0069490

SAF-RC-047
100 & 300 Area Component of the RCBRA Sediment and Tissues
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Jill Thomson	H0-23	____NB 4/13/06 INITIAL/DATE
Jeanette Duncan	H9-02	___NB 4/13/06 INITIAL/DATE

COMMENTS:

SDG _K0249_____ SAF-RC-047

Rad only X Chem only Rad & Chem

X Complete Partial

Waste Site: 100K Elevated Kidneys and Livers

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APR 28 2006
EDMC

LIONVILLE LABORATORY INC.

RECEIVED APR 2006

28 March 2006

Joan Kessner
WC-Hanford
3190 Washington Way
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 #	0602L372
SDG #	K0249
SAF #	RC-047
Date Received	2/28/06
# Samples	8
Mat\rix	OTHER SOLID
Volatiles	
Semivolatiles	
Pest/PCB	
PAH	
DRO/KRO/GRO	
GC Alcohols	
Herbicides	
Metals	X
Inorganics	

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

Sincerely,
Lionville Laboratory Incorporated

Orlette S. Johnson
Project Manager

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

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

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Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0249

DATE RECEIVED: 02/28/06 LVL LOT # :0602L372

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
J118B0						
SILVER, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/22/06
ALUMINUM, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/23/06
ARSENIC, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/22/06
BORON, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/22/06
BARIUM, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/22/06
BERYLLIUM, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/23/06
BISMUTH, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/22/06
CALCIUM, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/23/06
CADMIUM, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/22/06
COBALT, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/22/06
CHROMIUM, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/22/06
COPPER, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/23/06
IRON, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/23/06
MERCURY, TOTAL	001	SO	06C0041	02/23/06	03/10/06	03/10/06
POTASSIUM, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/23/06
LITHIUM, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/22/06
MAGNESIUM, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/23/06
MANGANESE, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/23/06
MOLYBDENUM, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/22/06
SODIUM, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/23/06
NICKEL, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/22/06
PHOSPHORUS, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/23/06
LEAD, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/22/06
ANTIMONY, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/22/06
SELENIUM, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/22/06
SILICON, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/22/06
TIN, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/22/06
TITANIUM, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/22/06
THALLIUM, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/22/06
URANIUM, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/22/06
VANADIUM, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/22/06
ZINC, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/22/06
ZIRCONIUM, TOTAL	001	SO	06L0158	02/23/06	03/10/06	03/23/06
J118B1						
SILVER, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/22/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0249

DATE RECEIVED: 02/28/06 LVL LOT # :0602L372

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
ALUMINUM, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/23/06
ARSENIC, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/22/06
BORON, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/22/06
BARIUM, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/22/06
BERYLLIUM, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/23/06
BISMUTH, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/22/06
CALCIUM, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/23/06
CADMIUM, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/22/06
COBALT, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/22/06
CHROMIUM, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/22/06
COPPER, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/23/06
IRON, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/23/06
MERCURY, TOTAL	002	SO	06C0041	02/23/06	03/10/06	03/10/06
POTASSIUM, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/23/06
LITHIUM, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/22/06
MAGNESIUM, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/23/06
MANGANESE, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/23/06
MOLYBDENUM, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/22/06
SODIUM, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/23/06
NICKEL, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/22/06
PHOSPHORUS, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/23/06
LEAD, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/22/06
ANTIMONY, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/22/06
SELENIUM, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/22/06
SILICON, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/22/06
TIN, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/22/06
TITANIUM, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/22/06
THALLIUM, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/22/06
URANIUM, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/22/06
VANADIUM, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/22/06
ZINC, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/22/06
ZIRCONIUM, TOTAL	002	SO	06L0158	02/23/06	03/10/06	03/23/06
J118B5						
SILVER, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/22/06
ALUMINUM, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/23/06
ARSENIC, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/22/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0249

DATE RECEIVED: 02/28/06 LVL LOT # :0602L372

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
BORON, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/22/06
BARIUM, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/22/06
BERYLLIUM, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/23/06
BISMUTH, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/22/06
CALCIUM, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/23/06
CADMIUM, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/22/06
COBALT, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/22/06
CHROMIUM, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/22/06
COPPER, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/23/06
IRON, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/23/06
MERCURY, TOTAL	003	SO	06C0041	02/23/06	03/10/06	03/10/06
POTASSIUM, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/23/06
LITHIUM, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/22/06
MAGNESIUM, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/23/06
MANGANESE, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/23/06
MOLYBDENUM, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/22/06
SODIUM, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/23/06
NICKEL, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/22/06
PHOSPHORUS, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/23/06
LEAD, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/22/06
ANTIMONY, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/22/06
SELENIUM, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/22/06
SILICON, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/22/06
TIN, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/22/06
TITANIUM, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/22/06
THALLIUM, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/22/06
URANIUM, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/22/06
VANADIUM, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/22/06
ZINC, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/22/06
ZIRCONIUM, TOTAL	003	SO	06L0158	02/23/06	03/10/06	03/23/06
J11894						
SILVER, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/22/06
SILVER, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/22/06
ALUMINUM, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/23/06
ALUMINUM, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/23/06
ARSENIC, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/22/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0249

DATE RECEIVED: 02/28/06 LVL LOT # :0602L372

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
ARSENIC, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/22/06
BORON, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/22/06
BORON, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/22/06
BARIUM, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/22/06
BARIUM, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/22/06
BERYLLIUM, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/23/06
BERYLLIUM, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/23/06
BISMUTH, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/22/06
BISMUTH, TOTAL REP	004 REP	SO	06L0158	02/23/06	03/10/06	03/22/06
CALCIUM, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/23/06
CALCIUM, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/23/06
CADMIUM, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/22/06
CADMIUM, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/22/06
COBALT, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/22/06
COBALT, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/22/06
CHROMIUM, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/22/06
CHROMIUM, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/22/06
COPPER, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/23/06
COPPER, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/23/06
IRON, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/23/06
IRON, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/23/06
MERCURY, TOTAL	004	SO	06C0041	02/23/06	03/10/06	03/10/06
POTASSIUM, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/23/06
POTASSIUM, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/23/06
LITHIUM, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/22/06
LITHIUM, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/22/06
MAGNESIUM, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/23/06
MAGNESIUM, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/23/06
MANGANESE, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/23/06
MANGANESE, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/23/06
MOLYBDENUM, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/22/06
MOLYBDENUM, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/22/06
SODIUM, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/23/06
SODIUM, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/23/06
NICKEL, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/22/06
NICKEL, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/22/06
PHOSPHORUS, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/23/06
PHOSPHORUS, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/23/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0249

DATE RECEIVED: 02/28/06 LVL LOT # :0602L372

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
LEAD, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/22/06
LEAD, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/22/06
ANTIMONY, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/22/06
ANTIMONY, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/22/06
SELENIUM, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/22/06
SELENIUM, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/22/06
SILICON, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/22/06
SILICON, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/22/06
TIN, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/22/06
TIN, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/22/06
TITANIUM, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/22/06
TITANIUM, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/22/06
THALLIUM, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/22/06
THALLIUM, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/22/06
URANIUM, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/22/06
URANIUM, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/22/06
VANADIUM, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/22/06
VANADIUM, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/22/06
ZINC, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/22/06
ZINC, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/22/06
ZIRCONIUM, TOTAL	004	SO	06L0158	02/23/06	03/10/06	03/23/06
ZIRCONIUM, TOTAL	004 REP	SO	06L0158	02/23/06	03/10/06	03/23/06
J11895						
SILVER, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/22/06
SILVER, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/22/06
ALUMINUM, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/23/06
ALUMINUM, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/23/06
ARSENIC, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/22/06
ARSENIC, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/22/06
BORON, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/22/06
BORON, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/22/06
BARIUM, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/22/06
BARIUM, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/22/06
BERYLLIUM, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/23/06
BERYLLIUM, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/23/06
BISMUTH, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/22/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0249

