START 9613442.0518 0044123

~~B06CH9-TMA 202~~ B06CV0-TMA-168 000001

1 of 3

WESTINGHOUSE HANFORD COMPANY

Results of Analyses For:

GENERAL CHEMISTRY
CASE NO. 06-007
(TMA/ARLI Work Order # A2-06-007)

ORGANICS
CASE NO. 06-007
(TMA/ARLI Work Order # A2-06-007)

General Chemistry and Organics results are presented for the following WHC WATER samples(s):

B06CH9
B06CJ1
B06CT4
B06CJ5
B06CJ7
B06CL9
B06CM1

Norcal Work Order # N2-06-003

Thermo Analytical Inc.
160 Taylor Street
Monrovia, Ca. 91016
818-357-3247

MAY 1996
RECEIVED
EDMC

9613442.0519

Westinghouse Hanford Company

NONCONFORMANCE REPORT

1. Page 1 of ____

2. Preprinted No. 05

QA Log No. EQA-93

3. P. O., W. O., or Job Control No.	4. System/End Use	5. Item/Material	6. Dwg./Spec./Other No.
N/A	RI/FS	WATER SAMPLE	N/A

8. Program/Project/Other
RCRA P.P. 100-HR-3/92-165
CERCLA 100-KR-4/92-398

9. Safety Class: N/A

10. ASME Code Items ☐ Yes ☐ (If yes, notify authorized inspector)

11. Supplier Name/Address
~~ENVIRONMENTAL~~ RES 1/26/93
THERMO ANALYTICAL LAB

12. Notification of Potential Occurenc ☐ Yes ☒ No

13. Code: Lot/Heat/Serial	14. Lot Size	15. Sample	16. Qty. Acc.	17. Inspection Criteria
N/A	11 2-2-93	11 2-2-93	0	☐ Dwg. ☐ Spec. ☐ Insp. Pl ☒ Other CLP SOW

18. Item	19. Description of Nonconformance (list serial no. where applicable)	22. Disposition, Justification, and Instruction
	SAMPLE NUMBERS B06CH9, B06CJ0, B06CJ1, B06CJ4, B06CJ5, B06CJ6, B06CJ7, B06CL9, B06CM0, B06CM1 (100-HR-3) AND B06M18 (100-KR-4) WERE NOT STORED AT °4C ± °2C AS REQUIRED BY CLP STATEMENT OF WORK.	Analysis shall be performed. ~~received from the analysis sh flagged for all constituents.~~ Use as is. These samples were not u in a WHC Validation Pr Therefore, this NCR sh serve as the flag to ide potential problems with data. R L Biggerstaff

20. Originator's Signature R.C. SMITH Date 1/26/93

23. Design Document Change Required? ☐ Yes, Doc. No. ____

21. Cognizant QA Manager's Signature for F.L. Bonnington Date 2-3-93

24. Corrective Action Required? ☐ Yes, No. ____

Disp. App.

25. Cognizant Engineer	Date	26. Technical Rep.	Date	Signature/Org.
JW Roberts	2/5/93	NA		NA

QA Engineer	Date	Signature/Org.	Date	Signature/Org.
GS Corrigan	2-5-93	NA		NA

Close

27. Accept 11 Reject 0 Follow on NCR NA

QA/C Personnel

9613442.0520

Westinghouse Hanford Company

NONCONFORMANCE REPORT

1. Page 1 of ____

2. Preprinted No. 051707

QA Log No.

3. P. O., W. O., or Job Control No.	4. System/End Use	5. Item/Material	6. Dwg./Spec./Other No.	7. Rev.
N/A	RI/FS	WATER SAMPLE	N/A	N/A

8. Program/Project/Other
100-HR-3/92-165
100-KR-4/92-398

9. Safety Class: N/A

10. ASME Code Items ☐ Yes ☒ No
(If yes, notify authorized inspector)

11. Supplier Name/Address
~~ENVIRONMENTAL~~ RCS 1/26/93
THERMO ANALYTICAL LAB

12. Notification of Potential Occurence Required ☐ Yes ☒ No

13. Code: Lot/Heat/Serial	14. Lot Size	15. Sample	16. Qty. Acc.	17. Inspection Criteria
N/A	1	1	0	☐ Dwg. ☐ Spec. ☐ Insp. Plan ☒ Other CLP SOW

18. Item	19. Description of Nonconformance (list serial no. where applicable)	22. Disposition, Justification, and Instructions
	SAMPLE NUMBERS B06CH9, B06CJ0, B06CJ1, B06CJ4, B06CJ5, B06CJ6, B06CJ7, B06CL9, B06CM0, B06CM1 (100-HR-3) AND B06M18 (100-KR-4) WERE NOT STORED AT 4C ± 2C AS REQUIRED BY CLP STATEMENT OF WORK.	

20. Originator's Signature R.C. SMITH Date
R. Clayton Smith 1/26/93

23. Design Document Change Required? ☐ Yes, Doc. No. ____ ☐ No

21. Cognizant QA Manager's Signature Date

24. Corrective Action Required? ☐ Yes, No. ____ ☐ No

Disp. App.

25. Cognizant Engineer	Date	26. Technical Rep.	Date	Signature/Org.	Date
QA Engineer	Date	Signature/Org.	Date	Signature/Org.	Date

Close

27.
Accept ____ Reject ____ Follow on NCR ____

QA/C Personnel Date

A-7310-104 (10/91)

9613442.0521

000002

Westinghouse Hanford Company	CHAIN OF CUSTODY	ARL 1

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-28-92

Ice Chest No. RM7105

Field Logbook No. EFL-1018

Bill of Lading/Airbill No. 2509868790

Offsite Property No. W92-0-0399-92

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CH9

~~3, 1L, P, WATER, CLP ICP/AA METALS & MERCURY (HNO3) UNFILTERED~~

~~3, 1L, P, WATER, CLP-CYANIDE (NaOH)~~

3, 40ml, Gs, WATER, CLP-VOA

3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST

1, 500ml, P, WATER, ANIONS, pH

1, 500ml, P, WATER, CONDUCTIVITY

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu 238/239/240, Am 241), Sr 90, Tc 99~~

~~1, 500ml, P, WATER, C 14~~

~~1, 250ml, G, WATER, TRITIUM~~

~~B06CJ0~~

~~3, 1L, P, WATER, CLP ICP/AA METALS & MERCURY (HNO3) FILTERED~~

B06CJ1

3, 40ml, Gs, WATER, CLP-VOA

B06CT4

3, 40ml, G, Water, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: C Gilbert / C GILBERTS	Received by: Refrig	Date/Time: 5/28/92 1500
Relinquished by:	Received by: B WHITEN	Date/Time: 5-29-92 07:30
Relinquished by: B WHITEN	Received by: Kermit Blum	Date/Time: 6-1-92 * 0800
Relinquished by: Kermit Blum 6-1-92	Received by: Tody Bennett	Date/Time: 6/2/92 1000

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments: * Arrived @ TMA/NORCAL 5-30-92; opened 6-1-92 - KB

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0522

000003

TASK NO 92-165

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5-28-92 Time 0920 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B0GCH9	~~3, 1L, P~~	~~W~~	~~CLP - ICP/AA Metals & Hg (HNO_3), unfiltered~~
	~~3, 1L, P~~	~~W~~	~~CLP - CN (NaOH)~~
	3, 40M, Gs	W	CLP - VOA
	3, 2L, G	W	CLP - Semi-VOA/PCB/Pest
	1, 500 ml, G	W	ANions, pH
	1, 500ml, G	W	Cond.
	~~2, 4L, P~~	~~W~~	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am 241), Sr 90, Tc 99~~
	~~1, 500ml, P~~	~~W~~	~~C-14~~
	~~1, 250 ml, G~~	~~W~~	~~Tritium~~
B0GCJ0	~~3, 1L, P~~	~~W~~	~~CLP-ICP/AA Metals & Hg (HNO_3) filtered~~
B0GCJ1	3, 40 ml, Gs	W	CLP-VOA
B0GCT4	3, 40 mL, AG	W	CLP-VOA

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 6-1-92

Analysis Required

301 # 2509868790 OPC # W92-0-0399-15

9613442.0523

000004

Westinghouse Hanford Company	CHAIN OF CUSTODY	ARL 1

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-28-92

Ice Chest No. SMZ-123

Field Logbook No. EFL-1018

Bill of Lading/Airbill No. 0509868790

Offsite Property No. W92-0-0399-14

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CJ5

~~3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED~~

~~3, 1L, P, WATER, CLP-CYANIDE (NaOH)~~

3, 40ml, Gs, WATER, CLP-VOA

3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST

1, 500ml, G, WATER, ANIONS, pH

1, 500ml, G, WATER, CONDUCTIVITY

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

~~B06CJ~~6

~~3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED~~

B06CJ7

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker	Received by: Refrigerator	Date/Time: 5/28/92 - 1450
Relinquished by:	Received by: B. WHITTEN	Date/Time: 5-29-92 07:30
Relinquished by: B WHITTEN	Received by: Kermit Blum	Date/Time: * 6-1-92 0800
Relinquished by: 6-1-92 Kermit Blum	Received by: Tody Bennard	Date/Time: 6/2/92 1000

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments: * Arrived @ TMA / NORCAL 5-30-92 ; opened 6-1-92 . KB

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0524

000005

TASK-NO 92-165

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5-28-92 Time 1040 hours

Company Contact P H Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CJ5	~~3, 1L, P~~	~~W~~	~~CLP - ICP/AA Metals & Hg (HNO_3), unfiltered~~
	~~3, 1L, P~~	~~W~~	~~CLP - CN (NaOH)~~
	3, 40M, Gs	W	CLP - VOA
	3, 2L, G	W	CLP - Semi-VOA/PCB/Pest
	1, 500 ml, G	W	ANions, pH
	1, 500ml, G	W	Cond.
	~~2, 4L, P~~	~~W~~	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P~~	~~W~~	~~C-14~~
	~~1, 250 ml, G~~	~~W~~	~~Tritium~~
B06CJ6	~~3, 1L, P~~	~~W~~	~~CLP-ICP/AA Metals & Hg (HNO_3) filtered~~
B06CJ7	3, 40 ml, Gs	W	CLP-VOA

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 6-1-92

Analysis Required

BOL # 250996979 OPC # W92-0-0399-14

9613442.0525

000006

Westinghouse Hanford Company	CHAIN OF CUSTODY	ARL 1

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date ~~5/19/92~~ 5/28/92 LDW

Ice Chest No. AUSTIN

Field Logbook No. EFL-0057, p 14

Bill of Lading/Airbill No. 2509868790

Offsite Property No. W92-0-0399-14

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CL9

~~3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED~~

~~3, 1L, P, WATER, CLP-CYANIDE (NaOH)~~

3, 40ml, Gs, WATER, CLP-VOA

3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST

1, 500ml, G, WATER, ANIONS, pH

1, 500ml, G, WATER, CONDUCTIVITY

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

~~B06CM0~~

~~3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED~~

B06CM1 **

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Kathy D. Lee K.D. Lee	Received by: relinq to refrigerator	Date/Time: ~~5/19/92~~ 5/28/92 1455
Relinquished by:	Received by: Kim Whitten B. WHITEN	Date/Time: 5-29-92 07:30
Relinquished by: Kim Whitten B. WHITEN	Received by: Kermit Blum	Date/Time: * 6-1-92 0800
Relinquished by: Kermit Blum 6-1-92	Received by: Tony Bernard	Date/Time: 6/2/92 1000

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments: * Arrived @ ~~TMA/NORCAL~~ TMA/NORCAL 5-30-92; opened 6-1-92 - KB

** Upon arrival @ TMA/NORCAL, B06CM1 had air bubbles in one vial. KB

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0526

000007

TASK NO 92-165

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5-28-92 Time 1225 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CL9	~~3, 1L, P~~	~~W~~	~~CLP - ICP/AA Metals & Hg (HNO_3), unfiltered~~
	~~3, 1L, P~~	~~W~~	~~CLP - CN (NaOH)~~
	3, 40M, Gs	W	CLP - VOA
	3, 2L, G	W	CLP - Semi-VOA/PCB/Pest
	1, 500 ml, G	W	ANions, pH
	1, 500ml, G	W	Cond.
	~~2, 4L, P~~	~~W~~	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P~~	~~W~~	~~C-14~~
	~~1, 250 ml, G~~	~~W~~	~~Tritium~~
B06CM0	~~3, 1L, P~~	~~W~~	~~CLP-ICP/AA Metals & Hg (HNO_3) filtered~~
B06CM1	3, 40 ml, Gs	W	CLP-VOA (bubble on one vial)

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 6-1-92

Analysis Required

COC # [illegible] OPC # W92-0-0399-14

SAMPLE LOG-IN SHEET

LAB NAME : TMA/ARLI

PAGE : 1 OF 1

RECEIVED BY (PRINT NAME): Tody Bernard

LOG-IN-DATE : 6/2/90

RECEIVED BY (SIGNATURE) Tody Bernard

CASE NUMBER:
SAMPLE DELIVERY GROUP NO.:
SAS NUMBER:

REMARKS:

1. Custody Seal(s) Present/Absent* Intact/Broken
2. Custody Seal Nos: _____
3. Chain of Custody Records Present/Absent*
4. Traffic Reports or Packing List Present/Absent*
5. Airbill Airbill/Sticker Present/Absent*
6. Airbill No.: _____
7. Sample Tags Present/Absent*
8. Sample Tags Numbers Listed/Not Listed on Chain of Custody
9. Sample Condition: Intact/Broken*/Leaking
10. Does information on custody records, traffic reports, and sample tags agree Yes/No*
11. Date Recieved at Lab: 6/2/91
12. Temp of ice chest 4.0 °C
13. Time Recieved: 10:00 AM

SAMPLE TRANSFER

Fraction: _____
Area #: _____
By: _____
On: _____

EPA SAMPLE #	CORRESPONDING SAMPLE TAG #	CORRESPONDING ASSIGNED LAB #	REMARKS: CONDITION OF SAMPLE SHIPMENT, ETC
	B0L6CM9	AB-06-007-01	
	B0L6CJ1	AB-06-007-02	
	B0L6CT4	AB-06-007-03	
	B0L6CJ5	AB-06-007-04	
	B0L6CJ7	AB-06-007-05	
	B0L6CL9	AB-06-007-06	
	B0L6CM1	AB-06-007-07	

* Contact SMO and attach record of resolution

Reviewed By: _____ Logbook No.: _____

Date: _____ Logbook Page No.: _____

FORM DC-1

DOC2/LOGIN.TBL

GENERAL CHEMISTRY RESULTS

CASE NO. 06-007

Water Sample #:

B06CH9
B06CJ5
B06CL9

CASE NARRATIVE

No problems were encountered during sample analysis.
All QC results were acceptable.

Ernesto Vazquez

TMA Inc. REPORT Work Order # A2-06-007

Received: 05/30/92

Results by Sample

SAMPLE ID B06CM9 FRACTION 01C TEST CODE WCCLPL NAME Anions & Wet Chem. - WM043

Date & Time Collected 05/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Fluoride	300	<0.1	mg/L	0.1
Chloride	300	16.5	mg/L	0.2
Nitrite	300	<0.1	mg/L	0.1
Nitrate	300	9.7	mg/L	0.2
Sulfate	300	124	mg/L	1
Phosphate	300	<0.4	mg/L	0.4
Elect. Conductivity	120.1	572	umho/cm	6
pH	150.1	8.0	pH	0.1

FORM I

TMA Inc. REPORT Work Order # A2-06-007

Received: 05/30/92

Results by Sample

SAMPLE ID B06CJ5 FRACTION 04E TEST CODE WCCLPL NAME Anions & Wet Chem. - WM043

Date & Time Collected 05/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Fluoride	300	<0.1	mg/L	0.1
Chloride	300	27.0	mg/L	0.2
Nitrite	300	<0.1	mg/L	0.1
Nitrate	300	20.0	mg/L	0.2
Sulfate	300	204	mg/L	1
Phosphate	300	<0.4	mg/L	0.4
Elect. Conductivity	120.1	797	umho/cm	6
pH	150.1	7.8	pH	0.1

FORM I

TMA Inc. REPORT Work Order # A2-06-007

Received: 05/30/92 Results by Sample

SAMPLE ID B06CL9 FRACTION 06C TEST CODE WCCLPL NAME Anions & Wet Chem. - WM043

Date & Time Collected 05/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Fluoride	300	<0.1	mg/L	0.1
Chloride	300	29.9	mg/L	0.2
Nitrite	300	1.3	mg/L	0.1
Nitrate	300	32.6	mg/L	0.2
Sulfate	300	95	mg/L	1
Phosphate	300	<0.4	mg/L	0.4
Elect. Conductivity	120.1	624	umho/cm	6
pH	150.1	9.8	pH	0.1

FORM I

CASE NARRATIVE

LABORATORY : TMA/ARLI

CASE : 06-007

CONTRACT ID : WESTINGHOUSE HANFORD COMPANY

SDG RECEIPT DATE : June 1, 1992

1.0 DESCRIPTION OF CASE :

Seven water samples were analyzed for TCL Organics-Volatiles, Semivolatiles, and Pesticide/PCBs according to the USEPA Contract Laboratory Program (CLP) Statement of Work for Organic Analysis, Revision OLM01.8.

2.0 SAMPLE LIST :

WESTINGHOUSE ID	LAB ID	ANALYSIS REQUESTED	MATRIX	pH
B06CH9	A2-06-007-01A	V	WATER	7
B06CH9	A2-06-007-01B	SV & P	WATER	
B06CJ1	A2-06-007-02A	V	WATER	7
B06CJ1 MS	A2-06-007-02B	V	WATER	7
B06CJ1 MSD	A2-06-007-02C	V	WATER	7
B06CT4	A2-06-007-03A	V	WATER	7
B06CJ5	A2-06-007-04A	V	WATER	7
B06CJ5	A2-06-007-04B	SV & P	WATER	
B06CJ5 MS	A2-06-007-04C	SV & P	WATER	
B06CJ5 MSD	A2-06-007-04D	SV & P	WATER	
B06CJ7	A2-06-007-05A	V	WATER	7
B06CL9	A2-06-007-06A	V	WATER	7
B06CL9	A2-06-007-06B	SV & P	WATER	
B06CM1	A2-06-007-07A	V	WATER	7

3.0 COMMENTS :

3.1 SHIPPING AND DOCUMENTATION :

All samples were received unbroken and properly documented. Sample B06CM1 had an air bubble in 1 of the 3 VOA vials received on 6/1/92.

3.2 ANALYSIS

3.2.1 VOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

The samples were analyzed within the CLP SOW holding times. All of the QC results were within the limits specified by the EPA CLP SOW.

TUNES :

All of the BFB tunes are injected directly into the GC/MS instrument.

3.2.2 SEMIVOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

The samples were extracted and analyzed within the CLP SOW holding times. The matrix spike recovery of 4-Chloro-3-methylphenol was 1% above the QC limit in sample B06CJ5MS. The spike recoveries in both the MS and MSD for 4-Nitrophenol were above the QC limit. No further action was required by the protocol.

All of the other QC results were within the limits specified by the CLP SOW.

3.2.3 PESTICIDE/PCB ANALYSIS COMMENTS :

SEQUENCE NOTES :

The sequence was started on 6/22/92 and was analyzed in accordance with the EPA CLP SOW. The instrument blanks, PEMs and calibration verification standards all met the requirements established by the EPA CLP SOW.

SAMPLE NOTES :

LOW LEVEL WATER :

The samples were extracted and analyzed within the CLP SOW holding times. All of the QC results were within the limits specified by the EPA CLP SOW.

We certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data in this hardcopy data package and in the computer-readable data submitted on diskette is authorized by the Laboratory Manager or his designee, as verified by the following signatures.

Nicole Roth

Nicole Roth
CLP Program Manager

Widayat

Wida Ang
Organics Supervisor

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CH9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R20

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/05/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	1	J
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

EPA SAMPLE NO.

B06CH9

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R20

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/05/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CJ1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R26

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/06/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

EPA SAMPLE NO.

B06CJ1

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R26

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/06/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CJ5

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R22

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/05/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	8	J
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

EPA SAMPLE NO.

B06CJ5

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R22

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/05/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CJ7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R23

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/05/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

EPA SAMPLE NO.

B06CJ7

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R23

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/05/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CL9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R24

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/06/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	3	J
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

EPA SAMPLE NO.

B06CL9

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R24

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/06/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CM1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R25

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/06/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

EPA SAMPLE NO.

B06CM1

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R25

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/06/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.0547

000017
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CT4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R21

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/05/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

9613442.0548

000018
EPA SAMPLE NO.

B06CT4

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R21

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/05/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.0549

000019
EPA SAMPLE NO.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B06CH9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20622N03

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 06/03/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613442.0550

000020
EPA SAMPLE NO.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B06CH9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20622N03

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 06/03/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	1	BJ
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

EPA SAMPLE NO.

B06CH9

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20622N03

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 06/03/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown hydrcarbon	4.23	13	BJ
2.	Unknown hydrcarbon	7.35	8	BJ
3.	Unknown alcohol	7.98	2	BJ
4.	Unknown ketone	8.90	4	BJ
5.	Unknown carboxylic acid este	16.27	2	BJ
6.	Unknown	22.48	3	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CJ5

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-04B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20622N04

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 06/03/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/22/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CJ5

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-04B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20622N04

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 06/03/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	1	BJ
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B06CJ5

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-04B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20622N04

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 06/03/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown hydrocarbon	4.23	17	BJ
2.	Unknown hydrocarbon	7.35	11	BJ
3.	Unknown alcohol	7.98	3	BJ
4.	Unknown ketone	8.90	5	BJ
5.	Unknown	22.48	3	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CL9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-06B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20622N07

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 06/03/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/22/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	2	J
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

EPA SAMPLE NO.

B06CL9

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-06B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20622N07

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 06/03/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/22/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	1	BJ
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	20	B
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

EPA SAMPLE NO.

B06CL9

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-06B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20622N07

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 06/03/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 11

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown hydrocarbon	4.22	23	J
2.	Unknown acid	5.62	7	J
3.	Unknown acid	6.75	5	J
4.	Unknown acid	6.95	4	J
5.	Unknown hydrocarbon	7.37	18	BJ
6.	Unknown alcohol	8.00	5	BJ
7.	Unknown ketone	8.92	5	BJ
8.	Unknown hydrocarbon	11.73	3	J
9.	Unknown alkene	14.37	3	J
10.	Unknown hydrocarbon	20.92	100	J
11.	Unknown	22.48	2	J

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CH9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 06/01/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 06/03/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/25/92

Injection Volume: 2.50 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

9613442.0559

000029

EPA SAMPLE NO.

B06CJ5

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-04B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 06/01/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 06/03/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/25/92

Injection Volume: 2.50 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CL9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-06B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 06/01/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 06/03/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/25/92

Injection Volume: 2.50 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

9613442.0561

TMA

Thermo Analytical Inc.

TMA/Norcal
2030 Wright Avenue
P.O. Box 4040
Richmond, CA 94804-0040
(415) 235-2633 Fax No. (415) 235-0438

AUG 1992
RECEIVED
OSM DMO

August 18, 1992

Jeanette Duncan
Westinghouse Hanford Company
2355 Stevens Drive
Richland, WA 99352

Reference: Organics Case 05-056 and Metals Case N2-05-108
WHC Samples B0GCV0, B0GCV6, B0GCW4, B0GCT9, B0GCV5 and B0GCW3

Dear Jeannette:

This will confirm that the WHC sample identification numbers on the above cases should have read B06CV0, B06CV6, B06CW4, B06CT9, B06CV5 and B06CW3.

