0059533

SAF-B03-020
117-DR Quick Turn Analysis
FINAL DATA PACKAGE

E:MAIL RESULTS TO:

Rikki Thoren _____N/A_____
INITIAL/DATE

COMPLETE COPY OF DATA PACKAGE TO:

Rikki Thoren X9-05 BT 4/10/03
INITIAL/DATE

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

SDG W04001 SAF-B03-020

Rad only X Chem only Rad & Chem

X Complete Partial

Added on TCLP Metals

RECEIVED
MAY 30 2003
EDMC

SEVERN TRENT STL

ANALYTICAL REPORT

PROJECT NO. 117-DR QUICK

B03-020

Lot #: F3C250183
SDG #: W04001

Joan Kessner

Bechtel Hanford, Inc.
3190 George Washington Way
Richland, WA 99352

SEVERN TRENT LABORATORIES, INC.

MARTI WARD
Project Manager

RECEIVED
APR 2003

March 28, 2003

Severn Trent Laboratories, Inc.
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SEVERN TRENT STL

CASE NARRATIVE

Bechtel Hanford Incorporated
3190 George Washington Way
Richland, Washington 99352

March 28, 2003, 2003
Attention: Joan Kessner

Project Number	:	52338
SAF	:	B03-020
SDG	:	W04001
Number of Samples	:	six
Sample Matrix	:	soil
Data Deliverable	:	Summary
Date SDG Closed	:	March 25, 2003

II. Introduction

On March 25, 2003, six (6) "solid" samples were received by STL-St. Louis for chemical analysis. The sample was received at the St. Louis lab at ambient temperature. See the COC and CUR forms for details of sample condition and temperature. See the attached Sample Summary form for the Lab ID's and corresponding Client Ids.

III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits. This report is not complete without the Case Narrative. Results are reported "as received"; i.e. wet weight, unless otherwise noted on the data sheets.

Analyses requested: see the attached methods summary sheet

Deviation from Request: none

IV. Definitions

The following codes are used to denote laboratory quality control samples and can be found in the data summary section of this report:

QCBLK- Quality Control Blank, Method Blank
QCLCS- Quality Control Laboratory Control Sample, Blank Spike
MS- Matrix Spike.
DUP- Matrix Duplicate
MSD- Matrix Spike Duplicate.

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SEVERN TRENT STL

Bechtel Hanford Incorporated
March 28, 2003
Project Number: 52338
SDG: W04001
Page 2

V. Comments

General: The term "Detection Limit" used in the analytical data reports refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

TCLP Metals: A Laboratory Control Sample, Method Blank, Matrix Spike and Matrix Spike Duplicate were analyzed with each preparation batch per the protocol for this analysis.

The TCLP extraction method calls for 100 grams of sample to be leached. There was insufficient sample volume to do the leach at the method specified criteria. A reduced sample amount was used for each of the samples in this SDG. (NCM 06-18075)

There were no comments or non-conformances associated with the analysis of the samples.

I certify that this Summary is in compliance with the SOW, both technically and for completeness, for 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.

Reviewed and approved:

Marti Ward

Marti Ward
St. Louis Project Manager

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Clouseau Nonconformance Memo

STL

NCM #: 06-18075
NCM Initiated By: Kurt Hall
Date Opened: 03/28/2003
Date Closed: 03/28/2003

Classification: Observation
Status: CLOSED
Production Area: TCLP
Tests: None
Lot #'s (Sample #'s): F3C250123 (1,2,3), F3C250183 (1,2,3,4,5,6),
QC Batches: None.,

Nonconformance: Insufficient Sample: Analysis (match w/ desc.)
Subcategory: <100 g used for TCLP extraction

Problem Description / Root Cause

Name	Date	Description
Kurt Hall	03/28/2003	TCLP non-volatiles preparation requires 100 grams of sample. There was insufficient sample provided to perform analysis at the method specified amount. A reduced sample amount was used.