DATE RECEIVED: 02/28/06 LVL LOT # :0602L372

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
BISMUTH, TOTAL SPIKE	005 MS	SO	06L0158	02/23/06	03/10/06	03/22/06
CALCIUM, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/23/06
CALCIUM, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/23/06
CADMIUM, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/22/06
CADMIUM, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/22/06
COBALT, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/22/06
COBALT, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/22/06
CHROMIUM, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/22/06
CHROMIUM, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/22/06
COPPER, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/23/06
COPPER, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/23/06
IRON, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/23/06
IRON, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/23/06
MERCURY, TOTAL	005	SO	06C0041	02/23/06	03/10/06	03/10/06
MERCURY, TOTAL	005 REP	SO	06C0041	02/23/06	03/10/06	03/10/06
POTASSIUM, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/23/06
POTASSIUM, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/23/06
LITHIUM, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/22/06
LITHIUM, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/22/06
MAGNESIUM, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/23/06
MAGNESIUM, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/23/06
MANGANESE, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/23/06
MANGANESE, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/23/06
MOLYBDENUM, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/22/06
MOLYBDENUM, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/22/06
SODIUM, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/23/06
SODIUM, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/23/06
NICKEL, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/22/06
NICKEL, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/22/06
PHOSPHORUS, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/23/06
PHOSPHORUS, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/23/06
LEAD, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/22/06
LEAD, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/22/06
ANTIMONY, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/22/06
ANTIMONY, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/22/06
SELENIUM, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/22/06
SELENIUM, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/22/06
SILICON, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/22/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0249

DATE RECEIVED: 02/28/06 LVL LOT # :0602L372

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SILICON, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/22/06
TIN, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/22/06
TIN, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/22/06
TITANIUM, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/22/06
TITANIUM, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/22/06
THALLIUM, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/22/06
THALLIUM, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/22/06
URANIUM, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/22/06
URANIUM, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/22/06
VANADIUM, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/22/06
VANADIUM, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/22/06
ZINC, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/22/06
ZINC, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/22/06
ZIRCONIUM, TOTAL	005	SO	06L0158	02/23/06	03/10/06	03/23/06
ZIRCONIUM, TOTAL	005 MS	SO	06L0158	02/23/06	03/10/06	03/23/06
J11899						
SILVER, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/22/06
ALUMINUM, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/23/06
ARSENIC, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/22/06
BORON, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/22/06
BARIUM, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/22/06
BERYLLIUM, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/23/06
BISMUTH, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/22/06
CALCIUM, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/23/06
CADMIUM, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/22/06
COBALT, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/22/06
CHROMIUM, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/22/06
COPPER, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/23/06
IRON, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/23/06
MERCURY, TOTAL	006	SO	06C0041	02/23/06	03/10/06	03/10/06
MERCURY, TOTAL	006 MS	SO	06C0041	02/23/06	03/10/06	03/10/06
POTASSIUM, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/23/06
LITHIUM, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/22/06
MAGNESIUM, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/23/06
MANGANESE, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/23/06
MOLYBDENUM, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/22/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0249

DATE RECEIVED: 02/28/06 LVL LOT # :0602L372

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SODIUM, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/23/06
NICKEL, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/22/06
PHOSPHORUS, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/23/06
LEAD, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/22/06
ANTIMONY, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/22/06
SELENIUM, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/22/06
SILICON, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/22/06
TIN, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/22/06
TITANIUM, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/22/06
THALLIUM, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/22/06
URANIUM, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/22/06
VANADIUM, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/22/06
ZINC, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/22/06
ZIRCONIUM, TOTAL	006	SO	06L0158	02/23/06	03/10/06	03/23/06
J118F2						
SILVER, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/22/06
ALUMINUM, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/23/06
ARSENIC, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/22/06
BORON, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/22/06
BARIUM, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/22/06
BERYLLIUM, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/23/06
BISMUTH, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/22/06
CALCIUM, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/23/06
CADMIUM, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/22/06
COBALT, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/22/06
CHROMIUM, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/22/06
COPPER, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/23/06
IRON, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/23/06
MERCURY, TOTAL	007	SO	06C0041	02/23/06	03/10/06	03/10/06
POTASSIUM, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/23/06
LITHIUM, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/22/06
MAGNESIUM, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/23/06
MANGANESE, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/23/06
MOLYBDENUM, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/22/06
SODIUM, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/23/06
NICKEL, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/22/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0249

DATE RECEIVED: 02/28/06 LVL LOT # :0602L372

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
PHOSPHORUS, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/23/06
LEAD, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/22/06
ANTIMONY, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/22/06
SELENIUM, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/22/06
SILICON, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/22/06
TIN, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/22/06
TITANIUM, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/22/06
THALLIUM, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/22/06
URANIUM, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/22/06
VANADIUM, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/22/06
ZINC, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/22/06
ZIRCONIUM, TOTAL	007	SO	06L0158	02/23/06	03/10/06	03/23/06
J118H3						
SILVER, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/22/06
ALUMINUM, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/23/06
ARSENIC, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/22/06
BORON, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/22/06
BARIUM, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/22/06
BERYLLIUM, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/23/06
BISMUTH, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/22/06
CALCIUM, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/23/06
CADMIUM, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/22/06
COBALT, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/22/06
CHROMIUM, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/22/06
COPPER, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/23/06
IRON, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/23/06
MERCURY, TOTAL	008	SO	06C0041	02/23/06	03/10/06	03/10/06
POTASSIUM, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/23/06
LITHIUM, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/22/06
MAGNESIUM, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/23/06
MANGANESE, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/23/06
MOLYBDENUM, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/22/06
SODIUM, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/23/06
NICKEL, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/22/06
PHOSPHORUS, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/23/06
LEAD, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/22/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0249

DATE RECEIVED: 02/28/06 LVL LOT # :0602L372

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
ANTIMONY, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/22/06
SELENIUM, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/22/06
SILICON, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/22/06
TIN, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/22/06
TITANIUM, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/22/06
THALLIUM, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/22/06
URANIUM, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/22/06
VANADIUM, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/22/06
ZINC, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/22/06
ZIRCONIUM, TOTAL	008	SO	06L0158	02/23/06	03/10/06	03/23/06

LAB QC:

SILVER LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/22/06
SILVER, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/22/06
ALUMINUM LABORTORY	LC1 BS	S	06L0158	N/A	03/10/06	03/23/06
ALUMINUM, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/23/06
ARSENIC LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/22/06
ARSENIC, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/22/06
BORON LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/22/06
BORON, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/22/06
BARIUM LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/22/06
BARIUM, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/22/06
BERYLLIUM LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/23/06
BERYLLIUM, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/23/06
BISMUTH, LCS	LC1 BS	S	06L0158	N/A	03/10/06	03/22/06
BISMUTH, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/22/06
CALCIUM LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/23/06
CALCIUM, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/23/06
CADMIUM LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/22/06
CADMIUM, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/22/06
COBALT LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/22/06
COBALT, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/22/06
CHROMIUM LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/22/06
CHROMIUM, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/22/06
COPPER LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/23/06
COPPER, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/23/06
IRON LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/23/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0249

DATE RECEIVED: 02/28/06 LVL LOT # :0602L372

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
IRON, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/23/06
MERCURY LABORATORY	LC1 BS	S	06C0041	N/A	03/10/06	03/10/06
MERCURY, TOTAL	MB1	S	06C0041	N/A	03/10/06	03/10/06
POTASSIUM LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/23/06
POTASSIUM, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/23/06
LITHIUM LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/22/06
LITHIUM, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/22/06
MAGNESIUM LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/23/06
MAGNESIUM, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/23/06
MANGANESE LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/23/06
MANGANESE, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/23/06
MOLYBDENUM LABORATOR	LC1 BS	S	06L0158	N/A	03/10/06	03/22/06
MOLYBDENUM, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/22/06
SODIUM LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/23/06
SODIUM, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/23/06
NICKEL LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/22/06
NICKEL, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/22/06
PHOSPHORUS LCS	LC1 BS	S	06L0158	N/A	03/10/06	03/23/06
PHOSPHORUS, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/23/06
LEAD LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/22/06
LEAD, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/22/06
ANTIMONY LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/22/06
ANTIMONY, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/22/06
SELENIUM LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/22/06
SELENIUM, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/22/06
SILICON LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/22/06
SILICON, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/22/06
TIN LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/22/06
TIN, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/22/06
TITANIUM LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/22/06
TITANIUM, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/22/06
THALLIUM LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/22/06
THALLIUM, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/22/06
URANIUM LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/22/06
URANIUM, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/22/06
VANADIUM LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/22/06
VANADIUM, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/22/06
ZINC LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/22/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0249

DATE RECEIVED: 02/28/06 LVL LOT # :0602L372

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
ZINC, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/22/06
ZIRCONIUM LABORATORY	LC1 BS	S	06L0158	N/A	03/10/06	03/23/06
ZIRCONIUM, TOTAL	MB1	S	06L0158	N/A	03/10/06	03/23/06

LIONVILLE LABORATORY INC.