Sincerely,

Dolores Sanchez

Dolores Sanchez
Program Coordinator

9615442.0562

TMA

Thermo Analytical Inc.

TMA/Norcal
2030 Wright Avenue
P.O. Box 4040
Richmond, CA 94804-0040

(415) 235-2633 Fax No. (415) 235-0438

August 18, 1992

AUG 1992
RECEIVED
OSM DMO

Jeanette Duncan
Westinghouse Hanford Company
2355 Stevens Drive
Richland, WA 99352

Reference: Organics Case 06-005
WHC Sample B06CK7

Dear Jeannette:

This will confirm that the WHC sample B06CK4 reported on page 33 of the Data Summary Report and on page 492 of the Data Package, referenced above, was a misprint. It should have been written as B06CK7.

Sincerely,

Dolores Sanchez

Dolores Sanchez
Program Coordinator

9613442.0563

000005

EPA SAMPLE NO.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CH9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R20

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/05/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	1	J
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

EPA SAMPLE NO.

B06CH9

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R20

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/05/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.0565

000007
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CJ1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R26

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/06/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

EPA SAMPLE NO.

B06CJ1

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R26

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/06/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

VL B

9613442.0567

000009
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CJ5

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R22

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/05/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	8	J
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

9613442.0568

000010
EPA SAMPLE NO.

B06CJ5

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R22

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/05/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.0569

000011
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CJ7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R23

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/05/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

9613442.0570

000012
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B06CJ7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R23

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/05/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

EPA SAMPLE NO.

B06CL9

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R24

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/06/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	3	J
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

EPA SAMPLE NO.

B06CL9

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R24

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/06/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

RB
10-26-92

9613442.0573

000015
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CM1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R25

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/06/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

EPA SAMPLE NO.

B06CM1

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R25

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/06/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1.0
10-28-92

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CT4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R21

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/05/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

EPA SAMPLE NO.

B06CT4

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20605R21

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: not dec. ____ Date Analyzed: 06/05/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.0577

000019
EPA SAMPLE NO.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B06CH9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20622N03

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 06/03/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/22/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613442.0578

000020
EPA SAMPLE NO.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B06CH9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20622N03

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 06/03/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/22/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	~~101~~	~~BJ~~ U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613442.0579

000021
EPA SAMPLE NO.

B06CH9

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20622N03

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 06/03/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown hydrcarbon	4.23	13	~~BJ~~ U
2.	Unknown hydrcarbon	7.35	8	~~BJ~~ U
3.	Unknown alcohol	7.98	2	~~BJ~~
4.	Unknown ketone	8.90	4	~~BJ~~
5.	Unknown carboxylic acid este	16.27	2	~~BJ~~
6.	Unknown	22.48	3	J

RB 10-28

EPA SAMPLE NO.

B06CJ5

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-04B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20622N04

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 06/03/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613442.0581

000023

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CJ5

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-04B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20622N04

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 06/03/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/22/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10 ~~1~~	~~BJ~~ U RB
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

RB 5/27/93

(1) - Cannot be separated from Diphenylamine

9613442.0582

000024
EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B06CJ5

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-04B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20622N04

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 06/03/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown hydrocarbon	4.23	17	~~BJ~~ U
2.	Unknown hydrocarbon	7.35	11	~~BJ~~
3.	Unknown alcohol	7.98	3	~~BJ~~
4.	Unknown ketone	8.90	5	~~BJ~~ ✓
5.	Unknown	22.48	3	J

RE
10/25/93

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CL9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-06B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20622N07

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 06/03/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/22/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	2	J
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613442.0584

000026
EPA SAMPLE NO.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B06CL9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-06B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20622N07

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 06/03/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10 ~~1~~	~~BJ~~ U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	20	~~B~~ U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

EPA SAMPLE NO.

B06CL9

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-06B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20622N07

Level: (low/med) LOW Date Received: 06/01/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 06/03/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/22/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 11

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown hydrocarbon	4.22	23	J
2.	Unknown acid	5.62	7	J
3.	Unknown acid	6.75	5	J
4.	Unknown acid	6.95	4	J
5.	Unknown hydrocarbon	7.37	18	BJ
6.	Unknown alcohol	8.00	5	BJ
7.	Unknown ketone	8.92	5	BJ
8.	Unknown hydrocarbon	11.73	3	J
9.	Unknown alkene	14.37	3	J
10.	Unknown hydrocarbon	20.92	100	J
11.	Unknown	22.48	2	J

9613442.0586

000028
EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B06CH9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 06/01/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 06/03/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/25/92

Injection Volume: 2.50 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	UJ
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	UJ
58-89-9	gamma-BHC (Lindane)	0.050	UJ
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

9613442.0587

000029
EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B06CJ5

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-04B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 06/01/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 06/03/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/25/92

Injection Volume: 2.50 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	UJ
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	UJ
58-89-9	gamma-BHC (Lindane)	0.050	UJ
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CL9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 06007 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A206007-06B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 06/01/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 06/03/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/25/92

Injection Volume: 2.50 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

KP

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	UJ
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	UJ
58-89-9	gamma-BHC (Lindane)	0.050	UJ
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

9613442.0589

000012

TMA Inc. REPORT Work Order # A2-06-007

Received: 05/30/92

Results by Sample

SAMPLE ID B06CN9 FRACTION 01C TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

H9

Date & Time Collected 05/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Fluoride	300	<0.1 U	mg/L	0.1
Chloride	300	16.5	mg/L	0.2
Nitrite	300	<0.1 U	mg/L	0.1
Nitrate	300	9.7	mg/L	0.2
Sulfate	300	124	mg/L	1
Phosphate	300	<0.4 UJ	mg/L	0.4
Elect. Conductivity	120.1	572	umho/cm	6
pH	150.1	8.0 J	pH	0.1

FORM I

9613442.0590

000013

TMA Inc. REPORT Work Order # A2-06-007

Received: 05/30/92

Results by Sample

SAMPLE ID B06CJ5 FRACTION 04E TEST CODE VCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 05/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Fluoride	300	<0.1 U	mg/L	0.1
Chloride	300	27.0	mg/L	0.2
Nitrite	300	<0.1 U	mg/L	0.1
Nitrate	300	20.0	mg/L	0.2
Sulfate	300	204	mg/L	1
Phosphate	300	<0.4 UJ	mg/L	0.4
Elect. Conductivity	120.1	797	umho/cm	6
pH	150.1	7.8 J	pH	0.1

FORM I

RB 5/15/92

TMA Inc. REPORT Work Order # A2-06-007

Received: 05/30/92 Results by Sample

SAMPLE ID B06CL9 FRACTION 06C TEST CODE WCCLPL NAME Anions & Wet Chem. - WM043

Date & Time Collected 05/28/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Fluoride	300	<0.1 U	mg/L	0.1
Chloride	300	29.9	mg/L	0.2
Nitrite	300	1.3	mg/L	0.1
Nitrate	300	32.6	mg/L	0.2
Sulfate	300	95	mg/L	1
Phosphate	300	<0.4 UJ	mg/L	0.4
Elect. Conductivity	120.1	624	umho/cm	6
pH	150.1	9.8 J	pH	0.1

FORM I

9613442.0592

~~B06CN7-TMA-192~~
B06CV0-TMA-168

TMA

WESTINGHOUSE HANFORD COMPANY

JUL 1992
RECEIVED
OSM DMO

Results of Analyses For:

ORGANICS & GENERAL CHEMISTRY
Case No. 05-040
(TMA/ARLI Work Order # A2-05-040)

METALS
Case No. N2-05-068
(TMA/Skinner & Sherman W.O. # S2-05-129 & S2-05-132)

July 28, 1992

TMA/Master Work Order # N2-05-068

CASE NARRATIVE

LABORATORY : TMA/ARLI

CASE : 05-040

CONTRACT ID : WESTINGHOUSE HANFORD COMPANY

SDG RECEIPT DATE : May 12, 1992

1.0 DESCRIPTION OF CASE :

Fourteen water samples were analyzed for TCL Organics-Volatiles, Semivolatiles, and Pesticide/PCBs according to the USEPA Contract Laboratory Program (CLP) Statement of Work for Organic Analysis, Revision OLM01.8.

2.0 SAMPLE LIST :

WESTINGHOUSE ID	LAB ID	ANALYSIS REQUESTED	MATRIX	pH
B06CN7	A2-05-040-01A	V	WATER	7
B06CN7	A2-05-040-01B	SV & P	WATER	
B06CN9	A2-05-040-02A	V	WATER	7
B06CN9 MS	A2-05-040-02B	V	WATER	7
B06CN9 MSD	A2-05-040-02C	V	WATER	7
B06CP0	A2-05-040-03A	V	WATER	7
B06CP0	A2-05-040-03B	SV & P	WATER	
B06CP0 MS	A2-05-040-03C	SV & P	WATER	
B06CP0 MSD	A2-05-040-03D	SV & P	WATER	
B06CP2	A2-05-040-04A	V	WATER	7
B06CR4	A2-05-040-05A	V	WATER	7
B06CR4	A2-05-040-05B	SV & P	WATER	
B06CR6	A2-05-040-06A	V	WATER	7
B06CQ2	A2-05-040-07A	V	WATER	7
B06CQ2	A2-05-040-07B	SV & P	WATER	
B06CQ4	A2-05-040-08A	V	WATER	7
B06CR7	A2-05-040-09A	V	WATER	7
B06CR7	A2-05-040-09B	SV & P	WATER	
B06CR9	A2-05-040-10A	V	WATER	7
B06CF8	A2-05-040-11A	V	WATER	7
B06CF8	A2-05-040-11B	SV & P	WATER	
B06CG0	A2-05-040-12A	V	WATER	7
B06CT6	A2-05-040-13A	V	WATER	7
B06CT8	A2-05-040-14A	V	WATER	7

3.0 COMMENTS :

3.1 SHIPPING AND DOCUMENTATION :

All samples were received unbroken and properly documented. Sample B06CN9 was received by TMA/ARLI with air bubbles in all 3 of the 3 VOA vials. Sample B06CR7 had air bubbles in 2 of the 3 VOA vials. The VOA vials for samples B06CG0 and B06CT6 were received with no custody seals.

3.2 ANALYSIS

3.2.1 VOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

The samples were analyzed within the CLP SOW holding times. The MS and MSD analyses were performed on sample B06CN9. The matrix spike recoveries for the MS and MSD were within the QC limits. However, the %RPD for 1,1-Dichloroethene was above the advisory QC limit.

Between scans 103 and 107 in each sample there is a carbon dioxide peak. This peak is not reported as a TIC on Form 1E.

All of the other QC results were within the limits specified by the EPA CLP SOW.

TUNES :

All of the BFB tunes are injected directly into the GC/MS instrument.

3.2.2 SEMIVOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

The samples were extracted and analyzed within the CLP SOW holding times.

The surrogate recoveries for Terphenyl-d14 in samples B06CN7 and B06CP0 were above the QC limits. No further action was taken in accordance with the protocol. The spike recoveries for 4-Nitrophenol in sample B06CP0MS and B06CP0MSD were above the advisory QC limits. In accordance with the protocol, reanalysis of the MS and MSD was not required.

All of the other QC results were within the limits specified by the CLP SOW.

3.2.3 PESTICIDE/PCB ANALYSIS COMMENTS :

SEQUENCE NOTES :

The sequence was started on 6/20/92 and analyzed in accordance with the EPA CLP SOW.

On column DB-608, the ICAL met the linearity criteria for all compounds. The %RSD for alpha-BHC (28%) and gamma-BHC (22%) were above the 20% requirement but less than 30%.

On column DB-1701 the ICAL met the linearity criteria for all compounds. The %RSD for delta-BHC (26%) was above the 20% requirement but less than 30%. The high %RSD can be attributed to a high response for delta-BHC in the mid-level standard, INDBM01, in comparison with the low and high level standards. The high response appears to be due to a one time positive interference that co-elutes with delta-BHC on the DB-1701 column with no apparent affects on delta-BHC on the DB-608 column.

The calibration verification standards, INDBM02 (40.4) and INDBM03 (32.4) analyzed on the DB-1701 column, each had RPD values above the 25.0% limit. These high RPDs can be attributed to the very high calibration factor of the mid-level standard that was used to calculate the amount of delta-BHC detected in the standards. Delta-BHC was not detected in any of the samples that were analyzed under the 6/20/92 sequence.

At 11:02 on 6/22/92, instrument blank PIBLK06 was injected within the 12 hour window. The next injection was PEM04 at 11:47 on 6/22/92. PEM04 failed to pass the QC requirements due to a fluctuation in the flow of the make-up gas. PEM05 was injected immediately after PEM04 and met all of the QC requirements. PEM05 ended the sequence.

SAMPLE NOTES :

LOW LEVEL WATER :

The samples were extracted and analyzed within the CLP SOW holding times. The surrogate recovery for TCX in sample B06CP0 on DB-608 was below the advisory limit.

All QC results were within the limits specified by the EPA CLP SOW.

We certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data in this hardcopy data package and in the computer-readable data submitted on diskette is authorized by the Laboratory Manager or his designee, as verified by the following signatures.

Nicole Roth
CLP Program Manager

Wida Ang
Organics Supervisor

000006
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CF8

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-11A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B15

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	8	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

9613442.0598

000007
EPA SAMPLE NO.

B06CF8

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-11A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B15

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.0599

000008
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CG0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-12A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20516B13

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/16/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	48	B
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	2	J
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	1	BJ
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

9613442.0600

000009
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B06CG0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-12A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20516B13

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/16/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Subst. alkane	3.67	9	J

9613442.0601

000010
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CN7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B03

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	6	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	17	
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

9613442.0602

000011
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B06CN7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B03

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Subst. alkane	3.63	8	J

EPA SAMPLE NO.

B06CN9

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B04

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	7	BJ
67-64-1	Acetone	53	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

9613442.0604

000013
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B06CN9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B04

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown alkane	4.82	5	J

9613442.0605

000014
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CP0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B07

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	7	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	41	
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

9613442.0606

000015
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B06CP0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B07

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.0607

000016
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CP2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B08

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	8	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

EPA SAMPLE NO.

B06CP2

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B08

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

EPA SAMPLE NO.

B06CQ2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B11

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	6	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	11	
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

9613442.0610

000019

EPA SAMPLE NO.

B06CQ2

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B11

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.0611

000020
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CQ4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B12

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	11	B
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

9613442.0612

000021

EPA SAMPLE NO.

B06CQ4

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B12

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.0613

000022
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CR4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B09

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	37	
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

EPA SAMPLE NO.

B06CR4

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B09

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

000024
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CR6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B10

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	B
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

EPA SAMPLE NO.

B06CR6

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B10

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Subst. alkane	3.65	8	J

EPA SAMPLE NO.

B06CR7

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-09A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B13

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	6	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	2	J
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

EPA SAMPLE NO.

B06CR7

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-09A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B13

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.0619

000028
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CR9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-10A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B14

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	B
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

EPA SAMPLE NO.

B06CR9

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-10A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B14

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.0621

000030
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CT6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-13A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20516B14

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/16/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	59	B
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	2	J
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	1	BJ
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

9613442.0622

000031
EPA SAMPLE NO.

B06CT6

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-13A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20516B14

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/16/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Subst. alkane	3.70	10	J
2.	Unknown hydrocarbon	4.88	6	J

EPA SAMPLE NO.

B06CT8

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-14A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20516B15

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/16/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	51	B
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	1	BJ
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

EPA SAMPLE NO.

B06CT8

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-14A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20516B15

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/16/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Subst. alkane	3.68	11	J

EPA SAMPLE NO.

B06CF8

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-11B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N16

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/10/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CF8

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-11B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N16

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/10/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	0.9	BJ
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	0.7	BJ
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	0.7	BJ
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

EPA SAMPLE NO.

B06CF8

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-11B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N16

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/10/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 19

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN CYCLIC HYDROCARBON	4.22	130	J
2.	UNKNOWN ALKENE	4.58	16	J
3.	UNKNOWN HYDROCARBON	7.52	8	BJ
4.	UNKNOWN CYCLIC KETONE	9.05	4	J
5.	UNKNOWN ALKANE	22.33	3	J
6.	UNKNOWN HYDROCARBON	22.60	2	J
7.	UNKNOWN HYDROCARBON	22.90	5	J
8.	UNKNOWN ALKANE	23.22	9	J
9.	UNKNOWN HYDROCARBON	23.33	3	J
10.	UNKNOWN HYDROCARBON	23.72	4	J
11.	UNKNOWN HYDROCARBON	23.87	3	J
12.	UNKNOWN HYDROCARBON	24.00	9	J
13.	UNKNOWN HYDROCARBON	24.12	10	J
14.	UNKNOWN HYDROCARBON	24.70	8	J
15.	UNKNOWN HYDROCARBON	24.87	3	J
16.	UNKNOWN HYDROCARBON	25.07	3	J
17.	UNKNOWN HYDROCARBON	25.48	4	J
18.	UNKNOWN POLYATOMIC HYDROCARB	25.67	6	J
19.	UNKNOWN HYDROCARBON	25.87	4	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CN7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N09

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CN7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N09

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	0.6	BJ
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	0.8	BJ
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2	BJ
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

EPA SAMPLE NO.

B06CN7

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N09

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN CYCLIC HYDROCARBON	4.22	94	J
2.	UNKNOWN HYDROCARBON	7.52	7	BJ
3.	UNKNOWN CYCLIC ALCOHOL	8.13	2	BJ
4.	UNKNOWN CYCLIC KETONE	9.05	4	BJ
5.	UNKNOWN ALKENE	11.30	2	J

9613442.0631

000040
EPA SAMPLE NO.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B06CP0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N10

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CP0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N10

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	0.5	BJ
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	0.7	BJ
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	0.6	BJ
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	0.5	BJ
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613442.0633

000042
EPA SAMPLE NO.

B06CP0

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

ıb Name: TMA/ARLI Contract: WHC

ıb Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

ıtrix: (soil/water) WATER Lab Sample ID: A205040-03B

ımple wt/vol: 1000 (g/mL) ML Lab File ID: 20609N10

ɜvel: (low/med) LOW Date Received: 05/12/92

Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

ɔncentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

ɲjection Volume: 2.0(uL) Dilution Factor: 1.0

PC Cleanup: (Y/N) N pH: ____

umber TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN CYCLIC HYDROCARBON	4.22	120	J
2.	UNKNOWN HYDROCARBON	4.87	7	J
3.	UNKNOWN HYDROCARBON	7.53	8	BJ
4.	UNKNOWN CYCLIC ALCOHOL	8.13	2	BJ
5.	UNKNOWN CYCLIC KETONE	9.05	4	BJ
6.	UNKNOWN ALKENE	11.30	2	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CQ2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N14

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CQ2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N14

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	0.7	BJ
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	0.5	BJ
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	0.7	BJ
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

EPA SAMPLE NO.

B06CQ2

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N14

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 9

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN CYCLIC HYDROCARBON	4.22	130	J
2.	SUBSTITUTED PROPANOIC ACID	6.13	2	BJ
3.	UNKNOWN HYDROCARBON	7.53	10	BJ
4.	UNKNOWN CYCLIC ALCOHOL	8.13	3	BJ
5.	UNKNOWN CYCLIC KETONE	9.05	4	BJ
6.	UNKNOWN ALKENE	11.32	3	BJ
7.	UNKNOWN HYDROCARBON	14.48	2	J
8.	UNKNOWN CARBOXYLIC ACID	16.45	3	J
9.	UNKNOWN HYDROCARBON	20.95	3	J

EPA SAMPLE NO.

B06CR4

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N13

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

EPA SAMPLE NO.

B06CR4

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N13

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	4	BJ
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	0.7	BJ
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	0.6	BJ
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613442.0639

000048
EPA SAMPLE NO.

B06CR4

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N13

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN CYCLIC HYDROCARBON	4.22	140	J
2.	UNKNOWN HYDROCARBON	7.53	7	BJ
3.	UNKNOWN CYCLIC ALCOHOL	8.13	2	BJ
4.	UNKNOWN CYCLIC KETONE	9.05	4	BJ
5.	UNKNOWN ALKENE	11.30	2	J
6.	UNKNOWN CARBOXYLIC ACID ESTE	16.43	3	J

9613442.0640

000049

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CR7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-09B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N15

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

EPA SAMPLE NO.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B06CR7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-09B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N15

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	0.7	BJ
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

EPA SAMPLE NO.

B06CR7

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-09B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N15

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 14

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN CYCLIC HYDROCARBON	4.22	82	J
2.	UNKNOWN HYDROCARBON	7.53	6	BJ
3.	UNKNOWN CYCLIC ALCOHOL	8.13	2	BJ
4.	UNKNOWN CYCLIC KETONE	9.05	4	BJ
5.	UNKNOWN CARBOXYLIC ACID	16.42	3	J
6.	UNKNOWN CARBOXYLIC ACID ESTE	22.88	2	J
7.	UNKNOWN HYDROCARBON	23.18	6	J
8.	UNKNOWN COMPOUND	23.58	3	J
9.	UNKNOWN CARBOXYLIC ACID ESTE	24.50	2	J
10.	UNKNOWN HYDROCARBON	25.30	2	J
11.	UNKNOWN HYDROCARBON	25.38	5	J
12.	UNKNOWN CYCLOALKANE	25.53	3	J
13.	UNKNOWN HYDROCARBON	25.63	3	J
14.	UNKNOWN CYCLOALKANE	29.83	3	J

9613442.0643

000052
EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B06CF8

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-11B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 05/12/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 05/14/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/21/92

Injection Volume: 2.50 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

000053
EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B06CN7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 05/12/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 05/14/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/21/92

Injection Volume: 2.50 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

9613442.0645

000054
EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B06CP0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 05/12/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 05/14/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/21/92

Injection Volume: 2.50 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

9613442.0646

000055
EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B06CQ2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 05/12/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 05/14/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/21/92

Injection Volume: 2.50 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

9613442.0647

000056

EPA SAMPLE NO.

B06CR4

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 05/12/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 05/14/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/21/92

Injection Volume: 2.50 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CR7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-09B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 05/12/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 05/14/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/21/92

Injection Volume: 2.50 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

WESTINGHOUSE HANFORD COMPANY

Results of Analyses For:

GENERAL CHEMISTRY
CASE NO. 05-040
(TMA/ARLI Work Order # A2-05-040)

ORGANICS
CASE NO. 05-040
(TMA/ARLI Work Order # A2-05-040)

General Chemistry and Organics results are presented for the following WHC WATER samples(s):

B06CN7
B06CN9
B06CP0
B06CP2
B06CR4
B06CR6
B06CQ2
B06CQ4
B06CR7
B06CR9
B06CF8
B06CG0
B06CT6
B06CT8

Norcal Work Order # N2-05-068

Thermo Analytical Inc.
160 Taylor Street
Monrovia, Ca. 91016
818-357-3247

9613442.0650

ARH 000002

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/8/92

Ice Chest No. SML-87

Field Logbook No. EFL-1018 p.1

Bill of Lading/Airbill No. 2509867954

Offsite Property No. W92-0-0345-27

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CN7

~~3, 1L, P, WATER, CLP ICP/AA METALS & MERCURY (HNO3) UNFILTERED~~

~~3, 1L, P, WATER, CLP-CYANIDE (NaOH)~~

3, 40ml, Gs, WATER, CLP-VOA

5 6, 12 ~~3, 2L,~~ G, WATER, CLP-SEMI-VOA/PCB/PEST *

1, 500ml, G, WATER, ANIONS, pH

ICDL 5/8/92 1, 500ml, G, WATER, CONDUCTIVITY

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CN8

~~3, 1L, P, WATER, CLP ICP/AA METALS & MERCURY (HNO3) FILTERED~~

** B06CN9

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Kathy D. Lee K.D. Lee	Received by: sealing to refrigerator	Date/Time: 5/8/92 1500
Relinquished by:	Received by: PH Butcher PH Butcher	Date/Time: 11 May 92 0200
Relinquished by: PH Butcher PH Butcher	Received by: Elby H. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 Elby H. Yamamoto	Received by: C. Barros	Date/Time: 5/13/92 9.00

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

* SAMPLE ID # B06CN7 → ONE OF THE SIX BOTTLES LID" was broken.

