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LK23-LAS

START

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Lockheed Analytical Services

BECHTEL HANFORD, INC.

ANALYTICAL DATA REPORT

FOR

MERCURY



RECORD COPY

LOG-IN NUMBER:	<u>L3363</u>
QUOTATION NUMBER:	<u>Q400000-B</u>
SAF:	<u>B94-067</u>
DOCUMENT FILE NUMBER:	<u>1119596B</u>
WHC DOCUMENT CONTROL NO:	<u>107</u>
SDG NUMBER:	<u>LK23</u>





Environmental Systems & Technologies Inc.

Lockheed Analytical Services
975 Kelly Johnson Drive
Las Vegas, Nevada 89119-3705

November 23, 1994

Phone: (702) 361-0220
Phone: (800) 582-7605
Fax: (702) 361-8146

Ms. Doris Ayres
Bechtel Hanford, Inc.
345 Hills P.O. Box 969
Richland, WA 99352

RE: Log-in No.: L3363
Quotation No.: Q400000-B
SAF: B94-067
Document File No.: 1119596B
WHC Document File No.: 107
SDG No.: LK23

The attached data report contains the analytical results of samples that were submitted to Lockheed Analytical Services on 19 November 1994.

The temperature of the cooler upon receipt was 2°C. Sample containers received agree with the chain-of-custody documentation. Sample containers were received intact. Samples were received in time to meet the analytical holding time requirements.

A list of data qualifiers, chain-of-custody forms, sample receiving checklist, and log-in report are also enclosed representing the samples received within this group.

If you have any questions concerning the analysis or the data please call Kathleen M. Hall at (509) 943-4423.

" I certify that this data package 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".

Sincerely,


Kathleen M. Hall
Project Manager

kmh:sm

cc: Client Services
Document Control

**CASE NARRATIVE
INORGANIC ANALYSES**

The routine calibration and quality control analyses performed for this batch include as applicable: instrument tune (ICP/MS only), initial and continuing calibration verification, initial and continuing calibration blanks, method blank(s), laboratory control sample(s), ICP interference check samples (ICP only), serial dilutions, analytical (post-digestion) spike samples, matrix spike (predigestion) sample(s), duplicate sample(s).

Holding Times-

All samples were analyzed within the method-specific holding times.

Method Blanks-

The method blanks were free of contamination.

Internal Quality Control-

All Internal Quality Control were within acceptance limits.

Shellee McGrath
Prepared By

November 23, 1994
Date

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TOTAL METALS RESULTS

Client Sample ID: BODCS3	Date Collected: 11-16-94	Matrix: water
LAL Batch ID(s): 1119 wh	Date Received: 11-19-94	

Constituents	Method	Concentration (mg/L)	IDL (mg/L)	RDL (mg/L)	Data Qualifier(s)	Date Analyzed	LAL ID
Mercury	CLP	<0.0002	0.0002	0.0002	U	11-22-94	L3363-3

Comments:

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TOTAL METALS RESULTS

Client Sample ID: BODCS4	Date Collected: 11-16-94	Matrix: water
LAL Batch ID(s): 1119 wh	Date Received: 11-19-94	

Constituents	Method	Concentration (mg/L)	IDL (mg/L)	RDL (mg/L)	Data Qualifier(s)	Date Analyzed	LAL ID
Mercury	CLP	0.00041	0.0002	0.0002		11-22-94	L3363-4

Comments:

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LOGIN CHAIN OF CUSTODY REPORT (ln01)
Nov 21 1994, 10:56 am

Login Number: L3363
Account: 596 Bechtel Hanford, Inc. * Richland, WA
Project: BECHTEL-HANFORD Bechtel Hanford Project