Analytical Report

Client: TNU-HANFORD RC-047
LVL#: 0602L372
SDG/SAF#: K0249/RC-047

W.O.#: 11343-606-001-9999-00
Date Received: 02-28-06

METALS CASE NARRATIVE

1. This narrative covers the analyses of 8 solid samples.

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

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

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

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

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

7. The preparation/method blanks for 3 analytes were outside method criteria. {less than the Practical Quantitation Limit (3X the IDL), or samples greater than 20X MB value}. Refer to the Inorganics Method Blank Data Summary.

   a). The MB results for Barium, Iron, and Silicon were greater than the Practical Quantitation Limit (PQL) {3 x the (IDL) Instrument Detection Level} and all samples for Barium and Silicon, and samples J11895, J118F2, and J118H3 for Iron, read less than 20 times the MB concentration. However, no corrective action criteria for MBs were provided in SW846 method 6010B. The sample results were reported herein "uncorrected" for the levels found in the MB.

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

9. All laboratory control samples (LCS) were within the 80-120% control limits with the exception of Silicon at 36.2%. Associated sample results may be biased low for SiliconThe LCS was outside the 80-120% control limits for Mercury, but was within the manufacturer's performance acceptance limits of 4.19-8.23 mg/kg at 7.6 mg/kg. Refer to the Inorganics

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 40 pages.

Laboratory Control Standards Report.

10. The matrix spike (MS) recovery for 1 analyte was 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
J11895	Zirconium	200	93.5

12. The duplicate analyses for 2 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 Instrument Detection Limit (IDL). Values between the IDL and the Practical Quantitation Limit (PQL) are acquired in a region of less-certain quantification.

14. LvLI is NELAP accredited by the state of Pennsylvania and holds over 20 additional state accreditations. 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 Incorporated

4/10/06
Date

jjw/m02-372

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METALS METHOD GLOSSARY

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

Lot#: ~~0603L~~ 0602L372
correct entry pw 4/4/06

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	X6010B		__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	X6010B [1]		__200.7 [1]			__1620	__99
Boron	X6010B		__200.7				__99
Cadmium	X6010B	__7131A [5]	__200.7	__213.2			__99
Calcium	X6010B		__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	X6010B		__200.7				__99
Lead	X6010B	__7421 [5]	__200.7	__239.2	__3113B		__99
Lithium	X6010B	__7430 [4]	__200.7			__1620	__99
Magnesium	X6010B		__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	X6010B	__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	X6010B [1]		__200.7			__1620	__99
Silica	__6010B		__200.7			__1620	__99
Silver	X6010B	__7761 [5]	__200.7	__272.2			__99
Sodium	X6010B	__7770 [4]	__200.7	__273.1 [4]			__99
Strontium	__6010B		__200.7				__99
Thallium	X6010B	__7841 [5]	__200.7	__279.2 __200.9			__99
Tin	X6010B		__200.7				__99
Titanium	X6010B		__200.7				__99
Uranium	X6010B [1]		__200.7 [1]			__1620	__99
Vanadium	X6010B		__200.7				__99
Zinc	X6010B		__200.7				__99
Zirconium	X6010B [1]		__200.7 [1]			__1620	__99

Other: Phosphorous Method: 6010B

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 04/07/06

CLIENT: TNUHANFORD RC-047 K0249 LVL LOT #: 0602L372

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

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
-001	J118B0	Silver, Total	0.50	u	MG/KG	0.50	1.0
		Aluminum, Total	16.9	u	MG/KG	16.9	1.0
		Arsenic, Total	4.4	u	MG/KG	4.4	1.0
		Boron, Total	5.4		MG/KG	1.7	1.0
		Barium, Total	1.1		MG/KG	0.14	1.0
		Beryllium, Total	0.14	u	MG/KG	0.14	1.0
		Bismuth, Total	3.6	u	MG/KG	3.6	1.0
		Calcium, Total	243		MG/KG	15.6	1.0
		Cadmium, Total	1.4		MG/KG	0.50	1.0
		Cobalt, Total	1.0	u	MG/KG	1.0	1.0
		Chromium, Total	1.7		MG/KG	0.93	1.0
		Copper, Total	1.6	u	MG/KG	1.6	1.0
		Iron, Total	63.8		MG/KG	3.9	1.0
		Mercury, Total	0.04	u	MG/KG	0.04	1.0
		Potassium, Total	2240		MG/KG	551	1.0
		Lithium, Total	0.51		MG/KG	0.21	1.0
		Magnesium, Total	183		MG/KG	27.9	1.0
		Manganese, Total	3.4		MG/KG	2.3	1.0
		Molybdenum, Total	2.1	u	MG/KG	2.1	1.0
		Sodium, Total	1430		MG/KG	17.9	1.0
		Nickel, Total	1.7	u	MG/KG	1.7	1.0
		Phosphorus, Total	2430		MG/KG	71.4	1.0
		Lead, Total	2.2	u	MG/KG	2.2	1.0
		Antimony, Total	3.1	u	MG/KG	3.1	1.0
		Selenium, Total	4.3		MG/KG	3.4	1.0
		Silicon, Total	24.2		MG/KG	16.2	1.0
		Tin, Total	7.6	u	MG/KG	7.6	1.0
		Titanium, Total	0.61		MG/KG	0.21	1.0
		Thallium, Total	5.0	u	MG/KG	5.0	1.0
		Uranium, Total	6.3	u	MG/KG	6.3	1.0
		Vanadium, Total	0.64	u	MG/KG	0.64	1.0
		Zinc, Total	103		MG/KG	1.1	1.0
		Zirconium, Total	7.6	u	MG/KG	7.6	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 04/07/06

CLIENT: TNUHANFORD RC-047 K0249 LVL LOT #: 0602L372

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

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
-002	J118B1	Silver, Total	0.70	u	MG/KG	0.70	1.0
		Aluminum, Total	23.6	u	MG/KG	23.6	1.0
		Arsenic, Total	6.1	u	MG/KG	6.1	1.0
		Boron, Total	3.2		MG/KG	2.4	1.0
		Barium, Total	1.5		MG/KG	0.20	1.0
		Beryllium, Total	0.20	u	MG/KG	0.20	1.0
		Bismuth, Total	5.1	u	MG/KG	5.1	1.0
		Calcium, Total	250		MG/KG	21.9	1.0
		Cadmium, Total	1.2		MG/KG	0.70	1.0
		Cobalt, Total	1.4	u	MG/KG	1.4	1.0
		Chromium, Total	1.9		MG/KG	1.3	1.0
		Copper, Total	2.2	u	MG/KG	2.2	1.0
		Iron, Total	85.1		MG/KG	5.4	1.0
		Mercury, Total	0.04	u	MG/KG	0.04	1.0
		Potassium, Total	2350		MG/KG	771	1.0
		Lithium, Total	0.48		MG/KG	0.30	1.0
		Magnesium, Total	207		MG/KG	39.1	1.0
		Manganese, Total	3.2	u	MG/KG	3.2	1.0
		Molybdenum, Total	2.9	u	MG/KG	2.9	1.0
		Sodium, Total	1580		MG/KG	25.1	1.0
		Nickel, Total	2.4	u	MG/KG	2.4	1.0
		Phosphorus, Total	2510		MG/KG	100	1.0
		Lead, Total	3.1	u	MG/KG	3.1	1.0
		Antimony, Total	4.4	u	MG/KG	4.4	1.0
		Selenium, Total	4.7		MG/KG	4.7	1.0
		Silicon, Total	37.6		MG/KG	22.7	1.0
		Tin, Total	10.7	u	MG/KG	10.7	1.0
		Titanium, Total	0.32		MG/KG	0.30	1.0
		Thallium, Total	7.0	u	MG/KG	7.0	1.0
		Uranium, Total	8.8	u	MG/KG	8.8	1.0
		Vanadium, Total	0.90	u	MG/KG	0.90	1.0
		Zinc, Total	82.5		MG/KG	1.6	1.0
		Zirconium, Total	10.6	u	MG/KG	10.6	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 04/07/06

