0079244

SAF-RC-075
100-D/DR Burial Grounds & Remaining Sites – Soil Full Protocol
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21 KW 10/31/08
INITIAL/DATE

COMMENTS:

SDG K1342 SAF RC-075

Rad only X Chem only Rad & Chem

X Complete Partial

Waste Site: 120-D-2, Verification I

RECEIVED
NOV 07 2008
EDMC

LIONVILLE LABORATORY INC.

RECEIVED OCT 2008

27 October 2008

Joan Kessner
WC-Hanford, Inc.
2620 Fermi Avenue
MSIN H9-03
Richland, WA 99354

Subject: Analytical Data Package

Dear Ms. Kessner:

Enclosed are the hard copy analytical reports for the batch number/fraction indicated (marked X) in the following table:

LvLI Batch #	0809L139
SDG #	K1342
SAF #	RC-075
Date Received	9/19/08
# Samples	13
Matrix	SOIL
Volatiles	
Semivolatiles	
Pest/PCB	
Glycols	
DRO/KRO/GRO	
GC Alcohols	
Herbicides	
Metals	X
Inorganics	X

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

Sincerely,
Lionville Laboratory Incorporated

Orlette S. Johnson
Project Manager
r:\group\pm\orlette\hanford\data\b_ltrs.doc

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

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OCT 2008

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
WC-HANFORD RC-075 K1342

DATE RECEIVED: 09/19/08 LVL LOT # :0809L139

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
J17J34						
SILVER, TOTAL	001	S	08L0361	09/17/08	10/02/08	10/13/08
ARSENIC, TOTAL	001	S	08L0361	09/17/08	10/02/08	10/13/08
BORON, TOTAL	001	S	08L0361	09/17/08	10/02/08	10/13/08
BARIUM, TOTAL	001	S	08L0361	09/17/08	10/02/08	10/13/08
BERYLLIUM, TOTAL	001	S	08L0361	09/17/08	10/02/08	10/15/08
CADMIUM, TOTAL	001	S	08L0361	09/17/08	10/02/08	10/13/08
COBALT, TOTAL	001	S	08L0361	09/17/08	10/02/08	10/13/08
CHROMIUM, TOTAL	001	S	08L0361	09/17/08	10/02/08	10/13/08
COPPER, TOTAL	001	S	08L0361	09/17/08	10/02/08	10/13/08
MERCURY, TOTAL	001	S	08C0174	09/17/08	09/30/08	10/01/08
MANGANESE, TOTAL	001	S	08L0361	09/17/08	10/02/08	10/13/08
MOLYBDENUM, TOTAL	001	S	08L0361	09/17/08	10/02/08	10/13/08
NICKEL, TOTAL	001	S	08L0361	09/17/08	10/02/08	10/13/08
LEAD, TOTAL	001	S	08L0361	09/17/08	10/02/08	10/13/08
ANTIMONY, TOTAL	001	S	08L0361	09/17/08	10/02/08	10/13/08
SELENIUM, TOTAL	001	S	08L0361	09/17/08	10/02/08	10/13/08
VANADIUM, TOTAL	001	S	08L0361	09/17/08	10/02/08	10/13/08
ZINC, TOTAL	001	S	08L0361	09/17/08	10/02/08	10/13/08
J17J35						
SILVER, TOTAL	002	S	08L0361	09/17/08	10/02/08	10/13/08
SILVER, TOTAL	002 REP	S	08L0361	09/17/08	10/02/08	10/13/08
SILVER, TOTAL	002 MS	S	08L0361	09/17/08	10/02/08	10/13/08
ARSENIC, TOTAL	002	S	08L0361	09/17/08	10/02/08	10/13/08
ARSENIC, TOTAL	002 REP	S	08L0361	09/17/08	10/02/08	10/13/08
ARSENIC, TOTAL	002 MS	S	08L0361	09/17/08	10/02/08	10/13/08
BORON, TOTAL	002	S	08L0361	09/17/08	10/02/08	10/13/08
BORON, TOTAL	002 REP	S	08L0361	09/17/08	10/02/08	10/13/08
BORON, TOTAL	002 MS	S	08L0361	09/17/08	10/02/08	10/13/08
BARIUM, TOTAL	002	S	08L0361	09/17/08	10/02/08	10/13/08
BARIUM, TOTAL	002 REP	S	08L0361	09/17/08	10/02/08	10/13/08
BARIUM, TOTAL	002 MS	S	08L0361	09/17/08	10/02/08	10/13/08
BERYLLIUM, TOTAL	002	S	08L0361	09/17/08	10/02/08	10/15/08
BERYLLIUM, TOTAL	002 REP	S	08L0361	09/17/08	10/02/08	10/15/08

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
WC-HANFORD RC-075 K1342

DATE RECEIVED: 09/19/08 LVL LOT # :0809L139

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
BERYLLIUM, TOTAL	002 MS	S	08L0361	09/17/08	10/02/08	10/15/08
CADMIUM, TOTAL	002	S	08L0361	09/17/08	10/02/08	10/13/08
CADMIUM, TOTAL	002 REP	S	08L0361	09/17/08	10/02/08	10/13/08
CADMIUM, TOTAL	002 MS	S	08L0361	09/17/08	10/02/08	10/13/08
COBALT, TOTAL	002	S	08L0361	09/17/08	10/02/08	10/13/08
COBALT, TOTAL	002 REP	S	08L0361	09/17/08	10/02/08	10/13/08
COBALT, TOTAL	002 MS	S	08L0361	09/17/08	10/02/08	10/13/08
CHROMIUM, TOTAL	002	S	08L0361	09/17/08	10/02/08	10/13/08
CHROMIUM, TOTAL	002 REP	S	08L0361	09/17/08	10/02/08	10/13/08
CHROMIUM, TOTAL	002 MS	S	08L0361	09/17/08	10/02/08	10/13/08
COPPER, TOTAL	002	S	08L0361	09/17/08	10/02/08	10/13/08
COPPER, TOTAL	002 REP	S	08L0361	09/17/08	10/02/08	10/13/08
COPPER, TOTAL	002 MS	S	08L0361	09/17/08	10/02/08	10/13/08
MERCURY, TOTAL	002	S	08C0174	09/17/08	09/30/08	10/01/08
MERCURY, TOTAL	002 REP	S	08C0174	09/17/08	09/30/08	10/01/08
MERCURY, TOTAL	002 MS	S	08C0174	09/17/08	09/30/08	10/01/08
MANGANESE, TOTAL	002	S	08L0361	09/17/08	10/02/08	10/13/08
MANGANESE, TOTAL	002 REP	S	08L0361	09/17/08	10/02/08	10/13/08
MANGANESE, TOTAL	002 MS	S	08L0361	09/17/08	10/02/08	10/13/08
MOLYBDENUM, TOTAL	002	S	08L0361	09/17/08	10/02/08	10/13/08
MOLYBDENUM, TOTAL	002 REP	S	08L0361	09/17/08	10/02/08	10/13/08
MOLYBDENUM, TOTAL	002 MS	S	08L0361	09/17/08	10/02/08	10/13/08
NICKEL, TOTAL	002	S	08L0361	09/17/08	10/02/08	10/13/08
NICKEL, TOTAL	002 REP	S	08L0361	09/17/08	10/02/08	10/13/08
NICKEL, TOTAL	002 MS	S	08L0361	09/17/08	10/02/08	10/13/08
LEAD, TOTAL	002	S	08L0361	09/17/08	10/02/08	10/13/08
LEAD, TOTAL	002 REP	S	08L0361	09/17/08	10/02/08	10/13/08
LEAD, TOTAL	002 MS	S	08L0361	09/17/08	10/02/08	10/13/08
ANTIMONY, TOTAL	002	S	08L0361	09/17/08	10/02/08	10/13/08
ANTIMONY, TOTAL	002 REP	S	08L0361	09/17/08	10/02/08	10/13/08
ANTIMONY, TOTAL	002 MS	S	08L0361	09/17/08	10/02/08	10/13/08
SELENIUM, TOTAL	002	S	08L0361	09/17/08	10/02/08	10/13/08
SELENIUM, TOTAL	002 REP	S	08L0361	09/17/08	10/02/08	10/13/08
SELENIUM, TOTAL	002 MS	S	08L0361	09/17/08	10/02/08	10/13/08
VANADIUM, TOTAL	002	S	08L0361	09/17/08	10/02/08	10/13/08
VANADIUM, TOTAL	002 REP	S	08L0361	09/17/08	10/02/08	10/13/08
VANADIUM, TOTAL	002 MS	S	08L0361	09/17/08	10/02/08	10/13/08
ZINC, TOTAL	002	S	08L0361	09/17/08	10/02/08	10/13/08

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
WC-HANFORD RC-075 K1342

DATE RECEIVED: 09/19/08 LVL LOT # :0809L139

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
ZINC, TOTAL	002 REP	S	08L0361	09/17/08	10/02/08	10/13/08
ZINC, TOTAL	002 MS	S	08L0361	09/17/08	10/02/08	10/13/08
J17J36						
SILVER, TOTAL	003	S	08L0361	09/17/08	10/02/08	10/13/08
ARSENIC, TOTAL	003	S	08L0361	09/17/08	10/02/08	10/13/08
BORON, TOTAL	003	S	08L0361	09/17/08	10/02/08	10/13/08
BARIUM, TOTAL	003	S	08L0361	09/17/08	10/02/08	10/13/08
BERYLLIUM, TOTAL	003	S	08L0361	09/17/08	10/02/08	10/15/08
CADMIUM, TOTAL	003	S	08L0361	09/17/08	10/02/08	10/13/08
COBALT, TOTAL	003	S	08L0361	09/17/08	10/02/08	10/13/08
CHROMIUM, TOTAL	003	S	08L0361	09/17/08	10/02/08	10/13/08
COPPER, TOTAL	003	S	08L0361	09/17/08	10/02/08	10/13/08
MERCURY, TOTAL	003	S	08C0174	09/17/08	09/30/08	10/01/08
MANGANESE, TOTAL	003	S	08L0361	09/17/08	10/02/08	10/13/08
MOLYBDENUM, TOTAL	003	S	08L0361	09/17/08	10/02/08	10/13/08
NICKEL, TOTAL	003	S	08L0361	09/17/08	10/02/08	10/13/08
LEAD, TOTAL	003	S	08L0361	09/17/08	10/02/08	10/13/08
ANTIMONY, TOTAL	003	S	08L0361	09/17/08	10/02/08	10/13/08
SELENIUM, TOTAL	003	S	08L0361	09/17/08	10/02/08	10/13/08
VANADIUM, TOTAL	003	S	08L0361	09/17/08	10/02/08	10/13/08
ZINC, TOTAL	003	S	08L0361	09/17/08	10/02/08	10/13/08
J17J37						
SILVER, TOTAL	004	S	08L0361	09/17/08	10/02/08	10/13/08
ARSENIC, TOTAL	004	S	08L0361	09/17/08	10/02/08	10/13/08
BORON, TOTAL	004	S	08L0361	09/17/08	10/02/08	10/13/08
BARIUM, TOTAL	004	S	08L0361	09/17/08	10/02/08	10/13/08
BERYLLIUM, TOTAL	004	S	08L0361	09/17/08	10/02/08	10/15/08
CADMIUM, TOTAL	004	S	08L0361	09/17/08	10/02/08	10/13/08
COBALT, TOTAL	004	S	08L0361	09/17/08	10/02/08	10/13/08
CHROMIUM, TOTAL	004	S	08L0361	09/17/08	10/02/08	10/13/08
COPPER, TOTAL	004	S	08L0361	09/17/08	10/02/08	10/13/08
MERCURY, TOTAL	004	S	08C0174	09/17/08	09/30/08	10/01/08
MANGANESE, TOTAL	004	S	08L0361	09/17/08	10/02/08	10/13/08
MOLYBDENUM, TOTAL	004	S	08L0361	09/17/08	10/02/08	10/13/08

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
WC-HANFORD RC-075 K1342

DATE RECEIVED: 09/19/08 LVL LOT # :0809L139

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
NICKEL, TOTAL	004	S	08L0361	09/17/08	10/02/08	10/13/08
LEAD, TOTAL	004	S	08L0361	09/17/08	10/02/08	10/13/08
ANTIMONY, TOTAL	004	S	08L0361	09/17/08	10/02/08	10/13/08
SELENIUM, TOTAL	004	S	08L0361	09/17/08	10/02/08	10/13/08
VANADIUM, TOTAL	004	S	08L0361	09/17/08	10/02/08	10/13/08
ZINC, TOTAL	004	S	08L0361	09/17/08	10/02/08	10/13/08
J17J38						
SILVER, TOTAL	005	S	08L0361	09/17/08	10/02/08	10/13/08
ARSENIC, TOTAL	005	S	08L0361	09/17/08	10/02/08	10/13/08
BORON, TOTAL	005	S	08L0361	09/17/08	10/02/08	10/13/08
BARIUM, TOTAL	005	S	08L0361	09/17/08	10/02/08	10/13/08
BERYLLIUM, TOTAL	005	S	08L0361	09/17/08	10/02/08	10/15/08
CADMIUM, TOTAL	005	S	08L0361	09/17/08	10/02/08	10/13/08
COBALT, TOTAL	005	S	08L0361	09/17/08	10/02/08	10/13/08
CHROMIUM, TOTAL	005	S	08L0361	09/17/08	10/02/08	10/13/08
COPPER, TOTAL	005	S	08L0361	09/17/08	10/02/08	10/13/08
MERCURY, TOTAL	005	S	08C0174	09/17/08	09/30/08	10/01/08
MANGANESE, TOTAL	005	S	08L0361	09/17/08	10/02/08	10/13/08
MOLYBDENUM, TOTAL	005	S	08L0361	09/17/08	10/02/08	10/13/08
NICKEL, TOTAL	005	S	08L0361	09/17/08	10/02/08	10/13/08
LEAD, TOTAL	005	S	08L0361	09/17/08	10/02/08	10/13/08
ANTIMONY, TOTAL	005	S	08L0361	09/17/08	10/02/08	10/13/08
SELENIUM, TOTAL	005	S	08L0361	09/17/08	10/02/08	10/13/08
VANADIUM, TOTAL	005	S	08L0361	09/17/08	10/02/08	10/13/08
ZINC, TOTAL	005	S	08L0361	09/17/08	10/02/08	10/13/08
J17J39						
SILVER, TOTAL	006	S	08L0361	09/17/08	10/02/08	10/13/08
ARSENIC, TOTAL	006	S	08L0361	09/17/08	10/02/08	10/13/08
BORON, TOTAL	006	S	08L0361	09/17/08	10/02/08	10/13/08
BARIUM, TOTAL	006	S	08L0361	09/17/08	10/02/08	10/13/08
BERYLLIUM, TOTAL	006	S	08L0361	09/17/08	10/02/08	10/15/08
CADMIUM, TOTAL	006	S	08L0361	09/17/08	10/02/08	10/13/08
COBALT, TOTAL	006	S	08L0361	09/17/08	10/02/08	10/13/08
CHROMIUM, TOTAL	006	S	08L0361	09/17/08	10/02/08	10/13/08