Laboratory Sample Number	Client Sample Number	Collect Date	Receive Date	Due PR Date
L3363-1 temp 2 Location: 157 Water 1 S SCREENING	BODCS3	16-NOV-94	19-NOV-94	23-NOV-94
		Hold:15-MAY-95		
L3363-2 temp 2 Location: 157 Water 1 S SCREENING	BODCS4	16-NOV-94	19-NOV-94	23-NOV-94
		Hold:15-MAY-95		
L3363-3 temp 2 Location: 157 Water 1 S CLP MERCURY	BODCS3	16-NOV-94	19-NOV-94	23-NOV-94
		Hold:14-DEC-94		
L3363-4 temp 2 Location: 157 Water 1 S CLP MERCURY	BODCS4	16-NOV-94	19-NOV-94	23-NOV-94
		Hold:14-DEC-94		
L3363-5 Location: Water 1 S EDD - DISK DEL. Water 1 S INORG TYPE 2 RPT	REPORT TYPE	21-NOV-94	19-NOV-94	23-NOV-94

Page 1

Signature: Murillo

Date: 11-21-94

1119596

L3363

Westinghouse Hanford Company **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

Collector Doug Bowers	Company Contact Mike Frank	Telephone No. 376-2731
Project Designation 200 BP-5 Tank Characterization Unit 1	Sampling Location 200 WEST	SAF No. B94-067
Ice Chest No.	Field Logbook No. N/A	Method of Shipment Hand Deliver
Shipped To 11-17-94 to B D Quanterra Lockheed	Offsite Property No. W95-0-0073-28	Bill of Lading/Air Bill No. 140-2135449

Data Turnaround
 Priority
 Normal

Possible Sample Hazards/Remarks unknown	Preservative	HNO3	none	none															
	Type of Container	G	P/G	P/G															
	No. of Container(s)	1	1	1															
	Special Handling and/or Storage Store at 4 C	Volume	1 L	20 mL	20 mL														

SAMPLE ANALYSIS

Sample No.	Matrix*	Date Sampled	Time Sampled	AA Metals-mercury	Activity Scan	Total Activity													
BODCS3	w	11-16-94	1336	X	X														
BODCS4	w	11-16-94	1345	X	X														

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS	Matrix*
Relinquished By <i>Doug Bowers</i>	Date/Time 0830	Received By <i>Paul C. Davis</i>	Date/Time 0830
Relinquished By <i>Doug Bowers</i>	Date/Time 11-17-94	Received By <i>Paul C. Davis</i>	Date/Time 11-17-94
Relinquished By <i>Paul C. Davis</i>	Date/Time 0830	Received By <i>Paul C. Davis</i>	Date/Time 11-17-94
Relinquished By <i>Paul C. Davis</i>	Date/Time 11-17-94	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

SAMPLE FOR MERCURY ONLY OFF OF THIS SAF, FOR THESE SAMPLES.

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 <i>Paul C. Davis</i>	Title <i>SAMPLE CUSTODY</i>	Date/Time 11-19-94 16:00
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

119546

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11/17/94 08:21

373 3176

222S 3B

001

SAMPLE STATUS REPORT FOR N 3853. RAD SCREEN BODCS4 TIME: 11/17/94 7:49
 DISPATCHED: 11/16/94 12:59 SAMPLE HAS NOT BEEN SLURPED
 RECEIVED: 11/17/94 5:53

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	*****	*****	***	***	*****
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	P51BA

END OF REPORT

111959

11/17/94 2477
SAMPLE STATUS REPORT FOR N 3852. RAD SCREEN BQDCS3 TIME: 11/17/94 7:49
DISPATCHED: 11/16/94 11:54 SAMPLE HAS NOT BEEN SLURPED
RECEIVED: 11/17/94 5:53

EXT.	DETER.	RESULTS OR STATUS	OUT OF RANGE?	GOOD ANS?	CHARGE CODE
****	*****	*****	***	***	*****
4271	TOT-ACT	< 5.00000E 01 pCi/G	N	Y	P51BA

END OF REPORT

Login Review Checklist

Lot Number L3363

The login review should be conducted by that person logging in the samples as well as a peer. Please use this checklist to ensure that such reviews occur in a uniform basis. Please sign and date below to verify that a login review has occurred. This checklist should be affixed to each login package prior to distribution.

