brown / soil	rocks	
05		0.54				fine	brown / soil	rocks	
06		0.66				not fine	lt. brown / soil	rocks	
07		0.62				not fine	lt. brown / soil	rocks	
08		0.59				not fine	lt. brown / soil	rocks	
09		0.65				fine	lt. brown / sandy	rocks	
10		0.58				coarse	lt. brown / soil	rocks	
11		0.71				fine	lt. brown / soil	rocks	
12		0.66				not fine	brown / soil	rocks	
13		0.63				fine	brown / soil	rocks	
14		0.61				coarse	Ottawa sand	N/A	
1210077-01		0.63				not fine	black + tan / sandy	rocks	RAD I
L210213-DUP2		0.59							
MS2	0.5 *	0.67							
1210077-02		0.62				not fine	dk brown + tan / sandy	rocks	RAD II
03		0.71				not fine	dk brown + tan / sandy	N/A	RAD II
04		0.62				not fine	dk brown + tan / sandy	N/A	RAD I
L210213-BLK1		0.54				coarse	boiling chips	N/A	
SPM1	*	0.52				fine	pink / sandy	N/A	
			MW 10/25/12						

Spiking IDs / Expiration Date:
MS#: 120157

LCS#: 120104

Reagent IDs:
HNO_3 L08023
HCl L13029
H_2O_2 L11A03
1:1 HNO_3 637-066-02
1:1 HCl

File ID#:

Data Review By/Date: 10/27/12

* also 0.25 mL 1200380 (U-)
0.25 mL 1200386 (Zr)

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Signed\SPI\Metals Digestion log.doc

Page #:

Lionville Laboratory

MERCURY PREPARATION

Logbook # 1153

Analyst: [illegible]
Date 10/25/12
Start Time/Temp: 1220 / 95°
End Time/Temp: 1450 / 95°

Instrument ID: HG3.1
Balance # B14 /NA
Pipette Calibration (Daily) Y

Prep Batch: L210214
Worksheet: HG102501
SOP No. ME-HgCVAA
BLOCK 1 2 (circle one)

NOTE: All temperatures are recorded as corrected temperatures.

LvL Work Order#	pH < 2 (Liq)	Spike Vol (mL)	Spike Conc. (µg/L)	Initial Wt. or Vol (g or mL)	Final Sample Vol (mL)	Comments, % Solids, etc.
blank				10ml	50	curve digested with
0.2 ug/l		0.100		10ml	50	L210210 and L210211
1.0 ug/l		0.500		10ml	50	
2.0 ug/l		1.000		10ml	50	
5.0 ug/l		2.500		10ml	50	
10.0 ug/l		5.000		10ml	50	
ICV		0.125	2.5	10ml	50	
CCV		0.250	5.0	10ml	50	
ICB/CCB				10ml	50	
L210214-BLK1				0.30	50	
SRM1				0.32	50	
1210074-01				0.33	50	
L210214-DUP1				0.34	50	
MS1		0.500	1.0	0.33	50	
1210074-02				0.34	50	
03				0.37	50	
04				0.34	50	
05				0.35	50	
06				0.39	50	
07				0.38	50	
08				0.32	50	
09				0.38	50	
10				0.36	50	
11				0.36	50	
12				0.39	50	
13				0.33	50	
14				0.36	50	

Standard:	ID	Prep Date/Time
ICAL/MS	RI 1201235	10/25/12 1000
ICV/CCV/LCS	(I.V. 1210532)	N/A

Reviewed By/Date: [illegible] 10/26/12

se book # 1153 for std traceability information

Soil LCS True Value = 1.29 mg/Kg
Standard # 1201014

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

ME-HgCVAA-Prep0910

Page #:

000000021

Lionville Laboratory

MERCURY PREPARATION

Logbook # 1153

Analyst: [signature]
Date 10/25/12
Start Time/Temp: See pg 052
End Time/Temp: W.E. MW 10/25/12

Instrument ID: HG3.1
Balance # B14 /NA
Pipette Calibration (Daily) Y

Prep Batch: L210214
Worksheet: HG102501
SOP No. ME-HgCVAA
BLOCK 1 2 (circle one)

NOTE: All temperatures are recorded as corrected temperatures.

LvL Work Order#	pH < 2 (Liq)	Spike Vol (mL)	Spike Conc. (µg/L)	Initial Wt. or Vol (g or mL)	Final Sample Vol (mL)	Comments, % Solids, etc.
1210077-01				0.36	50	RAD I
L210214-DUP2				0.34	50	
MS2		0.500	1.0	0.37	50	
1210077-02				0.38	50	RAD II
03				0.37	50	RAD II
04				0.34	50	RAD I

MW 10/25/12

Standard:	ID	Prep Date/Time
ICAL/MS		
ICV/CCV/LCS		

See page 052

Reviewed By/Date: [signature] 10/26/12

se book #_____ for std traceability information

Soil LCS True Value = See page mg/Kg
Standard # _____

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

ME-HgCVAA-Prep0910

Page #:

000000022