Corrective Action

Name	Date	Corrective Action
Kurt Hall	03/28/2003	

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note
	Response	Response Note			

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position
03/28/2003	Kurt Hall	Chemist

Date Printed: 3/28/03

SAMPLE SUMMARY

F3C250183

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FKN66	001	J00J66	03/13/03	07:40
FKN7N	002	J00J67	03/13/03	07:42
FKN7V	003	J00J68	03/13/03	07:44
FKN7W	004	J00J69	03/13/03	07:46
FKN70	005	J00J70	03/13/03	07:48
FKN72	006	J00J71	03/13/03	07:50

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

METHODS SUMMARY

F3C250183

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 1311/3010
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A	SW846 1311/7470

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

F3C250183

CLIENT ANALYSIS SUMMARY

Storage Loc: R5
Date Received: 2003-03-25
Analytical Due Date: 2003-03-28
Report Due Date: 2003-03-28
Report Type: B Standard Report
EDD Code: FEADII

Project Manager: MAW Quote #: 52338 SDG:
Project: 117-DR QUICK B02-020
PO#: MRC-SBB-A-1998 Report to: Joan Kessner
Client: 127642 BECHTEL HANFORD, INC.

RUSH

#SMPS in LOT: 0

Metals: CRDL standard required +/-25% Batch Hanford samples by themselves !!!!!SAMPLES LABELED RADIOACTIVE!!!!!
take proper precautions!!!

QC required please let me know which sample you chose.

SAMPLE #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	WORKORDER	A
1	J00J66	2003-03-13 / 740	FKN66	SOLID

SAMPLE COMMENTS:

HG	O8	SW846	7470A	Mercury (7470A, Cold Vapor) - Liquid	0M	TCLP(1311) -> METALS, TOTAL (Method exclusive)	01	STANDARD TEST SET	PROT: A	WRK LOC	06
AS	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
BA	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
CD	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
CR	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
PB	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
SE	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
AG	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	ZV		RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	WORKORDER	A
2	J00J67	2003-03-13 / 742	FKN7N	SOLID

SAMPLE COMMENTS:

HG	O8	SW846	7470A	Mercury (7470A, Cold Vapor) - Liquid	0M	TCLP(1311) -> METALS, TOTAL (Method exclusive)	01	STANDARD TEST SET	PROT: A	WRK LOC	06
SE	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
PB	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
CD	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
BA	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
AS	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
AG	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
CR	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	ZV		RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	WORKORDER	A
3	J00J68	2003-03-13 / 744	FKN7V	SOLID

SAMPLE COMMENTS:

HG	O8	SW846	7470A	Mercury (7470A, Cold Vapor) - Liquid	0M	TCLP(1311) -> METALS, TOTAL (Method exclusive)	01	STANDARD TEST SET	PROT: A	WRK LOC	06
SE	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
AG	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
AS	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
BA	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
CD	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
CR	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
PB	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	ZV		RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06

F3C250183 CLIENT ANALYSIS SUMMARY

Storage Loc: R5
Date Received: 2003-03-25
Analytical Due Date: 2003-03-28
Report Due Date: 2003-03-28
Report Type: B Standard Report
EDD Code: FEADII

Project Manager: MAW Quote #: 52338 SDG:
Project: 117-DR QUICK B02-020
PO#: MRC-SBB-A-1998 Report to: Joan Kessner
Client: 127642 BECHTEL HANFORD, INC.

RUSH

#SMPS In LOT: 0

Metals: CRDL standard required +/-25% Batch Hanford samples by themselves !!!!!SAMPLES LABELED RADIOACTIVE!!!!! take proper precautions!!!