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
WC-HANFORD RC-075 K1342

DATE RECEIVED: 09/19/08 LVL LOT # :0809L139

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
COPPER, TOTAL	006	S	08L0361	09/17/08	10/02/08	10/13/08
MERCURY, TOTAL	006	S	08C0174	09/17/08	09/30/08	10/01/08
MANGANESE, TOTAL	006	S	08L0361	09/17/08	10/02/08	10/13/08
MOLYBDENUM, TOTAL	006	S	08L0361	09/17/08	10/02/08	10/13/08
NICKEL, TOTAL	006	S	08L0361	09/17/08	10/02/08	10/13/08
LEAD, TOTAL	006	S	08L0361	09/17/08	10/02/08	10/13/08
ANTIMONY, TOTAL	006	S	08L0361	09/17/08	10/02/08	10/13/08
SELENIUM, TOTAL	006	S	08L0361	09/17/08	10/02/08	10/13/08
VANADIUM, TOTAL	006	S	08L0361	09/17/08	10/02/08	10/13/08
ZINC, TOTAL	006	S	08L0361	09/17/08	10/02/08	10/13/08
J17J40						
SILVER, TOTAL	007	S	08L0361	09/17/08	10/02/08	10/13/08
ARSENIC, TOTAL	007	S	08L0361	09/17/08	10/02/08	10/13/08
BORON, TOTAL	007	S	08L0361	09/17/08	10/02/08	10/13/08
BARIUM, TOTAL	007	S	08L0361	09/17/08	10/02/08	10/13/08
BERYLLIUM, TOTAL	007	S	08L0361	09/17/08	10/02/08	10/15/08
CADMIUM, TOTAL	007	S	08L0361	09/17/08	10/02/08	10/13/08
COBALT, TOTAL	007	S	08L0361	09/17/08	10/02/08	10/13/08
CHROMIUM, TOTAL	007	S	08L0361	09/17/08	10/02/08	10/13/08
COPPER, TOTAL	007	S	08L0361	09/17/08	10/02/08	10/13/08
MERCURY, TOTAL	007	S	08C0174	09/17/08	09/30/08	10/01/08
MANGANESE, TOTAL	007	S	08L0361	09/17/08	10/02/08	10/13/08
MOLYBDENUM, TOTAL	007	S	08L0361	09/17/08	10/02/08	10/13/08
NICKEL, TOTAL	007	S	08L0361	09/17/08	10/02/08	10/13/08
LEAD, TOTAL	007	S	08L0361	09/17/08	10/02/08	10/13/08
ANTIMONY, TOTAL	007	S	08L0361	09/17/08	10/02/08	10/13/08
SELENIUM, TOTAL	007	S	08L0361	09/17/08	10/02/08	10/13/08
VANADIUM, TOTAL	007	S	08L0361	09/17/08	10/02/08	10/13/08
ZINC, TOTAL	007	S	08L0361	09/17/08	10/02/08	10/13/08
J17J41						
SILVER, TOTAL	008	S	08L0361	09/17/08	10/02/08	10/14/08
ARSENIC, TOTAL	008	S	08L0361	09/17/08	10/02/08	10/14/08
BORON, TOTAL	008	S	08L0361	09/17/08	10/02/08	10/14/08
BARIUM, TOTAL	008	S	08L0361	09/17/08	10/02/08	10/14/08

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
WC-HANFORD RC-075 K1342

DATE RECEIVED: 09/19/08 LVL LOT # :0809L139

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
BERYLLIUM, TOTAL	008	S	08L0361	09/17/08	10/02/08	10/15/08
CADMIUM, TOTAL	008	S	08L0361	09/17/08	10/02/08	10/14/08
COBALT, TOTAL	008	S	08L0361	09/17/08	10/02/08	10/14/08
CHROMIUM, TOTAL	008	S	08L0361	09/17/08	10/02/08	10/14/08
COPPER, TOTAL	008	S	08L0361	09/17/08	10/02/08	10/14/08
MERCURY, TOTAL	008	S	08C0174	09/17/08	09/30/08	10/01/08
MANGANESE, TOTAL	008	S	08L0361	09/17/08	10/02/08	10/14/08
MOLYBDENUM, TOTAL	008	S	08L0361	09/17/08	10/02/08	10/14/08
NICKEL, TOTAL	008	S	08L0361	09/17/08	10/02/08	10/14/08
LEAD, TOTAL	008	S	08L0361	09/17/08	10/02/08	10/14/08
ANTIMONY, TOTAL	008	S	08L0361	09/17/08	10/02/08	10/14/08
SELENIUM, TOTAL	008	S	08L0361	09/17/08	10/02/08	10/14/08
VANADIUM, TOTAL	008	S	08L0361	09/17/08	10/02/08	10/14/08
ZINC, TOTAL	008	S	08L0361	09/17/08	10/02/08	10/14/08
J17J42						
SILVER, TOTAL	009	S	08L0361	09/17/08	10/02/08	10/14/08
ARSENIC, TOTAL	009	S	08L0361	09/17/08	10/02/08	10/14/08
BORON, TOTAL	009	S	08L0361	09/17/08	10/02/08	10/14/08
BARIUM, TOTAL	009	S	08L0361	09/17/08	10/02/08	10/14/08
BERYLLIUM, TOTAL	009	S	08L0361	09/17/08	10/02/08	10/15/08
CADMIUM, TOTAL	009	S	08L0361	09/17/08	10/02/08	10/14/08
COBALT, TOTAL	009	S	08L0361	09/17/08	10/02/08	10/14/08
CHROMIUM, TOTAL	009	S	08L0361	09/17/08	10/02/08	10/14/08
COPPER, TOTAL	009	S	08L0361	09/17/08	10/02/08	10/14/08
MERCURY, TOTAL	009	S	08C0174	09/17/08	09/30/08	10/01/08
MANGANESE, TOTAL	009	S	08L0361	09/17/08	10/02/08	10/14/08
MOLYBDENUM, TOTAL	009	S	08L0361	09/17/08	10/02/08	10/14/08
NICKEL, TOTAL	009	S	08L0361	09/17/08	10/02/08	10/14/08
LEAD, TOTAL	009	S	08L0361	09/17/08	10/02/08	10/14/08
ANTIMONY, TOTAL	009	S	08L0361	09/17/08	10/02/08	10/14/08
SELENIUM, TOTAL	009	S	08L0361	09/17/08	10/02/08	10/14/08
VANADIUM, TOTAL	009	S	08L0361	09/17/08	10/02/08	10/14/08
ZINC, TOTAL	009	S	08L0361	09/17/08	10/02/08	10/14/08
J17J43						
SILVER, TOTAL	010	S	08L0361	09/17/08	10/02/08	10/14/08

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
WC-HANFORD RC-075 K1342

DATE RECEIVED: 09/19/08 LVL LOT # :0809L139

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
ARSENIC, TOTAL	010	S	08L0361	09/17/08	10/02/08	10/14/08
BORON, TOTAL	010	S	08L0361	09/17/08	10/02/08	10/14/08
BARIUM, TOTAL	010	S	08L0361	09/17/08	10/02/08	10/14/08
BERYLLIUM, TOTAL	010	S	08L0361	09/17/08	10/02/08	10/15/08
CADMIUM, TOTAL	010	S	08L0361	09/17/08	10/02/08	10/14/08
COBALT, TOTAL	010	S	08L0361	09/17/08	10/02/08	10/14/08
CHROMIUM, TOTAL	010	S	08L0361	09/17/08	10/02/08	10/14/08
COPPER, TOTAL	010	S	08L0361	09/17/08	10/02/08	10/14/08
MERCURY, TOTAL	010	S	08C0174	09/17/08	09/30/08	10/01/08
MANGANESE, TOTAL	010	S	08L0361	09/17/08	10/02/08	10/14/08
MOLYBDENUM, TOTAL	010	S	08L0361	09/17/08	10/02/08	10/14/08
NICKEL, TOTAL	010	S	08L0361	09/17/08	10/02/08	10/14/08
LEAD, TOTAL	010	S	08L0361	09/17/08	10/02/08	10/14/08
ANTIMONY, TOTAL	010	S	08L0361	09/17/08	10/02/08	10/14/08
SELENIUM, TOTAL	010	S	08L0361	09/17/08	10/02/08	10/14/08
VANADIUM, TOTAL	010	S	08L0361	09/17/08	10/02/08	10/14/08
ZINC, TOTAL	010	S	08L0361	09/17/08	10/02/08	10/14/08
J17J44						
SILVER, TOTAL	011	S	08L0361	09/17/08	10/02/08	10/14/08
ARSENIC, TOTAL	011	S	08L0361	09/17/08	10/02/08	10/14/08
BORON, TOTAL	011	S	08L0361	09/17/08	10/02/08	10/14/08
BARIUM, TOTAL	011	S	08L0361	09/17/08	10/02/08	10/14/08
BERYLLIUM, TOTAL	011	S	08L0361	09/17/08	10/02/08	10/15/08
CADMIUM, TOTAL	011	S	08L0361	09/17/08	10/02/08	10/14/08
COBALT, TOTAL	011	S	08L0361	09/17/08	10/02/08	10/14/08
CHROMIUM, TOTAL	011	S	08L0361	09/17/08	10/02/08	10/14/08
COPPER, TOTAL	011	S	08L0361	09/17/08	10/02/08	10/14/08
MERCURY, TOTAL	011	S	08C0174	09/17/08	09/30/08	10/01/08
MANGANESE, TOTAL	011	S	08L0361	09/17/08	10/02/08	10/14/08
MOLYBDENUM, TOTAL	011	S	08L0361	09/17/08	10/02/08	10/14/08
NICKEL, TOTAL	011	S	08L0361	09/17/08	10/02/08	10/14/08
LEAD, TOTAL	011	S	08L0361	09/17/08	10/02/08	10/14/08
ANTIMONY, TOTAL	011	S	08L0361	09/17/08	10/02/08	10/14/08
SELENIUM, TOTAL	011	S	08L0361	09/17/08	10/02/08	10/14/08
VANADIUM, TOTAL	011	S	08L0361	09/17/08	10/02/08	10/14/08
ZINC, TOTAL	011	S	08L0361	09/17/08	10/02/08	10/14/08

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
WC-HANFORD RC-075 K1342

DATE RECEIVED: 09/19/08 LVL LOT # :0809L139

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
J17J45						
SILVER, TOTAL	012	S	08L0361	09/17/08	10/02/08	10/14/08
ARSENIC, TOTAL	012	S	08L0361	09/17/08	10/02/08	10/14/08
BORON, TOTAL	012	S	08L0361	09/17/08	10/02/08	10/14/08
BARIUM, TOTAL	012	S	08L0361	09/17/08	10/02/08	10/14/08
BERYLLIUM, TOTAL	012	S	08L0361	09/17/08	10/02/08	10/15/08
CADMIUM, TOTAL	012	S	08L0361	09/17/08	10/02/08	10/14/08
COBALT, TOTAL	012	S	08L0361	09/17/08	10/02/08	10/14/08
CHROMIUM, TOTAL	012	S	08L0361	09/17/08	10/02/08	10/14/08
COPPER, TOTAL	012	S	08L0361	09/17/08	10/02/08	10/14/08
MERCURY, TOTAL	012	S	08C0174	09/17/08	09/30/08	10/01/08
MANGANESE, TOTAL	012	S	08L0361	09/17/08	10/02/08	10/14/08
MOLYBDENUM, TOTAL	012	S	08L0361	09/17/08	10/02/08	10/14/08
NICKEL, TOTAL	012	S	08L0361	09/17/08	10/02/08	10/14/08
LEAD, TOTAL	012	S	08L0361	09/17/08	10/02/08	10/14/08
ANTIMONY, TOTAL	012	S	08L0361	09/17/08	10/02/08	10/14/08
SELENIUM, TOTAL	012	S	08L0361	09/17/08	10/02/08	10/14/08
VANADIUM, TOTAL	012	S	08L0361	09/17/08	10/02/08	10/14/08
ZINC, TOTAL	012	S	08L0361	09/17/08	10/02/08	10/14/08
J17J46						
SILVER, TOTAL	013	S	08L0361	09/17/08	10/02/08	10/14/08
ARSENIC, TOTAL	013	S	08L0361	09/17/08	10/02/08	10/14/08
BORON, TOTAL	013	S	08L0361	09/17/08	10/02/08	10/14/08
BARIUM, TOTAL	013	S	08L0361	09/17/08	10/02/08	10/14/08
BERYLLIUM, TOTAL	013	S	08L0361	09/17/08	10/02/08	10/15/08
CADMIUM, TOTAL	013	S	08L0361	09/17/08	10/02/08	10/14/08
COBALT, TOTAL	013	S	08L0361	09/17/08	10/02/08	10/14/08
CHROMIUM, TOTAL	013	S	08L0361	09/17/08	10/02/08	10/14/08
COPPER, TOTAL	013	S	08L0361	09/17/08	10/02/08	10/14/08
MERCURY, TOTAL	013	S	08C0174	09/17/08	09/30/08	10/01/08
MANGANESE, TOTAL	013	S	08L0361	09/17/08	10/02/08	10/14/08
MOLYBDENUM, TOTAL	013	S	08L0361	09/17/08	10/02/08	10/14/08
NICKEL, TOTAL	013	S	08L0361	09/17/08	10/02/08	10/14/08
LEAD, TOTAL	013	S	08L0361	09/17/08	10/02/08	10/14/08

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
WC-HANFORD RC-075 K1342

DATE RECEIVED: 09/19/08 LVL LOT # :0809L139

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
ANTIMONY, TOTAL	013	S	08L0361	09/17/08	10/02/08	10/14/08
SELENIUM, TOTAL	013	S	08L0361	09/17/08	10/02/08	10/14/08
VANADIUM, TOTAL	013	S	08L0361	09/17/08	10/02/08	10/14/08
ZINC, TOTAL	013	S	08L0361	09/17/08	10/02/08	10/14/08

LAB QC:

SILVER LABORATORY	LC1 BS	S	08L0361	N/A	10/02/08	10/09/08
SILVER, TOTAL	MB1	S	08L0361	N/A	10/02/08	10/09/08
ARSENIC LABORATORY	LC1 BS	S	08L0361	N/A	10/02/08	10/09/08
ARSENIC, TOTAL	MB1	S	08L0361	N/A	10/02/08	10/09/08
BORON LABORATORY	LC1 BS	S	08L0361	N/A	10/02/08	10/09/08
BORON, TOTAL	MB1	S	08L0361	N/A	10/02/08	10/09/08
BARIUM LABORATORY	LC1 BS	S	08L0361	N/A	10/02/08	10/09/08
BARIUM, TOTAL	MB1	S	08L0361	N/A	10/02/08	10/09/08
BERYLLIUM LABORATORY	LC1 BS	S	08L0361	N/A	10/02/08	10/09/08
BERYLLIUM, TOTAL	MB1	S	08L0361	N/A	10/02/08	10/09/08
CADMIUM LABORATORY	LC1 BS	S	08L0361	N/A	10/02/08	10/09/08
CADMIUM, TOTAL	MB1	S	08L0361	N/A	10/02/08	10/09/08
COBALT LABORATORY	LC1 BS	S	08L0361	N/A	10/02/08	10/09/08
COBALT, TOTAL	MB1	S	08L0361	N/A	10/02/08	10/09/08
CHROMIUM LABORATORY	LC1 BS	S	08L0361	N/A	10/02/08	10/09/08
CHROMIUM, TOTAL	MB1	S	08L0361	N/A	10/02/08	10/09/08
COPPER LABORATORY	LC1 BS	S	08L0361	N/A	10/02/08	10/09/08
COPPER, TOTAL	MB1	S	08L0361	N/A	10/02/08	10/09/08
MERCURY LABORATORY	LC1 BS	S	08C0174	N/A	09/30/08	10/01/08
MERCURY, TOTAL	MB1	S	08C0174	N/A	09/30/08	10/01/08
MANGANESE LABORATORY	LC1 BS	S	08L0361	N/A	10/02/08	10/09/08
MANGANESE, TOTAL	MB1	S	08L0361	N/A	10/02/08	10/09/08
MOLYBDENUM LABORATOR	LC1 BS	S	08L0361	N/A	10/02/08	10/09/08
MOLYBDENUM, TOTAL	MB1	S	08L0361	N/A	10/02/08	10/09/08
NICKEL LABORATORY	LC1 BS	S	08L0361	N/A	10/02/08	10/09/08
NICKEL, TOTAL	MB1	S	08L0361	N/A	10/02/08	10/09/08
LEAD LABORATORY	LC1 BS	S	08L0361	N/A	10/02/08	10/09/08
LEAD, TOTAL	MB1	S	08L0361	N/A	10/02/08	10/09/08
ANTIMONY LABORATORY	LC1 BS	S	08L0361	N/A	10/02/08	10/09/08
ANTIMONY, TOTAL	MB1	S	08L0361	N/A	10/02/08	10/09/08
SELENIUM LABORATORY	LC1 BS	S	08L0361	N/A	10/02/08	10/09/08

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
WC-HANFORD RC-075 K1342

DATE RECEIVED: 09/19/08 LVL LOT # :0809L139

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SELENIUM, TOTAL	MB1	S	08L0361	N/A	10/02/08	10/09/08
VANADIUM LABORATORY	LC1 BS	S	08L0361	N/A	10/02/08	10/09/08
VANADIUM, TOTAL	MB1	S	08L0361	N/A	10/02/08	10/09/08
ZINC LABORATORY	LC1 BS	S	08L0361	N/A	10/02/08	10/09/08
ZINC, TOTAL	MB1	S	08L0361	N/A	10/02/08	10/09/08

LIONVILLE LABORATORY INC.