CLIENT: TNUHANFORD RC-047 K0249 LVL LOT #: 0602L372

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

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
-003	J118B5	Silver, Total	0.78	u	MG/KG	0.78	1.0
		Aluminum, Total	26.2	u	MG/KG	26.2	1.0
		Arsenic, Total	6.8	u	MG/KG	6.8	1.0
		Boron, Total	2.7	u	MG/KG	2.7	1.0
		Barium, Total	1.5		MG/KG	0.22	1.0
		Beryllium, Total	0.22	u	MG/KG	0.22	1.0
		Bismuth, Total	5.7	u	MG/KG	5.7	1.0
		Calcium, Total	435		MG/KG	24.3	1.0
		Cadmium, Total	1.2		MG/KG	0.78	1.0
		Cobalt, Total	1.6	u	MG/KG	1.6	1.0
		Chromium, Total	3.0		MG/KG	1.4	1.0
		Copper, Total	2.4	u	MG/KG	2.4	1.0
		Iron, Total	111		MG/KG	6.0	1.0
		Mercury, Total	0.03	u	MG/KG	0.03	1.0
		Potassium, Total	2300		MG/KG	857	1.0
		Lithium, Total	0.42		MG/KG	0.33	1.0
		Magnesium, Total	293		MG/KG	43.4	1.0
		Manganese, Total	3.6	u	MG/KG	3.6	1.0
		Molybdenum, Total	3.2	u	MG/KG	3.2	1.0
		Sodium, Total	1410		MG/KG	27.9	1.0
		Nickel, Total	2.7	u	MG/KG	2.7	1.0
		Phosphorus, Total	2520		MG/KG	111	1.0
		Lead, Total	3.4	u	MG/KG	3.4	1.0
		Antimony, Total	4.9	u	MG/KG	4.9	1.0
		Selenium, Total	5.2	u	MG/KG	5.2	1.0
		Silicon, Total	42.0		MG/KG	25.2	1.0
		Tin, Total	11.9	u	MG/KG	11.9	1.0
		Titanium, Total	0.62		MG/KG	0.33	1.0
		Thallium, Total	7.8	u	MG/KG	7.8	1.0
		Uranium, Total	9.8	u	MG/KG	9.8	1.0
		Vanadium, Total	1.0	u	MG/KG	1.0	1.0
		Zinc, Total	74.3		MG/KG	1.8	1.0
		Zirconium, Total	11.8	u	MG/KG	11.8	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 04/07/06

CLIENT: TNUHANFORD RC-047 K0249 LVL LOT #: 0602L372

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-004	J11894	Silver, Total	0.19 u	MG/KG	0.19	1.0
		Aluminum, Total	6.6 u	MG/KG	6.6	1.0
		Arsenic, Total	1.7 u	MG/KG	1.7	1.0
		Boron, Total	0.67 u	MG/KG	0.67	1.0
		Barium, Total	0.15	MG/KG	0.06	1.0
		Beryllium, Total	0.06 u	MG/KG	0.06	1.0
		Bismuth, Total	1.4 u	MG/KG	1.4	1.0
		Calcium, Total	162	MG/KG	6.1	1.0
		Cadmium, Total	1.3	MG/KG	0.19	1.0
		Cobalt, Total	0.39 u	MG/KG	0.39	1.0
		Chromium, Total	0.80	MG/KG	0.36	1.0
		Copper, Total	4.7	MG/KG	0.61	1.0
		Iron, Total	59.7	MG/KG	1.5	1.0
		Mercury, Total	0.04	MG/KG	0.02	1.0
		Potassium, Total	1970	MG/KG	214	1.0
		Lithium, Total	0.11	MG/KG	0.08	1.0
		Magnesium, Total	201	MG/KG	10.9	1.0
		Manganese, Total	1.4	MG/KG	0.89	1.0
		Molybdenum, Total	0.81 u	MG/KG	0.81	1.0
		Sodium, Total	1250	MG/KG	7.0	1.0
		Nickel, Total	0.67 u	MG/KG	0.67	1.0
		Phosphorus, Total	3270	MG/KG	27.8	1.0
		Lead, Total	0.86 u	MG/KG	0.86	1.0
		Antimony, Total	1.2 u	MG/KG	1.2	1.0
		Selenium, Total	2.5	MG/KG	1.3	1.0
		Silicon, Total	8.3	MG/KG	6.3	1.0
		Tin, Total	3.0 u	MG/KG	3.0	1.0
		Titanium, Total	0.08 u	MG/KG	0.08	1.0
		Thallium, Total	1.9 u	MG/KG	1.9	1.0
		Uranium, Total	2.4 u	MG/KG	2.4	1.0
		Vanadium, Total	0.25 u	MG/KG	0.25	1.0
		Zinc, Total	27.8	MG/KG	0.44	1.0
		Zirconium, Total	2.9 u	MG/KG	2.9	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 04/07/06

CLIENT: TNUHANFORD RC-047 K0249 LVL LOT #: 0602L372

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-005	J11895	Silver, Total	0.14 u	MG/KG	0.14	1.0
		Aluminum, Total	16.5	MG/KG	4.7	1.0
		Arsenic, Total	1.2 u	MG/KG	1.2	1.0
		Boron, Total	0.48 u	MG/KG	0.48	1.0
		Barium, Total	0.24	MG/KG	0.04	1.0
		Beryllium, Total	0.04 u	MG/KG	0.04	1.0
		Bismuth, Total	1.0 u	MG/KG	1.0	1.0
		Calcium, Total	150	MG/KG	4.4	1.0
		Cadmium, Total	0.92	MG/KG	0.14	1.0
		Cobalt, Total	0.28 u	MG/KG	0.28	1.0
		Chromium, Total	0.57	MG/KG	0.26	1.0
		Copper, Total	5.3	MG/KG	0.44	1.0
		Iron, Total	39.4	MG/KG	1.1	1.0
		Mercury, Total	0.02 u	MG/KG	0.02	1.0
		Potassium, Total	2090	MG/KG	154	1.0
		Lithium, Total	0.08	MG/KG	0.06	1.0
		Magnesium, Total	214	MG/KG	7.8	1.0
		Manganese, Total	2.7	MG/KG	0.64	1.0
		Molybdenum, Total	0.58 u	MG/KG	0.58	1.0
		Sodium, Total	1180	MG/KG	5.0	1.0
		Nickel, Total	0.48 u	MG/KG	0.48	1.0
		Phosphorus, Total	3510	MG/KG	20.0	1.0
		Lead, Total	0.62 u	MG/KG	0.62	1.0
		Antimony, Total	0.88 u	MG/KG	0.88	1.0
		Selenium, Total	1.5	MG/KG	0.94	1.0
		Silicon, Total	12.3	MG/KG	4.5	1.0
		Tin, Total	2.1 u	MG/KG	2.1	1.0
		Titanium, Total	0.18	MG/KG	0.06	1.0
		Thallium, Total	1.4 u	MG/KG	1.4	1.0
		Uranium, Total	2.9	MG/KG	1.8	1.0
		Vanadium, Total	0.18 u	MG/KG	0.18	1.0
		Zinc, Total	26.6	MG/KG	0.32	1.0
		Zirconium, Total	2.1 u	MG/KG	2.1	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 04/07/06

CLIENT: TNUHANFORD RC-047 K0249 LVL LOT #: 0602L372

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-006	J11899	Silver, Total	0.18 u	MG/KG	0.18	1.0
		Aluminum, Total	33.1	MG/KG	6.1	1.0
		Arsenic, Total	1.6 u	MG/KG	1.6	1.0
		Boron, Total	0.62 u	MG/KG	0.62	1.0
		Barium, Total	0.28	MG/KG	0.05	1.0
		Beryllium, Total	0.05 u	MG/KG	0.05	1.0
		Bismuth, Total	1.3 u	MG/KG	1.3	1.0
		Calcium, Total	165	MG/KG	5.6	1.0
		Cadmium, Total	1.1	MG/KG	0.18	1.0
		Cobalt, Total	0.36 u	MG/KG	0.36	1.0
		Chromium, Total	0.63	MG/KG	0.33	1.0
		Copper, Total	12.4	MG/KG	0.56	1.0
		Iron, Total	63.0	MG/KG	1.4	1.0
		Mercury, Total	0.02 u	MG/KG	0.02	1.0
		Potassium, Total	1800	MG/KG	198	1.0
		Lithium, Total	0.13	MG/KG	0.08	1.0
		Magnesium, Total	197	MG/KG	10.0	1.0
		Manganese, Total	1.6	MG/KG	0.82	1.0
		Molybdenum, Total	0.74 u	MG/KG	0.74	1.0
		Sodium, Total	1290	MG/KG	6.4	1.0
		Nickel, Total	0.62 u	MG/KG	0.62	1.0
		Phosphorus, Total	2960	MG/KG	25.6	1.0
		Lead, Total	0.79 u	MG/KG	0.79	1.0
		Antimony, Total	1.1 u	MG/KG	1.1	1.0
		Selenium, Total	2.1	MG/KG	1.2	1.0
		Silicon, Total	15.4	MG/KG	5.8	1.0
		Tin, Total	2.7 u	MG/KG	2.7	1.0
		Titanium, Total	0.19	MG/KG	0.08	1.0
		Thallium, Total	1.8 u	MG/KG	1.8	1.0
		Uranium, Total	2.3 u	MG/KG	2.3	1.0
		Vanadium, Total	0.23 u	MG/KG	0.23	1.0
		Zinc, Total	31.0	MG/KG	0.41	1.0
		Zirconium, Total	2.7 u	MG/KG	2.7	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 04/07/06