SAMPLE #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	WORKORDER	A
4	J00J69	2003-03-13 / 746	FKN7W	SOLID

SAMPLE COMMENTS:

HG	O8	SW846	7470A	Mercury (7470A, Cold Vapor) - Liquid	0M	TCLP(1311) -> METALS, TOTAL (Method exclusive)	01	STANDARD TEST SET	PROT: A	WRK LOC	06
AS	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
BA	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
CD	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
CR	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
PB	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
SE	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
AG	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	ZV		RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	WORKORDER	A
5	J00J70	2003-03-13 / 748	FKN70	SOLID

SAMPLE COMMENTS:

HG	O8	SW846	7470A	Mercury (7470A, Cold Vapor) - Liquid	0M	TCLP(1311) -> METALS, TOTAL (Method exclusive)	01	STANDARD TEST SET	PROT: A	WRK LOC	06
SE	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
PB	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
CD	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
BA	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
AS	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
AG	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
CR	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	ZV		RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	WORKORDER	A
6	J00J71	2003-03-13 / 750	FKN72	SOLID

SAMPLE COMMENTS:

HG	O8	SW846	7470A	Mercury (7470A, Cold Vapor) - Liquid	0M	TCLP(1311) -> METALS, TOTAL (Method exclusive)	01	STANDARD TEST SET	PROT: A	WRK LOC	06
AG	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
AS	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
BA	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
CD	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
CR	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
PB	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
SE	QO	SW846	6010B	Inductively Coupled Plasma (6010B)	34	TCLP(1311) -> METALS, TOTAL	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	ZV		RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06

LOT# F3C250183

SDG# W04001

STL ST. LOUIS

Q. 27038

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		B03-020-02	Page 1 of 2
Collector: R Fahlberg / J Gale / DL Bowers	Company Contact: R Thoren	Telephone No.: 372-2178	Project Coordinator: KESSNER, JH	Price Code: 2C; Data Turnaround: 3 Business Days
Project Designation: 117-DR Quick Turn Analysis	Sampling Location: 117 DR		SAF No.: B03-020	Air Quality ☐
Ice Chest No.: EAC 96-082	Field Logbook No.: EL 1517-4	COA: R117DR200C	Method of Shipment: Government Vehicle	
Shipped To: Severn Trent Incorporated, Richland	Offsite Property No.: N/A		Bill of Lading/Air Bill No.: N/A	

POSSIBLE SAMPLE HAZARDS/REMARKS

Radioactive Tie To J009M3

Special Handling and/or Storage

Cool 4c

SDG W04001

Due 3-18

SAMPLE ANALYSIS J3BC130237

Preservation	None	Cool 4C								
Type of Container	aG	aG								
No. of Container(s)	1	1								
Volume	60mL	60mL								
	See item (1) in Special Instructions.	Chromium Hex - 7196		TCLP Metals						

Staying in Richland

radical per JKessner

Req'd 3/24 to Ship to stlouis Attn Marie

Temp not important due 3/28

Sample No.	Matrix *	Sample Date	Sample Time									
J00J66 FJ4F7	SOIL	3-13-03	0740	X	X		✓					
J00J67 FJ4GC	SOIL	3-13-03	0742	X	X		✓					
J00J68 FJ4GE	SOIL	3-13-03	0744	X	X		✓					
J00J69 FJ4GF	SOIL	3-13-03	0746	X	X		✓					
J00J70 FJ4GG	SOIL	3-13-03	0748	X	X		✓					

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
DOW EAC Bowers	3-13-03 1100	LIOD LPS	11:00
A. Rhineheart	3/24/03 13:00	A. Rhineheart LPS	3/24/03
		Kris Guerro	3/25/03 1040

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010A (Add-on) (Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver, Sodium); Activity Scan

use J009M3 as shipping criteria

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 (03/01/2002)

LOT# F3C250183

SDG# W04001

STL ST. LOUIS

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B03-020-02	Page 2 of 2
Collector: R Fahlberg / J Gale / DL Downs	Company Contact: R Thoren; Telephone No.: 372-2178	Project Coordinator: KESSNER, JH	Price Code: 2C; Data Turnaround: 3 Business Days
Project Designation: 117-DR Quick Turn Analysis	Sampling Location: 117 DR	SAF No.: B03-020	Air Quality ☐
Ice Chest No.: EAC 96-082	Field Logbook No.: EL 1517-4; COA: R117DR200C	Method of Shipment: Government Vehicle	
Shipped To: Severn Trent Incorporated, Richland	Offsite Property No.: N/A	Bill of Lading/Air Bill No.: N/A	