Analytical Report

Client: WC-HANFORD RC-075
LVL#: 0809L139
SDG/SAF#: K1342/RC-075

W.O.#: 60049-001-001-0001-00
Date Received: 09-19-08

METALS CASE NARRATIVE

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 13 soil samples.

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

   Samples J17J41 through J17J46 were rerun with 2-fold dilutions in file TA1014A due to sample matrix. All samples were rerun with 2-fold dilutions, with the exception of sample J17J34, on a different instrument for Beryllium. The Beryllium reruns were due to high concentrations of Titanium, which is an interfering analyte for Beryllium.

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 (80-120% for Mercury) with the exception of the ending CCV for some analytes in file TA1013C. The associated samples were rerun in file TA1014A.

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

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

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 41 pages.

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 matrix spike (MS) recoveries for 2 analytes were outside the 75-125% control limits. Refer to the Inorganics Accuracy Report.

11. For analytes where the ICP MS is out-of-control, a post-digestion MS (PDS) and serial dilution are performed. A PDS was prepared at meaningful concentration level for the following analytes:

Sample ID	Element	PDS Concentration (ppb)	PDS % Recovery
J17J35	Manganese	1,000	138.2
	Antimony	100	107.4

12. The duplicate analyses for 3 analytes were outside the 20% Relative Percent Difference (RPD) control limits. Refer to the Inorganics Precision Report.

13. 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.

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

10/21/08
Date

jjw/m09-139

LIONVILLE LABORATORY INC.

METALS METHOD GLOSSARY

The following methods are used as reference for the digestion and analysis of samples contained within tl

Lot#: 0809L139

Leaching Procedure: __1310 __1311 __1312 __Other:_____

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

Metals Digestion Methods: __3005A __3010A __3015 __3020A X3050B __3051 __200.7 __SS17
__Other: _____

Metals Analysis Methods

	SW846		EPA		STD MTD	EPA OSWR	USATHAMA
Aluminum	__6010B		__200.7				__99
Antimony	X6010B	__7041 [5]	__200.7	__204.2			__99
Arsenic	X6010B	__7060A [5]	__200.7	__206.2	__3113B		__99
Barium	X6010B		__200.7				__99
Beryllium	X6010B		__200.7				__99
Bismuth	__6010B [1]		__200.7 [1]			__1620	__99
Boron	X6010B		__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	X6010B		__200.7				__99
Copper	X6010B	__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	X6010B		__200.7				__99
Mercury	__7470A [3]	X7471A [3]	__245.1 [2]	__245.5 [2]			__99
Molybdenum	X6010B		__200.7				__99
Nickel	X6010B		__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	X6010B		__200.7				__99
Zinc	X6010B		__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 10/16/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-001	J17J34	Silver, Total	0.07 u	MG/KG	0.07	1.0
		Arsenic, Total	0.35	MG/KG	0.35	1.0
		Boron, Total	0.35 u	MG/KG	0.35	1.0
		Barium, Total	1.2	MG/KG	0.07	1.0
		Beryllium, Total	0.04	MG/KG	0.03	1.0
		Cadmium, Total	0.03 u	MG/KG	0.03	1.0
		Cobalt, Total	0.14 u	MG/KG	0.14	1.0
		Chromium, Total	0.16	MG/KG	0.14	1.0
		Copper, Total	0.17	MG/KG	0.14	1.0
		Mercury, Total	0.01 u	MG/KG	0.01	1.0
		Manganese, Total	4.6	MG/KG	0.03	1.0
		Molybdenum, Total	0.21 u	MG/KG	0.21	1.0
		Nickel, Total	0.14 u	MG/KG	0.14	1.0
		Lead, Total	0.44	MG/KG	0.21	1.0
		Antimony, Total	0.21 u	MG/KG	0.21	1.0
		Selenium, Total	0.42 u	MG/KG	0.42	1.0
		Vanadium, Total	0.31	MG/KG	0.1	1.0
		Zinc, Total	1.2	MG/KG	0.42	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 10/16/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-002	J17J35	Silver, Total	0.08 u	MG/KG	0.08	1.0
		Arsenic, Total	1.9	MG/KG	0.38	1.0
		Boron, Total	1.8	MG/KG	0.38	1.0
		Barium, Total	71.4	MG/KG	0.08	1.0
		Beryllium, Total	0.24	MG/KG	0.08	2.0
		Cadmium, Total	0.04 u	MG/KG	0.04	1.0
		Cobalt, Total	8.9	MG/KG	0.15	1.0
		Chromium, Total	5.3	MG/KG	0.15	1.0
		Copper, Total	14.8	MG/KG	0.15	1.0
		Mercury, Total	0.03	MG/KG	0.009	1.0
		Manganese, Total	317	MG/KG	0.03	1.0
		Molybdenum, Total	0.59	MG/KG	0.23	1.0
		Nickel, Total	9.4	MG/KG	0.15	1.0
		Lead, Total	4.4	MG/KG	0.23	1.0
		Antimony, Total	0.23 u	MG/KG	0.23	1.0
		Selenium, Total	0.46 u	MG/KG	0.46	1.0
		Vanadium, Total	73.8	MG/KG	0.11	1.0
		Zinc, Total	50.8	MG/KG	0.46	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 10/16/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-003	J17J36	Silver, Total	0.07 u	MG/KG	0.07	1.0
		Arsenic, Total	2.9	MG/KG	0.36	1.0
		Boron, Total	5.9	MG/KG	0.36	1.0
		Barium, Total	98.9	MG/KG	0.07	1.0
		Beryllium, Total	0.29	MG/KG	0.07	2.0
		Cadmium, Total	0.04 u	MG/KG	0.04	1.0
		Cobalt, Total	8.0	MG/KG	0.15	1.0
		Chromium, Total	8.3	MG/KG	0.15	1.0
		Copper, Total	16.5	MG/KG	0.15	1.0
		Mercury, Total	0.02	MG/KG	0.01	1.0
		Manganese, Total	336	MG/KG	0.03	1.0
		Molybdenum, Total	0.63	MG/KG	0.22	1.0
		Nickel, Total	10.1	MG/KG	0.15	1.0
		Lead, Total	9.7	MG/KG	0.22	1.0
		Antimony, Total	0.22 u	MG/KG	0.22	1.0
		Selenium, Total	0.44 u	MG/KG	0.44	1.0
		Vanadium, Total	59.5	MG/KG	0.10	1.0
		Zinc, Total	49.7	MG/KG	0.44	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 10/16/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-004	J17J37	Silver, Total	0.08 u	MG/KG	0.08	1.0
		Arsenic, Total	2.5	MG/KG	0.38	1.0
		Boron, Total	1.6	MG/KG	0.38	1.0
		Barium, Total	63.3	MG/KG	0.08	1.0
		Beryllium, Total	0.24	MG/KG	0.08	2.0
		Cadmium, Total	0.04 u	MG/KG	0.04	1.0
		Cobalt, Total	8.3	MG/KG	0.15	1.0
		Chromium, Total	8.2	MG/KG	0.15	1.0
		Copper, Total	15.4	MG/KG	0.15	1.0
		Mercury, Total	0.03	MG/KG	0.008	1.0
		Manganese, Total	324	MG/KG	0.03	1.0
		Molybdenum, Total	0.53	MG/KG	0.23	1.0
		Nickel, Total	10.3	MG/KG	0.15	1.0
		Lead, Total	5.3	MG/KG	0.23	1.0
		Antimony, Total	0.23 u	MG/KG	0.23	1.0
		Selenium, Total	0.45 u	MG/KG	0.45	1.0
		Vanadium, Total	67.2	MG/KG	0.11	1.0
		Zinc, Total	51.8	MG/KG	0.45	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 10/16/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-005	J17J38	Silver, Total	0.08 u	MG/KG	0.08	1.0
		Arsenic, Total	1.8	MG/KG	0.38	1.0
		Boron, Total	0.55	MG/KG	0.38	1.0
		Barium, Total	64.5	MG/KG	0.08	1.0
		Beryllium, Total	0.12	MG/KG	0.08	2.0
		Cadmium, Total	0.04 u	MG/KG	0.04	1.0
		Cobalt, Total	8.5	MG/KG	0.15	1.0
		Chromium, Total	4.2	MG/KG	0.15	1.0
		Copper, Total	13.5	MG/KG	0.15	1.0
		Mercury, Total	0.01 u	MG/KG	0.01	1.0
		Manganese, Total	300	MG/KG	0.03	1.0
		Molybdenum, Total	0.62	MG/KG	0.23	1.0
		Nickel, Total	9.4	MG/KG	0.15	1.0
		Lead, Total	1.4	MG/KG	0.23	1.0
		Antimony, Total	0.23 u	MG/KG	0.23	1.0
		Selenium, Total	0.46 u	MG/KG	0.46	1.0
		Vanadium, Total	78.2	MG/KG	0.11	1.0
		Zinc, Total	48.2	MG/KG	0.46	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 10/16/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-006	J17J39	Silver, Total	0.08 u	MG/KG	0.08	1.0
		Arsenic, Total	1.8	MG/KG	0.38	1.0
		Boron, Total	0.51	MG/KG	0.38	1.0
		Barium, Total	54.0	MG/KG	0.08	1.0
		Beryllium, Total	0.19	MG/KG	0.08	2.0
		Cadmium, Total	0.04 u	MG/KG	0.04	1.0
		Cobalt, Total	8.8	MG/KG	0.15	1.0
		Chromium, Total	5.3	MG/KG	0.15	1.0
		Copper, Total	15.3	MG/KG	0.15	1.0
		Mercury, Total	0.008u	MG/KG	0.008	1.0
		Manganese, Total	328	MG/KG	0.03	1.0
		Molybdenum, Total	0.54	MG/KG	0.23	1.0
		Nickel, Total	9.2	MG/KG	0.15	1.0
		Lead, Total	2.2	MG/KG	0.23	1.0
		Antimony, Total	0.23 u	MG/KG	0.23	1.0
		Selenium, Total	0.46 u	MG/KG	0.46	1.0
		Vanadium, Total	73.8	MG/KG	0.11	1.0
		Zinc, Total	49.5	MG/KG	0.46	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 10/16/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-007	J17J40	Silver, Total	0.08 u	MG/KG	0.08	1.0
		Arsenic, Total	1.6	MG/KG	0.38	1.0
		Boron, Total	0.61	MG/KG	0.38	1.0
		Barium, Total	55.6	MG/KG	0.08	1.0
		Beryllium, Total	0.25	MG/KG	0.08	2.0
		Cadmium, Total	0.04 u	MG/KG	0.04	1.0
		Cobalt, Total	9.9	MG/KG	0.15	1.0
		Chromium, Total	5.1	MG/KG	0.15	1.0
		Copper, Total	15.0	MG/KG	0.15	1.0
		Mercury, Total	0.009u	MG/KG	0.009	1.0
		Manganese, Total	353	MG/KG	0.03	1.0
		Molybdenum, Total	0.66	MG/KG	0.23	1.0
		Nickel, Total	9.9	MG/KG	0.15	1.0
		Lead, Total	2.4	MG/KG	0.23	1.0
		Antimony, Total	0.23 u	MG/KG	0.23	1.0
		Selenium, Total	0.45 u	MG/KG	0.45	1.0
		Vanadium, Total	87.2	MG/KG	0.11	1.0
		Zinc, Total	54.3	MG/KG	0.45	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 10/16/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-008	J17J41	Silver, Total	0.15 u	MG/KG	0.15	2.0
		Arsenic, Total	1.9	MG/KG	0.73	2.0
		Boron, Total	1.5	MG/KG	0.73	2.0
		Barium, Total	69.4	MG/KG	0.15	2.0
		Beryllium, Total	0.25	MG/KG	0.07	2.0
		Cadmium, Total	0.1	MG/KG	0.07	2.0
		Cobalt, Total	9.8	MG/KG	0.29	2.0
		Chromium, Total	7.4	MG/KG	0.29	2.0
		Copper, Total	15.0	MG/KG	0.29	2.0
		Mercury, Total	0.009u	MG/KG	0.009	1.0
		Manganese, Total	348	MG/KG	0.06	2.0
		Molybdenum, Total	0.56	MG/KG	0.44	2.0
		Nickel, Total	10.0	MG/KG	0.29	2.0
		Lead, Total	3.8	MG/KG	0.44	2.0
		Antimony, Total	0.44 u	MG/KG	0.44	2.0
		Selenium, Total	0.88 u	MG/KG	0.88	2.0
		Vanadium, Total	72.9	MG/KG	0.21	2.0
		Zinc, Total	51.5	MG/KG	0.88	2.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 10/16/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-009	J17J42	Silver, Total	0.15 u	MG/KG	0.15	2.0
		Arsenic, Total	1.9	MG/KG	0.73	2.0
		Boron, Total	1.3	MG/KG	0.73	2.0
		Barium, Total	58.1	MG/KG	0.15	2.0
		Beryllium, Total	0.27	MG/KG	0.07	2.0
		Cadmium, Total	0.08	MG/KG	0.07	2.0
		Cobalt, Total	9.4	MG/KG	0.29	2.0
		Chromium, Total	6.3	MG/KG	0.29	2.0
		Copper, Total	15.4	MG/KG	0.29	2.0
		Mercury, Total	0.30	MG/KG	0.01	1.0
		Manganese, Total	332	MG/KG	0.06	2.0
		Molybdenum, Total	0.58	MG/KG	0.44	2.0
		Nickel, Total	9.2	MG/KG	0.29	2.0
		Lead, Total	4.9	MG/KG	0.44	2.0
		Antimony, Total	0.44 u	MG/KG	0.44	2.0
		Selenium, Total	0.88 u	MG/KG	0.88	2.0
		Vanadium, Total	72.9	MG/KG	0.20	2.0
		Zinc, Total	57.4	MG/KG	0.88	2.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 10/16/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-010	J17J43	Silver, Total	0.14 u	MG/KG	0.14	2.0
		Arsenic, Total	2.0	MG/KG	0.70	2.0
		Boron, Total	1.4	MG/KG	0.70	2.0
		Barium, Total	50.5	MG/KG	0.14	2.0
		Beryllium, Total	0.19	MG/KG	0.07	2.0
		Cadmium, Total	0.09	MG/KG	0.07	2.0
		Cobalt, Total	9.7	MG/KG	0.28	2.0
		Chromium, Total	5.5	MG/KG	0.28	2.0
		Copper, Total	15.3	MG/KG	0.28	2.0
		Mercury, Total	0.009u	MG/KG	0.009	1.0
		Manganese, Total	346	MG/KG	0.06	2.0
		Molybdenum, Total	0.53	MG/KG	0.42	2.0
		Nickel, Total	8.6	MG/KG	0.28	2.0
		Lead, Total	3.5	MG/KG	0.42	2.0
		Antimony, Total	0.72	MG/KG	0.42	2.0
		Selenium, Total	0.84 u	MG/KG	0.84	2.0
		Vanadium, Total	75.9	MG/KG	0.19	2.0
		Zinc, Total	51.4	MG/KG	0.84	2.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 10/16/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-011	J17J44	Silver, Total	0.14 u	MG/KG	0.14	2.0
		Arsenic, Total	2.4	MG/KG	0.71	2.0
		Boron, Total	1.5	MG/KG	0.71	2.0
		Barium, Total	64.9	MG/KG	0.14	2.0
		Beryllium, Total	0.17	MG/KG	0.07	2.0
		Cadmium, Total	0.11	MG/KG	0.07	2.0
		Cobalt, Total	8.7	MG/KG	0.28	2.0
		Chromium, Total	7.0	MG/KG	0.28	2.0
		Copper, Total	14.5	MG/KG	0.28	2.0
		Mercury, Total	0.06	MG/KG	0.008	1.0
		Manganese, Total	314	MG/KG	0.06	2.0
		Molybdenum, Total	0.43 u	MG/KG	0.43	2.0
		Nickel, Total	9.0	MG/KG	0.28	2.0
		Lead, Total	8.5	MG/KG	0.43	2.0
		Antimony, Total	0.43	MG/KG	0.43	2.0
		Selenium, Total	0.85 u	MG/KG	0.85	2.0
		Vanadium, Total	68.2	MG/KG	0.20	2.0
		Zinc, Total	47.7	MG/KG	0.85	2.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 10/16/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-012	J17J45	Silver, Total	0.15 u	MG/KG	0.15	2.0
		Arsenic, Total	1.3	MG/KG	0.73	2.0
		Boron, Total	1.0	MG/KG	0.73	2.0
		Barium, Total	61.9	MG/KG	0.15	2.0
		Beryllium, Total	0.31	MG/KG	0.07	2.0
		Cadmium, Total	0.16	MG/KG	0.07	2.0
		Cobalt, Total	9.3	MG/KG	0.29	2.0
		Chromium, Total	4.5	MG/KG	0.29	2.0
		Copper, Total	14.2	MG/KG	0.29	2.0
		Mercury, Total	0.009u	MG/KG	0.009	1.0
		Manganese, Total	316	MG/KG	0.06	2.0
		Molybdenum, Total	0.56	MG/KG	0.44	2.0
		Nickel, Total	9.8	MG/KG	0.29	2.0
		Lead, Total	1.7	MG/KG	0.44	2.0
		Antimony, Total	0.44 u	MG/KG	0.44	2.0
		Selenium, Total	0.87 u	MG/KG	0.87	2.0
		Vanadium, Total	80.2	MG/KG	0.20	2.0
		Zinc, Total	48.8	MG/KG	0.87	2.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 10/16/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-013	J17J46	Silver, Total	0.15 u	MG/KG	0.15	2.0
		Arsenic, Total	2.0	MG/KG	0.74	2.0
		Boron, Total	1.0	MG/KG	0.74	2.0
		Barium, Total	57.8	MG/KG	0.15	2.0
		Beryllium, Total	0.24	MG/KG	0.07	2.0
		Cadmium, Total	0.16	MG/KG	0.07	2.0
		Cobalt, Total	8.1	MG/KG	0.30	2.0
		Chromium, Total	5.0	MG/KG	0.30	2.0
		Copper, Total	14.4	MG/KG	0.30	2.0
		Mercury, Total	0.01	MG/KG	0.009	1.0
		Manganese, Total	302	MG/KG	0.06	2.0
		Molybdenum, Total	0.47	MG/KG	0.45	2.0
		Nickel, Total	8.8	MG/KG	0.30	2.0
		Lead, Total	3.0	MG/KG	0.45	2.0
		Antimony, Total	0.45 u	MG/KG	0.45	2.0
		Selenium, Total	0.89 u	MG/KG	0.89	2.0
		Vanadium, Total	66.8	MG/KG	0.21	2.0
		Zinc, Total	43.6	MG/KG	0.89	2.0