** SAMPLE ID # B06CN9 → BUBBLES WERE FOUND IN 3 vials

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0651

000003

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

Task # 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/8/92 Time 1200 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
BOLCN7	~~3, 1L, P~~	W	~~CLP - ICP/AA Metals & Hg (HNO_3),~~ unfiltered
	~~3, 1L, P~~	W	~~CLP - CN (NaOH)~~
	3, 40M, Gs	W	CLP - VOA
	3, 2L, G	W	CLP - Semi-VOA/PCB7Pest
	1, 500 ml, G	W	ANions, pH
	1, 500ml, G	W	Cond.
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
BOLCN8	~~3, 1L, P~~	W	~~CLP-ICP/AA Metals & Hg (HNO_3)~~ filtered
BOLCN9	3, 40 ml, Gs	W	CLP-VOA

Field Information** BOL # 2509E67954

OPC # W92-0-0345-27

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Ely Y. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # — OPC #

Westinghouse Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-8-92

Ice Chest No. N.J. Bound

Field Logbook No. EFL-0057 p.1

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-25

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CP0

~~3, 1L, P, WATER, CLP ICP/AA METALS & MERCURY (HNO3) UNFILTERED~~

~~3, 1L, P, WATER, CLP CYANIDE (NaOH)~~

3, 40ml, Gs, WATER, CLP-VOA

6, 1l ~~3, 2L~~, G, WATER, CLP-SEMI-VOA/PCB/PEST

KDL 5/18/92 1, 500ml, G, WATER, ANIONS, pH

1, 500ml, G, WATER, CONDUCTIVITY

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CP1

~~3, 1L, P, WATER, CLP ICP/AA METALS & MERCURY (HNO3) FILTERED~~

B06CP2

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody — Chain of Possession — (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
L.D. Walker LD Walker	Refrigerator	5-8-92 / 1500
	Received by: Bill Whitten B.W. WHITTEN	Date/Time: 5-11-92 0700
Relinquished by: Bill Whitten B.W. WHITTEN	Received by: Elby H. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 Elby H. Yamamoto	Received by: C. Harris	Date/Time: 5/13/92 900

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

9613442.0653

000005

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST TASK # 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5-8-92 Time 1144 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CP0	~~3, 1L, P~~	W	~~CLP - ICP/AA Metals & Hg (HNO_3),~~ unfiltered
	~~3, 1L, P~~	W	~~CLP - CN (NaOH)~~
	3, 40M, Gs	W	CLP - VOA
	6 ~~3~~, 1 ~~8~~L, G 5-11-92	W	CLP - Semi-VOA/PCB/Pest
	1, 500 ml, G	W	ANions, pH
	1, 500ml, G	W	Cond.
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
B06CP1	~~3, 1L, P~~	W	~~CLP-ICP/AA Metals & Hg (HNO_3)~~ filtered
B06CP2	3, 40 ml, Gs	W	CLP-VOA

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elby B. Jarmamoto Title Sample control Technician Date 5/12/92

Analysis Required

BOL # 250986795-4 OPC # W97-0-0345-25

9613442.0654

000006

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-8-92

Ice Chest No. SML-26

Field Logbook No. EFL-1018

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-25

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CR4

~~3, 1L, P, WATER, CLP ICP/AA METALS & MERCURY (HNO3) UNFILTERED~~

~~3, 1L, P, WATER, CLP CYANIDE (NaOH)~~

3, 40ml, Gs, WATER, CLP-VOA

6, 1l ~~3, 2L~~, G, WATER, CLP-SEMI-VOA/PCB/PEST

KOL 5/8/92 1, 500ml, G, WATER, ANIONS, pH

1, 500ml, G, WATER, CONDUCTIVITY

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CR5

~~3, 1L, P, WATER, CLP ICP/AA METALS & MERCURY (HNO3) FILTERED~~

B06CR6

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: [illegible]	Received by: relinq. to refrigerator	Date/Time: 5/8/92 1500
Relinquished by:	Received by: PHButcher PHButcher	Date/Time: 11 May 92 0700
Relinquished by: PHButcher PHButcher	Received by: tiby G. yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 tiby G yamamoto	Received by: C. Harris	Date/Time: 5/13/92 900

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9615442.0655

000007

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

Task # 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/8/92 Time 1140 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
06GCR4	~~3, 1L, P~~	W	~~CLP - ICP/AA Metals & Hg (HNO_3),~~ unfiltered
	~~3, 1L, P~~	W	~~CLP - CN (NaOH)~~
	3, 40M, Gs	W	CLP - VOA
	6~~3~~, 1~~2~~L, G 5-6-92	W	CLP - Semi-VOA/PCB/Pest
	1, 500 ml, G	W	ANions, pH
	1, 500ml, G	W	Cond.
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
06GCR5	~~3, 1L, P~~	W	~~CLP ICP/AA Metals & Hg (HNO_3)~~ filtered
06GCR6	3, 40 ml, Gs	W	CLP-VOA

Field Information** BOL # 250986795-4
OPC # W92-D-0345-25

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elly H. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # OPC #

9613442.0656

000008

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-8-92 LW 5-8-92

Ice Chest No. SML-24

Field Logbook No. EFL - ~~1006~~ 1018

Bill of Lading/Airbill No. 2509863954

Offsite Property No. W92-0-0395-27

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CQ2

~~3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED~~

~~3, 1L, P, WATER, CLP-CYANIDE (NaOH)~~

3, 40ml, Gs, WATER, CLP-VOA

3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST

1, 500ml, G, WATER, ANIONS, pH

1, 500ml, G, WATER, CONDUCTIVITY

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CQ3

~~3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED~~

B06CQ4

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: LD Walker L.D. Walker	Received by: Refrigerator	Date/Time: 5-8/92 1415
Relinquished by:	Received by: PH Butcher PH Butcher	Date/Time: 11 May 92 0700
Relinquished by: PH Butcher	Received by: Elly J. Yamamoto	Date/Time: 5/12/92 10:30 pm
Relinquished by: 5/12/92 Elly J. Yamamoto	Received by: C. Harris	Date/Time: 5/13/92 900

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0657

000009

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/8/92 Time 0925 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
✓ B06CQ2	~~3, 1L, P~~	W	~~CLP - ICP/AA Metals & Hg (HNO_3),~~ unfiltered
✓	~~3, 1L, P~~	W	~~CLP - CN (NaOH)~~
✓	3, 40M, Gs	W	CLP - VOA
✓	3, 2L, G	W	CLP - Semi-VOA/PCB/Pest
✓	1, 500 ml, G	W	ANions, pH
✓	1, 500ml, G	W	Cond.
✓	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99~~
✓	~~1, 500ml, P~~	W	~~C-14~~
✓	~~1, 250 ml, G~~	W	~~Tritium~~
✓ B06CQ3	~~3, 1L, P~~	W	~~CLP ICP/AA Metals & Hg (HNO_3)~~ filtered
✓ B06CQ4	3, 40 ml, Gs	W	CLP-VOA

Field Information**

Special Handling and/or Storage BOL # 2509867954

OPC # W97-0-0345-02

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Ebby H. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # — OPC #

*Indicate whether sample is soil, sludge, water, etc.

Westinghouse Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/10/92

Ice Chest No. NOT

Field Logbook No. EFL-1018 p.B

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-26

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CR7

~~3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED~~

~~3, 1L, P, WATER, CLP-CYANIDE (NaOH)~~

3, 40ml, Gs, WATER, CLP-VOA

3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST

1, 500ml, G, WATER, ANIONS, pH

1, 500ml, G, WATER, CONDUCTIVITY

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CR8

~~3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED~~

B06CR9

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody

Chain of Possession (Sign and Print Names)		
Relinquished by: Kathy D. Lee K.D. Lee	Received by: placing to refrigerator	Date/Time: 5/10/92 1538
Relinquished by:	Received by: PHButcher PHButcher	Date/Time: 11 May 92 0700
Relinquished by: PHButcher PHButcher	Received by: Elby J. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 Elby J. Yamamoto	Received by: C. Harris	Date/Time: 5/13/92 9.00

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments: Sample ID#B06CR7#7 Bubbles were found in 2 vials on Voa-bottle

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0659

000011

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST Task # 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/10/92 Time 0940 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CR7	~~3, 1L, P~~	W	~~CLP - ICP/AA Metals & Hg (HNO_3),~~ unfiltered
	~~3, 1L, P~~	W	~~CLP - CN (NaOH)~~
	3, 40M, Gs	W	CLP - VOA
	3, 2L, G	W	CLP - Semi-VOA/PCB/Pest
	1, 500 ml, G	W	ANions, pH
	1, 500ml, G	W	Cond.
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
B06CR8	~~3, 1L, P~~	W	~~CLP-ICP/AA Metals & Hg (HNO_3)~~ filtered
B06CR9	3, 40 ml, Gs	W	CLP-VOA

Field Information** BOL# 250986795-4

OPC# W92-0-0345-26

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elky J. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # OPC #

9613442.0660

000012

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/10/92

Ice Chest No. SML-19

Field Logbook No. EFC-1018 p. 3

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-24

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CF8

~~3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED~~

~~3, 1L, P, WATER, CLP-CYANIDE (NaOH)~~

3, 40ml, Gs, WATER, CLP-VOA

3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST

1, 500ml, G, WATER, ANIONS, pH

1, 500ml, G, WATER, CONDUCTIVITY

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CF9

~~3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED~~

B06CG0

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: K.A. Lee	Received by: reling. to refrigerator	Date/Time: 5/10/92 1540
Relinquished by:	Received by: B. WHITTEN	Date/Time: 5-12-92 0700
Relinquished by: B WHITTEN	Received by: Eby H. Yamamoto	Date/Time: 5/12/92 10:30
Relinquished by: 5/12/92 Eby H. Yamamoto	Received by: C. Harris	Date/Time: 5/13/92

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments: Sample ID B06CG0 - 3 VOA vials arrived with no custody seals present

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0661

000013

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST TASK NO 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5-10-92 Time 0940 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CF8	~~3, 1L, P~~	W	~~CLP - ICP/AA Metals & Hg (HNO_3),~~ unfiltered
	~~3, 1L, P~~	W	~~CLP - CN (NaOH)~~
	3, 40M, Gs	W	CLP - VOA
	3, 2L, G	W	CLP - Semi-VOA/PCB/Pest
	1, 500 ml, G	W	ANions, pH
	1, 500ml, G	W	Cond.
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U 234/235/238, Pa 238/239/240 Am 241), Sr 90, Tc 99~~
	~~1, 500ml, P~~	W	~~C 14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
B06CF9	~~3, 1L, P~~	W	~~CLP ICP/AA Metals & Hg (HNO_3)~~ filtered
B06CG0	3, 40 ml, Gs	W	CLP-VOA

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Ellen H. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # 250986795-4 OPC # W92-0-0345-24

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-10-92

Ice Chest No. SML-73

Field Logbook No. EFL - 0057

Bill of Lading/Airbill No 250986795-4

Offsite Property No. W92-0-0345-24

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CT5

~~3, 1L, P, WATER, CLP-CYANIDE (NaOH)~~

~~2, 4L, P, WATER, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (HNO3)~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CT6

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Gary Hamilton	Received by: sitting to refrigerator	Date/Time: 5/10/92 1590
Relinquished by:	Received by: Bill Whitten B. WHITTEN	Date/Time: 5-11-92 0700
Relinquished by: Bill Whitten B. WHITTEN 5/12/92	Received by: Elby J. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: Elby J. Yamamoto	Received by: C. Davis	Date/Time: 5/13/92 9 00

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments: Sample ID B06CT6 - 3 VOA Vials arrived with no custody seals present

9613442.0663

000015

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST Task #92-165

PART I: FIELD SECTION

Collector KD Lee / LD Walker Date Sampled 5-10-92 Time 0855 hours

Company Contact PH Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CT5	~~3, 1L, P~~	W	~~CLP Cyanide (NaOH)~~
	~~2, 4L, P~~	W	~~Gross Gamma Spec, Alpha Spec (U 234/235/238, Pu 238/239/240, Am 241),~~
			~~Sr 90 (HNO_3)~~
	~~1, 500ml, P~~	W	~~C 14~~
	~~1, 250ml, G~~	W	~~Tritium~~
B06CT6	3, 40ml, Gs	W	CLP-VOA

Field Information** BOC #: 250986795-4

OPC #: W92-0-0345-24

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elby J. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9613442.0664

000016

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/10/92

Ice Chest No. CORY-1

Field Logbook No. EFL-0057

Bill of Lading/Airbill No. 2509867954

Offsite Property No. W92-0-0345-26

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06C77

~~3, 1L, P, WATER, CLP-CYANIDE (NaOH)~~

~~2, 4L, P, WATER, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (HNO3)~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CT9

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: [illegible] / GG HAMILTON	Received by: relinq to refrigerator	Date/Time: 5/10/92 1540
Relinquished by:	Received by: PHButcher PHButcher	Date/Time: 11 May 92 0200
Relinquished by: PHButcher PHButcher	Received by: Elby J. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 Elby J. Yamamoto	Received by: C. Davies	Date/Time: 5/13/92 9:00

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0665

000017

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST Task # 92-165

PART I: FIELD SECTION

Collector KDLee / LD Walker Date Sampled 5/10/92 Time 0720 hours

Company Contact PH Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
606CT7	~~3, 1L, P~~	W	~~CLP Cyanide (NaOH)~~
	~~2, 4L, P~~	W	~~Gross Gamma Spec, Alpha Spec (U-234/235/238, Pu-235/239/240, Am-241),~~
			~~Sr-90 (HNO_3)~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250ml, G~~	W	~~Tritium~~
606CT8	3, 40ml, Gs	W	CLP-VOA

Field Information** BOL #: 850986795 4

OPC #: W92-0-0345-26

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elby L. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

SAMPLE LOG-IN SHEET

LAB NAME TKA/ARLI PAGE : 1 OF 1

RECEIVED BY (PRINT NAME): CAROLE HARRIS LOG-IN-DATE : 5/13/92

RECEIVED BY (SIGNATURE) Carole Harris

CASE NUMBER:
SAMPLE DELIVERY GROUP NO:
SAS NUMBER:

REMARKS:

1. Custody Seal(s) Present/Absent* Intact/Broken
2. Custody Seal Nos:
3. Chain of Custody Records Present/Absent*
4. Traffic Reports or Packing List Present/Absent*
5. Airbill Airbill/Sticker Present/Absent*
6. Airbill No.: 2126897091
7. Sample Tags Present/Absent*
8. Sample Tags Numbers Listed/Not Listed on Chain of Custody
9. Sample Condition: Intact/Broken*/Leaking
10. Does information on custody records, traffic reports, and sample tags agree Yes/No*
11. Date Recieved at Lab: 5/13/92
12. Temp of ice chest 4.0 °C
13. Time Recieved: 9:00 AM

SAMPLE TRANSFER

Fraction:
Area #:
By:
On:

EPA SAMPLE #	CORRESPONDING SAMPLE TAG #	CORRESPONDING ASSIGNED LAB #	REMARKS: CONDITION OF SAMPLE SHIPMENT, ETC
	BO6CN7	A2-05-040-01	
	BO6CN9	A2-05-040-02	
	BO6CP0	A2-05-040-03	
	BO6CP2	A2-05-040-04	
	BO6CR4	A2-05-040-05	
	BO6CR6	A2-05-040-06	
	BO6CR7	A2-05-040-07	
	BO6CQ4	A2-05-040-08	
	BO6CR7	A2-05-040-09	
	BO6CR9	A2-05-040-10	
	BO6CF8	A2-05-040-11	
	BO6CG0	A2-05-040-12	*
	BO6CT6	A2-05-040-13	*
	BO6CT8	A2-05-040-14	

* Contact SMO and attach record of resolution

Reviewed By: Logbook No.:

Date: Logbook Page No.:

FORM DC-1

* BO6CT6 + BO6CG0 - 3 VOA VIALS HAD NO CUSTODY SEALS

DOC2/LOGIN.TBL

9613442.0667

000019

TMA/ARLI
Thermo Analytical Inc.

RADIATION DOSE RATE SURVEY FORM

Date 5/13/92 COMPANY NORCAL (WHC) OTHER ORD # 212689710Z

Surveyor's Name MARK S. McCray

Model No. HP-210 / ESP-1 Model No. AC-3-7 / ESP-1

Serial Nos. 710289 / 02619 Serial Nos. 407726 / 02628

Calibration Date 3/25/92 Calibration Date 11/15/91

Instrument Calibration Factor .280 Instrument Calibration Factor .177

Sample	Location	HP-210 CPM	HP-210 Factor	HP-210 DPM	AC-3-7 CPM	AC-3-7 Factor	AC-3-7 DPM	Spillage or Breakage?	Activity, nCi/mL or nCi/g
Background		34.0			0				
Consistency		7,370	0.2845		5,070	0.1863			
Smears: LIT-1		43.0			1.0			NONE	
JAUNT		32.0			0			NONE	
ESI		28.0			0			NONE	
BLUE #1		50.0			2.0			NONE	
~~CAB-7~~		~~50.0~~							
CAB-7 (Red)		69.0			14.0			NONE	
	(24 SAMPLES) each < 50 PiCi/gr								

Comments:

All OK ✓ Approved [signature]

Not OK Date 5/13/92

Form: ARLI RA-01 01/15/92

9613442.0668

000020

FEDERAL EXPRESS

QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL
PACKAGE TRACKING NUMBER 2126897102

2126897102

Date

RECIPIENT'S COPY

From (Your Name) Please Print: SAMPLE CONTROL
Your Phone Number (Very Important): (818)233-2633
Company: T MA/NO-CAL
Department/Floor No
Street Address: 233 WRIGHT AVE
City: ALHAMBRA
State
ZIP Required: 91804

2 To (Recipient's Name) Please Print: SAMPLE CONTROL
Recipient's Phone Number (Very Important): (818) 357-3247
Company: T MA/ARLI
Department/Floor No
Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 160 TAYLOR STREET
City: MONROVIA
State: CA
ZIP Required: 91016

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.): 2326-6464

H IF HOLD FOR PICK-UP, Print FEDEX Address Here
Street Address
City
State
ZIP Required

3 PAYMENT 1 [x] Bill Sender 2 [ ] Bill Recipient's FedEx Acct No 3 [ ] Bill 3rd Party FedEx Acct No 4 [ ] Bill Credit Card
5 [ ] Cash/Check

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning.†)
11 [x] YOUR PACKAGING
16 [ ] FEDEX LETTER *
12 [ ] FEDEX PAK *
13 [ ] FEDEX BOX
14 [ ] FEDEX TUBE

Standard Overnight (Delivery by next business afternoon.†)
51 [ ] YOUR PACKAGING
56 [ ] FEDEX LETTER *
52 [ ] FEDEX PAK *
53 [ ] FEDEX BOX
54 [ ] FEDEX TUBE

Economy Two-Day (Delivery by the second business day.†)
30 [ ] ECONOMY

Government Overnight (Available to authorized agencies.)
46 [ ] GOVT LETTER
41 [ ] GOVT PACKAGE

Freight Service (for a fee, charge or any one rate over 150 lbs.)
70 [ ] OVERNIGHT FREIGHT ** (Commercial expression required.)
80 [ ] TWO-DAY FREIGHT **
† Delivery commitments may be date or same date.
* Declared Value Limit $100
** Call for delivery schedule.

5 DELIVERY AND SPECIAL HANDLING (Check services required)
1 [ ] HOLD FOR PICK-UP (Fill in Box H)
2 [x] DELIVER WEEKDAY
3 DELIVER SATURDAY (Extra charge) (Not available to all locations.) [ ]
4 [ ] DANGEROUS GOODS (Extra charge)
5 [ ]
6 [ ] DRY ICE
7 [ ] OTHER SPECIAL SERVICE
8 [ ]
9 [ ] SATURDAY PICK-UP (Extra charge)
10 [ ]
11 [ ]
12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

6 PACKAGES | WEIGHT in Pounds Only | YOUR DECLARED VALUE
Total | Total | Total
5 [illegible]

DIM SHIPMENT (Chargeable Weight.)
[ ] _____ lbs
___ x ___ x ___ = ___

Received At
1 [ ] Regular Stop
2 [ ] On-Call Stop
3 [ ] Drop Box
4 [ ] BSC
5 [ ] Station

Emp. No | Date
[ ] Cash Received
[ ] Return Shipment
[ ] Third Party [ ] Chg. To Del [ ] Chg. To Hold
Street Address
City | State | Zip
Received By
X
Date/Time Received | FedEx Employee Number

7 Release Signature
FedEx Emp. No | Date/Time

Federal Express Use
Base Charges
Declared Value Charge
Other 1
Other 2
Total Charges

REVISION DATE 6/91
PART #137204 FXEM 1/92
FORMAT #099
099

© 1990-91 FEDEX
PRINTED IN U.S.A.

9613442.0669

000021

FEDERAL EXPRESS

QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL
PACKAGE TRACKING NUMBER 2126897091

2126897091

Date

RECIPIENT'S COPY

From (Your Name) Please Print: SAMPLE CONTROL
Your Phone Number (very important): (510)239-2833
Company: T M A /NORCAL
Department/Floor No
Street Address: 2020 W. IGHT AVE
City: RICHMOND State: CA ZIP Required: 9 4 8 0 4

2 To (Recipient's Name) Please Print: SAMPLE CONTROL
Recipient's Phone Number (very important): (818) 357-3247
Company: T M A / ARLI
Department/Floor No
Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 160 TAYLOR STREET
City: MONROVIA State: CA ZIP Required: 91016

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.): 2320-6406

H IF HOLD FOR PICK-UP, Print FEDEX Address Here
Street Address
City State ZIP Required

3 PAYMENT 1 [X] Bill Sender 2 [ ] Bill Recipient's FedEx Acct No 3 [ ] Bill 3rd Party FedEx Acct No 4 [ ] Bill Credit Card
5 [ ] Cash/Check

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning†)
11 [X] YOUR PACKAGING
16 [ ] FEDEX LETTER *
12 [ ] FEDEX PAK *
13 [ ] FEDEX BOX
14 [ ] FEDEX TUBE

Standard Overnight (Delivery by next business afternoon†)
51 [ ] YOUR PACKAGING
56 [ ] FEDEX LETTER *
52 [ ] FEDEX PAK *
53 [ ] FEDEX BOX
54 [ ] FEDEX TUBE

Economy Two-Day (Delivery by second business day†)
30 [ ] ECONOMY

Government Overnight (Delivery to authorized gov't sites)
46 [ ] GOV'T LETTER
41 [ ] GOV'T PACKAGE

Freight Service (for Extra Large or dim pkg over 150 lbs.)
70 [ ] OVERNIGHT FREIGHT ** (Commitment expansion required.)
80 [ ] TWO-DAY FREIGHT **

† Delivery commitment may be later in some areas.
* Declared Value Limit $100.
** Call for delivery schedule.