CLIENT: TNUHANFORD RC-047 K0249 LVL LOT #: 0602L372

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-007	J118F2	Silver, Total	0.07 u	MG/KG	0.07	1.0
		Aluminum, Total	2.3 u	MG/KG	2.3	1.0
		Arsenic, Total	0.59 u	MG/KG	0.59	1.0
		Boron, Total	0.23 u	MG/KG	0.23	1.0
		Barium, Total	0.13	MG/KG	0.02	1.0
		Beryllium, Total	0.02 u	MG/KG	0.02	1.0
		Bismuth, Total	0.50 u	MG/KG	0.50	1.0
		Calcium, Total	252	MG/KG	2.1	1.0
		Cadmium, Total	1.1	MG/KG	0.07	1.0
		Cobalt, Total	0.14 u	MG/KG	0.14	1.0
		Chromium, Total	0.36	MG/KG	0.13	1.0
		Copper, Total	7.8	MG/KG	0.21	1.0
		Iron, Total	30.9	MG/KG	0.52	1.0
		Mercury, Total	0.08	MG/KG	0.02	1.0
		Potassium, Total	2140	MG/KG	74.9	1.0
		Lithium, Total	0.05	MG/KG	0.03	1.0
		Magnesium, Total	162	MG/KG	3.8	1.0
		Manganese, Total	0.53	MG/KG	0.31	1.0
		Molybdenum, Total	0.28 u	MG/KG	0.28	1.0
		Sodium, Total	1230	MG/KG	2.4	1.0
		Nickel, Total	0.23 u	MG/KG	0.23	1.0
		Phosphorus, Total	2940	MG/KG	9.7	1.0
		Lead, Total	0.30 u	MG/KG	0.30	1.0
		Antimony, Total	0.43 u	MG/KG	0.43	1.0
		Selenium, Total	1.5	MG/KG	0.46	1.0
		Silicon, Total	7.3	MG/KG	2.2	1.0
		Tin, Total	1.1	MG/KG	1.0	1.0
		Titanium, Total	0.18	MG/KG	0.03	1.0
		Thallium, Total	0.68 u	MG/KG	0.68	1.0
		Uranium, Total	1.7	MG/KG	0.85	1.0
		Vanadium, Total	0.09 u	MG/KG	0.09	1.0
		Zinc, Total	25.1	MG/KG	0.16	1.0
		Zirconium, Total	1.0 u	MG/KG	1.0	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 04/07/06

CLIENT: TNUHANFORD RC-047 K0249

LVL LOT #: 0602L372

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

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
-008	J118H3	Silver, Total	0.29	u	MG/KG	0.29	1.0
		Aluminum, Total	9.8	u	MG/KG	9.8	1.0
		Arsenic, Total	2.5	u	MG/KG	2.5	1.0
		Boron, Total	1.0	u	MG/KG	1.0	1.0
		Barium, Total	0.27		MG/KG	0.08	1.0
		Beryllium, Total	0.08	u	MG/KG	0.08	1.0
		Bismuth, Total	2.1	u	MG/KG	2.1	1.0
		Calcium, Total	143		MG/KG	9.1	1.0
		Cadmium, Total	0.83		MG/KG	0.29	1.0
		Cobalt, Total	0.58	u	MG/KG	0.58	1.0
		Chromium, Total	1.0		MG/KG	0.54	1.0
		Copper, Total	1.1		MG/KG	0.92	1.0
		Iron, Total	32.8		MG/KG	2.3	1.0
		Mercury, Total	0.03	u	MG/KG	0.03	1.0
		Potassium, Total	1840		MG/KG	321	1.0
		Lithium, Total	0.16		MG/KG	0.13	1.0
		Magnesium, Total	136		MG/KG	16.3	1.0
		Manganese, Total	1.3	u	MG/KG	1.3	1.0
		Molybdenum, Total	1.2	u	MG/KG	1.2	1.0
		Sodium, Total	894		MG/KG	10.5	1.0
		Nickel, Total	1.0	u	MG/KG	1.0	1.0
		Phosphorus, Total	1940		MG/KG	41.7	1.0
		Lead, Total	1.3	u	MG/KG	1.3	1.0
		Antimony, Total	1.8	u	MG/KG	1.8	1.0
		Selenium, Total	2.9		MG/KG	2.0	1.0
		Silicon, Total	15.2		MG/KG	9.5	1.0
		Tin, Total	4.5	u	MG/KG	4.5	1.0
		Titanium, Total	0.33		MG/KG	0.13	1.0
		Thallium, Total	2.9	u	MG/KG	2.9	1.0
		Uranium, Total	4.6		MG/KG	3.7	1.0
		Vanadium, Total	0.38	u	MG/KG	0.38	1.0
		Zinc, Total	69.0		MG/KG	0.67	1.0
		Zirconium, Total	4.4	u	MG/KG	4.4	1.0

Lionville Laboratory, Inc.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 04/07/06

CLIENT: TNUHANFORD RC-047 K0249 LVL LOT #: 0602L372

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

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK1	06L0158-MB1	Silver, Total	0.07 u	MG/KG	0.07	1.0
		Aluminum, Total	2.4 u	MG/KG	2.4	1.0
		Arsenic, Total	0.61 u	MG/KG	0.61	1.0
		Boron, Total	0.24 u	MG/KG	0.24	1.0
		Barium, Total	0.08	MG/KG	0.02	1.0
		Beryllium, Total	0.02	MG/KG	0.02	1.0
		Bismuth, Total	0.51 u	MG/KG	0.51	1.0
		Calcium, Total	6.5	MG/KG	2.2	1.0
		Cadmium, Total	0.07 u	MG/KG	0.07	1.0
		Cobalt, Total	0.14 u	MG/KG	0.14	1.0
		Chromium, Total	0.17	MG/KG	0.13	1.0
		Copper, Total	0.40	MG/KG	0.22	1.0
		Iron, Total	2.3	MG/KG	0.54	1.0
		Potassium, Total	77.1 u	MG/KG	77.1	1.0
		Lithium, Total	0.06	MG/KG	0.03	1.0
		Magnesium, Total	3.9 u	MG/KG	3.9	1.0
		Manganese, Total	0.32 u	MG/KG	0.32	1.0
		Molybdenum, Total	0.29 u	MG/KG	0.29	1.0
		Sodium, Total	2.5 u	MG/KG	2.5	1.0
		Nickel, Total	0.24 u	MG/KG	0.24	1.0
		Phosphorus, Total	1.6	MG/KG	0.90	1.0
		Lead, Total	0.31 u	MG/KG	0.31	1.0
		Antimony, Total	0.44 u	MG/KG	0.44	1.0
		Selenium, Total	0.47 u	MG/KG	0.47	1.0
		Silicon, Total	8.2	MG/KG	2.3	1.0
		Tin, Total	1.6	MG/KG	1.1	1.0
		Titanium, Total	0.03	MG/KG	0.03	1.0
		Thallium, Total	0.70 u	MG/KG	0.70	1.0
		Uranium, Total	1.5	MG/KG	0.88	1.0
		Vanadium, Total	0.09 u	MG/KG	0.09	1.0
		Zinc, Total	0.22	MG/KG	0.16	1.0
		Zirconium, Total	1.1 u	MG/KG	1.1	1.0
BLANK1	06C0041-MB1	Mercury, Total	0.02 u	MG/KG	0.02	1.0

Lionville Laboratory, Inc.