Lionville Laboratory, Inc.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 10/16/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK1	08L0361-MB1	Silver, Total	0.10 u	MG/KG	0.10	1.0
		Arsenic, Total	0.50 u	MG/KG	0.50	1.0
		Boron, Total	0.50 u	MG/KG	0.50	1.0
		Barium, Total	0.15	MG/KG	0.10	1.0
		Beryllium, Total	0.05 u	MG/KG	0.05	1.0
		Cadmium, Total	0.05 u	MG/KG	0.05	1.0
		Cobalt, Total	0.20 u	MG/KG	0.20	1.0
		Chromium, Total	0.20 u	MG/KG	0.20	1.0
		Copper, Total	0.20 u	MG/KG	0.20	1.0
		Manganese, Total	0.13	MG/KG	0.04	1.0
		Molybdenum, Total	0.30 u	MG/KG	0.30	1.0
		Nickel, Total	0.20 u	MG/KG	0.20	1.0
		Lead, Total	0.30 u	MG/KG	0.30	1.0
		Antimony, Total	0.30 u	MG/KG	0.30	1.0
		Selenium, Total	0.60 u	MG/KG	0.60	1.0
		Vanadium, Total	0.14 u	MG/KG	0.14	1.0
		Zinc, Total	0.60 u	MG/KG	0.60	1.0
BLANK1	08C0174-MB1	Mercury, Total	0.01 u	MG/KG	0.01	1.0

Lionville Laboratory, Inc.

INORGANICS ACCURACY REPORT 10/16/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-002	J17J35	Silver, Total	3.3	0.08u	3.8	86.8	1.0
		Arsenic, Total	144	1.9	152	93.6	1.0
		Boron, Total	72.4	1.8	76.0	92.9	1.0
		Barium, Total	222	71.4	152	99.1	1.0
		Beryllium, Total	3.9	0.24	3.8	96.4	2.0
		Cadmium, Total	3.2	0.04u	3.8	84.2	1.0
		Cobalt, Total	42.9	8.9	38.0	89.5	1.0
		Chromium, Total	19.6	5.3	15.2	94.1	1.0
		Copper, Total	34.3	14.8	19.0	102.6	1.0
		Mercury, Total	0.17	0.03	0.15	91.4	1.0
		Manganese, Total	391	317	38.0	193.9*	1.0
		Molybdenum, Total	69.6	0.59	76.0	90.8	1.0
		Nickel, Total	44.4	9.4	38.0	92.1	1.0
		Lead, Total	41.1	4.4	38.0	96.6	1.0
		Antimony, Total	21.9	0.23u	38.0	57.6	1.0
		Selenium, Total	137	0.46u	152	90.0	1.0
		Vanadium, Total	110	73.8	38.0	96.3	1.0
		Zinc, Total	86.0	50.8	38.0	92.6	1.0

Lionville Laboratory, Inc.

INORGANICS PRECISION REPORT 10/16/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR(REP)
-002REP	J17J35	Silver, Total	0.08u	0.08u	NC	1.0
		Arsenic, Total	1.9	2.0	5.1	1.0
		Boron, Total	1.8	1.3	32.3	1.0
		Barium, Total	71.4	81.8	13.6	1.0
		Beryllium, Total	0.24	0.19	21.0	2.0
		Cadmium, Total	0.04u	0.04u	NC	1.0
		Cobalt, Total	8.9	9.2	3.3	1.0
		Chromium, Total	5.3	5.8	9.0	1.0
		Copper, Total	14.8	15.7	5.9	1.0
		Mercury, Total	0.03	0.00u	~~NC~~ 200	1.0
		Manganese, Total	317	340	7.1 corrected value MA 10/16/08	1.0
		Molybdenum, Total	0.59	0.68	15.4	1.0
		Nickel, Total	9.4	10.0	6.2	1.0
		Lead, Total	4.4	5.0	12.8	1.0
		Antimony, Total	0.23u	0.24u	NC	1.0
		Selenium, Total	0.46u	0.49u	NC	1.0
		Vanadium, Total	73.8	77.2	4.5	1.0
		Zinc, Total	50.8	50.6	0.39	1.0

Lionville Laboratory, Inc.

INORGANICS LABORATORY CONTROL STANDARDS REPORT 10/16/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
LCS1	08L0361-LC1	Silver, LCS	47.7	50.0	MG/KG	95.4
		Arsenic, LCS	924	1000	MG/KG	92.4
		Boron, LCS	455	500	MG/KG	91.1
		Barium, LCS	482	500	MG/KG	96.3
		Beryllium, LCS	23.8	25.0	MG/KG	95.2
		Cadmium, LCS	23.2	25.0	MG/KG	92.8
		Cobalt, LCS	236	250	MG/KG	94.5
		Chromium, LCS	48.1	50.0	MG/KG	96.2
		Copper, LCS	121	125	MG/KG	96.5
		Manganese, LCS	73.1	75.0	MG/KG	97.5
		Molybdenum, LCS	472	500	MG/KG	94.5
		Nickel, LCS	190	200	MG/KG	94.9
		Lead, LCS	234	250	MG/KG	93.4
		Antimony, LCS	276	300	MG/KG	91.9
		Selenium, LCS	896	1000	MG/KG	89.6
		Vanadium, LCS	240	250	MG/KG	96.2
		Zinc, LCS	95.2	100	MG/KG	95.2
LCS1	08C0174-LC1	Mercury, LCS	5.0	4.7	MG/KG	107.2

Lionville Laboratory Incorporated

MERCURY PREPARATION

Logbook # 498

Analyst: TEB
Date: 9/30/08
Start Time/Temp: 1615 | 91°
End Time/Temp: 1645 | 95°

Instrument ID: HG3.1
Balance #: B29 /NA
Pipette Calibration (Daily) Y ✓

Prep Batch: 08C0174
Worksheet: HG100101
SOP No. ME-HgCVAA, Rev. 02

pH < 2 for Liquids? __ Yes NA 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	JC			10mL	50mL	
0.2 µg/L	C7	0.100				
1.0	C48	0.500				
2.0	DR	1.000				
5.0	3P	2.500				
10.0	H5	5.000				
ICV	W0	0.125	2.5			
CCV	514	0.250	5.0			
ICB/CCB	183					9.50L
MB1	290			0.30		PBS174 100.0
LC1	PF	*	*	0.30		LCSS174 ⊥
0809L173-001	3X			0.34		100.0
W1R	DX			0.33		⊥
W1S	L15	0.500	1.0	0.34		⊥
0809L139-001	537			0.30		99.98
W2	W7			0.33		99.67
W2R	SE			0.36		⊥
W2S	CB2	0.500	1.0	0.33		⊥
003	303			0.30		99.69
004	B6			0.36		99.47
005	BB			0.31		99.97
006	OLN			0.38		98.50
007	B			0.35		99.39
008	GR			0.35		99.53
009	31			0.30		99.85
010	JB			0.34		99.82
011	3C			0.36		99.67

Standard:	ID	Prep Date/Time
CAL/MS	R16077-78-14B	9/30/08 ~~0930~~ 0800
CV/CCV/LCS	US 6077-78-15A	⊥ TEB 9/30/08

Reviewed By/Date: [signature] 10/6/08

see book # 9368 for std traceability information

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

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

Lionville Laboratory
Incorporated

MERCURY PREPARATION

Logbook # 498

Analyst: JEB
Date: 9/30/08
Start Time/Temp:
End Time/Temp: see page 045

Instrument ID: HG3.1
Balance #: B29 / NA
Pipette Calibration (Daily) Y ✓

Prep Batch: 08C0174
Worksheet: HG100101
SOP No. ME-HgCVAA, Rev. 02

pH < 2 for Liquids? __ Yes NA 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.
0809L139-012	S			0.35	50mL	99.45
013	ST			0.35	↓	99.56
0809L187-001	PA			0.33	↓	R 94.09
001R	ET			0.30	↓	↓
001S	AH	0.500	1.0	0.30	↓	↓
002	JI			0.32	↓	98.87
003	SDS			0.36	↓	97.57
004	ZOS			0.30	↓	98.40
005	HH			0.31	↓	97.86
0809L188-001	NGO			0.34	↓	100.00
001R	PD			0.32	↓	↓
001S	TG	0.050	10.0	0.34	↓	↓

JEB 9/30/08

Standard:	ID	Prep Date/Time
ALMS		
CV/CCV/LCS	see page	045

Reviewed By/Date: [signature] 10/6/08

see book # 9368 for std traceability information

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

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

Lionville Laboratory Incorporated

Logbook #: 482

SAMPLE DIGESTION RECORD

SOP: L-SPI-3020 Rev. 00

Digestion Batch #: 08L0361
Date/Time Initiated: 10/2/08 1515
Date/Time Completed: 10/2/08 2100
Analyst(s): MW
Matrix: (Soil) Water Other:
Instr. Type: AA (ICP)
Parameters: See Tracking

(Digested) Undigested (circle one)
Balance #: B20
Balance Cal Verif: (Y) NA
Hot Plate Temp: 95°

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

BJC/TMW

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
0809L141-013		1.32gr	100 ml	<2	TO	coarse	brown, clay like	vegetation	
019		1.41gr						roots	RAD
020		1.35gr							
021		1.38gr							
022		1.37gr							
0809L139-001		1.44gr					Stream sand	N/A	
002		1.32gr				fine	gray, clay, sandy	roots	
002R		1.24gr							
002S	1.0 ml	1.32gr				fine	gray, clay sandy	roots	
003		1.33gr					light brown		
004		1.33gr							
005		1.31gr				coarse	black/tan, grayish		
006		1.33gr					brown		
007		1.33gr							
008		1.37gr							
009		1.37gr							
010		1.44gr							
011		1.41gr							
012		1.38gr					black/tan		
013		1.35gr					brown		
0809L200-001		1.33gr					soil		RAD ?
001R		1.34gr							
001S	1.0 ml *	1.36gr							
002		1.31gr						N/A	

Spiking IDs:
MS #: 8100-04-04
05
06
6072-78-07
LCS #: 08
09
10
11

Reagent IDs:
HNO_3 G11022
HCL G26054
H_2O_2 G15A18
1:1 HNO_3 9789-036-06
1:1 HCL

File ID#: IC036101 IC036102 IC0361

LIMS Transfer: (Y) N updated

Data Review By/Date: 10/9/08

* also 0.5 ml 6072-079-14 (P-)
0.5 ml 6072-078-01 (U-)
0.5 ml 6072-080-10 (Bi)

L-SPI-3020-A-0601

Lionville Laboratory Incorporated

Logbook #: 48

SAMPLE DIGESTION RECORD

SOP: L-SPI-3020 Rev. 00

Digestion Batch #: 08L0361
Date/Time Initiated:
Date/Time Completed:
Analyst(s):
Matrix: Soil Water Other:
Instr. Type: AA ICP
Parameters:
See page 087
Digested / Undigested (circle one)
Balance #:
Balance Cal Verif: Y NA
Hot Plate Temp:

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

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
08L0361-MB1		1.0 gm	100 ml	<2	TO	coarse	boiling chips		
LCS.	1.0 ml *	1.0 gm	↓	↓	↓	↓	↓		

MW 10/2/08

Spiking IDs:
MS #:
See page 087
LCS #:

Reagent IDs:
HNO_3
HCL
H_2O_2
1:1 HNO_3
1:1 HCL
See page 087

File ID#:
LIMS Transfer: Y N
Data Review By/Date:

onville Laboratory Use Only

08094139

Custody Transfer Record/Lab Work Request

Page 1 of 2

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

VLI

000000036

ent W.C. Hanford RC-075

. Final Proj. Sampling Date

ject# 60049-001-001-0001-00

ject Contact/Phone#

nville Laboratory Project Manager O. JOHNSON

SW846 Del STD TAT 15 Day

te Rec'd 9-18-09 Date Due 10-4-08

		A		B	C
Refrigerator #		3		3	3
#/Type Container	Liquid				
	Solid	16		16	16
Volume		250/125		500/250	60
Preservatives		—		—	—
ANALYSES REQUESTED	ORGANIC: VOA				
	ORGANIC: BNA				
	ORGANIC: Pest/PCB				
	ORGANIC: Herb				
	INORG: Metal				
	INORG: CN				
	INORG: IC Anions				
	INORG: Hex Chrome				
Lionville Laboratory Use Only		Met①		IC①IC②	ICR6

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

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	Met①	IC①IC②	ICR6
001	J17J34			Soil	9-17-08	1241	X		X
002	J17J35					1341	X	X	X
003	J17J36					1344	X	X	X
004	J17J37					1348	X	X	X
005	J17J38					1445	X	X	X
006	J17J39					1449	X	X	X
007	J17J40					1419	X	X	X
008	J17J41					1426	X	X	X
009	J17J42					1319	X	X	X
010	J17J43					1316	X	X	X

ecial Instructions: Hold Met. Rec'd in 125 ml G. Run Matrix QC. ICR vials Rec'd in 250 ml G.

met① = RCRA + Ni, Mo, Mn, Sb, Be, B, Co, Cu, V, Zn

IC① = Cl, Fl, SO4, PO4, NO2, NO3

Special Instructions:

1.
2.
3.
4.
5.
6.