POSSIBLE SAMPLE HAZARDS/REMARKS

Radioactive Tie To J009M3

Special Handling and/or Storage

Cool 4c

Preservation	None	Cool 4C									
Type of Container	aG	aG									
No. of Container(s)	1	1									
Volume	60mL	60mL									

added per J Kessner

SAMPLE ANALYSIS

	See item (1) in Special Instructions	Chromium Hex - 7196	TCLP Metals							
			Rec'd 3/24 to Ship to St Louis Temp not important						Atten Mark due 3/28	

Sample No.	Matrix *	Sample Date	Sample Time										
J00J71 FJ4GJ	SOIL	3-17-03	0770	X	X	✓							

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
[signature] Downs	3-17-03/1400	[signature] A. Rhineheart	3/17/03 11:00
[signature] A. Rhineheart	3/24/03 13:00	[signature]	3/25/03 1040

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010A (Add-on) {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver, Sodium}; Activity Scan

use J009M3 as shipping criteria

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 (03/01/2002)

STL SEVERN TRENT SERVICES

Lot No.: F3C250183
W04001

Condition Upon Receipt Form
St. Louis Laboratory

Client: STL Richland
Quote No: 52338
Shipper/No: 790240263350

Date: 3/25/03 Time: 1050
Initiated by: KA
COC/RFA Numbers: B03-020-02

Condition/Variance (Circle "Y" for yes and "N" for no. If "N" is circled, see notes for explanation):

1.	Y N	Sample received in undamaged condition.	5.	Y N	Sample volume sufficient for analysis.
2.	Y N	Sample received within 4°C ± 2°C*.	6.	Y N	Sample received with Chain of Custody.
		Record temperature: Ambient	7.	Y N	Chain of Custody matches sample IDs on containers.
3.	Y N N/A	Sample received with proper pH**.	8.	Y N	Custody seal received intact and tamper evident on cooler.
4.	Y N	Sample received in proper containers.	9.	Y N	Custody seal received intact and tamper evident on bottles.

*** Temperature Variance Does Not Affect the Following Analyses:** _____

**** For DOE-AL (Pantex, LANL, Sandia, Timet) sites, remember to pH all containers received, except for VOA, TOX, and soils.**

Notes:

Corrective Action:

- ☐ Client's Name: _____ Informed verbally on: _____ By: _____
- ☐ Client's Name: _____ Informed in writing on: _____ By: _____
- ☐ Sample(s) processed "as is". _____
- ☐ Sample(s) on hold until: _____ If released, notify: _____

Sample Control Supervisor (or designate) Review: [signature] Date: 3/25/03

Project Management Review: [signature] Date: 3/25/03

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE
THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED
IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIALS AND THE DATE NEXT TO THAT ITEM

METALS

BECHTEL HANFORD, INC.

Client Sample ID: J00J66

TCLP Metals

Lot-Sample #...: F3C250183-001 **Matrix.....:** SOLID
Date Sampled...: 03/13/03 **Date Received..:** 03/25/03
Leach Date.....: 03/25/03 **Leach Batch #..:** P308413