5 DELIVERY AND SPECIAL HANDLING (Check services required)
1 [ ] HOLD FOR PICK-UP (Fill in Box H)
2 [X] DELIVER WEEKDAY
3 DELIVER SATURDAY (Extra charge) (Not available to all locations) [ ]
4 [ ] DANGEROUS GOODS (Extra charge)
5 [ ]
6 [ ] DRY ICE Lbs.
7 [ ] OTHER SPECIAL SERVICE
8 [ ]
9 [ ] SATURDAY PICK-UP (Extra charge)
10 [ ]
11 [ ]
12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

6 PACKAGES | WEIGHT in Pounds Only | YOUR DECLARED VALUE
Total | Total | Total

DIM SHIPMENT (Chargeable Weight)
[ ] _____ lbs
L x W x H = _____

7 Received At
[ ] Regular Stop 2 [ ] On-Call Stop 3 [ ] Drop Box 4 [ ] BSC 5 [ ] Station

Emp No Date
[ ] Cash Received
[ ] Return Shipment
[ ] Third Party [ ] Chg. To Del [ ] Chg. To Hold
Street Address
City State Zip
Received By
X
Date/Time Received FedEx Employee Number
Release Signature
FedEx Emp No Date/Time

Federal Express Use
Base Charges
Declared Value Charge
Other 1
Other 2
Total Charges

REVISION DATE 6/91
PART #137204 FXEM 1 92
FORMAT #099
099

© 1990-91 FEDEX
PRINTED IN U.S.A.

GENERAL CHEMISTRY RESULTS

CASE NO. 05-040

Water Sample #:

B06CN7
B06CP0
B06CR4
B06CQ2
B06CR7
B06CF8

CASE NARRATIVE

No problems were encountered during sample analysis.
All QC results were acceptable.

Ernesto Vazquez

Ernesto Vazquez

9613442.0671

000024

TMA Inc. REPORT Work Order # A2-05-040

Received: 05/12/92 07/20/92 16:48:31 Work Not Complete

REPORT TO: Westinghouse Hanford Company
2355 Stevens Dr.
Richland,WA.99352
MO-346/200 West/T6-08
ATTEN: Jeanette Duncan

PREPARED BY: Thermo Analytical, Inc.
160 Taylor Street
Monrovia, CA 91016
ATTEN: Ms. Carole Harris
PHONE: 818-357-3247

CERTIFIED BY: Ernesto Vaiguy

CONTACT: EVV CIH

CLIENT: WHC SAMPLES: 14
COMPANY: Westinghouse Hanford Company
FACILITY:

This report is for the sole and exclusive use of the client to whom it is addressed and represents only those samples herein described. Samples not destroyed in testing are retained a maximum of 30 days unless otherwise requested.

WORK ID: 100-HR-3
TAKEN: By Westinghouse Staff
TRANS: Federal Express
TYPE: Water
P.O. #: N2-05-068-SU-AR
INVOICE: under separate cover

SAMPLE IDENTIFICATION

01	B06CN7
02	B06CN9
02	B06CN9 MS
02	B06CN9 MSD
03	B06CP0
03	B06CP0 MS
03	B06CP0 MSD
03	B06CP0
04	B06CP2
05	B06CR4
05	B06CR4 MS
05	B06CR4
06	B06CR6
07	B06CQ2
07	B06CQ2 Duplicate
07	B06CQ2
08	B06CQ4
09	B06CR7
09	B06CR7 Duplicate
10	B06CR9
11	B06CF8
12	B06CG0
13	B06CT6
14	B06CT8

TEST CODES and NAMES used on this workorder

BNCLPW	CLP Semivol. Water WH020
CL	Chloride
F W	Fluoride in Water
NO2	Nitrite (Liquids)
NO3 W	Nitrate (water)
PECLPL	CLP Pesticides Liq.-WH019
PO4 L	Phosphate in Liquids
SO4 W	Sulfate (in Waters)
VOCLPL	CLP Volatile Org.Liq.WH018
WCCLPL	Anions & Wet Chem. - WH043
WCQCD	Quality Control Summary
WCQCS	Quality Control Summary
WPH L	pH of Liquid - WH121
W COND	Conductivity-Water WH135

TMA Inc. REPORT Work Order # A2-05-040

Received: 05/12/92 Results by Sample

SAMPLE ID B06CM7 FRACTION 01C TEST CODE WCCLPL NAME Anions & Wet Chem. - WM043

Date & Time Collected 05/08/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Fluoride	300	0.3	mg/L	0.1
Chloride	300	8.2	mg/L	0.2
Nitrite	300	<0.1	mg/L	0.1
Nitrate	300	5.1	mg/L	0.2
Sulfate	300	43	mg/L	1.0
Phosphate	300	<0.4	mg/L	0.4
Elect. Conductivity	120.1	380	umho/cm	6
pH	150.1	8.0	pH	0.1

FORM I

TMA Inc. REPORT Work Order # A2-05-040

Received: 05/12/92

Results by Sample

SAMPLE ID B06CP0 FRACTION 03E TEST CODE WCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 05/08/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Fluoride	300	0.3	mg/L	0.1
Chloride	300	5.3	mg/L	0.2
Nitrite	300	<0.1	mg/L	0.1
Nitrate	300	1.3	mg/L	0.2
Sulfate	300	22	mg/L	1.0
Phosphate	300	<0.4	mg/L	0.4
Elect. Conductivity	120.1	217	umho/cm	6
pH	150.1	8.1	pH	0.1

FORM I

TMA Inc. REPORT Work Order # A2-05-040

Received: 05/12/92

Results by Sample

SAMPLE ID B06CR4 FRACTION 05C TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 05/08/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Fluoride	300	0.3	mg/L	0.1
Chloride	300	5.4	mg/L	0.2
Nitrite	300	<0.1	mg/L	0.1
Nitrate	300	1.3	mg/L	0.2
Sulfate	300	22	mg/L	1.0
Phosphate	300	<0.4	mg/L	0.4
Elect. Conductivity	120.1	215	umho/cm	6
pH	150.1	8.2	pH	0.1

FORM I

TMA Inc. REPORT Work Order # A2-05-040

Received: 05/12/92

Results by Sample

SAMPLE ID B06CQ2 FRACTION 07C TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 05/08/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Fluoride	300	0.3	mg/L	0.1
Chloride	300	8.3	mg/L	0.2
Nitrite	300	<0.1	mg/L	0.1
Nitrate	300	7.2	mg/L	0.2
Sulfate	300	53	mg/L	1.0
Phosphate	300	<0.4	mg/L	0.4
Elect. Conductivity	120.1	409	umho/cm	6
pH	150.1	8.0	pH	0.1

FORM I

TMA Inc. REPORT Work Order # A2-05-040

Received: 05/12/92

Results by Sample

SAMPLE ID B06CR7 FRACTION 09C TEST CODE WCCLPL NAME Anions & Wet Chem. - WM043

Date & Time Collected 05/10/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Fluoride	300	0.3	mg/L	0.1
Chloride	300	8.4	mg/L	0.2
Nitrite	300	<0.1	mg/L	0.1
Nitrate	300	3.8	mg/L	0.2
Sulfate	300	43	mg/L	1.0.
Phosphate	300	<0.4	mg/L	0.4
Elect. Conductivity	120.1	373	umho/cm	6
pH	150.1	8.0	pH	0.1

FORM I

TMA Inc. REPORT Worrk Order # A2-05-040

Received: 05/12/92 Results by Sample

SAMPLE ID B06CF8 FRACTION 11C TEST CODE WCCLPL NAME Anions & Wet Chem. - WN043

Date & Time Collected 05/10/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Fluoride	300	0.3	mg/L	0.1
Chloride	300	8.4	mg/L	0.2
Nitrite	300	<0.1	mg/L	0.1
Nitrate	300	3.8	mg/L	0.2
Sulfate	300	43	mg/L	1.0
Phosphate	300	<0.4	mg/L	0.4
Elect. Conductivity	120.1	368	umho/cm	6
pH	150.1	8.0	pH	0.1

FORM I

9613442.0678

TMA
Thermo Analytical Inc.

300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200
FAX (617) 890-3883

JUL 1992
RECEIVED
OSM DMO

June 15, 1992

TMA/NORCAL
2030 Wright Avenue
Richmond, CA 94804
Attention: Dan Stuermer

Quality Control Narrative

Scope
Eight (8) water samples were submitted to TMA/Skinner & Sherman Laboratories, Inc. on May 13,1992 from Westinghouse Hanford Company. The samples were analyzed for the USEPA CLP metals and cyanide. The analysis was performed under Skinner and Sherman work order S205129.

Methodology
The samples were prepared, analyzed and reported in accordance with the USEPA Contract Laboratory Program Statement of Work 7/88 (CLP SOW788).

Discussion
All quality control requirements were met for the samples with the following exceptions:

The selenium and thallium digestion spike recovery exceeded the control limit requirements.

The iron ICP serial dilution exceeded the control limit requirments.

Please feel free to call if there are any questions concerning the data package.

Respectfully submitted,

TMA/SKINNER & SHERMAN LABORATORIES, INC.

David N. Peterson
Assistant Laboratory Manager

1-17-96
MC

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CF8

ab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

ab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF8

atrix (soil/water): WATER Lab Sample ID: 05129-05S

evel (low/med): LOW Date Received: 05/13/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	446.00			P
7440-36-0	Antimony	11.00	U		P
7440-38-2	Arsenic	5.20	B		F
7440-39-3	Barium	53.80	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	1.00	U		P
7440-70-2	Calcium	41900.00			P
7440-47-3	Chromium	170.00			P
7440-48-4	Cobalt	2.40	B		P
7440-50-8	Copper	5.40	B		P
7439-89-6	Iron	678.00		E	P
7439-92-1	Lead	2.90	B		F
7439-95-4	Magnesium	11900.00			P
7439-96-5	Manganese	16.90			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	12.20	B		P
7440-09-7	Potassium	4740.00	B		P
7782-49-2	Selenium	4.00	U	WN	F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	19400.00			P
7440-28-0	Thallium	2.00	U	WN	F
7440-62-2	Vanadium	8.80	B		P
7440-66-6	Zinc	22.10			P
	Cyanide	10.00	U		CA

olor Before: COLORLESS Clarity Before: CLOUDY Texture:

olor After: COLORLESS Clarity After: CLOUDY Artifacts:

omments:

002

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B06CN7

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CFS

Matrix (soil/water): WATER Lab Sample ID: 05129-01S

Level (low/med): LOW Date Received: 05/13/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	473.00			P
7440-36-0	Antimony	11.00	U		P
7440-38-2	Arsenic	6.20	B		F
7440-39-3	Barium	48.30	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	3.00	B		P
7440-70-2	Calcium	48500.00			P
7440-47-3	Chromium	85.90			P
7440-48-4	Cobalt	5.30	B		P
7440-50-8	Copper	8.20	B		P
7439-89-6	Iron	1180.00		E	P
7439-92-1	Lead	2.70	B		F
7439-95-4	Magnesium	10200.00			P
7439-96-5	Manganese	35.30			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	40.90			P
7440-09-7	Potassium	4970.00	B		P
7782-49-2	Selenium	4.00	U	WN	F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	17400.00			P
7440-28-0	Thallium	2.00	U	WN	F
7440-62-2	Vanadium	10.60	B		P
7440-66-6	Zinc	58.40			P
	Cyanide	10.00	U		CA

Color Before: COLORLESS Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLOUDY Artifacts:

Comments:

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CP0

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF8

Matrix (soil/water): WATER Lab Sample ID: 05129-02S

Level (low/med): LOW Date Received: 05/13/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	38.80	B		P
7440-36-0	Antimony	11.00	U		P
7440-38-2	Arsenic	4.00	B		F
7440-39-3	Barium	22.00	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	1.00	U		P
7440-70-2	Calcium	33500.00			P
7440-47-3	Chromium	11.30			P
7440-48-4	Cobalt	2.00	U		P
7440-50-8	Copper	4.00	U		P
7439-89-6	Iron	51.20	B	E	P
7439-92-1	Lead	2.10	B	W	F
7439-95-4	Magnesium	5540.00			P
7439-96-5	Manganese	6.00	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	5.00	U		P
7440-09-7	Potassium	2460.00	B		P
7782-49-2	Selenium	4.00	U	WN	F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	6600.00			P
7440-28-0	Thallium	2.00	U	WN	F
7440-62-2	Vanadium	5.60	B		P
7440-66-6	Zinc	18.50	B		P
	Cyanide	10.00	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

004

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CQ2

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF8

Matrix (soil/water): WATER Lab Sample ID: 05129-03S

Level (low/med): LOW Date Received: 05/13/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	155.00	B		P
7440-36-0	Antimony	11.00	U		P
7440-38-2	Arsenic	4.90	B		F
7440-39-3	Barium	48.30	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	1.00	U		P
7440-70-2	Calcium	60700.00			P
7440-47-3	Chromium	41.80			P
7440-48-4	Cobalt	2.00	U		P
7440-50-8	Copper	4.70	B		P
7439-89-6	Iron	329.00		E	P
7439-92-1	Lead	2.30	B	W	F
7439-95-4	Magnesium	8380.00			P
7439-96-5	Manganese	65.00			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	5.80	B		P
7440-09-7	Potassium	5040.00			P
7782-49-2	Selenium	4.00	U	WN	F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	14800.00			P
7440-28-0	Thallium	2.00	U	WN	F
7440-62-2	Vanadium	5.80	B		P
7440-66-6	Zinc	15.80	B		P
	Cyanide	10.00	U		CA

Color Before: COLORLESS Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLOUDY Artifacts:

Comments:

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CR4

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF8

Matrix (soil/water): WATER Lab Sample ID: 05129-04S

Level (low/med): LOW Date Received: 05/13/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	28.50	B		P
7440-36-0	Antimony	11.00	U		P
7440-38-2	Arsenic	4.30	B		F
7440-39-3	Barium	18.70	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	1.00	U		P
7440-70-2	Calcium	30700.00			P
7440-47-3	Chromium	10.20			P
7440-48-4	Cobalt	2.00	U		P
7440-50-8	Copper	4.00	U		P
7439-89-6	Iron	35.00	B	E	P
7439-92-1	Lead	1.60	B		F
7439-95-4	Magnesium	5080.00			P
7439-96-5	Manganese	4.80	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	5.00	U		P
7440-09-7	Potassium	2240.00	B		P
7782-49-2	Selenium	4.00	U	WN	F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	6010.00			P
7440-28-0	Thallium	2.00	U	WN	F
7440-62-2	Vanadium	7.20	B		P
7440-66-6	Zinc	16.10	B		P
	Cyanide	10.00	U		CA

Color Before: COLORLESS Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLOUDY Artifacts:

Comments:

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CR7

ab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

ab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF8

atrix (soil/water): WATER Lab Sample ID: 05129-06S

evel (low/med): LOW Date Received: 05/13/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	331.00			P
7440-36-0	Antimony	11.00	U		P
7440-38-2	Arsenic	4.60	B		F
7440-39-3	Barium	54.90	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	1.00	B		P
7440-70-2	Calcium	42800.00			P
7440-47-3	Chromium	165.00			P
7440-48-4	Cobalt	2.00	U		P
7440-50-8	Copper	6.70	B		P
7439-89-6	Iron	544.00		E	P
7439-92-1	Lead	2.20	B		F
7439-95-4	Magnesium	12100.00			P
7439-96-5	Manganese	13.70	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	9.70	B		P
7440-09-7	Potassium	4920.00	B		P
7782-49-2	Selenium	4.00	U	WN	F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	20000.00			P
7440-28-0	Thallium	2.00	U	WN	F
7440-62-2	Vanadium	9.30	B		P
7440-66-6	Zinc	23.20			P
	Cyanide	10.00	U		CA

Color Before: COLORLESS Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLOUDY Artifacts:

Comments:

007

FORM I - IN Rev.6/89

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CT5

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF8

Matrix (soil/water): WATER Lab Sample ID: 05129-07S

Level (low/med): LOW Date Received: 05/13/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	10.00	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CT7

ab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

ab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF8

atrix (soil/water): WATER Lab Sample ID: 05129-08S

evel (low/med): LOW Date Received: 05/13/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	10.00	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

9613442.0687

TMA/Skinner & Sherman Labs **SAMPLE LOG-IN**

WORKORDER HANFORD.NOR CLIENT 52-05-129 No. SAMPLES:

PROTCL CLP TURNARND 33 days 8

COOLER TEMP: 4 oC, or NA (Soil) (Water) (Specify Other)

CUSTODIAN Benney, A. SDG/BATCH N/A

CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT CLIENT CASE N2-05-068

SHIPER & # Fedex # 2126897124 PO/CONTRACT# ↓

TAGS: PRESENT/ABSENT/NA/SEE COC CONTACT Dolores Sanchez

CHAIN OF CUSTODY: PRESENT/ABSENT/NA,# N/A COMMENTS: None

SAMPLE CONTAINERS INTACT/BROKEN COMMENTS

CLIENT COMMENT? YES/NO

SAMPLE LABELS AGREE WITH CHAIN OF CUSTODY INFO? YES/NO (COMMENT)

CLIENT PAPERWORK AGREES WITH SAMPLES & COC? YES /NO (COMMENT)

SHIPMENT DATES 5.13.92

LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM:

N/A

	CLIENT ID	MATRIX	RECEIVED	QC	TEST(S)	HOLD TIME UP
1	B06CN7	WATER	5.13.92	D,S	TM/CN	
2	P0					CN due
3	Q2					05.21.92
4	R4					
5	F8					HG due
6	R7					06.02.92
7	T5				CN only	
8	T7					
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						

Complete 5-14-92

Samples are from site known to have Rad-Contamination: YES X NO

Samples have detectable amounts of Radioactive Material: YES NO X

SUBCONTRACT: YES/NO TO: DATE:

REVIEWED Rev. 1.4 PAGE 168

9613442.0688

SS

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/8/92

Ice Chest No. SML-87

Field Logbook No. EFL-1018 p. 1

Bill of Lading/Airbill No. 2509867954

Offsite Property No. W92-0-0345-27

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CN7

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED

3, 1L, P, WATER, CLP-CYANIDE (NaOH)

~~3, 40ml, Gs, WATER, CLP VOA~~

6, 1l ~~3, 2L, G, WATER, CLP SEMI VOA/PCB/PEST *~~

~~1, 500ml, G, WATER, ANIONS, pH~~

ICOL 5/8/92 ~~1, 500ml, G, WATER, CONDUCTIVITY~~

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CN8

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

* B06CN9

~~3, 40ml, Gs, WATER, CLP VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: K.D. Lee K.D. Lee	Received by: relinq. to refrigerator	Date/Time: 5/8/92 1500
Relinquished by:	Received by: PH Butcher PH Butcher	Date/Time: 11 May 92 0700
Relinquished by: PH Butcher PH Butcher	Received by: Elby H. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 Elby H. Yamamoto	Received by: [illegible]	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

* SAMPLE ID # B06CN7 → ONE OF THE SIX "BOTTLES LID" was broken.

** SAMPLE ID # B06CN9 → BUBBLES WERE FOUND IN 3 vials

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0689

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

Task # 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/8/92 Time 1200 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B0GCN7	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	~~3, 40M, Gs~~	W	~~CLP - VOA~~
	~~3, 2L, G~~	W	~~CLP - Semi-VOA/PCB/Pest~~
	~~1, 500 ml, G~~	W	~~ANions, pH~~
	~~1, 500ml, G~~	W	~~Cond.~~
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pu-238/239/240 Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
B0GCN8	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B0GCN9	~~3, 40 ml, Gs~~	W	~~CLP-VOA~~ ([illegible] 3 [illegible])

Field Information** BOL # 2509867954

OPC # W92-0-0345-27

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Ellen G. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # — OPC #

9613442.0690

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-8-92

Ice Chest No. N.J. BOUND

Field Logbook No. EFL-0057 p.1

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-25

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CP0

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED

3, 1L, P, WATER, CLP-CYANIDE (NaOH)

~~3, 40ml, Gs, WATER, CLP-VOA~~

6, 1l ~~3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST~~

KDL 5/8/92 ~~1, 500ml, G, WATER, ANIONS, pH~~

~~1, 500ml, G, WATER, CONDUCTIVITY~~

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C 14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CP1

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CP2

~~3, 40ml, Gs, WATER, CLP-VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker LD Walker	Received by: Refrigerator	Date/Time: 5-8-92 / 1500
Relinquished by:	Received by: Bill Whitten B.WHITTEN	Date/Time: 5-11-92 0700
Relinquished by: Bill Whitten B.WHITTEN	Received by: Elby H. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 Elby H. Yamamoto	Received by: [illegible]	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

171

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0691

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST TASK # 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5-8-92 Time 1144 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CP0	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	~~3, 40M, Gs~~	W	~~CLP - VOA~~
	~~6 8, 1 2L, G~~ BW 5-11-92	W	~~CLP - Semi VOA/PCB/Pest~~
	~~1, 500 ml, G~~	W	~~ANions, pH~~
	~~1, 500ml, G~~	W	~~Cond.~~
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
B06CP1	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B06CP2	~~3, 40 ml, Gs~~	W	~~CLP-VOA~~

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by E. Uby B. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # 250986795-4 OPC # W92-0-0345-25

172

9613442.0692

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-8-92 LW 5-8-92

Ice Chest No. SML-24

Field Logbook No. EFL - ~~1006~~ 1018

Bill of Lading/Airbill No. 2509867954

Offsite Property No. W92-0-0395-27

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CQ2

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
3, 1L, P, WATER, CLP-CYANIDE (NaOH)
~~3, 40ml, Gs, WATER, CLP-VOA~~
~~3, 2L, G, WATER, CLP SEMI-VOA/PCB/PEST~~
~~1, 500ml, G, WATER, ANIONS, pH~~
~~1, 500ml, G, WATER, CONDUCTIVITY~~
~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am 241), Sr-90, Tc-99~~
~~1, 500ml, P, WATER, C-14~~
~~1, 250ml, G, WATER, TRITIUM~~

B06CQ3

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CQ4

~~3, 40ml, Gs, WATER, CLP VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: LD Walker L.D. Walker	Received by: Refrigerator	Date/Time: 5-8/92 1415
Relinquished by:	Received by: PH Butcher PH Butcher	Date/Time: 11 May 92 0700
Relinquished by: PH Butcher	Received by: Elby H. Yamamoto	Date/Time: 5/12/92 10:30 pm
Relinquished by: 5/12/92 Elby H. Yamamoto	Received by: [illegible]	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0693

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/8/92 Time 0925 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CQ2	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	~~3, 40M, Gs~~	W	~~CLP - VOA~~
	~~3, 2L, G~~	W	~~CLP - Semi-VOA/PCB/Pest~~
	~~1, 500 ml, G~~	W	~~ANions, pH~~
	~~1, 500ml, G~~	W	~~Cond.~~
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa 238/239/240 Am-241), Sr-90, Tc 99~~
	~~1, 500ml, P~~	W	~~C 14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
B06CQ3	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B06CQ4	~~3, 40 ml, Gs~~	W	~~CLP-VOA~~

Field Information**

Special Handling and/or Storage BOL # 2509867954

OPC # W97-0-0345-Q

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Ellen H. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # OPC #

*Indicate whether sample is soil, sludge, water, etc.