Relinquished by	Received by	Date	Time
[illegible]	[illegible]	9/19/08	0940

Relinquished by	Received by	Date	Time

Relinquished by	Received by	Date	Time

ORIGINAL REWRITTEN "COMPOSITE WASTE"

onville Laboratory Use Only

08096 139

Custody Transfer Record/Lab Work Request

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

LVLI

000000037

ent W.C. Hanford RC-075

:. Final Proj. Sampling Date

ject# Sealy 1

ject Contact/Phone#

nville Laboratory Project Manager O. JOHNSON

Del TAT

te Rec'd Date Due

Refrigerator #									A 3		B 3	C 3					
#/Type Container	Liquid / Solid								16		16	16					
Volume									250		125	60					
Preservatives									—		—	—					
ANALYSES REQUESTED		ORGANIC							INORG								
		VOA	BNA	Pest/PCB	Herb				TC Metal Hg	CN	TC Cl, NO3	Hg					

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

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	Lionville Laboratory Use Only														
														Metal		TCL	ICRG				
011	J17J44			Soil	9-17-08	1309								X		X	X				
012	J17J45					1452								X		X	X				
013	J17J46					1426								X		X	X				

ecial Instructions:

Special Instructions:

1.
2.
3.
4.
5.
6.

Relinquished by	Received by	Date	Time
		9/19/08	0940

Relinquished by	Received by	Date	Time

Relinquished by	Received by	Date	Time

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-075-017	Page 1 of 3

ollector SEC D.W.Shea/subcontractor D. RIOS	Company Contact D.W.Shea	Telephone No. 521-6014	Project Coordinator KESSNER, JH
Price Code 8K	Data Turnaround 15 days		
roject Designation 100-D/DR Burial Grounds & Remaining Sites - Soil Full Prot	Sampling Location 120-D-21, Verification I		SAF No. RC-075
e Chest No. GRP-03-021	Field Logbook No. EL-1607-4	COA R120D22000	Method of Shipment Fed EX
hipped To EBERLINE SERVICES / KONVILLE	Offsite Property No. see OPSC A080353		Bill of Lading/Air Bill No. SEE OSPC

'OSSIBLE SAMPLE HAZARDS/REMARKS

Vone known

Special Handling and/or Storage

Preservation	None	Cool 4C	Cool 4C									
Type of Container	G/P	G/P	G/P									
No. of Container(s)	1	1	1									
Volume	250mL	60mL	125mL									
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Chromium Hex - 7196	IC Anions - 300.0; pH (Soil) - 9045									
Sample No. / Matrix * / Sample Date / Sample Time												
17J34 / SOIL / 9/17/08 / 1241	X	X										
17J35 / SOIL / ↓ / 1341	X	X	X									
17J36 / SOIL / ↓ / 1344	X	X	X									
17J37 / SOIL / ↓ / 1348	X	X	X									
17J38 / SOIL / ↓ / 1445	X	X	X									

CHAIN OF POSSESSION	Date/Time	Sign/Print Names: Received By/Stored In	Date/Time
linquished By/~~Removed From~~ [signature]	9-17-08 1459	Received By/Stored In DWSHEA DWSHEA	9/17/08 1459
linquished By/Removed From DWSHEA DWSHEA	9/17/08 1735	Received By/Stored In Fridge 3A	9/17/08 1735
linquished By/Removed ~~From~~ Fridge 3A/J.E. Bernhard	Date/Time 0955 9-18-08	Received By/Stored ~~In~~ J.E. Bernhard	Date/Time 0955 9-18-08
linquished By/Removed ~~From~~ J.E. Bernhard WCH	Date/Time 1000 9-18-08	Received By/Stored In FED EX	Date/Time
linquished By/Removed From FED EX	Date/Time 9-19-08 0940	Received By/Stored In [signature]	Date/Time 9-19-08 0940
linquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010 (Client List) [~~Aluminum~~, Antimony, Arsenic, Barium, Beryllium, ~~Bismuth~~, Boron, Cadmium, ~~Calcium~~, Chromium, Cobalt, Copper, ~~Iron~~, Lead, ~~Lithium, Magnesium~~, Manganese, Molybdenum, Nickel, ~~Phosphorus, Potassium~~, Selenium, ~~Silicon~~, Silver, ~~Sodium, Strontium, Thallium, Tin, Uranium~~, Vanadium, Zinc] and Hg via CVAA DWSHEA 9/17/08

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
SL=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

ABORATORY SECTION	Received By	Title	Date/Time
INAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

CH-EE-011

000000038

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-075-017

Collector: D.W.Shea/subcontractor SEC D. Rios	Company Contact: D.W.Shea	Telephone No.: 521-6014	Project Coordinator: KESSNER, JH
Price Code: 8K	Data Turnaround: 15 days		
Project Designation: 100-D/DR Burial Grounds & Remaining Sites - Soil Full Prot	Sampling Location: 120-D-21, Verification I		SAF No.: RC-075
Ice Chest No.: GRP-03-021	Field Logbook No.: EL-1607-4	COA: R120D22000	Method of Shipment: Fed EX
Shipped To: EBERLINE SERVICES / JACKSONVILLE	Offsite Property No.: A080353 see OPSC		Bill of Lading/Air Bill No.: SEE OSR

POSSIBLE SAMPLE HAZARDS/REMARKS

None known

Special Handling and/or Storage

SAMPLE ANALYSIS

			Preservation	None	Cool 4C	Cool 4C						
			Type of Container	G/P	G/P	G/P						
			No. of Container(s)	1	1	1						
			Volume	250mL	60mL	125mL						
				See item (1) in Special Instructions.	Chromium Hex - 7196	IC Anions - 300.0; pH (Soil) - 9045						
Sample No.	Matrix *	Sample Date	Sample Time									
17J39	SOIL	9/17/08	1449	X	X	X						
17J40	SOIL		1419	X	X	X						
17J41	SOIL		1426	X	X	X						
17J42	SOIL		1319	X	X	X						
17J43	SOIL		1316	X	X	X						

CHAIN OF POSSESSION	Date/Time	Sign/Print Names: Received By/Stored In	Date/Time
Relinquished By/Removed From: [signature]	9-17-08 1459	Received By/Stored In: DWSHEA	9/17/08 1459
Relinquished By/Removed From: DWSHEA	9/17/08 1735	Received By/Stored In: Fridge 3A	9/17/08 1735
Relinquished By/Removed From: Fridge 3A / J.E. Bernhard	9-18-08 0955	Received By/Stored In: J.E. Bernhard	9-18-08 0955
Relinquished By/Removed From: J.E. Bernhard UPS	9-18-08 1000	Received By/Stored In: FED EX	
Relinquished By/Removed From: [signature]	9-19-08 0940	Received By/Stored In: [signature]	9-19-08 0940
Relinquished By/Removed From:		Received By/Stored In:	

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010 (Client List) [~~Aluminum,~~ Antimony, Arsenic, Barium, Beryllium, ~~Bismuth,~~ Boron, Cadmium, ~~Calcium~~, Chromium, Cobalt, Copper, ~~Iron,~~ Lead, ~~Lithium, Magnesium~~, Manganese, Molybdenum, Nickel, ~~Phosphorus, Potassium~~, Selenium, ~~Silicon,~~ Silver, ~~Sodium, Strontium, Thallium, Tin, Uranium,~~ Vanadium, Zinc] and Hg via CVAA DWShea 9/17/08

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
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

CH-EE-011

000000039

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-075-017	Page 3 of 3

ollector D.W.Shea/subcontractor SEE DALLAS RIOS	Company Contact D.W.Shea	Telephone No. 521-6014	Project Coordinator KESSNER, JH
Price Code SK	Data Turnaround 10 days		
roject Designation 100-D/DR Burial Grounds & Remaining Sites - Soil Full Prot	Sampling Location 120-D-21, Verification I	SAF No. RC-075	
e Chest No. GRP-03-081	Field Logbook No. EL-1607-4	COA R120D22000	Method of Shipment Fed EX
hipped To EBERLINE SERVICES KLONVILLE	Offsite Property No. seee OPSC A080353	Bill of Lading/Air Bill No. SEE OSPC	

'OSSIBLE SAMPLE HAZARDS/REMARKS

Vone known

Special Handling and/or Storage

Preservation	None	Cool 4C	Cool 4C								
Type of Container	G/P	G/P	G/P								
No. of Container(s)	1	1	1								
Volume	250mL	60mL	125mL								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Chromium Hex - 7196	IC Anions - 300.0; pH (Soil) - 9045								
Sample No. / Matrix * / Sample Date / Sample Time											
17J44 / SOIL / 9/17/08 / 1309	X	X	X								
17J45 / SOIL / ↓ / 1452	X	X	X								
17J46 / SOIL / ↓ / 1426	X	X	X								

CHAIN OF POSSESSION	Sign/Print Names	
linquished By/Removed From	Date/Time 1459 9-17-08	Received By/Stored In DWSHEA DWSHEA 9/17/08 1459 Date/Time
linquished By/Removed From DWSHEA DWSHEA	Date/Time 9/17/08 1735	Received By/Stored In Fridge 3A 9/17/08 1735 Date/Time
linquished By/Removed From Fridge 3A/J.E. Bernhard	Date/Time 0955 9-18-08	Received By/Stored In J.E. Bernhard Date/Time 0955 9-18-08
linquished By/Removed From J.E. Bernhard	Date/Time 1000 9-18-08	Received By/Stored In FED EX Date/Time
linquished By/Removed From FEDEX	Date/Time 9-19-08 0940	Received By/Stored In Date/Time 9-19-08 0940
linquished By/Removed From	Date/Time	Received By/Stored In Date/Time

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010 (Client List) {~~Aluminum~~, Antimony, Arsenic, Barium, Beryllium, ~~Bismuth~~, Boron, Cadmium, ~~Calcium~~, Chromium, Cobalt, Copper, ~~Iron~~, Lead, ~~Lithium, Magnesium~~, Manganese, Molybdenum, Nickel, ~~Phosphorus, Potassium~~, Selenium, ~~Silicon~~, Silver, ~~Sodium, Strontium, Thallium, Tin, Uranium~~, Vanadium, Zinc} and Hg via CVAA DWSHEA 9/17/08

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

Matrix *
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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

CH-EE-011

000000040

Lionville Laboratory Incorporated

SAMPLE RECEIPT CHECKLIST (SRC)

CLIENT: W.C. Hanford

Project/SAP/SOW/Release #: RC-075

Date: 9/19/08

LvLI Batch #: 0809L139

Sample Custodian: [signature]

NOTE: EXPLAIN ALL DISCREPANCIES

1. Samples Hand Delivered or Shipped?	Carrier Fed Ex.		Airbill # 7905 8004 3674
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	°C	Cooler # GRP-03-021
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	#009 Met. Rec'd in 125 G/IC Anions Rec'd in 250 ML G.
11. Samples properly preserved? (If #5 is no, then this is no.)	☑ Yes	☐ No	
12. Samples received within hold times?	☑ Yes	☐ No	
Short holds taken to wet lab?	☐ Yes	☐ No	☑ N/A
13. VOA, TOC, TOX free of headspace?	☐ Yes	☐ No	☑ N/A
14. QC stickers placed on bottles designated by client?	☐ Yes	☐ No	☑ N/A
15. Shipment meets LvLI Sample Acceptance Policy? (Identify all bottles that do not meet the policy, which is on the reverse of this page.)	☑ Yes [illegible] 10-30-08	☑ No	See #10
16. Project Manager contacted concerning any discrepancies?	☑ Yes	☐ No	☐ N/A

Person Contacted O. Johnson

Date 9-19-08

LvLI

000000041

RECEIVED
OCT 2008

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
WC-HANFORD RC-075 K1342

DATE RECEIVED: 09/19/08 LVL LOT # :0809L139

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
J17J34						
% SOLIDS	001	S	08L%S078	09/17/08	09/22/08	09/23/08
CHROMIUM VI	001	S	08LVI064	09/17/08	09/24/08	09/24/08
J17J35						
% SOLIDS	002	S	08L%S078	09/17/08	09/22/08	09/23/08
CHLORIDE BY IC	002	S	08LICS80	09/17/08	10/16/08	10/16/08
FLUORIDE BY IC	002	S	08LICS80	09/17/08	10/16/08	10/16/08
NITRITE BY IC	002	S	08LICS80	09/17/08	10/16/08	10/16/08
NITRATE BY IC	002	S	08LICS80	09/17/08	10/16/08	10/16/08
PHOSPHATE BY IC	002	S	08LICS80	09/17/08	10/16/08	10/16/08
CHROMIUM VI	002	S	08LVI064	09/17/08	09/24/08	09/24/08
CHROMIUM VI	002 REP	S	08LVI064	09/17/08	09/24/08	09/24/08
CHROMIUM VI	002 MS	S	08LVI064	09/17/08	09/24/08	09/24/08
CHROMIUM VI	002 MSD	S	08LVI064	09/17/08	09/24/08	09/24/08
SULFATE BY IC	002	S	08LICS80	09/17/08	10/16/08	10/17/08
NITRITE	002	S	08LN3S31	09/17/08	10/13/08	10/13/08
NITRATE	002	S	08LN3S31	09/17/08	10/13/08	10/13/08
PH	002	S	08LPH049	09/17/08	09/22/08	09/22/08
PH	002 REP	S	08LPH049	09/17/08	09/22/08	09/22/08
J17J36						
% SOLIDS	003	S	08L%S078	09/17/08	09/22/08	09/23/08
CHLORIDE BY IC	003	S	08LICS80	09/17/08	10/16/08	10/16/08
FLUORIDE BY IC	003	S	08LICS80	09/17/08	10/16/08	10/16/08
NITRITE BY IC	003	S	08LICS80	09/17/08	10/16/08	10/16/08
NITRATE BY IC	003	S	08LICS80	09/17/08	10/16/08	10/16/08
PHOSPHATE BY IC	003	S	08LICS80	09/17/08	10/16/08	10/16/08
CHROMIUM VI	003	S	08LVI064	09/17/08	09/24/08	09/24/08
SULFATE BY IC	003	S	08LICS80	09/17/08	10/16/08	10/17/08
NITRITE	003	S	08LN3S31	09/17/08	10/13/08	10/13/08
NITRATE	003	S	08LN3S31	09/17/08	10/13/08	10/13/08
PH	003	S	08LPH049	09/17/08	09/22/08	09/22/08
J17J37						
% SOLIDS	004	S	08L%S078	09/17/08	09/22/08	09/23/08