INORGANICS ACCURACY REPORT 04/07/06

CLIENT: TNUHANFORD RC-047 K0249 LVL LOT #: 0602L372

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

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-005	J11895	Silver, Total	9.3	0.14u	10.0	93.0	1.0
		Aluminum, Total	338	16.5	400	80.3	1.0
		Arsenic, Total	368	1.2 u	400	92.1	1.0
		Boron, Total	184	0.48u	200	92.2	1.0
		Barium, Total	383	0.24	400	95.8	1.0
		Beryllium, Total	9.0	0.04u	10.0	90.0	1.0
		Bismuth, Total	960	1.0 u	1000	96.0	1.0
		Calcium, Total	4160	150	5000	80.2	1.0
		Cadmium, Total	10.5	0.92	10.0	95.8	1.0
		Cobalt, Total	96.0	0.28u	100	96.0	1.0
		Chromium, Total	40.3	0.57	40.0	99.3	1.0
		Copper, Total	49.4	5.3	50.0	88.2	1.0
		Iron, Total	219	39.4	200	89.6	1.0
		Potassium, Total	6510	2090	5000	88.3	1.0
		Lithium, Total	209	0.08	200	104.3	1.0
		Magnesium, Total	4360	214	5000	83.0	1.0
		Manganese, Total	85.3	2.7	100	82.6	1.0
		Molybdenum, Total	190	0.58u	200	95.2	1.0
		Sodium, Total	5610	1180	5000	88.7	1.0
		Nickel, Total	94.7	0.48u	100	94.7	1.0
		Phosphorus, Total	4390	3510	1000	87.8	1.0
		Lead, Total	93.2	0.62u	100	93.2	1.0
		Antimony, Total	92.4	0.88u	100	92.4	1.0
		Selenium, Total	357	1.5	400	89.0	1.0
		Silicon, Total	172	12.3	200	80.0	1.0
		Tin, Total	190	2.1 u	200	95.0	1.0
		Titanium, Total	185	0.18	200	92.3	1.0
		Thallium, Total	380	1.4 u	400	95.1	1.0
		Uranium, Total	459	2.9	500	91.3	1.0
		Vanadium, Total	97.8	0.18u	100	97.8	1.0
		Zinc, Total	123	26.6	100	96.0	1.0
		Zirconium, Total	636	2.1 u	1000	63.6	1.0

Lionville Laboratory, Inc.

INORGANICS ACCURACY REPORT 04/07/06

CLIENT: TNUHANFORD RC-047 K0249 LVL LOT #: 0602L372

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

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-006	J11899	Mercury, Total	0.18	0.02u	0.18	98.3	1.0

Lionville Laboratory, Inc.

INORGANICS PRECISION REPORT 04/07/06

CLIENT: TNUHANFORD RC-047 K0249 LVL LOT #: 0602L372

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

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR(REP)
-004REP	J11894	Silver, Total	0.19u	0.26u	NC	1.0
		Aluminum, Total	6.6 u	8.7 u	NC	1.0
		Arsenic, Total	1.7 u	2.3 u	NC	1.0
		Boron, Total	0.67u	0.89u	NC	1.0
		Barium, Total	0.15	0.18	19.0	1.0
		Beryllium, Total	0.06u	0.07u	NC	1.0
		Bismuth, Total	1.4 u	1.9 u	NC	1.0
		Calcium, Total	162	167	3.0	1.0
		Cadmium, Total	1.3	1.1	16.7	1.0
		Cobalt, Total	0.39u	0.52u	NC	1.0
		Chromium, Total	0.80	0.92	14.1	1.0
		Copper, Total	4.7	4.7	0.00	1.0
		Iron, Total	59.7	57.8	3.2	1.0
		Potassium, Total	1970	2110	6.8	1.0
		Lithium, Total	0.11	0.16	33.4	1.0
		Magnesium, Total	201	213	6.0	1.0
		Manganese, Total	1.4	2.0	35.3	1.0
		Molybdenum, Total	0.81u	1.1 u	NC	1.0
		Sodium, Total	1250	1340	7.3	1.0
		Nickel, Total	0.67u	0.89u	NC	1.0
		Phosphorus, Total	3270	3440	4.9	1.0
		Lead, Total	0.86u	1.1 u	NC	1.0
		Antimony, Total	1.2 u	1.6 u	NC	1.0
		Selenium, Total	2.5	2.2	12.8	1.0
		Silicon, Total	8.3	8.8	5.8	1.0
		Tin, Total	3.0 u	4.0 u	NC	1.0
		Titanium, Total	0.08u	0.11u	NC	1.0
		Thallium, Total	1.9 u	2.6 u	NC	1.0
		Uranium, Total	2.4 u	3.3 u	NC	1.0
		Vanadium, Total	0.25u	0.33u	NC	1.0
		Zinc, Total	27.8	30.4	8.9	1.0
		Zirconium, Total	2.9 u	3.9 u	NC	1.0

Lionville Laboratory, Inc.

INORGANICS PRECISION REPORT 04/07/06

CLIENT: TNUHANFORD RC-047 K0249 LVL LOT #: 0602L372

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

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR(REP)
-005REP	J11895	Mercury, Total	0.02u	0.02	NC	1.0

Lionville Laboratory, Inc.

INORGANICS LABORATORY CONTROL STANDARDS REPORT 04/07/06

CLIENT: TNUHANFORD RC-047 K0249 LVL LOT #: 0602L372

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

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
LCS1	06L0158-LC1	Silver, LCS	49.4	50.0	MG/KG	98.8
		Aluminum, LCS	440	500	MG/KG	88.0
		Arsenic, LCS	942	1000	MG/KG	94.2
		Boron, LCS	477	500	MG/KG	95.5
		Barium, LCS	496	500	MG/KG	99.1
		Beryllium, LCS	22.5	25.0	MG/KG	90.0
		Bismuth, LCS	495	500	MG/KG	99.0
		Calcium, LCS	2060	2500	MG/KG	82.5
		Cadmium, LCS	24.3	25.0	MG/KG	97.2
		Cobalt, LCS	245	250	MG/KG	98.0
		Chromium, LCS	50.1	50.0	MG/KG	100.2
		Copper, LCS	112	125	MG/KG	89.2
		Iron, LCS	427	500	MG/KG	85.4
		Potassium, LCS	2200	2500	MG/KG	88.0
		Lithium, LCS	513	500	MG/KG	102.6
		Magnesium, LCS	2120	2500	MG/KG	84.8
		Manganese, LCS	62.7	75.0	MG/KG	83.6
		Molybdenum, LCS	497	500	MG/KG	99.4
		Sodium, LCS	2240	2500	MG/KG	89.5
		Nickel, LCS	196	200	MG/KG	97.8
		Phosphorus, LCS	450	500	MG/KG	90.0
		Lead, LCS	241	250	MG/KG	96.5
		Antimony, LCS	288	300	MG/KG	96.1
		Selenium, LCS	912	1000	MG/KG	91.2
		Silicon, LCS	181	500	MG/KG	36.2
		Tin, LCS	495	500	MG/KG	99.0
		Titanium, LCS	487	500	MG/KG	97.4
		Thallium, LCS	984	1000	MG/KG	98.4
		Uranium, LCS	240	250	MG/KG	96.1
		Vanadium, LCS	248	250	MG/KG	99.4
		Zinc, LCS	96.1	100	MG/KG	96.1
		Zirconium, LCS	461	500	MG/KG	92.2
LCS1	06C0041-LC1	Mercury, LCS	7.6	6.2	MG/KG	123.2

Lionville Laboratory Use Only

0602L372

Custody Transfer Record/Lab Work Request

Page 1 of 1

See SRC

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Client TNU Hanford BC-047

Est. Final Proj. Sampling Date

Project # 11343-606-001-9999-00

Project Contact/Phone #

Lionville Laboratory Project Manager Arlotta Johnson

QC Spec Del Std TAT 30 Days

Date Rec'd 2-28-06 Date Due 3/30/06

Refrigerator #									A 2						
#/Type Container	Liquid / Solid								1pl						
Volume	Liquid / Solid								15gr						
Preservatives															
ANALYSES REQUESTED →		ORGANIC							INORG						
		VOA	BNA	Pest/PCB	Herb				Metal	CN					
									Lionville Laboratory Use Only						
									8625H 8608H	OPCB	METALS				

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

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	8625H 8608H	OPCB	METALS
001	J118B0			SO	2-23-06	1000	✓	✓	X
002	J118B1					1015	✓	✓	X
003	J118B5					1045	✓	✓	X
004	J11894					1000	✓	✓	X
005	J11895					1015	✓	✓	X
006	J11899					1045	✓	✓	X
007	J118F2					1600	✓	✓	X
008	J118H3						✓	✓	X

Special Instructions:

METALS = HSL + B, Li, Mo, Si, Sn, Ti, U, P, Zr, Bi

RUN MATRIX QC

DATE/REVISIONS:

1. * "Matrix Composed Of Fish." / Logged for BNA, Pest, PCB per OI e-mail.
2.
3.
4.
5.
6.