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3085377						
Arsenic	ND	0.50	mg/L	SW846 6010B	03/26-03/27/03	FKN661AC
		Dilution Factor: 2.5		MDL.....: 0.11		
Barium	**0.40 B,J**	**0.50**	**mg/L**	**SW846 6010B**	**03/26-03/27/03**	**FKN661AD**
		Dilution Factor: 2.5		MDL.....: 0.017		
Cadmium	ND	0.025	mg/L	SW846 6010B	03/26-03/27/03	FKN661AE
		Dilution Factor: 2.5		MDL.....: 0.0050		
Chromium	ND	0.050	mg/L	SW846 6010B	03/26-03/27/03	FKN661AF
		Dilution Factor: 2.5		MDL.....: 0.0050		
Lead	ND	0.25	mg/L	SW846 6010B	03/26-03/27/03	FKN661AG
		Dilution Factor: 2.5		MDL.....: 0.11		
Silver	ND	0.050	mg/L	SW846 6010B	03/26-03/27/03	FKN661AH
		Dilution Factor: 2.5		MDL.....: 0.015		
Selenium	ND	0.50	mg/L	SW846 6010B	03/26-03/27/03	FKN661AJ
		Dilution Factor: 2.5		MDL.....: 0.079		
Prep Batch #...: 3086129						
Mercury	ND	0.010	mg/L	SW846 7470A	03/27-03/28/03	FKN661AK
		Dilution Factor: 5		MDL.....: 0.000060		

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MATRIX SPIKE SAMPLE DATA REPORT

TCLP Metals

Client Lot #...: F3C250183 **Matrix.....:** SOLID
Date Sampled...: 03/13/03 **Date Received..:** 03/25/03

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: F3C250183-001 **Prep Batch #...:** 3085377									
Leach Date.....: 03/25/03 **Leach Batch #..:** P308413									
Arsenic									
	ND	12.5	12.3	mg/L	99		SW846 6010B	03/26-03/27/03	FKN661AL
	ND	12.5	12.5	mg/L	100	1.5	SW846 6010B	03/26-03/27/03	FKN661AM
			Dilution Factor: 2.5						
Barium									
	0.40	12.5	12.1	mg/L	94		SW846 6010B	03/26-03/27/03	FKN661AN
	0.40	12.5	12.3	mg/L	95	1.4	SW846 6010B	03/26-03/27/03	FKN661AP
			Dilution Factor: 2.5						
Cadmium									
	ND	2.50	2.39	mg/L	95		SW846 6010B	03/26-03/27/03	FKN661AQ
	ND	2.50	2.42	mg/L	97	1.4	SW846 6010B	03/26-03/27/03	FKN661AR
			Dilution Factor: 2.5						
Chromium									
	ND	12.5	12.2	mg/L	97		SW846 6010B	03/26-03/27/03	FKN661AT
	ND	12.5	12.4	mg/L	99	1.5	SW846 6010B	03/26-03/27/03	FKN661AU
			Dilution Factor: 2.5						
Lead									
	ND	12.5	12.1	mg/L	97		SW846 6010B	03/26-03/27/03	FKN661AV
	ND	12.5	12.3	mg/L	99	1.4	SW846 6010B	03/26-03/27/03	FKN661AW
			Dilution Factor: 2.5						
Silver									
	ND	2.50	2.48	mg/L	99		SW846 6010B	03/26-03/27/03	FKN661AX
	ND	2.50	2.52	mg/L	101	1.6	SW846 6010B	03/26-03/27/03	FKN661A0
			Dilution Factor: 2.5						
Selenium									
	ND	2.50	2.50	mg/L	100		SW846 6010B	03/26-03/27/03	FKN661A1
	ND	2.50	2.53	mg/L	101	1.5	SW846 6010B	03/26-03/27/03	FKN661A2
			Dilution Factor: 2.5						
MS Lot-Sample #: F3C250183-001 **Prep Batch #...:** 3086129									
Leach Date.....: 03/25/03 **Leach Batch #..:** P308413									
Mercury									
	ND	0.0250	0.0255	mg/L	102		SW846 7470A	03/27-03/28/03	FKN661A3
	ND	0.0250	0.0254	mg/L	101	0.59	SW846 7470A	03/27-03/28/03	FKN661A4
			Dilution Factor: 5						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

BECHTEL HANFORD, INC.