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
WC-HANFORD RC-075 K1342

DATE RECEIVED: 09/19/08 LVL LOT # :0809L139

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
CHLORIDE BY IC	004	S	08LICS80	09/17/08	10/16/08	10/16/08
CHLORIDE BY IC	004 REP	S	08LICT80	09/17/08	10/16/08	10/16/08
CHLORIDE BY IC	004 MS	S	08LICT80	09/17/08	10/16/08	10/16/08
FLUORIDE BY IC	004	S	08LICS80	09/17/08	10/16/08	10/16/08
FLUORIDE BY IC	004 REP	S	08LICT80	09/17/08	10/16/08	10/16/08
FLUORIDE BY IC	004 MS	S	08LICT80	09/17/08	10/16/08	10/16/08
NITRITE BY IC	004	S	08LICS80	09/17/08	10/16/08	10/16/08
NITRITE BY IC	004 REP	S	08LICT80	09/17/08	10/16/08	10/16/08
NITRITE BY IC	004 MS	S	08LICT80	09/17/08	10/16/08	10/16/08
NITRATE BY IC	004	S	08LICS80	09/17/08	10/16/08	10/16/08
NITRATE BY IC	004 REP	S	08LICT80	09/17/08	10/16/08	10/16/08
NITRATE BY IC	004 MS	S	08LICT80	09/17/08	10/16/08	10/16/08
PHOSPHATE BY IC	004	S	08LICS80	09/17/08	10/16/08	10/16/08
PHOSPHATE BY IC	004 REP	S	08LICT80	09/17/08	10/16/08	10/16/08
PHOSPHATE BY IC	004 MS	S	08LICT80	09/17/08	10/16/08	10/16/08
CHROMIUM VI	004	S	08LVI064	09/17/08	09/24/08	09/24/08
SULFATE BY IC	004	S	08LICS80	09/17/08	10/16/08	10/16/08
SULFATE BY IC	004 REP	S	08LICT80	09/17/08	10/16/08	10/16/08
SULFATE BY IC	004 MS	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRITE	004	S	08LN3S31	09/17/08	10/13/08	10/13/08
NITRATE	004	S	08LN3S31	09/17/08	10/13/08	10/13/08
PH	004	S	08LPH049	09/17/08	09/22/08	09/22/08
J17J38						
% SOLIDS	005	S	08L%S078	09/17/08	09/22/08	09/23/08
CHLORIDE BY IC	005	S	08LICT80	09/17/08	10/16/08	10/17/08
FLUORIDE BY IC	005	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRITE BY IC	005	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRATE BY IC	005	S	08LICT80	09/17/08	10/16/08	10/17/08
PHOSPHATE BY IC	005	S	08LICT80	09/17/08	10/16/08	10/17/08
CHROMIUM VI	005	S	08LVI064	09/17/08	09/24/08	09/24/08
SULFATE BY IC	005	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRITE	005	S	08LN3S31	09/17/08	10/13/08	10/13/08
NITRATE	005	S	08LN3S31	09/17/08	10/13/08	10/13/08
PH	005	S	08LPH049	09/17/08	09/22/08	09/22/08
J17J39						
% SOLIDS	006	S	08L%S078	09/17/08	09/22/08	09/23/08

Lionville Laboratory, Inc.
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WC-HANFORD RC-075 K1342

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CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
CHLORIDE BY IC	006	S	08LICT80	09/17/08	10/16/08	10/17/08
FLUORIDE BY IC	006	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRITE BY IC	006	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRATE BY IC	006	S	08LICT80	09/17/08	10/16/08	10/17/08
PHOSPHATE BY IC	006	S	08LICT80	09/17/08	10/16/08	10/17/08
CHROMIUM VI	006	S	08LVI064	09/17/08	09/24/08	09/24/08
SULFATE BY IC	006	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRITE	006	S	08LN3S31	09/17/08	10/13/08	10/13/08
NITRATE	006	S	08LN3S31	09/17/08	10/13/08	10/13/08
PH	006	S	08LPH049	09/17/08	09/22/08	09/22/08
J17J40						
% SOLIDS	007	S	08L%S078	09/17/08	09/22/08	09/23/08
CHLORIDE BY IC	007	S	08LICT80	09/17/08	10/16/08	10/17/08
FLUORIDE BY IC	007	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRITE BY IC	007	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRATE BY IC	007	S	08LICT80	09/17/08	10/16/08	10/17/08
PHOSPHATE BY IC	007	S	08LICT80	09/17/08	10/16/08	10/17/08
CHROMIUM VI	007	S	08LVI064	09/17/08	09/24/08	09/24/08
SULFATE BY IC	007	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRITE	007	S	08LN3S31	09/17/08	10/13/08	10/13/08
NITRATE	007	S	08LN3S31	09/17/08	10/13/08	10/13/08
PH	007	S	08LPH049	09/17/08	09/22/08	09/22/08
J17J41						
% SOLIDS	008	S	08L%S078	09/17/08	09/22/08	09/23/08
CHLORIDE BY IC	008	S	08LICT80	09/17/08	10/16/08	10/17/08
FLUORIDE BY IC	008	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRITE BY IC	008	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRATE BY IC	008	S	08LICT80	09/17/08	10/16/08	10/17/08
PHOSPHATE BY IC	008	S	08LICT80	09/17/08	10/16/08	10/17/08
CHROMIUM VI	008	S	08LVI064	09/17/08	09/24/08	09/24/08
SULFATE BY IC	008	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRITE	008	S	08LN3S31	09/17/08	10/13/08	10/13/08
NITRATE	008	S	08LN3S31	09/17/08	10/13/08	10/13/08
PH	008	S	08LPH049	09/17/08	09/22/08	09/22/08

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
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CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
J17J42						
% SOLIDS	009	S	08L%S078	09/17/08	09/22/08	09/23/08
CHLORIDE BY IC	009	S	08LICT80	09/17/08	10/16/08	10/17/08
FLUORIDE BY IC	009	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRITE BY IC	009	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRATE BY IC	009	S	08LICT80	09/17/08	10/16/08	10/17/08
PHOSPHATE BY IC	009	S	08LICT80	09/17/08	10/16/08	10/17/08
CHROMIUM VI	009	S	08LVI064	09/17/08	09/24/08	09/24/08
SULFATE BY IC	009	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRITE	009	S	08LN3S31	09/17/08	10/13/08	10/13/08
NITRATE	009	S	08LN3S31	09/17/08	10/13/08	10/13/08
PH	009	S	08LPH049	09/17/08	09/22/08	09/22/08
J17J43						
% SOLIDS	010	S	08L%S078	09/17/08	09/22/08	09/23/08
CHLORIDE BY IC	010	S	08LICT80	09/17/08	10/16/08	10/17/08
FLUORIDE BY IC	010	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRITE BY IC	010	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRATE BY IC	010	S	08LICT80	09/17/08	10/16/08	10/17/08
PHOSPHATE BY IC	010	S	08LICT80	09/17/08	10/16/08	10/17/08
CHROMIUM VI	010	S	08LVI064	09/17/08	09/24/08	09/24/08
SULFATE BY IC	010	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRITE	010	S	08LN3S31	09/17/08	10/13/08	10/13/08
NITRATE	010	S	08LN3S31	09/17/08	10/13/08	10/13/08
PH	010	S	08LPH049	09/17/08	09/22/08	09/22/08
J17J44						
% SOLIDS	011	S	08L%S078	09/17/08	09/22/08	09/23/08
CHLORIDE BY IC	011	S	08LICT80	09/17/08	10/16/08	10/17/08
FLUORIDE BY IC	011	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRITE BY IC	011	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRATE BY IC	011	S	08LICT80	09/17/08	10/16/08	10/17/08
PHOSPHATE BY IC	011	S	08LICT80	09/17/08	10/16/08	10/17/08
CHROMIUM VI	011	S	08LVI064	09/17/08	09/24/08	09/24/08

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
WC-HANFORD RC-075 K1342

DATE RECEIVED: 09/19/08 LVL LOT # :0809L139

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SULFATE BY IC	011	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRITE	011	S	08LN3S31	09/17/08	10/13/08	10/13/08
NITRATE	011	S	08LN3S31	09/17/08	10/13/08	10/13/08
PH	011	S	08LPH049	09/17/08	09/22/08	09/22/08
J17J45						
% SOLIDS	012	S	08L%S078	09/17/08	09/22/08	09/23/08
CHLORIDE BY IC	012	S	08LICT80	09/17/08	10/16/08	10/17/08
FLUORIDE BY IC	012	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRITE BY IC	012	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRATE BY IC	012	S	08LICT80	09/17/08	10/16/08	10/17/08
PHOSPHATE BY IC	012	S	08LICT80	09/17/08	10/16/08	10/17/08
CHROMIUM VI	012	S	08LVI064	09/17/08	09/24/08	09/24/08
SULFATE BY IC	012	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRITE	012	S	08LN3S31	09/17/08	10/13/08	10/13/08
NITRATE	012	S	08LN3S31	09/17/08	10/13/08	10/13/08
PH	012	S	08LPH049	09/17/08	09/22/08	09/22/08
J17J46						
% SOLIDS	013	S	08L%S078	09/17/08	09/22/08	09/23/08
% SOLIDS	013 REP	S	08L%S078	09/17/08	09/22/08	09/23/08
CHLORIDE BY IC	013	S	08LICT80	09/17/08	10/16/08	10/17/08
FLUORIDE BY IC	013	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRITE BY IC	013	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRATE BY IC	013	S	08LICT80	09/17/08	10/16/08	10/17/08
PHOSPHATE BY IC	013	S	08LICT80	09/17/08	10/16/08	10/17/08
CHROMIUM VI	013	S	08LVI064	09/17/08	09/24/08	09/24/08
SULFATE BY IC	013	S	08LICT80	09/17/08	10/16/08	10/17/08
NITRITE	013	S	08LN3S31	09/17/08	10/13/08	10/13/08
NITRITE	013 REP	S	08LN3S31	09/17/08	10/13/08	10/13/08
NITRITE	013 MS	S	08LN3S31	09/17/08	10/13/08	10/13/08
NITRATE	013	S	08LN3S31	09/17/08	10/13/08	10/13/08
NITRATE	013 REP	S	08LN3S31	09/17/08	10/13/08	10/13/08
NITRATE	013 MS	S	08LN3S31	09/17/08	10/13/08	10/13/08
PH	013	S	08LPH049	09/17/08	09/22/08	09/22/08

LAB QC:

CHROMIUM VI	MB1	S	08LVI064	N/A	09/24/08	09/24/08

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WC-HANFORD RC-075 K1342

DATE RECEIVED: 09/19/08 LVL LOT # :0809L139

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
CHROMIUM VI	MB1 BS	S	08LVI064	N/A	09/24/08	09/24/08
CHROMIUM VI	MB1 BSD	S	08LVI064	N/A	09/24/08	09/24/08
CHLORIDE BY IC	MB1	S	08LICS80	N/A	10/16/08	10/16/08
CHLORIDE BY IC	MB1 BS	S	08LICS80	N/A	10/16/08	10/16/08
FLUORIDE BY IC	MB1	S	08LICS80	N/A	10/16/08	10/16/08
FLUORIDE BY IC	MB1 BS	S	08LICS80	N/A	10/16/08	10/16/08
NITRITE BY IC	MB1	S	08LICS80	N/A	10/16/08	10/16/08
NITRITE BY IC	MB1 BS	S	08LICS80	N/A	10/16/08	10/16/08
NITRATE BY IC	MB1	S	08LICS80	N/A	10/16/08	10/16/08
NITRATE BY IC	MB1 BS	S	08LICS80	N/A	10/16/08	10/16/08
PHOSPHATE BY IC	MB1	S	08LICS80	N/A	10/16/08	10/16/08
PHOSPHATE BY IC	MB1 BS	S	08LICS80	N/A	10/16/08	10/16/08
SULFATE BY IC	MB1	S	08LICS80	N/A	10/16/08	10/16/08
SULFATE BY IC	MB1 BS	S	08LICS80	N/A	10/16/08	10/16/08
NITRITE	MB1	S	08LN3S31	N/A	10/13/08	10/13/08
NITRITE	MB1 BS	S	08LN3S31	N/A	10/13/08	10/13/08
NITRITE	MB1 BSD	S	08LN3S31	N/A	10/13/08	10/13/08
NITRATE	MB1	S	08LN3S31	N/A	10/13/08	10/13/08
NITRATE	MB1 BS	S	08LN3S31	N/A	10/13/08	10/13/08
NITRATE	MB1 BSD	S	08LN3S31	N/A	10/13/08	10/13/08
CHLORIDE BY IC	MB1	S	08LICT80	N/A	10/16/08	10/16/08
CHLORIDE BY IC	MB1 BS	S	08LICT80	N/A	10/16/08	10/16/08
FLUORIDE BY IC	MB1	S	08LICT80	N/A	10/16/08	10/16/08
FLUORIDE BY IC	MB1 BS	S	08LICT80	N/A	10/16/08	10/16/08
NITRITE BY IC	MB1	S	08LICT80	N/A	10/16/08	10/16/08
NITRITE BY IC	MB1 BS	S	08LICT80	N/A	10/16/08	10/16/08
NITRATE BY IC	MB1	S	08LICT80	N/A	10/16/08	10/16/08
NITRATE BY IC	MB1 BS	S	08LICT80	N/A	10/16/08	10/16/08
PHOSPHATE BY IC	MB1	S	08LICT80	N/A	10/16/08	10/16/08
PHOSPHATE BY IC	MB1 BS	S	08LICT80	N/A	10/16/08	10/16/08
SULFATE BY IC	MB1	S	08LICT80	N/A	10/16/08	10/16/08
SULFATE BY IC	MB1 BS	S	08LICT80	N/A	10/16/08	10/16/08

LIONVILLE LABORATORY INC.

Analytical Report

Client: WC-HANFORD RC-075 K1342
LVL#: 0809L139

W.O.#: 60049-001-001-0001-00
Date Received: 09-19-08

INORGANIC NARRATIVE

1. This narrative covers the analyses of 13 soil samples.

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

   Lionville Lab (LvL) is NELAP accredited by the State of Pennsylvania. For a complete list of accrediting authorities and the corresponding analytes/methods, please contact your Project Manager. LvL certifies that all test results meet the requirements of NELAC with any exception noted in the following statements.

3. Sample holding times as required by the method and/or contract were met.

4. The results presented in this report are derived from samples that met LvLI's sample acceptance policy.

5. The method blanks were within the method criteria with the exception of 08LICS80-MB1 for Sulfate that was above the reporting limit of 2.5 mg/Kg at 3.5 mg/Kg.