For an effective login review, at a minimum, five reports from the login process are required. These are the chain of custody (or equivalent), the login chain of custody report, the sample summary report, the sample receiving checklist, and the login quotation. Before beginning a review, ensure that these five components are available. For jobs with single component samples, the sample summary report may be omitted.

Sample Summary Report

Yes No

N/A

- | | | | | |
|----|---|----------|---|---|
| 1. | Are all sample IDs correct? | <u>X</u> | — | — |
| 2. | Are all samples present? | <u>X</u> | — | — |
| 3. | Are all matrices correct?
<small>(e.g., TCLP analyses should be on a TCLP leachate, field blanks should be water)</small> | <u>X</u> | — | — |
| 4. | Are all analyses on the chain of custody/login quotation included? | — | — | — |
| 5. | Are analyses logged in for the correct container?
<small>(e.g., analyses requiring preservation logged in for a preserved container and vice versa)</small> | <u>X</u> | — | — |
| 6. | Are samples logged in according to laboratory batching procedures?
<small>(e.g., TCLP regular leaching and associated metals/semivolatile organics should be logged in on the same bottle)</small> | <u>X</u> | — | — |

Login Chain of Custody Report

- | | | | | |
|----|--|----------|---|---|
| 1. | Are the Collect, Receive, and Due dates correct for every sample? | <u>X</u> | — | — |
| 2. | Have appropriate sample comments been included?
<small>(e.g., MS/MSD designation, comments from the client concerning method modifications)</small> | <u>X</u> | — | — |

Sample Receiving Checklist

- | | | | | |
|----|---|---|---|-----------|
| 1. | Are any discrepancies between the chain of custody and the login noted? <u>NA</u>
<small>(e.g., client IDs different on chains of custody and bottle labels, samples not sent, samples lost from breakage)</small> | — | — | <u>NA</u> |
|----|---|---|---|-----------|

Mmille

11-21-94

Derek Henderson 11-21-94

Primary review signature

Date

Secondary review signature

Date

**Lockheed Analytical Services
Sample Receiving Checklist**

Client Name: Westing House - Hartford Job No. L3363

Cooler ID: ER-80

COOLER CONDITION UPON RECEIPT

Temperature of cooler upon receipt: 2°C

temperature of temp. blank upon receipt:

	Yes	No	* Comments/Discrepancies
custody seals intact	X		
chain of custody present	X		
blue ice (or equiv.) present/frozen	X		
rad survey completed	X		

SAMPLE CONDITION UPON RECEIPT

	Yes	No	* Comments/Discrepancies
all bottles labeled	X		
samples intact	X		
proper container used for sample type	X		
sample volume sufficient for analysis	X		
proper pres. indicated on the COC	X		
VOA's contain headspace			<u>N/A</u>
are samples bi-phasic (if so, indicate sample ID'S):			<u>N/A</u>

MISCELLANEOUS ITEMS

	Yes	No	* Comments/Discrepancies
samples with short holding times		X	
samples to subcontract		X	

ADDITIONAL COMMENTS/DISCREPANCIES

Completed by / date: mmlls 11-21-94

Sent to the client (date/initials): ** Client's signature upon receipt:

Notes: * = contact the appropriate CSR of any discrepancies immediately upon receipt

** = please review this information and return via facsimile to the appropriate CSR (702) 361-8146

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Lockheed Analytical Laboratory
SAMPLE SUMMARY REPORT (su02)
Bechtel Hanford, Inc. * Richland, WA

Client Sample Number	LAL Sample Number	SDG Number	Matrix	Method
BODCS3 -	L3363-1 L3363-3		Water Water	SCREENING - CLP MERCURY-
BODCS4 -	L3363-2 L3363-4		Water Water	SCREENING CLP MERCURY -
REPORT TYPE -	L3363-5 L3363-5		Water Water	EDD - DISK DEL. INORG TYPE 2 RPT

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