Client Sample ID: J00J67

TCLP Metals

Lot-Sample #...: F3C250183-002 **Matrix.....:** SOLID
Date Sampled...: 03/13/03 **Date Received..:** 03/25/03
Leach Date.....: 03/25/03 **Leach Batch #..:** P308413

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3085377						
Arsenic	ND	0.50	mg/L	SW846 6010B	03/26-03/27/03	FKN7N1AC
		Dilution Factor: 2.5		MDL.....: 0.11		
Barium	0.41 B,J	0.50	mg/L	SW846 6010B	03/26-03/27/03	FKN7N1AD
		Dilution Factor: 2.5		MDL.....: 0.017		
Cadmium	ND	0.025	mg/L	SW846 6010B	03/26-03/27/03	FKN7N1AE
		Dilution Factor: 2.5		MDL.....: 0.0050		
Chromium	ND	0.050	mg/L	SW846 6010B	03/26-03/27/03	FKN7N1AF
		Dilution Factor: 2.5		MDL.....: 0.0050		
Lead	ND	0.25	mg/L	SW846 6010B	03/26-03/27/03	FKN7N1AG
		Dilution Factor: 2.5		MDL.....: 0.11		
Silver	ND	0.050	mg/L	SW846 6010B	03/26-03/27/03	FKN7N1AH
		Dilution Factor: 2.5		MDL.....: 0.015		
Selenium	ND	0.50	mg/L	SW846 6010B	03/26-03/27/03	FKN7N1AJ
		Dilution Factor: 2.5		MDL.....: 0.079		
Prep Batch #...: 3086129						
Mercury	ND	0.010	mg/L	SW846 7470A	03/27-03/28/03	FKN7N1AK
		Dilution Factor: 5		MDL.....: 0.000060		

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

BECHTEL HANFORD, INC.

Client Sample ID: J00J68

TCLP Metals

Lot-Sample #...: F3C250183-003 **Matrix.....:** SOLID
Date Sampled...: 03/13/03 **Date Received..:** 03/25/03
Leach Date.....: 03/25/03 **Leach Batch #..:** P308413

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3085377						
Arsenic	ND	0.50	mg/L	SW846 6010B	03/26-03/27/03	FKN7V1AC
		Dilution Factor: 2.5		MDL.....: 0.11		
Barium	**0.37 B,J**	**0.50**	**mg/L**	**SW846 6010B**	**03/26-03/27/03**	**FKN7V1AD**
		Dilution Factor: 2.5		MDL.....: 0.017		
Cadmium	ND	0.025	mg/L	SW846 6010B	03/26-03/27/03	FKN7V1AE
		Dilution Factor: 2.5		MDL.....: 0.0050		
Chromium	ND	0.050	mg/L	SW846 6010B	03/26-03/27/03	FKN7V1AF
		Dilution Factor: 2.5		MDL.....: 0.0050		
Lead	**0.42**	**0.25**	**mg/L**	**SW846 6010B**	**03/26-03/27/03**	**FKN7V1AG**
		Dilution Factor: 2.5		MDL.....: 0.11		
Silver	ND	0.050	mg/L	SW846 6010B	03/26-03/27/03	FKN7V1AH
		Dilution Factor: 2.5		MDL.....: 0.015		
Selenium	ND	0.50	mg/L	SW846 6010B	03/26-03/27/03	FKN7V1AJ
		Dilution Factor: 2.5		MDL.....: 0.079		
Prep Batch #...: 3086129						
Mercury	ND	0.010	mg/L	SW846 7470A	03/27-03/28/03	FKN7V1AK
		Dilution Factor: 5		MDL.....: 0.000060		

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

BECHTEL HANFORD, INC.