6. The Laboratory Control Samples (LCS) were within the laboratory control limits with the exception of 08LICS80 for Sulfate that was below the 90-110% control limits at 89.3%. The duplicate LCS for Nitrate and Nitrite were within the 20% Relative Percent Difference (RPD) control limit.

7. The matrix spike recoveries were within the 75-125% control limits.

8. The replicate analyses were within the 20% RPD control limit.

9. Results for soil samples are reported on a dry weight basis.

10. 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 package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Iain Daniels
Laboratory Manager
Lionville Laboratory

10/22/08
Date

njp\i09-139

The results presented in this report relate to the analytical testing and conditions of the samples upon 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 24 pages.

Lionville Laboratory Incorporated

WET CHEMISTRY

METHODS GLOSSARY FOR SOIL/SOLIDS SAMPLE ANALYSIS

	ASTM	SW846	OTHER
% Ash	__ D2216-80		
% Moisture	__ D2216-80		__ ILMO4.0 (e)
% Solids	✓ D2216-80		__ ILMO4.0 (e)
% Volatile Solids	__ D2216-80		
ASTM Extraction in Water	__ D3987-81/85		
BTU	__ D240-87		
CEC		__ 9081	__ c
Chromium VI		✓ 3060A/7196A	
Corrosivity ___ by coupon ___ by pH		__ 1110(mod) __ 9045C	
Cyanide, Total		__ 9010B	__ ILMO4.0 (e)
Cyanide, Reactive		__ Section 7.3/9014	
Halides, Extractable Organic		__ 9020B	__ EPA 600/4/84-008
Halides, Total		__ 9020B	__ EPA 600/4/84-008
EP Toxicity		__ 1310A	
Flash Point		__ 1010	
Ignitability		__ 1010	
Oil & Grease		__ 9071A	
Carbon, Total Organic		__ 9060	__ Lloyd Kahn (mod)
Oxygen Bomb Prep for Anions	__ D240-87(mod)	__ 5050	
Petroleum Hydrocarbons, Total Recoverable		__ 9071	__ EPA 418.1
pH, Soil		✓ 9045~~C~~D 10-21-05	
Sulfide, Reactive		__ Section 7.3/9030B	
Sulfide		__ 9030B(mod)	
Specific Gravity	__ D1429-76C/	__ D5057-90	
Sulfur, Total		__ 9056	
Synthetic Preparation Leach		__ 1312	
Paint Filter		__ 9095A	

Other: Bromide, Chloride, Fluoride, Nitrite, **Method:** } EPA 300.0

Other: Nitrate, Phosphate, Sulfate **Method** }

Nitrate as N
Nitrite as N } EPA 353.2 (mod.)

L-WI-034/B-01/01

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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
LC = Laboratory Control Sample.
NC = Not calculated.

A suffix of -R, -S, or -T following these codes indicate a replicate, spike or sample duplicate analysis respectively.

ANALYTICAL WET CHEMISTRY METHODS

1. ASTM Standard Methods.

2. USEPA Methods for Chemical Analysis of Water and Wastes (USEPA 600/4-79-020).

3. Test Methods for Evaluating Solid Waste (USEPA SW-846).

a. Standard Methods for the Examination of Water and Waste, 16 ed, (1983).

b. Standard Methods for the Examination of Water and Waste, 17 ed, (1989)/18ed (1992).

c. Method of Soil Analysis, Part 1, Physical and Mineralogical Methods, 2nd ed, (1986).

d. Method of Soil Analysis, Part 2, Chemical and Microbiological Properties, Am. Soc. Agron., Madison, WI (1965).

e. USEPA Contract Laboratory Program, Statement of Work for Inorganic Analysis.

f. Code of Federal Regulations.

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 10/21/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-001	J17J34	% Solids	100	%	0.01	1.0
		Chromium VI	0.20 u	MG/KG	0.20	1.0
-002	J17J35	% Solids	99.7	%	0.01	1.0
		Chloride by IC	6.4	MG/KG	2.4	1.0
		Fluoride by IC	2.4 u	MG/KG	2.4	1.0
		Nitrite by IC	2.41 u	MG/KG	2.41	1.0
		Nitrate by IC	2.41 u	MG/KG	2.41	1.0
		Phosphate by IC	2.4 u	MG/KG	2.4	1.0
		Chromium VI	0.20 u	MG/KG	0.20	1.0
		Sulfate by IC	166	MG/KG	12.0	5.0
		Nitrite, as N	0.15 u	MG/KG	0.15	1.0
		Nitrate, as N	0.32	MG/KG	0.15	1.0
		pH	8.2	SOIL PH	0.01	1.0
-003	J17J36	% Solids	99.7	%	0.01	1.0
		Chloride by IC	8.5	MG/KG	2.5	1.0
		Fluoride by IC	2.5 u	MG/KG	2.5	1.0
		Nitrite by IC	2.55 u	MG/KG	2.55	1.0
		Nitrate by IC	9.91	MG/KG	2.55	1.0
		Phosphate by IC	2.5 u	MG/KG	2.5	1.0
		Chromium VI	0.20 u	MG/KG	0.20	1.0
		Sulfate by IC	874	MG/KG	51.0	20.0
		Nitrite, as N	0.13 u	MG/KG	0.13	1.0
		Nitrate, as N	1.2	MG/KG	0.13	1.0
		pH	8.2	SOIL PH	0.01	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 10/21/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139
WORK ORDER: 60049-001-001-0001-00

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
-004	J17J37	% Solids	99.5		%	0.01	1.0
		Chloride by IC	2.7		MG/KG	2.3	1.0
		Fluoride by IC	2.3	u	MG/KG	2.3	1.0
		Nitrite by IC	2.32	u	MG/KG	2.32	1.0
		Nitrate by IC	2.32	u	MG/KG	2.32	1.0
		Phosphate by IC	2.9		MG/KG	2.3	1.0
		Chromium VI	0.20	u	MG/KG	0.20	1.0
		Sulfate by IC	55.4		MG/KG	2.3	1.0
		Nitrite, as N	0.16	u	MG/KG	0.16	1.0
		Nitrate, as N	0.29		MG/KG	0.16	1.0
		pH	8.6		SOIL PH	0.01	1.0
-005	J17J38	% Solids	100		%	0.01	1.0
		Chloride by IC	2.2	u	MG/KG	2.2	1.0
		Fluoride by IC	2.2	u	MG/KG	2.2	1.0
		Nitrite by IC	2.23	u	MG/KG	2.23	1.0
		Nitrate by IC	2.23	u	MG/KG	2.23	1.0
		Phosphate by IC	2.2	u	MG/KG	2.2	1.0
		Chromium VI	0.20	u	MG/KG	0.20	1.0
		Sulfate by IC	16.3		MG/KG	2.2	1.0
		Nitrite, as N	0.24	u	MG/KG	0.24	1.0
		Nitrate, as N	0.24	u	MG/KG	0.24	1.0
		pH	8.4		SOIL PH	0.01	1.0
-006	J17J39	% Solids	98.5		%	0.01	1.0
		Chloride by IC	2.4	u	MG/KG	2.4	1.0
		Fluoride by IC	2.4	u	MG/KG	2.4	1.0
		Nitrite by IC	2.36	u	MG/KG	2.36	1.0
		Nitrate by IC	2.36	u	MG/KG	2.36	1.0
		Phosphate by IC	2.4	u	MG/KG	2.4	1.0
		Chromium VI	0.22		MG/KG	0.20	1.0
		Sulfate by IC	103		MG/KG	2.4	1.0
		Nitrite, as N	0.19	u	MG/KG	0.19	1.0
		Nitrate, as N	0.19		MG/KG	0.19	1.0
		pH	8.7		SOIL PH	0.01	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 10/21/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139
WORK ORDER: 60049-001-001-0001-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-007	J17J40	% Solids	99.4	%	0.01	1.0
		Chloride by IC	2.2 u	MG/KG	2.2	1.0
		Fluoride by IC	2.2 u	MG/KG	2.2	1.0
		Nitrite by IC	2.24 u	MG/KG	2.24	1.0
		Nitrate by IC	2.24 u	MG/KG	2.24	1.0
		Phosphate by IC	2.2 u	MG/KG	2.2	1.0
		Chromium VI	0.20 u	MG/KG	0.20	1.0
		Sulfate by IC	317	MG/KG	22.4	10.0
		Nitrite, as N	0.16 u	MG/KG	0.16	1.0
		Nitrate, as N	0.16 u	MG/KG	0.16	1.0
		pH	8.2	SOIL PH	0.01	1.0
-008	J17J41	% Solids	99.5	%	0.01	1.0
		Chloride by IC	3.9	MG/KG	2.3	1.0
		Fluoride by IC	2.3 u	MG/KG	2.3	1.0
		Nitrite by IC	2.33 u	MG/KG	2.33	1.0
		Nitrate by IC	2.53	MG/KG	2.33	1.0
		Phosphate by IC	2.3 u	MG/KG	2.3	1.0
		Chromium VI	0.20 u	MG/KG	0.20	1.0
		Sulfate by IC	1240	MG/KG	58.1	25.0
		Nitrite, as N	0.17 u	MG/KG	0.17	1.0
		Nitrate, as N	0.29	MG/KG	0.17	1.0
		pH	8.2	SOIL PH	0.01	1.0
-009	J17J42	% Solids	99.8	%	0.01	1.0
		Chloride by IC	2.4 u	MG/KG	2.4	1.0
		Fluoride by IC	2.4 u	MG/KG	2.4	1.0
		Nitrite by IC	2.44 u	MG/KG	2.44	1.0
		Nitrate by IC	2.44 u	MG/KG	2.44	1.0
		Phosphate by IC	2.4 u	MG/KG	2.4	1.0
		Chromium VI	0.20 u	MG/KG	0.20	1.0
		Sulfate by IC	171	MG/KG	12.2	5.0
		Nitrite, as N	0.17 u	MG/KG	0.17	1.0
		Nitrate, as N	0.19	MG/KG	0.17	1.0
		pH	8.3	SOIL PH	0.01	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 10/21/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139
WORK ORDER: 60049-001-001-0001-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-010	J17J43	% Solids	99.8	%	0.01	1.0
		Chloride by IC	2.5 u	MG/KG	2.5	1.0
		Fluoride by IC	2.5 u	MG/KG	2.5	1.0
		Nitrite by IC	2.47 u	MG/KG	2.47	1.0
		Nitrate by IC	2.47 u	MG/KG	2.47	1.0
		Phosphate by IC	2.5 u	MG/KG	2.5	1.0
		Chromium VI	0.20 u	MG/KG	0.20	1.0
		Sulfate by IC	183	MG/KG	12.3	5.0
		Nitrite, as N	0.19 u	MG/KG	0.19	1.0
		Nitrate, as N	0.20	MG/KG	0.19	1.0
		pH	8.5	SOIL PH	0.01	1.0
-011	J17J44	% Solids	99.7	%	0.01	1.0
		Chloride by IC	2.4 u	MG/KG	2.4	1.0
		Fluoride by IC	2.4 u	MG/KG	2.4	1.0
		Nitrite by IC	2.36 u	MG/KG	2.36	1.0
		Nitrate by IC	2.36 u	MG/KG	2.36	1.0
		Phosphate by IC	2.4 u	MG/KG	2.4	1.0
		Chromium VI	0.20 u	MG/KG	0.20	1.0
		Sulfate by IC	21.9	MG/KG	2.4	1.0
		Nitrite, as N	0.16 u	MG/KG	0.16	1.0
		Nitrate, as N	0.35	MG/KG	0.16	1.0
		pH	8.9	SOIL PH	0.01	1.0
-012	J17J45	% Solids	99.4	%	0.01	1.0
		Chloride by IC	2.4 u	MG/KG	2.4	1.0
		Fluoride by IC	2.4 u	MG/KG	2.4	1.0
		Nitrite by IC	2.35 u	MG/KG	2.35	1.0
		Nitrate by IC	2.35 u	MG/KG	2.35	1.0
		Phosphate by IC	2.4 u	MG/KG	2.4	1.0
		Chromium VI	0.20 u	MG/KG	0.20	1.0
		Sulfate by IC	5.2	MG/KG	2.4	1.0
		Nitrite, as N	0.15 u	MG/KG	0.15	1.0
		Nitrate, as N	0.15 u	MG/KG	0.15	1.0
		pH	8.8	SOIL PH	0.01	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 10/21/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-013	J17J46	% Solids	99.6	%	0.01	1.0
		Chloride by IC	3.5	MG/KG	2.5	1.0
		Fluoride by IC	2.5 u	MG/KG	2.5	1.0
		Nitrite by IC	2.50 u	MG/KG	2.50	1.0
		Nitrate by IC	2.50 u	MG/KG	2.50	1.0
		Phosphate by IC	2.5 u	MG/KG	2.5	1.0
		Chromium VI	0.20 u	MG/KG	0.20	1.0
		Sulfate by IC	811	MG/KG	50.0	20.0
		Nitrite, as N	0.15 u	MG/KG	0.15	1.0
		Nitrate, as N	0.31	MG/KG	0.15	1.0
		pH	8.2	SOIL PH	0.01	1.0

Lionville Laboratory, Inc.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 10/21/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK10	08LVI064-MB1	Chromium VI	0.20	u	MG/KG	0.20	1.0
BLANK10	08LICS80-MB1	Bromide by IC	2.5	u	MG/KG	2.5	1.0
		Chloride by IC	2.5	u	MG/KG	2.5	1.0
		Fluoride by IC	2.5	u	MG/KG	2.5	1.0
		Nitrite by IC	2.50	u	MG/KG	2.50	1.0
		Nitrate by IC	2.50	u	MG/KG	2.50	1.0
		Phosphate by IC	2.5	u	MG/KG	2.5	1.0
		Sulfate by IC	3.5		MG/KG	2.5	1.0
BLANK10	08LN3S31-MB1	Nitrite, as N	0.20	u	MG/KG	0.20	1.0
		Nitrate, as N	0.20	u	MG/KG	0.20	1.0
BLANK10	08LICT80-MB1	Bromide by IC	2.4	u	MG/KG	2.4	1.0
		Chloride by IC	2.4	u	MG/KG	2.4	1.0
		Fluoride by IC	2.4	u	MG/KG	2.4	1.0
		Nitrite by IC	2.37	u	MG/KG	2.37	1.0
		Nitrate by IC	2.37	u	MG/KG	2.37	1.0
		Phosphate by IC	2.4	u	MG/KG	2.4	1.0
		Sulfate by IC	2.4	u	MG/KG	2.4	1.0

Lionville Laboratory, Inc.