9613442.0694

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-8-92

Ice Chest No. SML-26

Field Logbook No. EFL-1018

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-25

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CR4

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED

3, 1L, P, WATER, CLP-CYANIDE (NaOH)

~~3, 40ml, Gs, WATER, CLP VOA~~

6, 1L ~~3, 2L, G, WATER, CLP SEMI VOA/PCB/PEST~~

KOL 5/8/92 ~~1, 500ml, G, WATER, ANIONS, pH~~

~~1, 500ml, G, WATER, CONDUCTIVITY~~

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CR5

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CR6

~~3, 40ml, Gs, WATER, CLP VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Kathy D. Lee	Received by: relinq. to refrigerator	Date/Time: 5/8/92 1500
Relinquished by:	Received by: PHButcher PHButcher	Date/Time: 11 May 92 0700
Relinquished by: PHButcher PHButcher	Received by: Eeby J. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 Eeby J. Yamamoto	Received by: [illegible]	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0695

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

Task # 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/8/92 Time 1144 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
606CR4	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	~~3, 40M, Gs~~	W	~~CLP - VOA~~
	~~6, 1L, G~~ BJ	W	~~CLP - Semi-VOA/PCB/Pest~~
	~~1, 500 ml, G~~	W	~~ANions, pH~~
	~~1, 500ml, G~~	W	~~Cond.~~
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
606CR5	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
606CR6	~~3, 40 ml, Gs~~	W	~~CLP VOA~~

Field Information** BOL # 250986795-4
OPC # W97-0-0345-25

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elly H. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # OPC #

9613442.0696

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/10/92

Ice Chest No. SML-19

Field Logbook No. EFL-1018 p. 3

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-24

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CF8

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED

3, 1L, P, WATER, CLP-CYANIDE (NaOH)

~~3, 40ml, Gs, WATER, CLP VOA~~

~~3, 2L, G, WATER, CLP SEMI VOA/PCB/PEST~~

~~1, 500ml, G, WATER, ANIONS, pH~~

~~1, 500ml, G, WATER, CONDUCTIVITY~~

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CF9

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CG0

~~3, 40ml, Gs, WATER, CLP VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: K.D. Lee	Received by: relinq. to refrigerator	Date/Time: 5/10/92 1540
Relinquished by:	Received by: B. WHITTEN	Date/Time: 5-12-92 0700
Relinquished by: B. WHITTEN	Received by: Kelly H. Yamamoto	Date/Time: 5/12/92 10:30
Relinquished by: 5/12/92 Kelly H. Yamamoto	Received by:	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0697

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST TASK NO 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5-10-92 Time 0940 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CF8	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	~~3, 40M, Gs~~	W	~~CLP - VOA~~
	~~3, 2L, G~~	W	~~CLP - Semi-VOA/PCB/Pest~~
	~~1, 500 ml, G~~	W	~~ANions, pH~~
	~~1, 500ml, G~~	W	~~Cond.~~
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U 234/235/238, Pa 238/239/240 Am 241), Sr 90, Tc 99~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
B06CF9	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B06CG0	~~3, 40 ml, Gs~~	W	~~CLP VOA~~

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Ellen H. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # 250986795-4 OPC # W92-0-0345-24

178

*Indicate whether sample is soil, sludge, water, etc.

9613442.0698

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/10/92

Ice Chest No. NOT

Field Logbook No. EFL-1018 B

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-26

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

* B06CR7 *

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
3, 1L, P, WATER, CLP-CYANIDE (NaOH)
~~3, 40ml, Gs, WATER, CLP VOA~~
~~3, 2L, G, WATER, CLP SEMI VOA/PCB/PEST~~
~~1, 500ml, G, WATER, ANIONS, pH~~
~~1, 500ml, G, WATER, CONDUCTIVITY~~
~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~
~~1, 500ml, P, WATER, C-14~~
~~1, 250ml, G, WATER, TRITIUM~~

B06CR8

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CR9

~~3, 40ml, Gs, WATER, CLP VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Kerby D. Lee K.D Lee	Received by: relinq. to refrigerator	Date/Time: 5/10/92 1538
Relinquished by:	Received by: PHButcher PHButcher	Date/Time: 11 May 92 0700
Relinquished by: PHButcher PHButcher	Received by: Elby H. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 elby H. Yamamoto	Received by: [illegible]	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments: Sample ID*B06CR7*=7 Bubbles were found in 2 vials on Voa-bottles

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9619442.0699

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

Task # 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/10/92 Time 0940 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CR7	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	~~3, 40M, Gs~~	W	~~CLP - VOA~~
	~~3, 2L, G~~	W	~~CLP - Semi-VOA/PCB/Pest~~
	~~1, 500 ml, G~~	W	~~ANions, pH~~
	~~1, 500ml, G~~	W	~~Cond.~~
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
B06CR8	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B06CR9	~~3, 40 ml, Gs~~	W	~~CLP VOA~~

Field Information** BOL# 250986795-4

OPC# W92-0-0345-26

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elby G. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # OPC #

9613442.0700

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-10-92

Ice Chest No. SML-93

Field Logbook No. EFL - 0057

Bill of Lading/Airbill No 250986795-4

Offsite Property No. W92-0-0345-24

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CT5

3, 1L, P, WATER, CLP-CYANIDE (NaOH)

~~2, 4L, P, WATER, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (HNO3)~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CT6

~~3, 40ml, Gs, WATER, CLP VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Gary Gibbons Gary G. Hamilton	Received by: placing into refrigerator	Date/Time: 5/10/92 1590
Relinquished by:	Received by: Bill Whitten B. WHITTEN	Date/Time: 5-11-92 0700
Relinquished by: Bill Whitten B. WHITTEN	Received by: Elby J. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 Elby J. Yamamoto	Received by: [illegible]	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9615442.0701

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST Task #92-165

PART I: FIELD SECTION

Collector KDLee / LD Walker Date Sampled 5-10-92 Time 0855 hours

Company Contact PH Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CT5	3, 1L, P	W	CLP Cyanide (NaOH)
	~~2, 1L, P~~	W	~~Gross Gamma Spec, Alpha Spec (U-234/235/238, Pu 238/239/240, Am-241),~~
			~~Sr 90 (HNO_3)~~
	~~1, 500ml, P~~	W	~~C 14~~
	~~1, 250ml, G~~	W	~~Tritium~~
B06CT6	~~3, 40ml, Gs~~	W	~~CLP VOA~~

Field Information** BOL #: 250986795-C1
OPC #: W92-0-0345-24

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elky K. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

182

*Indicate whether sample is soil, sludge, water, etc.
**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9613442.0701

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/10/92

Ice Chest No. CORY-1

Field Logbook No. EFL-0057

Bill of Lading/Airbill No. 2509867954

Offsite Property No. W92-0-0345-26

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CT7

3, 1L, P, WATER, CLP-CYANIDE (NaOH)

~~2, 4L, P, WATER, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (HNO3)~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CT9

~~3, 40ml, Gs, WATER, CLP-VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: H Hamilton / GG Hamilton	Received by: relinq to refrigerator	Date/Time: 5/10/92 1540
Relinquished by:	Received by: PHButcher PHButcher	Date/Time: 11 May 92 0200
Relinquished by: PHButcher PHButcher	Received by: Elby J. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 Elby J. Yamamoto	Received by: [illegible]	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0703

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST Task # 92-165

PART I: FIELD SECTION

Collector KD Lee / LD Walker Date Sampled 5/10/92 Time 0720 hours

Company Contact PH Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CT7	3, 1L, P	W	CLP Cyanide (NaOH)
	~~2, 4L, P~~	W	~~Gross Gamma Spec, Alpha Spec (U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (HNO3)~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250ml, G~~	W	~~Tritium~~
B06CT8	~~3, 40ml, Gs~~	W	~~CLP-VOA~~

Field Information** BOL #: 2509867954

OPC #: W92-0-0345-26

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elky K. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

184

Indicate whether sample is soil, sludge, water, etc.

*Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9613442.0704

TMA
Thermo Analytical Inc.

300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200
FAX (617) 890-3883

JUN 1992
RECEIVED
OSM DMO

June 17, 1992

TMA/NORCAL
2030 Wright Avenue
Richmond, CA 94804
Attention: Dan Stuermer

Quality Control Narrative

Scope
Six (6) water samples were submitted to TMA/Skinner & Sherman Laboratories, Inc. on May 13, 1992 from Westinghouse/Hanford Company. The samples were analyzed for the USEPA CLP Target Analyte List metals. The analysis was performed under Skinner and Sherman work order S205132.

Methodology
The samples were prepared, analyzed and reported in accordance with the USEPA Contract Laboratory Program Statement of Work 7/88 (CLP SOW788).

Discussion
All quality control requirements were met for the samples with the following exceptions:

The thallium digestion spike recovery exceeded the control limit requirements.

Please feel free to call if there are any questions concerning the data package.

Respectfully submitted,

TMA/SKINNER & SHERMAN LABORATORIES, INC.

David N. Peterson
Assistant Laboratory Manager

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CF9

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF9

Matrix (soil/water): WATER Lab Sample ID: 05132-05S

Level (low/med): LOW Date Received: 05/13/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.00	U		P
7440-36-0	Antimony	16.00	U		P
7440-38-2	Arsenic	3.40	B	W	F
7440-39-3	Barium	50.70	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U		P
7440-70-2	Calcium	43900.00			P
7440-47-3	Chromium	145.00			P
7440-48-4	Cobalt	3.00	U		P
7440-50-8	Copper	2.00	U		P
7439-89-6	Iron	23.00	U		P
7439-92-1	Lead	2.00	U		F
7439-95-4	Magnesium	12200.00			P
7439-96-5	Manganese	2.60	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	3.00	U		P
7440-09-7	Potassium	4900.00	B		P
7782-49-2	Selenium	20.00	U	W	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	20400.00			P
7440-28-0	Thallium	4.00	U	WN	F
7440-62-2	Vanadium	7.10	B		P
7440-66-6	Zinc	11.00	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN Rev.6/89

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CN8

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF9

Matrix (soil/water): WATER Lab Sample ID: 05132-01S

Level (low/med): LOW Date Received: 05/13/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.00	U		P
7440-36-0	Antimony	16.00	U		P
7440-38-2	Arsenic	6.40	B		F
7440-39-3	Barium	34.50	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U		P
7440-70-2	Calcium	47800.00			P
7440-47-3	Chromium	38.00			P
7440-48-4	Cobalt	3.00	U		P
7440-50-8	Copper	2.00	U		P
7439-89-6	Iron	23.00	U		P
7439-92-1	Lead	2.00	U		F
7439-95-4	Magnesium	9900.00			P
7439-96-5	Manganese	17.60			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	8.10	B		P
7440-09-7	Potassium	5020.00			P
7782-49-2	Selenium	4.00	U	W	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	17700.00			P
7440-28-0	Thallium	4.00	U	WN	F
7440-62-2	Vanadium	4.80	B		P
7440-66-6	Zinc	11.00	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN Rev.6/89

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CP1

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF9

Matrix (soil/water): WATER Lab Sample ID: 05132-02S

Level (low/med): LOW Date Received: 05/13/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.00	U		P
7440-36-0	Antimony	16.00	U		P
7440-38-2	Arsenic	4.20	B		F
7440-39-3	Barium	18.40	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U		P
7440-70-2	Calcium	32300.00			P
7440-47-3	Chromium	4.00	B		P
7440-48-4	Cobalt	3.00	U		P
7440-50-8	Copper	2.00	U		P
7439-89-6	Iron	23.00	U		P
7439-92-1	Lead	2.00	U		F
7439-95-4	Magnesium	5300.00			P
7439-96-5	Manganese	4.00	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	3.00	U		P
7440-09-7	Potassium	2440.00	B		P
7782-49-2	Selenium	20.00	U		F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	6420.00			P
7440-28-0	Thallium	4.00	U	WN	F
7440-62-2	Vanadium	3.90	B		P
7440-66-6	Zinc	11.00	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN Rev.6/89

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CQ3

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF9

Matrix (soil/water): WATER Lab Sample ID: 05132-03S

Level (low/med): LOW Date Received: 05/13/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.00	U		P
7440-36-0	Antimony	16.00	U		P
7440-38-2	Arsenic	3.40	B	W	F
7440-39-3	Barium	46.50	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U		P
7440-70-2	Calcium	61700.00			P
7440-47-3	Chromium	29.10			P
7440-48-4	Cobalt	3.00	U		P
7440-50-8	Copper	2.00	U		P
7439-89-6	Iron	23.00	U		P
7439-92-1	Lead	2.00	U		F
7439-95-4	Magnesium	8330.00			P
7439-96-5	Manganese	66.50			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	3.00	U		P
7440-09-7	Potassium	5100.00			P
7782-49-2	Selenium	4.50	B	+	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	15400.00			P
7440-28-0	Thallium	4.00	U	WN	F
7440-62-2	Vanadium	3.20	B		P
7440-66-6	Zinc	11.00	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN Rev.6/89

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CR5

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF9

Matrix (soil/water): WATER Lab Sample ID: 05132-04S

Level (low/med): LOW Date Received: 05/13/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.00	U		P
7440-36-0	Antimony	16.00	U		P
7440-38-2	Arsenic	3.10	B	W	F
7440-39-3	Barium	17.70	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U		P
7440-70-2	Calcium	32400.00			P
7440-47-3	Chromium	3.50	B		P
7440-48-4	Cobalt	3.00	U		P
7440-50-8	Copper	2.00	U		P
7439-89-6	Iron	23.00	U		P
7439-92-1	Lead	2.00	U		F
7439-95-4	Magnesium	5300.00			P
7439-96-5	Manganese	3.80	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	3.00	U		P
7440-09-7	Potassium	2460.00	B		P
7782-49-2	Selenium	4.00	U	W	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	6370.00			P
7440-28-0	Thallium	4.00	U	WN	F
7440-62-2	Vanadium	4.30	B		P
7440-66-6	Zinc	11.00	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN Rev.6/89

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B06CR8

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF9

Matrix (soil/water): WATER Lab Sample ID: 05132-06S

Level (low/med): LOW Date Received: 05/13/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	25.40	B		P
7440-36-0	Antimony	16.00	U		P
7440-38-2	Arsenic	3.30	B		F
7440-39-3	Barium	50.90	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U		P
7440-70-2	Calcium	43100.00			P
7440-47-3	Chromium	139.00			P
7440-48-4	Cobalt	3.00	U		P
7440-50-8	Copper	2.00	U		P
7439-89-6	Iron	23.00	U		P
7439-92-1	Lead	2.00	U		F
7439-95-4	Magnesium	12000.00			P
7439-96-5	Manganese	5.60	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	3.00	U		P
7440-09-7	Potassium	4850.00	B		P
7782-49-2	Selenium	4.00	U	W	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	20100.00			P
7440-28-0	Thallium	4.00	U	WN	F
7440-62-2	Vanadium	4.80	B		P
7440-66-6	Zinc	11.00	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN Rev.6/89

9613442.0711

TMA/Skinner & Sherman Labs SAMPLE LOG-IN
WORKORDER S2-05-132 CLIENT HANFORD-NOR No. SAMPLES:
PROTCL CLP TURNARND 33 days (Soil) 6 (Water) (Specify Other)
COOLER TEMP: 4 oC, or NA
CUSTODIAN Benney, A. SDG/BATCH N/A
CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT CLIENT CASE N2-05-068
SHIPER & # Fedex #2126897124 PO/CONTRACT# ↓
TAGS: PRESENT/ABSENT/NA/SEE COC CONTACT Dolores Sanchez
CHAIN OF CUSTODY: PRESENT/ABSENT/NA, # N/A COMMENTS: NONE

SAMPLE CONTAINERS-INTACT/BROKEN COMMENTS

CLIENT COMMENT? YES/NO Field Filtered
SAMPLE LABELS AGREE WITH CHAIN OF CUSTODY INFO? YES/NO (COMMENT)
CLIENT PAPERWORK AGREES WITH SAMPLES & COC? YES/NO (COMMENT)

SHIPMENT DATES 5-13-92
LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM:

N/A

	CLIENT ID	MATRIX	RECEIVED	QC	TEST(S)	HOLD TIME UP
1	BQ6CN8	WATER	5.13.92	O,S	TM	Hg due
2	P1	↓	↓		↓	06.02.92
3	Q3					
4	R5					
5	F9					
6	R8					
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						

Samples are from site known to have Rad-Contamination: YES X NO
Samples have detectable amounts of Radioactive Material: YES NO X
SUBCONTRACT: YES/NO TO: DATE:
REVIEWED Rev. 1.4 PAGE

9613442.0712

SS

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/8/92

Ice Chest No. SML-87

Field Logbook No. EFL-1018 p.1

Bill of Lading/Airbill No. 2509867954

Offsite Property No. W92-0-0345-27

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CN7

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED

3, 1L, P, WATER, CLP-CYANIDE (NaOH)

~~3, 40ml, Gs, WATER, CLP VOA~~

* 6, 1l ~~3, 2L, G, WATER, CLP SEMI VOA/PCB/PEST~~ *

KDL 5/8/92 ~~1, 500ml, G, WATER, ANIONS, pH~~

~~1, 500ml, G, WATER, CONDUCTIVITY~~

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CN8

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

** B06CN9

~~3, 40ml, Gs, WATER, CLP VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: K.D. Lee K.D. Lee	Received by: waiting to refrigerator	Date/Time: 5/8/92 1500
Relinquished by:	Received by: PHButcher PHButcher	Date/Time: 11 May 92 0700
Relinquished by: PHButcher PHButcher	Received by: Elby H. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 Elby H. Yamamoto	Received by: [illegible]	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

* SAMPLE ID # B06CN7 → ONE OF THE SIX "BOTTLES LID" was broken.

** SAMPLE ID # B06CN9 → BUBBLES WERE FOUND IN 3 vials

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0713

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

Task # 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/8/92 Time 1200 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B0L0N7	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	~~3, 40M, Gs~~	W	~~CLP - VOA~~
	~~3, 2L, G~~	W	~~CLP - Semi-VOA/PCB/Pest~~
	~~1, 500 ml, G~~	W	~~ANions, pH~~
	~~1, 500ml, G~~	W	~~Cond.~~
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pu-238/239/240 Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
B0L0N8	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B0L0N9	~~3, 40 ml, Gs~~	W	~~CLP-VOA~~

Field Information** BOL # 2509860954

OPC # W92-0-0345-27

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Ebby G. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # — OPC #

145

9613442.0714

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-8-92

Ice Chest No. N.J. BOUND

Field Logbook No. EFL-0057 p.1

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-25

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CP0

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED

3, 1L, P, WATER, CLP-CYANIDE (NaOH)

~~3, 40ml, Gs, WATER, CLP-VOA~~

6, 1l ~~3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST~~

KDL 5/8/92 ~~1, 500ml, G, WATER, ANIONS, pH~~

~~1, 500ml, G, WATER, CONDUCTIVITY~~

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C 14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CP1

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CP2

~~3, 40ml, Gs, WATER, CLP-VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker	Received by: Refrigerator	Date/Time: 5-8-92 / 1500
Relinquished by:	Received by: B.W. WHITTON	Date/Time: 5-11-92 0700
Relinquished by: B.W. WHITTON	Received by: Elby H. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 Elby H. Yamamoto	Received by:	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0715

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST TASK II 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5-8-92 Time 1144 hours

Company Contact P H Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CP0	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	~~3, 40M, Gs~~	W	~~CLP - VOA~~
	~~6 8, 1 8L, G~~ BW 5-11-92	W	~~CLP - Semi-VOA/PCB/Pest~~
	~~1, 500 ml, G~~	W	~~ANions, pH~~
	~~1, 500ml, G~~	W	~~Cond.~~
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
B06CP1	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B06CP2	~~3, 40 ml, Gs~~	W	~~CLP-VOA~~

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Ruby A. Yamamoto Title Sample control Technician Date 5/12/92

Analysis Required

BOL # 250986795-4 OPC # W97-0-0345-25

147

9613442.0216

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-8-92 LW 5-8-92

Ice Chest No. SML-24

Field Logbook No. EFL - ~~1006~~ 1018

Bill of Lading/Airbill No. 2509863954

Offsite Property No. W92-0-0395-27

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CQ2

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
3, 1L, P, WATER, CLP-CYANIDE (NaOH)
~~3, 40ml, Gs, WATER, CLP-VOA~~
~~3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST~~
~~1, 500ml, G, WATER, ANIONS, pH~~
~~1, 500ml, G, WATER, CONDUCTIVITY~~
~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~
~~1, 500ml, P, WATER, C-14~~
~~1, 250ml, G, WATER, TRITIUM~~

B06CQ3

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CQ4

~~3, 40ml, Gs, WATER, CLP-VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: LD Walker L.D. Walker	Received by: Refrigerator	Date/Time: 5-8/92 1415
Relinquished by:	Received by: PH Butcher PH Butcher	Date/Time: 11 May 92 0700
Relinquished by: PH Butcher	Received by: Elby H. Yamamoto	Date/Time: 5/12/92 10:30 pm
Relinquished by: 5/12/92 Elby H. Yamamoto	Received by: [illegible]	Date/Time: 5-13-92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0717

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/8/92 Time 0925 hours

Company Contact P H Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CQ2	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	~~3, 40M, Gs~~	W	~~CLP - VOA~~
	~~3, 2L, G~~	W	~~CLP - Semi-VOA/PCB/Pest~~
	~~1, 500 ml, G~~	W	~~ANions, pH~~
	~~1, 500ml, G~~	W	~~Cond.~~
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
B06CQ3	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B06CQ4	~~3, 40 ml, Gs~~	W	~~CLP-VOA~~

Field Information**

Special Handling and/or Storage BOL # 2509867954

OPC # W97-0-0345-02

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elby H. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # OPC #

149

9615442.0718

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-8-92

Ice Chest No. SML-26

Field Logbook No. EFL-1018

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-25

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CR4

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED

3, 1L, P, WATER, CLP-CYANIDE (NaOH)

~~3, 40ml, Gs, WATER, CLP VOA~~

6, 1L ~~3, 2L, G, WATER, CLP SEMI VOA/PCB/PEST~~

KOL 5/8/92 ~~1, 500ml, G, WATER, ANIONS, pH~~

~~1, 500ml, G, WATER, CONDUCTIVITY~~

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CR5

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CR6

~~3, 40ml, Gs, WATER, CLP VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Kathy R. Lee	Received by: relinq. to refrigerator	Date/Time: 5/8/92 1500
Relinquished by:	Received by: PHButcher PHButcher	Date/Time: 11 May 92 0700
Relinquished by: PHButcher PHButcher	Received by: Eddy H. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 Eddy H. Yamamoto	Received by: [illegible]	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0719

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

Task # 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/8/92 Time 1140 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
006CR4	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	~~3, 40M, Gs~~	W	~~CLP - VOA~~
	~~6, 1L, G~~ -BW	W	~~CLP - Semi-VOA/PCB/Pest~~
	~~1, 500 ml, G~~	W	~~ANions, pH~~
	~~1, 500ml, G~~	W	~~Cond.~~
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U 234/235/238, Pa 238/239/240 Am 241), Sr 90, Tc 99~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
006CR5	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
006CR6	~~3, 40 ml, Gs~~	W	~~CLP VOA~~

Field Information** BOL # 250986795-4
OPC # W97-0-0345-25

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Eddy H. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # OPC #