Client Sample ID: J00J69

TCLP Metals

Lot-Sample #...: F3C250183-004 **Matrix.....:** SOLID
Date Sampled...: 03/13/03 **Date Received..:** 03/25/03
Leach Date.....: 03/25/03 **Leach Batch #..:** P308413

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3085377						
Arsenic	ND	0.50	mg/L	SW846 6010B	03/26-03/27/03	FKN7W1AC
		Dilution Factor: 2.5		MDL.....: 0.11		
Barium	**0.31 B,J**	**0.50**	**mg/L**	**SW846 6010B**	**03/26-03/27/03**	**FKN7W1AD**
		Dilution Factor: 2.5		MDL.....: 0.017		
Cadmium	ND	0.025	mg/L	SW846 6010B	03/26-03/27/03	FKN7W1AE
		Dilution Factor: 2.5		MDL.....: 0.0050		
Chromium	ND	0.050	mg/L	SW846 6010B	03/26-03/27/03	FKN7W1AF
		Dilution Factor: 2.5		MDL.....: 0.0050		
Lead	ND	0.25	mg/L	SW846 6010B	03/26-03/27/03	FKN7W1AG
		Dilution Factor: 2.5		MDL.....: 0.11		
Silver	ND	0.050	mg/L	SW846 6010B	03/26-03/27/03	FKN7W1AH
		Dilution Factor: 2.5		MDL.....: 0.015		
Selenium	ND	0.50	mg/L	SW846 6010B	03/26-03/27/03	FKN7W1AJ
		Dilution Factor: 2.5		MDL.....: 0.079		
Prep Batch #...: 3086129						
Mercury	ND	0.010	mg/L	SW846 7470A	03/27-03/28/03	FKN7W1AK
		Dilution Factor: 5		MDL.....: 0.000060		

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

BECHTEL HANFORD, INC.

Client Sample ID: J00J70

TCLP Metals

Lot-Sample #...: F3C250183-005 **Matrix.....:** SOLID
Date Sampled...: 03/13/03 **Date Received..:** 03/25/03
Leach Date.....: 03/25/03 **Leach Batch #..:** P308413

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3085377						
Arsenic	ND	0.50	mg/L	SW846 6010B	03/26-03/27/03	FKN701AC
		Dilution Factor: 2.5		MDL.....: 0.11		
Barium	**0.28 B,J**	**0.50**	**mg/L**	**SW846 6010B**	**03/26-03/27/03**	**FKN701AD**
		Dilution Factor: 2.5		MDL.....: 0.017		
Cadmium	ND	0.025	mg/L	SW846 6010B	03/26-03/27/03	FKN701AE
		Dilution Factor: 2.5		MDL.....: 0.0050		
Chromium	ND	0.050	mg/L	SW846 6010B	03/26-03/27/03	FKN701AF
		Dilution Factor: 2.5		MDL.....: 0.0050		
Lead	**0.13 B**	**0.25**	**mg/L**	**SW846 6010B**	**03/26-03/27/03**	**FKN701AG**
		Dilution Factor: 2.5		MDL.....: 0.11		
Silver	ND	0.050	mg/L	SW846 6010B	03/26-03/27/03	FKN701AH
		Dilution Factor: 2.5		MDL.....: 0.015		
Selenium	ND	0.50	mg/L	SW846 6010B	03/26-03/27/03	FKN701AJ
		Dilution Factor: 2.5		MDL.....: 0.079		
Prep Batch #...: 3086129						
Mercury	ND	0.010	mg/L	SW846 7470A	03/27-03/28/03	FKN701AK
		Dilution Factor: 5		MDL.....: 0.000060		

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

BECHTEL HANFORD, INC.

Client Sample ID: J00J71

TCLP Metals

Lot-Sample #...: F3C250183-006 **Matrix.....:** SOLID
Date Sampled...: 03/13/03 **Date Received..:** 03/25/03
Leach Date.....: 03/25/03 **Leach Batch #..:** P308413