INORGANICS ACCURACY REPORT 10/21/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139
WORK ORDER: 60049-001-001-0001-00

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-002	J17J35	Soluble Chromium VI	4.0	0.20u	4.0	103.4	1.0
		Insoluble Chromium VI	1190	0.20u	1170	101.6	100
-004	J17J37	Chloride by IC	45.6	2.7	45.2	95.0	1.0
		Fluoride by IC	47.5	0.37	45.2	104.2	1.0
		Nitrite by IC	46.3	2.32u	45.2	102.3	1.0
		Nitrate by IC	49.6	2.32u	45.2	109.7	1.0
		Phosphate by IC	51.9	2.9	45.2	108.3	1.0
		Sulfate by IC	156	55.4	90.0	111.4	2.0
-013	J17J46	Nitrite, as N	4.0	0.15u	3.6	108.6	1.0
		Nitrate, as N	4.1	0.31	3.6	105.3	1.0
BLANK10	08LVI064-MB1	Soluble Chromium VI	3.7	0.20u	4.0	92.9	1.0
		Insoluble Chromium VI	1250	0.20u	1200	104.7	100
BLANK10	08LICS80-MB1	Bromide by IC	60.5	2.5 u	62.9	96.1	1.0
		Chloride by IC	59.1	2.5 u	62.9	93.9	1.0
		Fluoride by IC	60.1	2.5 u	62.9	95.6	1.0
		Nitrite by IC	60.2	2.50u	62.9	95.7	1.0
		Nitrate by IC	60.0	2.50u	62.9	95.3	1.0
		Phosphate by IC	62.6	2.5 u	62.9	99.5	1.0
		Sulfate by IC	59.8	3.5	62.9	89.3	1.0
BLANK10	08LN3S31-MB1	Nitrite, as N	5.0	0.20u	5.0	101.2	1.0
		Nitrite, as N MSD	4.9	0.20u	4.9	101.0	1.0
		Nitrate, as N	5.0	0.20u	5.0	101.4	1.0
		Nitrate, as N MSD	4.8	0.20u	4.9	99.2	1.0
BLANK10	08LICT80-MB1	Bromide by IC	58.3	2.4 u	60.6	96.2	1.0
		Chloride by IC	57.5	2.4 u	60.6	94.9	1.0
		Fluoride by IC	58.7	2.4 u	60.6	96.8	1.0
		Nitrite by IC	58.6	2.37u	60.6	96.7	1.0
		Nitrate by IC	57.8	2.37u	60.6	95.3	1.0
		Phosphate by IC	59.2	2.4 u	60.6	97.6	1.0
		Sulfate by IC	57.8	2.4 u	60.6	95.3	1.0

Lionville Laboratory, Inc.

INORGANICS DUPLICATE SPIKE REPORT 10/21/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	SPIKE#1 %RECOV	SPIKE#2 %RECOV	%DIFF
BLANK10	08LN3S31-MB1	Nitrite, as N	101.2	101.0	0.22
		Nitrate, as N	101.4	99.2	2.2

Lionville Laboratory, Inc.

INORGANICS PRECISION REPORT 10/21/08

CLIENT: WC-HANFORD RC-075 K1342 LVL LOT #: 0809L139

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

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR(REP)
-002REP	J17J35	Chromium VI	0.20u	0.20u	NC	1.0
		pH	8.3	8.3	1.1	1.0
-004REP	J17J37	Chloride by IC	2.7	2.8	5.9	1.0
		Fluoride by IC	2.3 u	2.4 u	NC	1.0
		Nitrite by IC	2.32u	2.40u	NC	1.0
		Nitrate by IC	2.32u	2.40u	NC	1.0
		Phosphate by IC	2.9	2.4 u	NC	1.0
		Sulfate by IC	55.4	53.2	4.0	1.0
-013REP	J17J46	% Solids	99.6	99.5	0.10	1.0
		Nitrite, as N	0.15u	0.15u	NC	1.0
		Nitrate, as N	0.31	0.30	1.9	1.0

Lionville Laboratory Use Only

08094139

Custody Transfer Record/Lab Work Request

Page 1 of 2

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

LVLI Lionville Laboratory Inc.

000000019

Client: W.C. Hanford RC-075

Final Proj. Sampling Date

Project# 60049-001-001-0001-00

Project Contact/Phone#

Lionville Laboratory Project Manager: O. JOHNSON

SW846 Del STD TAT 15 Day

Date Rec'd 9-18-09 Date Due 10-4-08

		A		B	C				
Refrigerator #		3		3	3				
#/Type Container	Liquid								
	Solid	16		16	16				
Volume		250/125		250/500	60				
Preservatives		—		—	—				
ANALYSES REQUESTED	ORGANIC: VOA, BNA, Pest/PCB, Herb	INORG: Metal, Hg, CN		IC Anions	Hex Chrome				

Lionville Laboratory Use Only: Met ①, IC ①, ICP6

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	Met ①	IC ①	ICP6
001	J17J34			Soil	9-17-08	1241	X		X
002	J17J35					1341	X	X	X
003	J17J36					1344	X	X	X
004	J17J37					1348	X	X	X
005	J17J38					1445	X	X	X
006	J17J39					1449	X	X	X
007	J17J40					1419	X	X	X
008	J17J41					1426	X	X	X
009	J17J42					1319	X	X	X
010	J17J43					1316	X	X	X

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

Special Instructions: #009 Met. Rec'd in 125 ml G. IC anions Rec'd in 250 ml G.

Met ① = RCRA + Ni, Mo, Mn, Sb, Be, B, Co, Cu, V, Zn

IC ① = CL, FL, SO4, PO4, NO2, NO3

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

Relinquished by	Received by	Date	Time
[illegible]	[illegible]	9/19/08	0940

Relinquished by	Received by	Date	Time

Relinquished by	Received by	Date	Time
ORIGINAL REWRITTEN		COMPOSITE WASTE"	

ionville Laboratory Use Only

08096 139

Custody Transfer Record/Lab Work Request

Page 2 of 2

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

VLI

000000020

ient W.C. Hanford RC-075

t. Final Proj. Sampling Date

oject# Sewer 1

oject Contact/Phone#

nville Laboratory Project Manager O. JOHNSON

Del TAT

te Rec'd Date Due

		A		B	C
Refrigerator #		3		3	3
#/Type Container	Liquid / Solid	1G		1G	1G
Volume		250		125	60
Preservatives		—		—	—
ANALYSES REQUESTED →	ORGANIC: VOA, BNA, Pest/PCB, Herb		INORG: Metal, CN	IC Anions	HCL Cyanide
Lionville Laboratory Use Only			Metals	IC	ICP6

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

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	Metals	CN	IC	ICP6
011	J17J44			Soil	9-17-08	1309	X		X	X
012	J17J45					1452	X		X	X
013	J17J46					1426	X		X	X

ecial Instructions:

Special Instructions:

1.
2.
3.
4.
5.
6.

Relinquished by	Received by	Date	Time
[illegible]	[illegible]	9/19/08	0940

Relinquished by	Received by	Date	Time

Relinquished by	Received by	Date	Time

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-075-017

ollector: SEC D.W.Shea/subcontractor: D. Rios	Company Contact: D.W.Shea Telephone No.: 521-6014	Project Coordinator: KESSNER, JH	Price Code: 8K Data Turnaround: 15 days
roject Designation: 100-D/DR Burial Grounds & Remaining Sites - Soil Full Prot	Sampling Location: 120-D-21, Verification I	SAF No.: RC-075	
e Chest No.: GRP-03-021	Field Logbook No.: EL-1607-4 COA: R120D22000	Method of Shipment: Fed EX	
hipped To: EBERLINE SERVICES / CONVILLE	Offsite Property No.: see OPSC A080 353	Bill of Lading/Air Bill No.: SEE OSPC	

POSSIBLE SAMPLE HAZARDS/REMARKS

None known

Special Handling and/or Storage

Preservation	None	Cool 4C	Cool 4C								
Type of Container	G/P	G/P	G/P								
No. of Container(s)	1	1	1								
Volume	250mL	60mL	125mL								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Chromium Hex - 7196	IC Anions - 300.0; pH (Soil) - 9045								
Sample No. / Matrix * / Sample Date / Sample Time											
17J34 / SOIL / 9/17/08 / 1241	X	X									
17J35 / SOIL / ↓ / 1341	X	X	X								
17J36 / SOIL / ↓ / 1344	X	X	X								
17J37 / SOIL / ↓ / 1348	X	X	X								
17J38 / SOIL / ↓ / 1445	X	X	X								

CHAIN OF POSSESSION	Date/Time	Sign/Print Names: Received By/Stored In	Date/Time
linquished By/Removed From	9-17-08 1459	Received By/Stored In: DWSHEA DWSHEA	9/17/08 1459
linquished By/Removed From: DWSHEA DWSHEA	9/17/08 1735	Received By/Stored In: Fridge 3A	9/17/08 1735
linquished By/Removed From: Fridge 3A/J.E. Bernard	9-18-08 0955	Received By/Stored In: J.E. Bernard	9-18-08 0955
inquished By/Removed From: J.E. Bernard WCH	9-18-08 1000	Received By/Stored In: FED EX	
inquished By/Removed From: Fed Ex	9-19-08 0940	Received By/Stored In:	9-19-08 0940
inquished By/Removed From		Received By/Stored In	

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010 (Client List) {~~Aluminum,~~ Antimony, Arsenic, Barium, Beryllium, ~~Bismuth,~~ Boron, Cadmium, ~~Calcium,~~ Chromium, Cobalt, Copper, ~~Iron,~~ Lead, ~~Lithium, Magnesium,~~ Manganese, Molybdenum, Nickel, ~~Phosphorus, Potassium,~~ Selenium, ~~Silicon,~~ Silver, ~~Sodium, Strontium, Thallium, Tin, Uranium,~~ Vanadium, Zinc} and Hg via CVAA DWSHEA 9/17/08

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

ABORATORY SECTION	Received By	Title	Date/Time
NAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

CH-EE-011

00000021

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-075-017 | Page 2 of 3

Collector: D.W.Shea/subcontractor SGC D.Rios	Company Contact: D.W.Shea	Telephone No.: 521-6014	Project Coordinator: KESSNER, JH
Price Code: 8K	Data Turnaround: 15 days		
Project Designation: 100-D/DR Burial Grounds & Remaining Sites - Soil Full Prot	Sampling Location: 120-D-21, Verification 1		SAF No.: RC-075
Ice Chest No.: GRP-03-021	Field Logbook No.: EL-1607-4	COA: R120D22000	Method of Shipment: Fed EX
Shipped To: EBERLINE SERVICES / JONVILLE	Offsite Property No.: A080353 see OPSC		Bill of Lading/Air Bill No.: SEE OSR

POSSIBLE SAMPLE HAZARDS/REMARKS

None known

Special Handling and/or Storage

Preservation	None	Cool 4C	Cool 4C
Type of Container	G/P	G/P	G/P
No. of Container(s)	1	1	1
Volume	250mL	60mL	125mL
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Chromium Hex - 7196	IC Anions - 300.0; pH (Soil) - 9045

Sample No.	Matrix *	Sample Date	Sample Time			
7J39	SOIL	9/17/08	1449	X	X	X
7J40	SOIL		1419	X	X	X
7J41	SOIL		1426	X	X	X
7J42	SOIL		1319	X	X	X
7J43	SOIL		1316	X	X	X

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By/Removed From	Date/Time 1459 9-17-08	Received By/Stored In Dwshea DWSHEA	Date/Time 9/17/08 1459
Relinquished By/Removed From DWSHEA	Date/Time 9/17/08 1735	Received By/Stored In Fridge 3A	Date/Time 9/17/08 1735
Relinquished By/Removed From Fridge 3A / J.E. Bernhard	Date/Time 0955 9-18-08	Received By/Stored In J.E. Bernhard	Date/Time 0955 9-18-08
Relinquished By/Removed From J. E. Bernhard UCH	Date/Time 1000 9-18-08	Received By/Stored In FED EX	Date/Time
Relinquished By/Removed From	Date/Time 9-19-08 0940	Received By/Stored In	Date/Time 9-19-08 0940
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010 (Client List) {~~Aluminum~~, Antimony, Arsenic, Barium, Beryllium, ~~Bismuth~~, Boron, Cadmium, ~~Calcium~~, Chromium, Cobalt, Copper, ~~Iron~~, Lead, ~~Lithium, Magnesium~~, Manganese, Molybdenum, Nickel, ~~Phosphorus, Potassium~~, Selenium, ~~Silicon~~, Silver, ~~Sodium, Strontium, Thallium, Tin, Uranium~~, Vanadium, Zinc} and Hg via CVAA DWShea 9/17/08

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
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

CH-EE-011

000000022

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-075-017

Collector: D.W.Shea/subcontractor SEE DALTON RIOS	Company Contact: D.W.Shea	Telephone No.: 521-6014	Project Coordinator: KESSNER, JH
Price Code: SK	Data Turnaround: 10 days		
Project Designation: 100-D/DR Burial Grounds & Remaining Sites - Soil Full Prot	Sampling Location: 120-D-21, Verification I		SAF No.: RC-075
Ice Chest No.: GRP-03-081	Field Logbook No.: EL-1607-4	COA: R120D22000	Method of Shipment: Fed EX
Shipped To: EBERLINE SERVICES KLONVILLE	Offsite Property No.: see OPSC A080353		Bill of Lading/Air Bill No.: SEE OSPC

POSSIBLE SAMPLE HAZARDS/REMARKS

None known

Special Handling and/or Storage

Preservation	None	Cool 4C	Cool 4C								
Type of Container	G/P	G/P	G/P								
No. of Container(s)	1	1	1								
Volume	250mL	60mL	125mL								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Chromium Hex - 7196	IC Anions - 300.0; pH (Soil) - 9045								

Sample No.	Matrix *	Sample Date	Sample Time										
7J44	SOIL	9/17/08	1309	X	X	X							
7J45	SOIL		1452	X	X	X							
7J46	SOIL		1426	X	X	X							

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By/Removed From	Date/Time 1459 9-17-08	Received By/Stored In DWShea DWSHEA	Date/Time 1459 9/17/08
Relinquished By/Removed From DWShea DWSHEA	Date/Time 9/17/08 1735	Received By/Stored In Fridge 3A	Date/Time 9/17/08 1735
Relinquished By/Removed From Fridge 3A/J.E. Bernhard	Date/Time 0955 9-18-08	Received By/Stored In J.E. Bernhard	Date/Time 0955 9-18-08
Relinquished By/Removed From E. Bernhard	Date/Time 1000 9-18-08	Received By/Stored In FED EX	Date/Time
Relinquished By/Removed From FedEx	Date/Time 9-19-08 0940	Received By/Stored In	Date/Time 9-19-08 0940
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010 (Client List) [~~Aluminum~~, Antimony, Arsenic, Barium, Beryllium, ~~Bismuth~~, Boron, Cadmium, ~~Calcium~~, Chromium, Cobalt, Copper, ~~Iron~~, Lead, ~~Lithium, Magnesium~~, Manganese, Molybdenum, Nickel, ~~Phosphorus, Potassium~~, Selenium, ~~Silicon~~, Silver, ~~Sodium, Strontium, Thallium, Tin, Uranium~~, Vanadium, Zinc] and Hg via CVAA DWShea 9/17/08

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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

CH-EE-011

000000023

Lionville Laboratory Incorporated

SAMPLE RECEIPT CHECKLIST (SRC)

CLIENT: W.C. Hanford
Project/SAF/SOW/Release #: RC-075

Date: 9/19/08

LvLI Batch #: 0809L139

Sample Custodian: [illegible]

NOTE: EXPLAIN ALL DISCREPANCIES

1. Samples Hand Delivered or Shipped?	Carrier Fed Ex.		Airbill # 7905 8004 3674
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	°C	Cooler # GRP-03-021
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	#009 Met. Rec'd in 125 G/IC Anions Rec'd in 250 ML G.
11. Samples properly preserved? (If #5 is no, then this is no.)	☑ Yes	☐ No	
12. Samples received within hold times?	☑ Yes	☐ No	
Short holds taken to wet lab?	☐ Yes	☐ No	☑ N/A
13. VOA, TOC, TOX free of headspace?	☐ Yes	☐ No	☑ N/A
14. QC stickers placed on bottles designated by client?	☐ Yes	☐ No	☑ N/A
15. Shipment meets LvLI Sample Acceptance Policy? (Identify all bottles that do not meet the policy, which is on the reverse of this page.)	☑ Yes	☐ No	
16. Project Manager contacted concerning any discrepancies?	☑ Yes	☐ No	☐ N/A

Person Contacted O. Johnson Date 9-19-08

LvLI