9613442.0720

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/10/92

Ice Chest No. SML-19

Field Logbook No. EFC-1018 p. 3

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-24

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CF8

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED

3, 1L, P, WATER, CLP-CYANIDE (NaOH)

~~3, 40ml, Gs, WATER, CLP VOA~~

~~3, 2L, G, WATER, CLP SEMI VOA/PCB/PEST~~

~~1, 500ml, G, WATER, ANIONS, pH~~

~~1, 500ml, G, WATER, CONDUCTIVITY~~

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CF9

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CG0

~~3, 40ml, Gs, WATER, CLP VOA~~

[] Field Transfer of Custody — Chain of Possession — (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
K.A. Lee	relinq. to refrigerator	5/10/92 1540
Relinquished by:	Received by: B. WHITTEN	Date/Time: 5-12-92 0700
B. WHITTEN	Elby H. Yamamoto	5/12/92 10:30
Relinquished by: 5/12/92 Elby H. Yamamoto	Received by:	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0721

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST TASK NO 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5-10-92 Time 0940 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CF8	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	~~3, 40M, Gs~~	W	~~CLP - VOA~~
	~~3, 2L, G~~	W	~~CLP - Semi-VOA/PCB/Pest~~
	~~1, 500 ml, G~~	W	~~ANions, pH~~
	~~1, 500ml, G~~	W	~~Cond.~~
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U 234/235/238, Pa 238/239/240 Am 241), Sr 90, Tc 99~~
	~~1, 500ml, P~~	W	~~C 14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
B06CF9	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B06CG0	~~3, 40 ml, Gs~~	W	~~CLP VOA~~

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Clay H. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

153

BOL # 250986795-4 OPC # W92-0-0345-24

9613442.0722

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/10/92

Ice Chest No. NOT

Field Logbook No. EFL-1018 p. 3

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-26

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

1 B06CR7 +

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
3, 1L, P, WATER, CLP-CYANIDE (NaOH)
~~3, 40ml, Gs, WATER, CLP VOA~~
~~3, 2L, G, WATER, CLP SEMI VOA/PCB/PEST~~
~~1, 500ml, G, WATER, ANIONS, pH~~
~~1, 500ml, G, WATER, CONDUCTIVITY~~
~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~
~~1, 500ml, P, WATER, C-14~~
~~1, 250ml, G, WATER, TRITIUM~~

B06CR8

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CR9

~~3, 40ml, Gs, WATER, CLP VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Kathy D. Lee K.D. Lee	Received by: relinq. to refrigerator	Date/Time: 5/10/92 1538
Relinquished by:	Received by: PHButcher PHButcher	Date/Time: 11 May 92 0700
Relinquished by: PHButcher PHButcher	Received by: Elby B. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: Elby B. Yamamoto 5/12/92	Received by: [illegible]	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments: Sample ID #B06CR7 #=7 Bubbler were found in 2 vials in 5oz-bottle

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0723

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

Task # 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/10/92 Time 0940 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CR7	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	~~3, 40M, Gs~~	W	~~CLP - VOA~~
	~~3, 2L, G~~	W	~~CLP - Semi-VOA/PCB/Pest~~
	~~1, 500 ml, G~~	W	~~ANions, pH~~
	~~1, 500ml, G~~	W	~~Cond.~~
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
B06CR8	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B06CR9	~~3, 40 ml, Gs~~	W	~~CLP VOA~~

Field Information** BOL# 250986795-4

OPC# W92-0-0345-26

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elby J. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # OPC #

9613442.0724

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-10-92

Ice Chest No. SML-93

Field Logbook No. EFL - 0057

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-24

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CT5

3, 1L, P, WATER, CLP-CYANIDE (NaOH)

~~2, 4L, P, WATER, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (HNO3)~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CT6

~~3, 40ml, Gs, WATER, CLP VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Gary Gilbertson Gary G. Gilbertson	Received by: relinq to refrigerator	Date/Time: 5/10/92 1590
Relinquished by:	Received by: Bill Whitten B. WHITTEN	Date/Time: 5-11-92 0700
Relinquished by: Bill Whitten B. WHITTEN	Received by: Elby G. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 Elby G. Yamamoto	Received by: [illegible]	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0725

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST Task #92-165

PART I: FIELD SECTION

Collector KDLee / LD Walker Date Sampled 5-10-92 Time 0855 hours

Company Contact PH Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CT5	3, 1L, P	W	CLP Cyanide (NaOH)
	~~2, 1L, P~~	W	~~Gross Gamma Spec, Alpha Spec (U-234/235/238, Pu 238/239/240, Am-241),~~
			~~Sr 90 (HNO_3)~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250ml, G~~	W	~~Tritium~~
B06CT6	~~3, 40ml, GS~~	W	~~CLP VOA~~

Field Information** BOL #: 250986795-4
OPC #: W92-0-0345-24

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elby J. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9613442.0726

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/0/92

Ice Chest No. CORY-1

Field Logbook No. EFL-0057

Bill of Lading/Airbill No. 2509867954

Offsite Property No. W92-0-0345-26

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CT7

3, 1L, P, WATER, CLP-CYANIDE (NaOH)

~~2, 4L, P, WATER, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (HNO3)~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CT9

~~3, 40ml, Gs, WATER, CLP-VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: [signature] / GG Hamilton	Received by: [signature] refrigerator	Date/Time: 5/10/92 1540
Relinquished by:	Received by: PHButcher PHButcher	Date/Time: 11 May 92 0900
Relinquished by: PHButcher PHButcher	Received by: Elby J. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 Elby J. Yamamoto	Received by: [signature]	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0727

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST Task # 92-165

PART I: FIELD SECTION

Collector KD Lee / LD Walker Date Sampled 5/10/92 Time 0720 hours

Company Contact PH Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
806CT7	3, 1L, P	W	CLP Cyanide (NaOH)
	~~2, 4L, P~~	W	~~Gross Gamma Spec, Alpha Spec (U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (H_2SO_4)~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250ml, G~~	W	~~Tritium~~
806CT8	~~3, 40ml, Gs~~	W	~~CLP-VOA~~

Field Information** BOL #: 2509867954

OPC #: W92-0-0345-26

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elby L. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

150

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

159

A-6000-406 (05/90)

9613442.0728

000001

JB
9/8/92

TMA
Thermo Analytical Inc.

TMA/Norcal
2030 Wright Avenue
P. O. Box 4040
Richmond, CA 94804-0040
(510) 235-2633 Fax No. (510) 235-0438

AUG 1992
RECEIVED
OSM DMO

August 5, 1992

SENT BY FEDERAL EXPRESS

Ref. TMA/Norcal N2-05-092-7040

Mr. John Bourgeault
Westinghouse Hanford Company
2355 Stevens Drive
Richland, WA 99352

Dear Mr. Bourgeault:

Enclosed on the Summary Data Section, are the gross alpha, gross beta, ^{3}H, ^{14}C, ^{90}Sr, ^{99}Tc, isotopic uranium, isotopic plutonium, ^{241}Am, and gamma scan results for the water samples from 100-HR-3 Location, we received 12 May 1992. The QA/QC results are also given in the Summary Data Section.

Please call if you have any questions concerning this data.

Sincerely,

D.P. Kharkar

Dinkar P. Kharkar, Ph.D.
Manager, Nuclear Programs

DPK/ss

Enclosures: Section 1 through 14
Appendices

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-05

B06CF8

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-05
Dept sample id 7040-005
Received 05/12/92

Client sample id B06CF8
Matrix WATER
Collected 05/10/92
Chain of custody id EFL-1018

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	3.9	2.7	3.0	3.0		80A
Gross Beta	Beta	6.1	1.5	1.9	4.0		80B
Uranium 233/234		1.6	0.24	0.030	0.20		U
Uranium 235	15117-96-1	0.047	0.047	0.037	0.20	J	U
Uranium 238	7440-61-1	1.3	0.21	0.030	0.20		U
Plutonium 238	13981-16-3	0.011	0.022	0.031	0.050	U	PU
Plutonium 239/240		0.011	0.022	0.036	0.050	U	PU
Americium 241	14596-10-2	-0.017	0.017	0.040	0.050	U	AM
Strontium 90	10098-97-2	0	1.7	0.52	1.0	U	Y
Technetium 99	14133-76-7	-0.35	2.0	6.0	5.0	U	TC
Tritium	10028-17-8	11000	430	220	400		H
Carbon 14	14762-75-5	16	30	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			270		U	GAM
Chromium 51	14392-02-0			320		U	GAM
Cobalt 60	10198-40-0			15		U	GAM
Zinc 65	17982-39-3			24		U	GAM
Cesium 134	17967-70-9			13		U	GAM
Cesium 137	10045-97-3			11		U	GAM
Radium 226	13982-67-7			22		U	GAM
Thorium 228	14274-82-9			18		U	GAM
Thorium 232	7440-29-1			48		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-15

B06CJ8

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-15
Dept sample id 7040-015
Received 05/12/92

Client sample id B06CJ8
Matrix WATER
Collected 05/16/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	0.20	2.2	3.4	3.0	U	80A
Gross Beta	Beta	6.1	1.5	2.0	4.0		80B
Uranium 233/234		1.5	0.17	0.050	0.20		U
Uranium 235	15117-96-1	0.11	0.046	0.030	0.20	J	U
Uranium 238	7440-61-1	0.99	0.13	0.031	0.20		U
Plutonium 238	13981-16-3	0.010	0.010	0.011	0.050	U	PU
Plutonium 239/240		0.005	0.005	0.011	0.050	U	PU
Americium 241	14596-10-2	0.020	0.040	0.060	0.050	U	AM
Strontium 90	10098-97-2	0.017	0.22	0.76	1.0	U	Y
Technetium 99	14133-76-7	-0.48	3.1	4.1	5.0	U	TC
Tritium	10028-17-8	300	150	220	400	J	H
Carbon 14	14762-75-5	27	29	39	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			160		U	GAM
Chromium 51	14392-02-0			300		U	GAM
Cobalt 60	10198-40-0			19		U	GAM
Zinc 65	17982-39-3			22		U	GAM
Cesium 134	17967-70-9			13		U	GAM
Cesium 137	10045-97-3			12		U	GAM
Radium 226	13982-67-7			23		U	GAM
Thorium 228	14274-82-9			39		U	GAM
Thorium 232	7440-29-1			52		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-12

B06CK4

SDG 7040
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-12
Dept sample id 7040-012
Received 05/12/92
Client sample id B06CK4
Matrix WATER
Collected 05/16/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	1.5	2.3	3.3	3.0	U	80A
Gross Beta	Beta	6.8	1.7	2.2	4.0		80B
Uranium 233/234		0.89	0.13	0.026	0.20		U
Uranium 235	15117-96-1	0.061	0.038	0.022	0.20	J	U
Uranium 238	7440-61-1	0.65	0.11	0.018	0.20	B	U
Plutonium 238	13981-16-3	0	0.012	0.027	0.050	U	PU
Plutonium 239/240		0.006	0.023	0.027	0.050	U	PU
Americium 241	14596-10-2	-0.004	0.022	0.038	0.050	U	AM
Strontium 90	10098-97-2	-0.25	2.4	0.89	1.0	U	Y
Technetium 99	14133-76-7	2.5	2.3	6.1	5.0	U	TC
Tritium	10028-17-8	3300	270	230	400		H
Carbon 14	14762-75-5	23	30	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			120		U	GAM
Chromium 51	14392-02-0			230		U	GAM
Cobalt 60	10198-40-0			14		U	GAM
Zinc 65	17982-39-3			26		U	GAM
Cesium 134	17967-70-9			8.5		U	GAM
Cesium 137	10045-97-3			9.9		U	GAM
Radium 226	13982-67-7			19		U	GAM
Thorium 228	14274-82-9			17		U	GAM
Thorium 232	7440-29-1			42		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-17

B06CL0

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-17
Dept sample id 7040-017
Received 05/12/92

Client sample id B06CL0
Matrix WATER
Collected 05/16/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	-2.0	3.5	6.2	3.0	U	80A
Gross Beta	Beta	7.6	1.6	2.0	4.0		80B
Uranium 233/234		1.5	0.17	0.036	0.20		U
Uranium 235	15117-96-1	0.063	0.034	0.020	0.20	J	U
Uranium 238	7440-61-1	1.4	0.16	0.028	0.20		U
Plutonium 238	13981-16-3	0.005	0.011	0.013	0.050	U	PU
Plutonium 239/240		0.008	0.011	0.013	0.050	U	PU
Americium 241	14596-10-2	0.004	0.044	0.068	0.050	U	AM
Strontium 90	10098-97-2	0.44	0.73	0.84	1.0	U	Y
Technetium 99	14133-76-7	0.80	4.7	2.8	5.0	U	TC
Tritium	10028-17-8	72000	1400	220	400		H
Carbon 14	14762-75-5	7.0	29	39	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			160		U	GAM
Chromium 51	14392-02-0			320		U	GAM
Cobalt 60	10198-40-0			12		U	GAM
Zinc 65	17982-39-3			28		U	GAM
Cesium 134	17967-70-9			13		U	GAM
Cesium 137	10045-97-3			11		U	GAM
Radium 226	13982-67-7			27		U	GAM
Thorium 228	14274-82-9			23		U	GAM
Thorium 232	7440-29-1			50		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

N205092-16

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

B06CL6

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-16
Dept sample id 7040-016
Received 05/12/92

Client sample id B06CL6
Matrix WATER
Collected 05/16/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	1.1	2.4	3.5	3.0	U	80A
Gross Beta	Beta	2.9	2.4	3.7	4.0	U	80B
Uranium 233/234		0.73	0.12	0.037	0.20		U
Uranium 235	15117-96-1	0.039	0.029	0.023	0.20	J	U
Uranium 238	7440-61-1	0.69	0.11	0.019	0.20		U
Plutonium 238	13981-16-3	0.015	0.015	0.017	0.050	U	PU
Plutonium 239/240		0.007	0.007	0.017	0.050	U	PU
Americium 241	14596-10-2	0.019	0.023	0.038	0.050	U	AM
Strontium 90	10098-97-2	-2.7	7.4	2.7	1.0	U	Y
Technetium 99	14133-76-7	14	5.7	4.7	5.0		TC
Tritium	10028-17-8	250	150	220	400	J	H
Carbon 14	14762-75-5	25	29	38	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			290		U	GAM
Chromium 51	14392-02-0			340		U	GAM
Cobalt 60	10198-40-0			18		U	GAM
Zinc 65	17982-39-3			34		U	GAM
Cesium 134	17967-70-9			15		U	GAM
Cesium 137	10045-97-3			15		U	GAM
Radium 226	13982-67-7			26		U	GAM
Thorium 228	14274-82-9			23		U	GAM
Thorium 232	7440-29-1			59		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-18

B06CM5

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-18
Dept sample id 7040-018
Received 05/12/92

Client sample id B06CM5
Matrix WATER
Collected 05/17/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	-2.3	3.4	6.0	3.0	U	80A
Gross Beta	Beta	18	2.1	2.2	4.0		80B
Uranium 233/234		1.2	0.21	0.034	0.20		U
Uranium 235	15117-96-1	0.027	0.036	0.041	0.20	U	U
Uranium 238	7440-61-1	0.90	0.18	0.034	0.20		U
Plutonium 238	13981-16-3	0.007	0.010	0.012	0.050	U	PU
Plutonium 239/240		0.005	0.010	0.012	0.050	U	PU
Americium 241	14596-10-2	-0.016	0.032	0.054	0.050	U	AM
Strontium 90	10098-97-2	6.9	1.4	0.84	1.0		Y
Technetium 99	14133-76-7	5.9	8.3	6.2	5.0	U	TC
Tritium	10028-17-8	13000	480	230	400		H
Carbon 14	14762-75-5	42	30	39	50	J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			250		U	GAM
Chromium 51	14392-02-0			340		U	GAM
Cobalt 60	10198-40-0			15		U	GAM
Zinc 65	17982-39-3			30		U	GAM
Cesium 134	17967-70-9			14		U	GAM
Cesium 137	10045-97-3			16		U	GAM
Radium 226	13982-67-7			25		U	GAM
Thorium 228	14274-82-9			21		U	GAM
Thorium 232	7440-29-1			59		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

N205092-19

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

B06CM8

SDG 7040
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-19
Dept sample id 7040-019
Received 05/12/92
Client sample id B06CM8
Matrix WATER
Collected 05/17/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	3.7	3.0	3.6	3.0		80A
Gross Beta	Beta	6.7	1.8	2.4	4.0		80B
Uranium 233/234		1.9	0.21	0.027	0.20		U
Uranium 235	15117-96-1	0.095	0.041	0.023	0.20	J	U
Uranium 238	7440-61-1	1.0	0.15	0.027	0.20		U
Plutonium 238	13981-16-3	0.007	0.009	0.010	0.050	U	PU
Plutonium 239/240		0.007	0.009	0.010	0.050	U	PU
Americium 241	14596-10-2	-0.004	0.026	0.040	0.050	U	AM
Strontium 90	10098-97-2	-0.36	2.2	0.86	1.0	U	Y
Technetium 99	14133-76-7	2.7	4.6	5.3	5.0	U	TC
Tritium	10028-17-8	16	140	220	400	U	H
Carbon 14	14762-75-5	8.5	29	39	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			170		U	GAM
Chromium 51	14392-02-0			330		U	GAM
Cobalt 60	10198-40-0			14		U	GAM
Zinc 65	17982-39-3			30		U	GAM
Cesium 134	17967-70-9			13		U	GAM
Cesium 137	10045-97-3			12		U	GAM
Radium 226	13982-67-7			27		U	GAM
Thorium 228	14274-82-9			22		U	GAM
Thorium 232	7440-29-1			54		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-13

B06CN1

SDG 7040
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-13
Dept sample id 7040-013
Received 05/12/92
Client sample id B06CN1
Matrix WATER
Collected 05/17/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	-0.11	1.2	2.0	3.0	U	80A
Gross Beta	Beta	2.3	1.5	2.3	4.0	J	80B
Uranium 233/234		0.46	0.10	0.056	0.20		U
Uranium 235	15117-96-1	0.005	0.022	0.026	0.20	U	U
Uranium 238	7440-61-1	0.38	0.085	0.021	0.20	B	U
Plutonium 238	13981-16-3	0.005	0.010	0.023	0.050	U	PU
Plutonium 239/240		0	0.010	0.023	0.050	U	PU
Americium 241	14596-10-2	0	0.049	0.076	0.050	U	AM
Strontium 90	10098-97-2	0.18	0.25	0.77	1.0	U	Y
Technetium 99	14133-76-7	7.0	3.1	3.0	5.0		TC
Tritium	10028-17-8	260	150	220	400	J	H
Carbon 14	14762-75-5	31	30	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			190		U	GAM
Chromium 51	14392-02-0			280		U	GAM
Cobalt 60	10198-40-0			13		U	GAM
Zinc 65	17982-39-3			24		U	GAM
Cesium 134	17967-70-9			12		U	GAM
Cesium 137	10045-97-3			11		U	GAM
Radium 226	13982-67-7			20		U	GAM
Thorium 228	14274-82-9			17		U	GAM
Thorium 232	7440-29-1			49		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

N205092-01

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

B06CN7

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-01
Dept sample id 7040-001
Received 05/12/92

Client sample id B06CN7
Matrix WATER
Collected 05/08/92
Chain of custody id EFL-1018

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	4.2	3.6	4.4	3.0	U	80A
Gross Beta	Beta	7.0	1.8	2.4	4.0		80B
Uranium 233/234		2.2	0.28	0.066	0.20		U
Uranium 235	15117-96-1	0.077	0.042	0.033	0.20	J	U
Uranium 238	7440-61-1	1.9	0.25	0.038	0.20		U
Plutonium 238	13981-16-3	0.002	0.024	0.037	0.050	U	PU
Plutonium 239/240		0.005	0.019	0.031	0.050	U	PU
Americium 241	14596-10-2	-0.010	0.013	0.031	0.050	U	AM
Strontium 90	10098-97-2	1.8	0.30	0.44	1.0		Y
Technetium 99	14133-76-7	4.7	2.8	2.6	5.0	J	TC
Tritium	10028-17-8	7500	370	230	400		H
Carbon 14	14762-75-5	45	33	43	50	J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			110		U	GAM
Chromium 51	14392-02-0			350		U	GAM
Cobalt 60	10198-40-0			21		U	GAM
Zinc 65	17982-39-3			33		U	GAM
Cesium 134	17967-70-9			13		U	GAM
Cesium 137	10045-97-3			13		U	GAM
Radium 226	13982-67-7			23		U	GAM
Thorium 228	14274-82-9			19		U	GAM
Thorium 232	7440-29-1			47		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-02

B06CP0

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-02
Dept sample id 7040-002
Received 05/12/92

Client sample id B06CP0
Matrix WATER
Collected 05/08/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	-0.18	1.4	2.3	3.0	U	80A
Gross Beta	Beta	2.6	1.3	1.8	4.0	J	80B
Uranium 233/234		0.40	0.15	0.055	0.20		U
Uranium 235	15117-96-1	0.014	0.029	0.067	0.20	U	U
Uranium 238	7440-61-1	0.33	0.12	0.055	0.20		U
Plutonium 238	13981-16-3	0.043	0.043	0.043	0.050	J	PU
Plutonium 239/240		0	0.021	0.043	0.050	U	PU
Americium 241	14596-10-2	0.002	0.014	0.019	0.050	U	AM
Strontium 90	10098-97-2	0.30	0.27	0.66	1.0	U	Y
Technetium 99	14133-76-7	0.63	4.8	3.4	5.0	U	TC
Tritium	10028-17-8	700	170	220	400		H
Carbon 14	14762-75-5	15	31	41	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			250		U	GAM
Chromium 51	14392-02-0			420		U	GAM
Cobalt 60	10198-40-0			17		U	GAM
Zinc 65	17982-39-3			32		U	GAM
Cesium 134	17967-70-9			17		U	GAM
Cesium 137	10045-97-3			16		U	GAM
Radium 226	13982-67-7			27		U	GAM
Thorium 228	14274-82-9			21		U	GAM
Thorium 232	7440-29-1			58		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-03

B06CQ2

SDG 7040
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-03
Dept sample id 7040-003
Received 05/12/92
Client sample id B06CQ2
Matrix WATER
Collected 05/08/92
Chain of custody id EFL-1018

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	2.0	2.2	2.9	3.0	U	80A
Gross Beta	Beta	8.3	1.8	2.3	4.0		80B
Uranium 233/234		2.7	0.20	0.046	0.20		U
Uranium 235	15117-96-1	0.11	0.040	0.023	0.20	J	U
Uranium 238	7440-61-1	2.1	0.17	0.027	0.20		U
Plutonium 238	13981-16-3	0	0.016	0.037	0.050	U	PU
Plutonium 239/240		0	0.016	0.037	0.050	U	PU
Americium 241	14596-10-2	-0.025	0.020	0.051	0.050	U	AM
Strontium 90	10098-97-2	1.5	0.34	0.55	1.0		Y
Technetium 99	14133-76-7	-0.22	2.1	6.6	5.0	U	TC
Tritium	10028-17-8	7100	360	220	400		H
Carbon 14	14762-75-5	12	30	41	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			160		U	GAM
Chromium 51	14392-02-0			380		U	GAM
Cobalt 60	10198-40-0			13		U	GAM
Zinc 65	17982-39-3			25		U	GAM
Cesium 134	17967-70-9			13		U	GAM
Cesium 137	10045-97-3			14		U	GAM
Radium 226	13982-67-7			35		U	GAM
Thorium 228	14274-82-9			22		U	GAM
Thorium 232	7440-29-1	53	38				GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-04