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 3085377						
Arsenic	ND	0.50	mg/L	SW846 6010B	03/26-03/27/03	FKN721AC
		Dilution Factor: 2.5		MDL.....: 0.11		
Barium	**0.24 B,J**	**0.50**	**mg/L**	**SW846 6010B**	**03/26-03/27/03**	**FKN721AD**
		Dilution Factor: 2.5		MDL.....: 0.017		
Cadmium	ND	0.025	mg/L	SW846 6010B	03/26-03/27/03	FKN721AE
		Dilution Factor: 2.5		MDL.....: 0.0050		
Chromium	ND	0.050	mg/L	SW846 6010B	03/26-03/27/03	FKN721AF
		Dilution Factor: 2.5		MDL.....: 0.0050		
Lead	ND	0.25	mg/L	SW846 6010B	03/26-03/27/03	FKN721AG
		Dilution Factor: 2.5		MDL.....: 0.11		
Silver	ND	0.050	mg/L	SW846 6010B	03/26-03/27/03	FKN721AH
		Dilution Factor: 2.5		MDL.....: 0.015		
Selenium	ND	0.50	mg/L	SW846 6010B	03/26-03/27/03	FKN721AJ
		Dilution Factor: 2.5		MDL.....: 0.079		
Prep Batch #...: 3086129						
Mercury	ND	0.010	mg/L	SW846 7470A	03/27-03/28/03	FKN721AK
		Dilution Factor: 5		MDL.....: 0.000060		

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

METHOD BLANK REPORT

TCLP Metals

Client Lot #...: F3C250183 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F3C250000-546	**Prep Batch #...:** 3085377					
Leach Date.....: 03/25/03	**Leach Batch #..:** P308413					
Arsenic	ND	0.50	mg/L	SW846 6010B	03/26-03/27/03	FKQC81AA
		Dilution Factor: 2.5				
Barium	0.051 B	0.50	mg/L	SW846 6010B	03/26-03/27/03	FKQC81AC
		Dilution Factor: 2.5				
Cadmium	ND	0.025	mg/L	SW846 6010B	03/26-03/27/03	FKQC81AD
		Dilution Factor: 2.5				
Chromium	ND	0.050	mg/L	SW846 6010B	03/26-03/27/03	FKQC81AE
		Dilution Factor: 2.5				
Lead	ND	0.25	mg/L	SW846 6010B	03/26-03/27/03	FKQC81AF
		Dilution Factor: 2.5				
Silver	ND	0.050	mg/L	SW846 6010B	03/26-03/27/03	FKQC81AG
		Dilution Factor: 2.5				
Selenium	ND	0.50	mg/L	SW846 6010B	03/26-03/27/03	FKQC81AH
		Dilution Factor: 2.5				
MB Lot-Sample #: F3C250000-546	**Prep Batch #...:** 3086129					
Leach Date.....: 03/25/03	**Leach Batch #..:** P308413					
Mercury	ND	0.010	mg/L	SW846 7470A	03/27-03/28/03	FKQC81AJ
		Dilution Factor: 5				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE DATA REPORT

TCLP Metals

Client Lot #...: F3C250183 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: F3C260000-377 **Prep Batch #...:** 3085377							
Arsenic	2.50	2.56	mg/L	102	SW846 6010B	03/26-03/27/03	FKRJW1AA
			Dilution Factor: 2.5				
Barium	2.50	2.40	mg/L	96	SW846 6010B	03/26-03/27/03	FKRJW1AC
			Dilution Factor: 2.5				
Cadmium	2.50	2.43	mg/L	97	SW846 6010B	03/26-03/27/03	FKRJW1AD
			Dilution Factor: 2.5				
Chromium	2.50	2.44	mg/L	98	SW846 6010B	03/26-03/27/03	FKRJW1AE
			Dilution Factor: 2.5				
Lead	2.50	2.52	mg/L	101	SW846 6010B	03/26-03/27/03	FKRJW1AF
			Dilution Factor: 2.5				
Silver	0.625	0.632	mg/L	101	SW846 6010B	03/26-03/27/03	FKRJW1AG
			Dilution Factor: 2.5				
Selenium	2.50	2.60	mg/L	104	SW846 6010B	03/26-03/27/03	FKRJW1AH
			Dilution Factor: 2.5				
LCS Lot-Sample#: F3C270000-129 **Prep Batch #...:** 3086129							
Mercury	0.0250	0.0276	mg/L	110	SW846 7470A	03/27-03/28/03	FKTQQ1AA
			Dilution Factor: 5				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.