Relinquished by	Received by	Date	Time
[illegible]	[illegible]	2-28-06	0930

Relinquished by	Received by	Date	Time

Relinquished by	Received by	Date	Time
"COMPOSITE WASTE"			

ORIGINAL REWRITTEN

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-163	Page 1 of 1

Collector TILLER, B. JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N Data Turnaround 45 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location 100-K ELEVATED ~~#1~~, KIDNEY #4		SAF No. RC-047	Air Quality ☐
Ice Chest No. ERC-01-040	Field Logbook No. EL-1597 RC 2-23-06	COA BESRAS 6520	Method of Shipment FED EX	
Shipped To EBERLINE SERVICES, LIONVILLE	Offsite Property No. A060295		Bill of Lading/Air Bill No. SEE OSPC	

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C "MATRIX COMPOSED OF FISH"

Preservation	Cool 4C
Type of Container	G/P
No. of Container(s)	1
Volume	15g

SAMPLE ANALYSIS: ICP Metals - 6010 (Full List); Mercury - 7471 - (CV)

Sample No.	Matrix *	Sample Date	Sample Time	
J11880	OTHER SOLID	2-23-06	1000	X

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS
Relinquished By/Removed From: JAMES BERNHARD — Date/Time 2-23-06 1600	Received By/Stored In: EAS LOCKED STORAGE — Date/Time 2-23-06 1600	
Relinquished By/Removed From: EAS LOCKED STORAGE — Date/Time 2-27-06 0745	Received By/Stored In: RZ Steffler — Date/Time 2-27-06 0745	
Relinquished By/Removed From: RZ Steffler with — Date/Time 2-27-06 1600	Received By/Stored In: Fed Ex — Date/Time	
Relinquished By/Removed From: Fed Ex — Date/Time 2-28-06 1093	Received By/Stored In: D. Smith — Date/Time 2-28-06 1030	
Relinquished By/Removed From — Date/Time	Received By/Stored In — Date/Time	
Relinquished By/Removed From — Date/Time	Received By/Stored In — Date/Time	

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
Ve=Vegetation
X=Other

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

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-164	Page 1 of 1

Collector TILLER, B. JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N	Data Turnaround 45 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location 100-K ELEVATED ~~NE~~, KIDNEY #5		SAF No. RC-047	Air Quality ☐	
Ice Chest No. ERC - 01 - 040	Field Logbook No. EL-1597 RC 2-23-06	COA BESRAS 6520	Method of Shipment FED EX		
Shipped To EBERLINE SERVICES, LIONVILLE	Offsite Property No. A060295		Bill of Lading/Air Bill No. SEE OSPC		

000000033

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C "MATRIX COMPOSED OF FISH"

Preservation	Cool 4C										
Type of Container	G/P										
No. of Container(s)	1										
Volume	15g										
SAMPLE ANALYSIS	ICP Metals - 6010 (Full List); Mercury - 7471 - (CV)										

Sample No.	Matrix *	Sample Date	Sample Time										
J118B1	OTHER SOLID	2-23-06	1015	X									

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS
Relinquished By/Removed From [signature] Date/Time 2-23-06 1600 JAMES BERNHARD	Received By/Stored In [signature] Date/Time 2-23-06 1600 EAS LOCKED STORAGE	
Relinquished By/Removed From [signature] Date/Time 0745 2-27-06 EAS LOCKED STORAGE	Received By/Stored In RZ Stoffler RJ Stoffler Date/Time 0745 2-27-06	
Relinquished By/Removed From RZ Stoffler RJ Stoffler Date/Time 1600 2-27-06	Received By/Stored In Fed Ex Date/Time	
Relinquished By/Removed From Fed Ex 2-28-06 10930	Received By/Stored In D. Vipman 2-28-06 10930 Date/Time	
Relinquished By/Removed From Date/Time	Received By/Stored In Date/Time	
Relinquished By/Removed From Date/Time	Received By/Stored In Date/Time	

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

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-168	Page 1 of 1

Collector TILLER, B. JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location 100K ELEVATED #6, KIDNEY ~~100-K LOW KIDNEY~~		SAF No. RC-047
Ice Chest No. ERC-01-040	Field Logbook No. EL-1597 EL-1597	COA BESRAS6520	Method of Shipment FED EX
Shipped To EBERLINE SERVICES / JONVILLE	Offsite Property No. A060295		Bill of Lading/Air Bill No. SEE OSPC

Price Code 9N

Air Quality ☐

Data Turnaround 45 Days

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C "MATRIX COMPOSED OF FISH"

Preservation	Cool 4C											
Type of Container	G/P											
No. of Container(s)	1											
Volume	15g											
SAMPLE ANALYSIS	ICP Metals - 6010 (Full List): Mercury - 7471 - (CV)											
Sample No.	Matrix *	Sample Date	Sample Time									
J118B5	OTHER SOLID	2-23-06	1045	X								

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By/Removed From JAMES BERNHARD	Date/Time 2-23-06 1600	Received By/Stored In EAS LOCKED STORAGE	Date/Time 2-23-06 1600
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time 0745 2-27-06	Received By/Stored In RZ Steffler	Date/Time 0745 2-27-06
Relinquished By/Removed From RZ Steffler	Date/Time 1600 2-27-06	Received By/Stored In Fed Ex	Date/Time
Relinquished By/Removed From Fed Ex	Date/Time 2-28-06 1093O	Received By/Stored In D. Johnson	Date/Time 2-28-06 1093O
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

Matrix *

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

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

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-157	Page 1 of 1

Collector TILLER, B. JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N	Data Turnaround 45 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location ~~100-K ELEVATED #1~~, LIVER 100K Elevated #4 #6 BC		SAF No. RC-047	Air Quality ☐	
Ice Chest No. ERC-01-040	Field Logbook No. EL-1597 RC 2-23-06 2-23-06	COA BESRAS6520 2-23-06	Method of Shipment FED EX		
Shipped To EBERLINE SERVICES LIONVILLE	Offsite Property No. A060295		Bill of Lading/Air Bill No. SEE OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C "MATRIX COMPOSED OF FISH"

Preservation	None	Cool 4C									
Type of Container	G/P	G/P									
No. of Container(s)	1	1									
Volume	5g	15g									
SAMPLE ANALYSIS	Strontium-89,90 -- Total Sr; Isotopic Thorium; Isotopic Uranium	ICP Metals - 6010 (Full List); Mercury - 7471 - (CV)									
Sample No. / Matrix * / Sample Date / Sample Time											
J11894 / OTHER SOLID / 2-23-06 / 1000		X									

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS
Relinquished By/Removed From: JAMES BERNHARD; Date/Time 2-23-06 1600	Received By/Stored In: EAS LOCKED STORAGE; Date/Time 2-23-06 1600	
Relinquished By/Removed From: EAS LOCKED STORAGE; Date/Time 2-27-06 0745	Received By/Stored In: RZ Steffler; Date/Time 2-27-06 0745	
Relinquished By/Removed From: RZ Steffler; Date/Time 2-27-06 1600	Received By/Stored In: Fed Ex; Date/Time	
Relinquished By/Removed From: Fed Ex; Date/Time 2-28-06 10930	Received By/Stored In: 2-28-06 10930; Date/Time	
Relinquished By/Removed From; Date/Time	Received By/Stored In; Date/Time	
Relinquished By/Removed From; Date/Time	Received By/Stored In; Date/Time	

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
Va=Vegetation
X=Other

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

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-158	Page 1 of 1

Collector TILLER, B.	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N Data Turnaround 45 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location 100-K ELEVATED ~~WE~~, LIVER #5		SAF No. RC-047	Air Quality ☐
Ice Chest No. ERC-01-040	Field Logbook No. EL-1597 RC 2-23-06	COA BESRAS6520	Method of Shipment FED EX	
Shipped To EBERLINE SERVICES (LIONVILLE)	Offsite Property No. A060295		Bill of Lading/Air Bill No. SEE OSPC	

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C "MATRIX COMPOSED OF FISH"

Preservation	None	Cool 4C
Type of Container	G/P	G/P
No. of Container(s)	1	1
Volume	5g	15g

SAMPLE ANALYSIS				Strontium-89,90 – Total Sr; Isotopic Thorium; Isotopic Uranium	ICP Metals - 6010 (Full List); Mercury - 7471 - (CV)
Sample No.	Matrix *	Sample Date	Sample Time		
J11895	OTHER SOLID	2-23-06	1015		X