B06CR4

SDG 7040
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-04
Dept sample id 7040-004
Received 05/12/92
Client sample id B06CR4
Matrix WATER
Collected 05/08/92
Chain of custody id EFL-1018

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	1.4	1.3	1.7	3.0	U	80A
Gross Beta	Beta	1.5	1.2	1.8	4.0	U	80B
Uranium 233/234		0.44	0.091	0.059	0.20		U
Uranium 235	15117-96-1	0.022	0.026	0.029	0.20	U	U
Uranium 238	7440-61-1	0.33	0.075	0.017	0.20		U
Plutonium 238	13981-16-3	-0.020	0.028	0.050	0.050	U	PU
Plutonium 239/240		0.014	0.028	0.037	0.050	U	PU
Americium 241	14596-10-2	0.002	0.017	0.030	0.050	U	AM
Strontium 90	10098-97-2	0.10	0.21	0.54	1.0	U	Y
Technetium 99	14133-76-7	2.3	3.5	3.1	5.0	U	TC
Tritium	10028-17-8	620	170	230	400		H
Carbon 14	14762-75-5	11	31	41	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			110		U	GAM
Chromium 51	14392-02-0			290		U	GAM
Cobalt 60	10198-40-0			15		U	GAM
Zinc 65	17982-39-3			23		U	GAM
Cesium 134	17967-70-9			10		U	GAM
Cesium 137	10045-97-3			9.1		U	GAM
Radium 226	13982-67-7			17		U	GAM
Thorium 228	14274-82-9			24		U	GAM
Thorium 232	7440-29-1			39		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-06

B06CR7

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-06
Dept sample id 7040-006
Received 05/12/92

Client sample id B06CR7
Matrix WATER
Collected 05/10/92
Chain of custody id EFL-1018

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	2.2	2.3	3.0	3.0	U	80A
Gross Beta	Beta	6.7	1.8	2.4	4.0		80B
Uranium 233/234		1.7	0.18	0.039	0.20		U
Uranium 235	15117-96-1	0.10	0.038	0.018	0.20	J	U
Uranium 238	7440-61-1	1.3	0.15	0.029	0.20		U
Plutonium 238	13981-16-3	-0.019	0.045	0.078	0.050	U	PU
Plutonium 239/240		0	0.030	0.046	0.050	U	PU
Americium 241	14596-10-2	0.015	0.019	0.025	0.050	U	AM
Strontium 90	10098-97-2	-0.68	1.8	0.51	1.0	U	Y
Technetium 99	14133-76-7	1.7	2.1	5.6	5.0	U	TC
Tritium	10028-17-8	11000	430	220	400		H
Carbon 14	14762-75-5	30	32	42	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			99		U	GAM
Chromium 51	14392-02-0			300		U	GAM
Cobalt 60	10198-40-0			8.6		U	GAM
Zinc 65	17982-39-3			19		U	GAM
Cesium 134	17967-70-9			12		U	GAM
Cesium 137	10045-97-3			10		U	GAM
Radium 226	13982-67-7			20		U	GAM
Thorium 228	14274-82-9			19		U	GAM
Thorium 232	7440-29-1			40		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-14

B06CS0

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-14
Dept sample id 7040-014
Received 05/12/92

Client sample id B06CS0
Matrix WATER
Collected 05/17/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	3.3	2.4	2.7	3.0		80A
Gross Beta	Beta	7.3	1.6	2.0	4.0		80B
Uranium 233/234		1.7	0.23	0.065	0.20		U
Uranium 235	15117-96-1	0.064	0.051	0.030	0.20	J	U
Uranium 238	7440-61-1	1.1	0.17	0.035	0.20		U
Plutonium 238	13981-16-3	0	0.012	0.027	0.050	U	PU
Plutonium 239/240		0.012	0.012	0.027	0.050	U	PU
Americium 241	14596-10-2	0.003	0.006	0.022	0.050	U	AM
Strontium 90	10098-97-2	0.17	0.27	0.75	1.0	U	Y
Technetium 99	14133-76-7	2.1	3.2	3.9	5.0	U	TC
Tritium	10028-17-8	-130	130	220	400	U	H
Carbon 14	14762-75-5	39	30	39	50	J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			120		U	GAM
Chromium 51	14392-02-0			260		U	GAM
Cobalt 60	10198-40-0			10		U	GAM
Zinc 65	17982-39-3			24		U	GAM
Cesium 134	17967-70-9			10		U	GAM
Cesium 137	10045-97-3			9.9		U	GAM
Radium 226	13982-67-7			21		U	GAM
Thorium 228	14274-82-9			18		U	GAM
Thorium 232	7440-29-1			38		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

N205092-07

TMA NORCAL
REPORTING GROUP 7040
DATA SHEET

B06CT5

SDG 7040
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-07
Dept sample id 7040-007
Received 05/12/92
Client sample id B06CT5
Matrix WATER
Collected 05/10/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Uranium 233/234		1.0	0.15	0.048	0.20		U
Uranium 235	15117-96-1	0.031	0.031	0.034	0.20	U	U
Uranium 238	7440-61-1	0.86	0.13	0.020	0.20	B	U
Plutonium 238	13981-16-3	0.006	0.012	0.027	0.050	U	PU
Plutonium 239/240		0	0.012	0.027	0.050	U	PU
Americium 241	14596-10-2	-0.010	0.021	0.039	0.050	U	AM
Strontium 90	10098-97-2	-0.059	1.6	0.48	1.0	U	Y
Tritium	10028-17-8	2200	230	220	400		H
Carbon 14	14762-75-5	6.6	32	43	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			140		U	GAM
Chromium 51	14392-02-0			320		U	GAM
Cobalt 60	10198-40-0			16		U	GAM
Zinc 65	17982-39-3			52		U	GAM
Cesium 134	17967-70-9			11		U	GAM
Cesium 137	10045-97-3			11		U	GAM
Radium 226	13982-67-7	22	22				GAM
Thorium 228	14274-82-9			21		U	GAM
Thorium 232	7440-29-1			55		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-08

B06CT7

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-08
Dept sample id 7040-008
Received 05/12/92

Client sample id B06CT7
Matrix WATER
Collected 05/10/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Uranium 233/234		1.1	0.14	0.050	0.20		U
Uranium 235	15117-96-1	0.043	0.035	0.029	0.20	J	U
Uranium 238	7440-61-1	0.89	0.13	0.017	0.20	B	U
Plutonium 238	13981-16-3	0	0.011	0.026	0.050	U	PU
Plutonium 239/240		0	0.011	0.026	0.050	U	PU
Americium 241	14596-10-2	-0.022	0.056	0.097	0.050	U	AM
Strontium 90	10098-97-2	0	1.7	0.51	1.0	U	Y
Tritium	10028-17-8	2600	240	220	400		H
Carbon 14	14762-75-5	17	31	41	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			250		U	GAM
Chromium 51	14392-02-0			410		U	GAM
Cobalt 60	10198-40-0			17		U	GAM
Zinc 65	17982-39-3			31		U	GAM
Cesium 134	17967-70-9			14		U	GAM
Cesium 137	10045-97-3			13		U	GAM
Radium 226	13982-67-7			28		U	GAM
Thorium 228	14274-82-9			23		U	GAM
Thorium 232	7440-29-1			57		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

N205092-09

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

B06CT9

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-09
Dept sample id 7040-009
Received 05/12/92

Client sample id B06CT9
Matrix WATER
Collected 05/14/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Uranium 233/234		8.4	0.67	0.12	0.20		U
Uranium 235	15117-96-1	1.0	0.17	0.026	0.20		U
Uranium 238	7440-61-1	6.3	0.53	0.098	0.20		U
Plutonium 238	13981-16-3	0.014	0.014	0.034	0.050	U	PU
Plutonium 239/240		0.007	0.014	0.034	0.050	U	PU
Americium 241	14596-10-2	-0.057	0.066	0.13	0.050	U	AM
Strontium 90	10098-97-2	0.065	0.45	0.58	1.0	U	Y
Tritium	10028-17-8	300	150	220	400	J	H
Carbon 14	14762-75-5	18	31	42	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			240		U	GAM
Chromium 51	14392-02-0			340		U	GAM
Cobalt 60	10198-40-0			12		U	GAM
Zinc 65	17982-39-3			28		U	GAM
Cesium 134	17967-70-9			14		U	GAM
Cesium 137	10045-97-3			11		U	GAM
Radium 226	13982-67-7			24		U	GAM
Thorium 228	14274-82-9			33		U	GAM
Thorium 232	7440-29-1			53		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

N205092-10

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

B06CV5

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-10
Dept sample id 7040-010
Received 05/12/92

Client sample id B06CV5
Matrix WATER
Collected 05/14/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Uranium 233/234		0.62	0.13	0.073	0.20		U
Uranium 235	15117-96-1	0.007	0.027	0.044	0.20	U	U
Uranium 238	7440-61-1	0.45	0.10	0.026	0.20	B	U
Plutonium 238	13981-16-3	0.005	0.011	0.025	0.050	U	PU
Plutonium 239/240		0.005	0.011	0.025	0.050	U	PU
Americium 241	14596-10-2	0.003	0.027	0.047	0.050	U	AM
Strontium 90	10098-97-2	0	1.8	0.55	1.0	U	Y
Tritium	10028-17-8	-84	130	230	400	U	H
Carbon 14	14762-75-5	20	31	41	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			260		U	GAM
Chromium 51	14392-02-0			340		U	GAM
Cobalt 60	10198-40-0			15		U	GAM
Zinc 65	17982-39-3			37		U	GAM
Cesium 134	17967-70-9			16		U	GAM
Cesium 137	10045-97-3			15		U	GAM
Radium 226	13982-67-7			24		U	GAM
Thorium 228	14274-82-9			22		U	GAM
Thorium 232	7440-29-1			63		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

N205092-11

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

B06CW3

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-11
Dept sample id 7040-011
Received 05/12/92

Client sample id B06CW3
Matrix WATER
Collected 05/14/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Uranium 233/234		1.5	0.19	0.043	0.20		U
Uranium 235	15117-96-1	0.044	0.033	0.026	0.20	J	U
Uranium 238	7440-61-1	1.5	0.19	0.021	0.20	B	U
Plutonium 238	13981-16-3	0.005	0.020	0.024	0.050	U	PU
Plutonium 239/240		0	0.010	0.024	0.050	U	PU
Americium 241	14596-10-2	-0.014	0.028	0.051	0.050	U	AM
Strontium 90	10098-97-2	-0.54	2.0	0.75	1.0	U	Y
Tritium	10028-17-8	4100	290	220	400		H
Carbon 14	14762-75-5	-9.9	30	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			140		U	GAM
Chromium 51	14392-02-0			310		U	GAM
Cobalt 60	10198-40-0			13		U	GAM
Zinc 65	17982-39-3			27		U	GAM
Cesium 134	17967-70-9			13		U	GAM
Cesium 137	10045-97-3			12		U	GAM
Radium 226	13982-67-7			24		U	GAM
Thorium 228	14274-82-9			21		U	GAM
Thorium 232	7440-29-1			45		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-20

B06CX1

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-20
Dept sample id 7040-020
Received 05/12/92

Client sample id B06CX1
Matrix WATER
Collected 05/15/92
Chain of custody id

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Uranium 233/234		2.2	0.23	0.052	0.20		U
Uranium 235	15117-96-1	0.16	0.058	0.022	0.20	J	U
Uranium 238	7440-61-1	1.9	0.21	0.037	0.20		U
Plutonium 238	13981-16-3	0	0.013	0.031	0.050	U	PU
Plutonium 239/240		0.013	0.013	0.031	0.050	U	PU
Americium 241	14596-10-2	-0.010	0.020	0.038	0.050	U	AM
Strontium 90	10098-97-2	0.095	0.28	0.81	1.0	U	Y
Tritium	10028-17-8	1800	220	230	400		H
Carbon 14	14762-75-5	52	31	40	50		C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			220		U	GAM
Chromium 51	14392-02-0			360		U	GAM
Cobalt 60	10198-40-0			14		U	GAM
Zinc 65	17982-39-3			30		U	GAM
Cesium 134	17967-70-9			15		U	GAM
Cesium 137	10045-97-3			14		U	GAM
Radium 226	13982-67-7			26		U	GAM
Thorium 228	14274-82-9			19		U	GAM
Thorium 232	7440-29-1			63		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

SDG 7040 Contact Dinkar P. Kharkar	Client Westinghouse Hanford Contract MBH-SVV-069262

CASE NARRATIVE

1.0 GENERAL

Water samples from location 100-HR-3 (TMA/Norcal Group 7040) are reported herein. TMA/Norcal Group 7040 is comprised of the twenty samples listed on the Chain-of-Custody documents and are identified as Samples 1 through 20.

1.1 CHAINS-OF-CUSTODY

This report includes data from the samples delivered under Chain-of-Custody documents Field Logbook No. EFL-1018, P1.

1.2 SAMPLE VOLUME

A 4 L plastic container of each sample was received for the analyses.

1.3 MISSING SAMPLES

All samples were accounted for and there was no damaged samples.

1.4 HOLDING TIMES

All collections were made between 5/08/92 and 5/17/92 and all sample processing was initiated within 180 days of collection.

2.0 QUALITY CONTROL

The internal quality control consisted of one sample each of a laboratory control, a blank, and a replicate. All original analyses were performed with QC samples 7040 21 through 29.

The QC samples were prepared and labelled by the quality control officer. Copies of The QC notebook pages are included in the data package.

2.1 LABORATORY CONTROL SAMPLES

The gross alpha recovery was low (77%) and does not pass at the 3 σ control level (85-115%).

The ^{235}U recoveries were (78% and 141%) and pass the 3 σ control level (59 - 141%) and (48 - 152%), respectively.

SDG 7040 Contact Dinkar P. Kharkar	Client Westinghouse Hanford Contract MBH-SVV-069262

CASE NARRATIVE

The ^{14}C recovery was low (53%) and does not pass at the 3 σ control level (91-109%).

Recovery of the LCS was 53%. The following components of the analysis were examined: Yield, efficiency, background, and aliquot. No problems were found. The yield checks for the samples in this set ranged from 87% to 253%. These ranges are acceptable given the variable amount of carbonate in environmental waters. Efficiencies ranged from 66% to 74% and are in agreement with historical values. The counting efficiencies were validated by the instrument efficiency index (TSIE) values which showed close agreement between sample and spike counts. The background run with this set was 7.44 cpm which is also consistent with historical values. No error could be found in the aliquotting.

The ^{99}Tc MDA exceed RDL but recovery pass the 3 σ control level (78 - 122%).

2.2 BLANKS

MDA's for all the analyses meet the RDL requirements, except for ^{90}Sr and ^{99}Tc.

2.3 REPLICATES

The MDA for gross alpha exceed RDL.

The MDA for ^{90}Sr exceed RDL.

3.0 ANALYTICAL NOTES

3.1 Gross Alpha Analyses: The gross alpha analyses of samples numbers 7040-1, 12, 15, 16, 17, 18, and 19 are underlined in the data sheets because MDA's exceed RDL. Positive gross alpha is found in sample numbers 7040-1, 5, 14, and 19.

3.2 Gross Beta Analyses: The MDA's meet RDL in all cases. Positive gross beta is found in all the samples except sample numbers 7040-4 and 16.

3.3 Carbon-14 Analyses: The MDA's meet RDL in all cases. All carbon values are at the detection level.

SDG 7040	Client Westinghouse Hanford
Contact Dinkar P. Kharkar	Contract MBH-SVV-069262

3.4 Strontium-90 Analyses: The average yield for twenty-three analyses was (76 ± 29%). The lowest yield was 51% and the highest was 60%. Positive ^{90}Sr concentration was found in sample numbers 7040-1, 3, and 18. In sample number 7040-16 the MDA exceeds RDL.

3.5 Uranium-233,234,235, and 238 Analyses: The average yield for twenty-five analyses was 45 ± 30%). The lowest yield was 22% and the highest was 49%. MDA's meet RDL in each sample. All samples showed positive ^{238}U concentration.

3.6 Plutonium-238,239/240 Analyses: The average yield for twenty-three analyses was (42 ± 41%). The lowest yield was 16% and the highest was 106%. MDA's meet RDL in each sample, except sample number 7040-6. No positive plutonium concentration was found in any sample.

3.7 Americium-241 Analyses: The average yield for twenty-three analyses was (45 ± 31%). The lowest yield was 21% and the highest was 84%. MDA's did not meet RDL in sample numbers 7040-3, 8, 9, 11, 15, 17, and 18. No positive concentration was found in the samples.

3.8 Gamma Scan Analyses: Gamma scan analysis did not find positive concentration of gamma nuclides.

3.9 Tritium Analyses: MDA's meet RDL in each case. Positive ^{3}H concentration was found in all samples except sample numbers 7040-10, 14, 19, and 23.

3.10 Technetium Analyses: MDA's did not meet RDL in sample numbers 7040-3, 5, 6, 12, 18, 19, 22, and 24. The average yield for twenty analyses was (47 ± 26%). The lowest yield was 28% and the highest was 73%. Positive concentration was found in sample numbers 7040-1, 13, 16, and 18.

N2-05-069

Westinghouse Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/8/92

Ice Chest No. SML-87

Field Logbook No. EFL-1018 p. 1

Bill of Lading/Airbill No. 2509867954

Offsite Property No. W92-0-0345-27

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CN7

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
3, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
* 6, 1l ~~3, 2L,~~ G, WATER, CLP-SEMI-VOA/PCB/PEST *
1, 500ml, G, WATER, ANIONS, pH
1, 500ml, G, WATER, CONDUCTIVITY
ICOC 5/8/92 2, 4L, P , WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99
1, 500ml, P, WATER, C-14
1, 250ml, G, WATER, TRITIUM

B06CN8

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

** B06CN9

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Kirby D. Lee K.D. Lee	Received by: relinq to refrigerator	Date/Time: 5/8/92 1500
Relinquished by:	Received by: PHButcher PHButcher	Date/Time: 11 May 92 0700
Relinquished by: PHButcher PHButcher	Received by: Elby H. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:
* SAMPLE ID # B06CN7 → ONE OF THE SIX "BOTTLES LID" was broken.
** SAMPLE ID # B06CN9 → BUBBLES WERE FOUND IN 3 vials

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

Task # 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/8/92 Time 1200 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CN7	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	3, 40M, Gs	W	CLP - VOA
	3, 2L, G	W	CLP - Semi-VOA/PCB/Pest
	1, 500 ml, G	W	ANions, pH
	1, 500ml, G	W	Cond.
	2, 4L, P	W	Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99
	1, 500ml, P	W	C-14
	1, 250 ml, G	W	Tritium
B06CN8	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B06CN9	3, 40 ml, Gs	W	CLP-VOA ([illegible] 3 [illegible])

Field Information** BOL # 2509807954

OPC # W92-0-0345-27

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Ecky G. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # — OPC #

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-8-92

Ice Chest No. N.J. BOUND

Field Logbook No. EFL-0057 p.1

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-25

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CP0

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
3, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
6, 1l ~~3, 2L~~, G, WATER, CLP-SEMI-VOA/PCB/PEST
KDL 5/18/92
1, 500ml, G, WATER, ANIONS, pH
1, 500ml, G, WATER, CONDUCTIVITY
2, 4L, P , WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99
1, 500ml, P, WATER, C-14
1, 250ml, G, WATER, TRITIUM

B06CP1

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CP2

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody — Chain of Possession — (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
L.D. Walker LD Walker	Refrigerator	5-8-92 / 1500
	Bill Whitten B.W. WHITTEN	5-11-92 0700
Bill Whitten B.W. WHITTEN	Elby H. Yamamoto	5/12/92 10:30 AM

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST TASK # 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5-8-92 Time 1144 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CP0	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	3, 40M, Gs	W	CLP - VOA
	6 ~~8~~, 1 ~~8~~L, G BW 5-11-92	W	CLP - Semi-VOA/PCB/Pest
	1, 500 ml, G	W	ANions, pH
	1, 500ml, G	W	Cond.
	2, 4L, P	W	Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99
	1, 500ml, P	W	C-14
	1, 250 ml, G	W	Tritium
B06CP1	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B06CP2	3, 40 ml, Gs	W	CLP-VOA

Field Information** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by Eby B. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required _____

BOL # 250986795-4 OPC # W92-0-0345-25

9613442.0756

000092

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-8-92 LW 5-8-92

Ice Chest No. SML-24

Field Logbook No. EFL - ~~1006~~ 1018

Bill of Lading/Airbill No. 2509867954

Offsite Property No. W92-0-0395-27

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CQ2

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
3, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST
1, 500ml, G, WATER, ANIONS, pH
1, 500ml, G, WATER, CONDUCTIVITY
2, 4L, P , WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99
1, 500ml, P, WATER, C-14
1, 250ml, G, WATER, TRITIUM

B06CQ3

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CQ4

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: LD Walker L.D. Walker	Received by: Refrigerator	Date/Time: 5-8/92 1415
Relinquished by:	Received by: PH Butcher PH Butcher	Date/Time: 11 May 92 0200
Relinquished by: PH Butcher	Received by: Elly A. Yamamoto	Date/Time: 5/12/92 10:30 pm
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/8/92 Time 0925 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CQ2	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	3, 40M, Gs	W	CLP - VOA
	3, 2L, G	W	CLP - Semi-VOA/PCB/Pest
	1, 500 ml, G	W	ANions, pH
	1, 500ml, G	W	Cond.
	2, 4L, P	W	Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99
	1, 500ml, P	W	C-14
	1, 250 ml, G	W	Tritium
B06CQ3	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B06CQ4	3, 40 ml, Gs	W	CLP-VOA

Field Information**

Special Handling and/or Storage BOL # 2509867954

OPC # W97-0-0345-02

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elky G. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # — OPC #

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-8-92

Ice Chest No. SML-26

Field Logbook No. EFL-1018

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-25

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CR4
- 3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
- 3, 1L, P, WATER, CLP-CYANIDE (NaOH)
- 3, 40ml, Gs, WATER, CLP-VOA
- 6, 1L ~~3, 2L~~, G, WATER, CLP-SEMI-VOA/PCB/PEST KDL 5/8/92
- 1, 500ml, G, WATER, ANIONS, pH
- 1, 500ml, G, WATER, CONDUCTIVITY
- 2, 4L, P , WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99
- 1, 500ml, P, WATER, C-14
- 1, 250ml, G, WATER, TRITIUM

B06CR5
- 3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CR6
- 3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Kathy D. Lee	Received by: relinq. to refrigerator	Date/Time: 5/8/92 1500
Relinquished by:	Received by: PH Butcher PH Butcher	Date/Time: 11 May 92 0700
Relinquished by: PH Butcher PH Butcher	Received by: Toby H. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

Task # 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/8/92 Time 1144 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
006CR4	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	3, 40M, Gs	W	CLP - VOA
	6, 1L, G	W	CLP - Semi-VOA/PCB/Pest
	1, 500 ml, G	W	ANions, pH
	1, 500ml, G	W	Cond.
	2, 4L, P	W	Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99
	1, 500ml, P	W	C-14
	1, 250 ml, G	W	Tritium
006CR5	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
006CR6	3, 40 ml, Gs	W	CLP-VOA

Field Information** BOL # 250986795-4
OPC # W97-0-0345-25

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Eddy H. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # OPC #