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS
Relinquished By/Removed From [signature] Date/Time 2-23-06 1600 JAMES BERNHARD	Received By/Stored In [signature] Date/Time 2-23-06 1600 EAS LOCKED STORAGE	
Relinquished By/Removed From EAS LOCKED STORAGE Date/Time 0745 2-27-06	Received By/Stored In RZ Stoffler [signature] Date/Time 0745 2-27-06	
Relinquished By/Removed From RZ Stoffler [signature] Date/Time 1600 WCH 2-27-06	Received By/Stored In Fed Ex Date/Time	
Relinquished By/Removed From Fed Ex Date/Time 2-28-06/0930	Received By/Stored In D. Smith Date/Time 2-28-06/0930	
Relinquished By/Removed From Date/Time	Received By/Stored In Date/Time	
Relinquished By/Removed From Date/Time	Received By/Stored In Date/Time	

Matrix *
SaSoil
SDSediment
SOSolid
SlSludge
W = Water
OOil
AAir
DSDrum Solids
DLDrum Liquids
TTissue
WIWipe
LLiquid
VaVegetation
XOther

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

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-162	Page 1 of 1

Collector TILLER, B. JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N	Data Turnaround 45 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location 100-K ~~LOW~~ LIVER 100K ELEVATED #6		SAF No. RC-047	Air Quality ☐	
Ice Chest No. ERC-01-040	Field Logbook No. EL-1597 BH-02-22-06 2-23-06	COA BESRAS6520	Method of Shipment FED EX		
Shipped To EBERLINE SERVICES LIONVILLE	Offsite Property No. A060295		Bill of Lading/Air Bill No. SEB OSPC		

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C "MATRIX COMPOSED OF FISH"

Preservation	None	Cool 4C									
Type of Container	G/P	G/P									
No. of Container(s)	1	1									
Volume	5g	15g									
SAMPLE ANALYSIS	Strontium-89,90 -- Total Sr; Isotopic Thorium; Isotopic Uranium	ICP Metals - 6010 (Full List); Mercury - 7471 - (CV)									
Sample No. / Matrix * / Sample Date / Sample Time											
J11899 / OTHER SOLID / 2-23-06 / 1045		X									

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS
Relinquished By/Removed From JAMES BERNHARD Date/Time 2-22-06 1600	Received By/Stored In EAS LOCKED STORAGE Date/Time 2-23-06 1600	
Relinquished By/Removed From EAS LOCKED STORAGE Date/Time 0745 2-27-06	Received By/Stored In RZ Stoffler Date/Time 0745 2-27-06	
Relinquished By/Removed From RZ Stoffler Date/Time 1600 2-27-06	Received By/Stored In Fed Ex Date/Time	
Relinquished By/Removed From Date/Time 2-28-06 0930	Received By/Stored In D. Smith Date/Time 2-28-06 0930	
Relinquished By/Removed From Date/Time	Received By/Stored In Date/Time	
Relinquished By/Removed From Date/Time	Received By/Stored In Date/Time	

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

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-192	Page 1 of 1

Collector TILLER, B. JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location 300 ELEVATED. LIVER #4		SAF No. RC-047
Ice Chest No. ERC-01-040	Field Logbook No. EL-15987 JEB 2-23-06	COA BESRAS6520	Method of Shipment FED EX
Shipped To EBERLINE SERVICES RICHLAND	Offsite Property No. A060295		Bill of Lading/Air Bill No. SEE OSPC

Price Code 9N

Air Quality ☐

Data Turnaround 45 Days

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C "MATRIX COMPOSED OF FISH"

Preservation	None	Cool 4C
Type of Container	G/P	G/P
No. of Container(s)	1	1
Volume	5g	15g

SAMPLE ANALYSIS	Strontium-89,90 -- Total Sr; Isotopic Thorium; Isotopic Uranium	ICP Metals - 6010 (Full List); Mercury - 7471 - (CV)
J118F2		X

Sample No.	Matrix *	Sample Date	Sample Time
J118F2	OTHER SOLID	2-23-06	1600

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By/Removed From JAMES BERNHARD	Date/Time 2-23-06 1630	Received By/Stored In EAS LOCKED STORAGE	Date/Time 2-23-06 1630
Relinquished By/Removed From EAS LOCKED STORAGE	Date/Time 0745 2-27-06	Received By/Stored In RZ Stiffler	Date/Time 0745 2-27-06
Relinquished By/Removed From RZ Stiffler	Date/Time 1600 2-27-06	Received By/Stored In Fed Ex	Date/Time
Relinquished By/Removed From Fed Ex	Date/Time 2-28-06 0930	Received By/Stored In D. Smith	Date/Time 2-28-06 0930
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

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
Ve=Vegetation
X=Other

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

BHI-EE-011 (08/29/2005)

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-047-203	Page 1 of 1

Collector TILLER, B. JAMES BERNHARD	Company Contact JOAN KESSNER	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 9N Data Turnaround 45 Days
Project Designation 100 & 300 Area Component of the RCBRA Sediment and Ti	Sampling Location 300 ELEVATED, KIDNEY #4		SAF No. RC-047	Air Quality ☐
Ice Chest No. ERC-01-040	Field Logbook No. EL-1597 7 JMB 2-23-06	COA BBSRAS6520	Method of Shipment FED EX	
Shipped To EBERLINE SERVICES LIONVILLE	Offsite Property No. A060295		Bill of Lading/Air Bill No. SEE OSPC	

POSSIBLE SAMPLE HAZARDS/REMARKS

POTENTIAL RADIOACTIVE <DOT LIMITS

Special Handling and/or Storage

COOL 4C "MATRIX COMPOSED OF FISH"

Preservation	Cool 4C											
Type of Container	G/P											
No. of Container(s)	1											
Volume	15g											
SAMPLE ANALYSIS	ICP Metals - 6010 (Full List); Mercury - 7471 - (CV)											
Sample No.	Matrix *	Sample Date	Sample Time									
J118H3	OTHER SOLID	2-23-06	1600	X								

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS
Relinquished By/Removed From JC Date/Time 2-23-06 1630 JAMES BERNHARD	Received By/Stored In JC Date/Time 2-23-06 EAS LOCKED STORAGE 1630	
Relinquished By/Removed From JC Date/Time 0745 EAS LOCKED STORAGE 2-27-06	Received By/Stored In RZ Stiffler RZ Stiffler Date/Time 0745 2-27-06	
Relinquished By/Removed From RZ Stiffler RZ Stiffler JC 2-27-06 Date/Time 1600	Received By/Stored In FED EX Date/Time	
Relinquished By/Removed From FED EX 2-28-06 Date/Time 10:20	Received By/Stored In D. Smith 2-28-06 Date/Time 10:20	
Relinquished By/Removed From Date/Time	Received By/Stored In Date/Time	
Relinquished By/Removed From Date/Time	Received By/Stored In Date/Time	

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

BHI-EE-011 (08/29/2005)

Lionville Laboratory Incorporated

SAMPLE RECEIPT CHECKLIST (SRC)

CLIENT: TNU Hanford

Date: 2-28-06

Purchase Order / Project# / PC-047
SAF# / SOW# / Release #:

LvLI Batch # : 06021372

Sample Custodian: D. Smith

NOTE: EXPLAIN ALL DISCREPANCIES

1.	Samples Hand Delivered or Shipped	Carrier Fed Ex		Airbill# 7918 7228 4426	
2.	Custody seals on coolers or shipping container intact, signed and dated?	☑ Yes	☐ No	☐ No Seals	Comments
3.	Outside of coolers or shipping containers are free from damage?	☑ Yes	☐ No		
4.	All expected paperwork received (coc and other client specific information) sealed in plastic bag and easily accessible?	☑ Yes	☐ No		
5.	Samples received cooled or ambient? IR	Temp 0.3	°C	Cooler # ERC-01-040	
6.	Custody seals on sample containers intact, signed and dated?	☑ Yes	☐ No	☐ No Seals	
7.	coc signed and dated?	☑ Yes	☐ No		
8.	Sample containers are intact?	☑ Yes	☐ No		
9.	All samples on coc received? All samples received on coc?	☑ Yes	☐ No		
10.	All sample label information matches coc?	☑ Yes	☐ No		
11.	Samples properly preserved?	☑ Yes	☐ No		
12.	Samples received within hold times? Short holds taken to wet lab?	☑ Yes	☐ No		
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 not within policy. See reverse side for policy)	☑ Yes	☐ No		
16.	Project Manager contacted concerning discrepancies? name/date (or samples outside criteria)	☐ Yes	☐ No	☑ No Discrepancies	

SR-002-B

LvLI LIONVILLE LABORATORY, INC