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/10/92

Ice Chest No. SML-19

Field Logbook No. EFL-1018 p. 3

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-24

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B0 6CF8
- 3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
- 3, 1L, P, WATER, CLP-CYANIDE (NaOH)
- 3, 40ml, Gs, WATER, CLP-VOA
- 3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST
- 1, 500ml, G, WATER, ANIONS, pH
- 1, 500ml, G, WATER, CONDUCTIVITY
- 2, 4L, P , WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99
- 1, 500ml, P, WATER, C-14
- 1, 250ml, G, WATER, TRITIUM

B0 6CF9
- 3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B0 6CG0
- 3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Katy D. Lee K.D. Lee	Received by: relinq. to refrigerator	Date/Time: 5/10/92 1540
Relinquished by:	Received by: Bill Whitten B. WHITTEN	Date/Time: 5-12-92 0700
Relinquished by: Bill Whitten B. WHITTEN	Received by: Elby H. Yamamoto	Date/Time: 5/12/92 10:30
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST TASK NO 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5-10-92 Time 0940 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CF8	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	3, 40M, Gs	W	CLP - VOA
	3 ~~3~~, 2L, G BW 5-11-92	W	CLP - Semi-VOA/PCB/Pest
	1, 500 ml, G	W	ANions, pH
	1, 500ml, G	W	Cond.
	2, 4L, P	W	Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99
	1, 500ml, P	W	C-14
	1, 250 ml, G	W	Tritium
B06CF9	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B06CG0	3, 40 ml, Gs	W	CLP-VOA

Field Information** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by Ricky G. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required _____

BOL # 250986795-4 OPC # W92-0-0345-24

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/10/92

Ice Chest No. NOT

Field Logbook No. EFL-1018 p. 3

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-26

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

* B06CR7 *
- 3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
- 3, 1L, P, WATER, CLP-CYANIDE (NaOH)
- 3, 40ml, Gs, WATER, CLP-VOA
- 3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST
- 1, 500ml, G, WATER, ANIONS, pH
- 1, 500ml, G, WATER, CONDUCTIVITY
- 2, 4L, P , WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99
- 1, 500ml, P, WATER, C-14
- 1, 250ml, G, WATER, TRITIUM

B06CR8
- 3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CR9
- 3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Kathy D. Lee K.D Lee	Received by: placing the refrigerator	Date/Time: 5/10/92 1538
Relinquished by:	Received by: PHButcher PHButcher	Date/Time: 11 May 92 0700
Relinquished by: PHButcher PHButcher	Received by: Elby B. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments: Sample ID*B06CR7*=7 Bubbles were found in 2 vials on Soa-bottles

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

Task # 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/10/92 Time 0940 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CR7	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	3, 40M, Gs	W	CLP - VOA
	3, 2L, G	W	CLP - Semi-VOA/PCB/Pest
	1, 500 ml, G	W	ANions, pH
	1, 500ml, G	W	Cond.
	2, 4L, P	W	Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99
	1, 500ml, P	W	C-14
	1, 250 ml, G	W	Tritium
B06CR8	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B06CR9	3, 40 ml, Gs	W	CLP-VOA

Field Information**

BOL# 250986795-4

OPC# W92-0-0345-26

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elby J. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # — OPC #

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/17/92

Ice Chest No. SMASH

Field Logbook No. EFL-0057 pg. 9

Bill of Lading/Airbill No. 250986804 2

Offsite Property No. W92-0-0569-1

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CS0

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
3, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST
1, 500ml, G, WATER, ANIONS, pH
1, 500ml, G, WATER, CONDUCTIVITY
2, 4L, P , WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99
1, 500ml, P, WATER, C-14
1, 250ml, G, WATER, TRITIUM

B06CS1

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CS2

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody — Chain of Possession — (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
Kirby A. Lee K. D. Lee	relinq. to refrigerator	5/17/92 1325
Relinquished by:	Received by: Kim Whitten B. WHITTEN	Date/Time: 5-18-92 0900
Relinquished by: Kim Whitten B. WHITTEN	Received by: Kermit Blum	Date/Time: 5-19-92 1230
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION TASK NO 92-165

Collector L. D. Walker/K. D. Lee Date Sampled 5-17-92 Time 0645 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06C50	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	3, 40M, Gs	W	CLP - VOA
	3, 2L, G	W	CLP - Semi-VOA/PCB/Pest
	1, 500 ml, G	W	ANions, pH
	1, 500ml, G	W	Cond.
	2, 4L, P	W	Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99
	1, 500ml, P	W	C-14
	1, 250 ml, G	W	Tritium
B06C51	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B06C52	3, 40 ml, Gs	W	CLP-VOA

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 5-19-92

Analysis Required

BOL #2509868042 OPC #W92-0-0399-1

Westinghouse Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-10-92

Ice Chest No. SML-93

Field Logbook No. EFL - 0057

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-24

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CT5
- 3, 1L, P, WATER, CLP-CYANIDE (NaOH)
- 2, 4L, P , WATER, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (HNO3)
- 1, 500ml, P, WATER, C-14
- 1, 250ml, G, WATER, TRITIUM

B06CT6
- 3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Gary Gabriel to Gary G Hamilton	Received by: relinq to refrigerator	Date/Time: 5/10/92 1590
Relinquished by:	Received by: Bill Whitten B. WHITTEN	Date/Time: 5-11-92 0700
Relinquished by: Bill Whitten B. WHITTEN	Received by: Elby J. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0767

000099

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST Task #92-165

PART I: FIELD SECTION

Collector KDLee / LD Walker Date Sampled 5-10-92 Time 0855 hours

Company Contact PH Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CT5	3, 1L, P	W	CLP Cyanide (NaOH)
	2, 4L, P	W	Gross Gamma Spec, Alpha Spec (U-234/
			235/238, Pu-238/239/240, Am-241),
			Sr-90 (HNO_3)
	1, 500ml, P	W	C-14
	1, 250ml, G	W	Tritium
B06CT6	3, 40ml, Gs	W	CLP-VOA

Field Information** BOL #: 250986795-4

OPC #: W92-0-0345-24

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elby J. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/10/92

Ice Chest No. CORY-1

Field Logbook No. EFL-0057

Bill of Lading/Airbill No. 2509867954

Offsite Property No. W92-0-0345-26

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CT7

3, 1L, P, WATER, CLP-CYANIDE (NaOH)
2, 4L, P , WATER, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (HNO3)
1, 500ml, P, WATER, C-14
1, 250ml, G, WATER, TRITIUM

B06CT8

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: H Hamilton/GG Hamilton	Received by: relinq to refrigerator	Date/Time: 5/10/92 1540
Relinquished by:	Received by: PHButcher PHButcher	Date/Time: 11 May 92 0200
Relinquished by: PHButcher PHButcher	Received by: Elby J. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

9613442.0769

006101

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST Task # 92-165

PART I: FIELD SECTION

Collector KDLee / LD Walker Date Sampled 5/10/92 Time 0720 hours

Company Contact PH Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
✓ 006CT7	3, 1L, P	W	CLP Cyanide (NaOH)
✓	2, 4L, P	W	Gross Gamma Spec, Alpha Spec (U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (HNO_3)
✓	1, 500ml, P	W	C-14
✓	1, 250ml, G	W	Tritium
✓ 006CT8	3, 40ml, Gs	W	CLP-VOA

Field Information** BOL #: 2509867954

OPC #: W92-0-0345-26

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elky K. Yamasoto Title Sample Control Technician Date 5/12/92

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-14-92

Ice Chest No. RM 82

Field Logbook No. EFL-0057

Bill of Lading/Airbill No. 2509868031

Offsite Property No. W92-0-0345-42

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B0 6CT9

3, 1L, P, WATER, CLP-CYANIDE (NaOH)
2, 4L, P , WATER, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (HNO3)
1, 500ml, P, WATER, C-14
1, 250ml, G, WATER, TRITIUM

B0 6CV0

~~3~~, 40ml, Gs, WATER, CLP-VOA
2 KT 5/15/92

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker LD Walker	Received by: Refrigerator	Date/Time: 5-14-92 / 1600
Relinquished by:	Received by: K. Trapp / K. Trapp	Date/Time: 5/15/92 0737
Relinquished by: K. Trapp / K. Trapp	Received by: Kermit Blum	Date/Time: 5-18-92 * 0800
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

* Received @ TMA / NORCAL 5-16-92 @ 1330; opened 5-18-92 - KB

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST Task

PART I: FIELD SECTION

Collector KDLee / LD Walker Date Sampled 5/14/92 Time 1220 hours

Company Contact PH Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CT9	3, 1L, P	W	CLP Cyanide (NaOH)
	2, 4L, P	W	Gross Gamma Spec, Alpha Spec (U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (HNO_3)
	1, 500ml, P	W	C-14
	1, 250ml, G	W	Tritium
B06CV0	~~3~~ 40ml, Gs	W	CLP-VOA
	2 KB 5/15/92		

Field Information** BOL #: 2509869031
OPC #: W92-0-034-42

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 5-18-92

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.
**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-14-92

Ice Chest No. SML-94

Field Logbook No. EFL-0057

Bill of Lading/Airbill No. 2509868031

Offsite Property No. W92-0-0345-42

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CV5
- 3, 1L, P, WATER, CLP-CYANIDE (NaOH)
- 2, 4L, P , WATER, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (HNO3)
- 1, 500ml, P, WATER, C-14
- 1, 250ml, G, WATER, TRITIUM

B06CV6
- 3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker D Walker	Received by: Refrigerator	Date/Time: 5-14-92 / 1600
Relinquished by:	Received by: K. Trapp / K. Trapp	Date/Time: 5/15/92 0737
Relinquished by: K. Trapp / K. Trapp	Received by: Kermit Blum	Date/Time: * 5-18-92 0800
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

* Received @ TMA/NORCAL 5-16-92 @ 1330; opened 5-18-92. KB

9613442.0773

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST Task

PART I: FIELD SECTION

Collector KDLee / LD Walker Date Sampled 5/14/92 Time 0925 hours

Company Contact PH Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CV5	3, 1L, P	W	CLP- Cyanide (NaOH)
	2, 4L, P	W	Gross Gamma Spec, Alpha Spec (U-234/
			235/238, Pu-238/239/240, Am-241),
			Sr-90 (HNO_3)
	1, 500ml, P	W	C-14
	1, 250ml, G	W	Tritium
B06CV6	3, 40ml, Gs	W	CLP- VOA

Field Information** BOC #: 2509868031
OPC #: W92-0-0345-42

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 5-18-92

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.
**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-14-92

Ice Chest No. UGLY ONE

Field Logbook No. EFL-0057

Bill of Lading/Airbill No. 2509869031

Offsite Property No. W92-0-0345-43

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CW3

3, 1L, P, WATER, CLP-CYANIDE (NaOH)
2, 4L, P , WATER, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (HNO3)
1, 500ml, P, WATER, C-14
1, 250ml, G, WATER, TRITIUM

B06CW4

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker	Received by: Refrigerator	Date/Time: 5-14-92 / 1600
Relinquished by:	Received by: K. Trapp / K. Trapp	Date/Time: 5/15/92 0737
Relinquished by: K. Trapp / K. Trapp	Received by: Kermit Blum	Date/Time: 5-18-92 * 0800
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

* Received @ TMA/Norcal 5-16-92 @ 1330; opened 5-18-92. KB

9613442.0775

000107

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST Task

PART I: FIELD SECTION

Collector KDLee / LD Walker Date Sampled 5/14/92 Time 1325 hours

Company Contact PH Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
BOGCW3	3, 1L, P	W	CLP-Cyanide (NaOH)
	2, 4L, P	W	Gross Gamma Spec, Alpha Spec (U-234/
			235/238, Pu-238/239/240, Am-241),
			Sr-90 (HNO_3)
	1, 500ml, P	W	C-14
	1, 250ml, G	W	Tritium
BOGCW4	3, 40ml, Gs	W	CLP-VOA

Field Information** BOL #: 2509868031

OPC #: W92-0-0345-43

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 5-18-92

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/16/92

Ice Chest No. SML-63

Field Logbook No. EFL-0057

Bill of Lading/Airbill No. 9509868092

Offsite Property No. W92-0-0345-50

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CK4

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
3, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST
1, 500ml, G, WATER, ANIONS, pH
1, 500ml, G, WATER, CONDUCTIVITY
2, 4L, P , WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99
1, 500ml, P, WATER, C-14
1, 250ml, G, WATER, TRITIUM

B06CK5

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CK6

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: C Celiberti C CELIBERTI	Received by: R Ofrid	Date/Time: 5/16/92 1400
Relinquished by:	Received by: B.WHITTEN	Date/Time: 5-18-92 0900
Relinquished by: B.WHITTEN	Received by: Kermit Blum	Date/Time: 5-19-92 1230
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

TASK NO 92-165

Collector L. D. Walker/K. D. Lee Date Sampled 5-16-92 Time 0812 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CK4	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	3, 40M, Gs	W	CLP - VOA
	3, 2L, G	W	CLP - Semi-VOA/PCB/Pest
	1, 500 ml, G	W	ANions, pH
	1, 500ml, G	W	Cond.
	2, 4L, P	W	Gross Alpha/Beta, Gamma Spec, Alpha
			Spec (U-234/235/238, Pa-238/239/240
			Am-241), Sr-90, Tc-99
	1, 500ml, P	W	C-14
	1, 250 ml, G	W	Tritium
B06CK5	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B06CK6	3, 40 ml, Gs	W	CLP-VOA

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Hermit Blum Title Sample Control Supervisor Date 5-19-92

Analysis Required

BOL #2509868042 OPC #W92-0-0345-50

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/17/92

Ice Chest No. JML-120

Field Logbook No. EFL-0057 p. 10

Bill of Lading/Airbill No. 850986804 2

Offsite Property No. W92-0-0345-50

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CN1

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
3, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST
1, 500ml, G, WATER, ANIONS, pH
1, 500ml, G, WATER, CONDUCTIVITY
2, 4L, P , WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99
1, 500ml, P, WATER, C-14
1, 250ml, G, WATER, TRITIUM

* B06CN2

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CN3

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: K.D. Lee	Received by: relinq to refrigerator	Date/Time: 5/17/92 1325
Relinquished by:	Received by: B. WHITTEN	Date/Time: 5-18-92 0900
Relinquished by: B. WHITTEN	Received by: Kermit Blum	Date/Time: 5-19-92 1230
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

* ID on this sample (B06CN2) was unreadable. It is assumed that the leftover bottle, marked metals, is B06CN2. These labels are wet & easily damaged. KB 5-19-92

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

TASK NO - 92-165

Collector L. D. Walker/K. D. Lee Date Sampled 5-17-92 Time 1023 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
✓ B06CN1	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
✓	3, 1L, P	W	CLP - CN (NaOH)
✓	3, 40M, Gs	W	CLP - VOA
✓	3, 2L, G	W	CLP - Semi-VOA/PCB/Pest
✓	1, 500 ml, G	W	ANions, pH
✓	1, 500ml, G	W	Cond.
✓	2, 4L, P	W	Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99
✓	1, 500ml, P	W	C-14
✓	1, 250 ml, G	W	Tritium
✓ * B06CN2	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
✓ B06CN3	3, 40 ml, Gs	W	CLP-VOA

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 5-19-92

Analysis Required

BOL #250986804 2 OPC #W92-0-0345-50

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/16/92

Ice Chest No. SML-7

Field Logbook No. EFL-0057

Bill of Lading/Airbill No. 2509969042

Offsite Property No. W92-0-0345-45

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CJ8
- 3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
- 3, 1L, P, WATER, CLP-CYANIDE (NaOH)
- 3, 40ml, Gs, WATER, CLP-VOA
- 3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST
- 1, 500ml, G, WATER, ANIONS, pH
- 1, 500ml, G, WATER, CONDUCTIVITY
- 2, 4L, P , WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99
- 1, 500ml, P, WATER, C-14
- 1, 250ml, G, WATER, TRITIUM

B06CJ9
- 3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CK0
- 3, 40ml, Gs, WATER, CLP-VOA

B06CT3
- 3, 40ml, Gs, Water, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: C Culbert CC	Received by: Retail	Date/Time: 5/16/92 1400
Relinquished by:	Received by: K. Trapp / K. Trapp	Date/Time: 5/18/92 0658
Relinquished by: K. Trapp / K. Trapp	Received by: Kermit Blum	Date/Time: 5-19-92 1230
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

Task #: 92-165

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/16/92 Time 0645 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
✓ B06CJ8	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
✓	3, 1L, P	W	CLP - CN (NaOH)
✓	3, 40M, Gs	W	CLP - VOA
✓	3, 2L, G	W	CLP - Semi-VOA/PCB/Pest
✓	1, 500 ml, G	W	ANions, pH
✓	1, 500ml, G	W	Cond.
✓	2, 4L, P	W	Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99
✓	1, 500ml, P	W	C-14
✓	1, 250 ml, G	W	Tritium
✓ B06CJ9	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
✓ B06CK0	3, 40 ml, Gs	W	CLP-VOA
✓ B06CT3	3, 40mL, Gs	W	CLP-VOA

Field Information** BOL: 2509969042
OPC: W92-0-0345-45

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 5-19-92

Analysis Required

BOL # OPC #

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/16/92

Ice Chest No. SML-15

Field Logbook No. EFL-0057

Bill of Lading/Airbill No. 2509869042

Offsite Property No. W92-0-0345-45

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CC6

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
3, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST
1, 500ml, G, WATER, ANIONS, pH
1, 500ml, G, WATER, CONDUCTIVITY
2, 4L, P , WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99
1, 500ml, P, WATER, C-14
1, 250ml, G, WATER, TRITIUM

B06CC7

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CC8

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody — Chain of Possession — (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
K.D. Lee K.D. Lee	relinq to refrigerator	5/16/92 1400
Relinquished by:	Received by:	Date/Time:
	K. Trapp / K. Trapp	5/18/92 0658
Relinquished by:	Received by:	Date/Time:
K. Trapp / K. Trapp	Kermit Blum	5-19-92 1230
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

9613442.0793

000115

Task II: 92-165

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/16/92 Time 1200 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
✓ B06CL6	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
✓	3, 1L, P	W	CLP - CN (NaOH)
✓	3, 40M, Gs	W	CLP - VOA
✓	3, 2L, G	W	CLP - Semi-VOA/PCB/Pest
✓	1, 500 ml, G	W	ANions, pH
✓	1, 500ml, G	W	Cond.
✓	2, 4L, P	W	Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99
✓	1, 500ml, P	W	C-14
✓	1, 250 ml, G	W	Tritium
✓ B06CL7	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
✓ B06CL8	3, 40 ml, Gs	W	CLP-VOA

Field Information** BOL: 2509869042

OPC: W92-0-0345-45

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 5-19-92

Analysis Required

BOL # — OPC #

*Indicate whether sample is soil, sludge, water, etc.

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/16/92

Ice Chest No. SML-17

Field Logbook No. EFL-0057

Bill of Lading/Airbill No. 2509968042

Offsite Property No. W92-0-0345-46

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CC0
- 3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
- 3, 1L, P, WATER, CLP-CYANIDE (NaOH)
- 3, 40ml, Gs, WATER, CLP-VOA
- 3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST
- 1, 500ml, G, WATER, ANIONS, pH
- 1, 500ml, G, WATER, CONDUCTIVITY
- 2, 4L, P , WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99
- 1, 500ml, P, WATER, C-14
- 1, 250ml, G, WATER, TRITIUM

B06CC1
- 3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CC2
- 3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: C Celiberti C CELIBERTI	Received by: Refrid.	Date/Time: 5/16/92 1400
Relinquished by:	Received by: K Trapp / K. Trapp	Date/Time: 5/18/92 0658
Relinquished by: K. Trapp / K. Trapp	Received by: Kermit Blum	Date/Time: 5-19-92 1230
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

Task #: 92-165

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/16/92 Time 0925 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
✓ B0GCL0	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
✓	3, 1L, P	W	CLP - CN (NaOH)
✓	3, 40M, Gs	W	CLP - VOA
✓ ✓	3, 2L, G	W	CLP - Semi-VOA/PCB/Pest
✓	1, 500 ml, G	W	ANions, pH
✓	1, 500ml, G	W	Cond.
✓	2, 4L, P	W	Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99
✓	1, 500ml, P	W	C-14
✓	1, 250 ml, G	W	Tritium
✓ B0GCL1	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
✓ B0GCL2	3, 40 ml, Gs	W	CLP-VOA

Field Information** BOL: 2509868042
OPC: W92-0-0345-46

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Hermit Blum Title Sample Control Supervisor Date 5-19-92

Analysis Required

BOL # — OPC #

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/17/92

Ice Chest No. SML-16

Field Logbook No. EFL-0057 pg. 9

Bill of Lading/Airbill No. 250986 8041 2

Offsite Property No. W92-0-0345-46

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CM5

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
3, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST
1, 500ml, G, WATER, ANIONS, pH
1, 500ml, G, WATER, CONDUCTIVITY
2, 4L, P , WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99
1, 500ml, P, WATER, C-14
1, 250ml, G, WATER, TRITIUM

B06CM6

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CM7

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody

Chain of Possession (Sign and Print Names)		
Relinquished by: K.D. Lee	Received by: sealing to refrigerator	Date/Time: 5/17/92 1325
Relinquished by:	Received by: B. WHITTEN	Date/Time: 5-18-92 0900
Relinquished by: B WHITTEN	Received by: Kermit Bleum	Date/Time: 5-19-92 1230
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

TASK NO 92-165

Collector L. D. Walker/K. D. Lee Date Sampled 5-17-92 Time 0700 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
✓ B06CM5	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
✓	3, 40M, Gs	W	CLP - VOA
✓	3, 2L, G	W	CLP - Semi-VOA/PCB/Pest
✓	1, 500 ml, G	W	ANions, pH
✓	1, 500ml, G	W	Cond.
✓	2, 4L, P	W	Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99
✓	1, 500ml, P	W	C-14
✓	1, 250 ml, G	W	Tritium
✓ B06CM6	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
✓ B06CM7	3, 40 ml, Gs	W	CLP-VOA

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 5-19-92

Analysis Required

BOL # 2509868042 OPC # W92-0-0345-48

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/17/92

Ice Chest No. RUSTY DUSTY

Field Logbook No. GFC-0057 p.7

Bill of Lading/Airbill No. 25098668042

Offsite Property No. W92-0-0345-48

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CM8

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
3, 1L, P, WATER, CLP-CYANIDE (NaOH)
3, 40ml, Gs, WATER, CLP-VOA
3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST
1, 500ml, G, WATER, ANIONS, pH
1, 500ml, G, WATER, CONDUCTIVITY
2, 4L, P , WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99
1, 500ml, P, WATER, C-14
1, 250ml, G, WATER, TRITIUM

B06CM9

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CN0

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Kirby D. Lee K.D. Lee	Received by: relinq to refrigerator	Date/Time: 5/17/92 1325
Relinquished by:	Received by: Bill Whitten B. WHITTEN	Date/Time: 5-18/92 0900
Relinquished by: Bill Whitten B. WHITTEN	Received by: Kermit Blum	Date/Time: 5-19-92 1230
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

TASK NO 92-165

Collector L. D. Walker/K. D. Lee Date Sampled 5-17-92 Time 0645 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
✓ B06CM8	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
✓	3, 1L, P	W	CLP - CN (NaOH)
✓	3, 40M, Gs	W	CLP - VOA
✓	3, 2L, G	W	CLP - Semi-VOA/PCB/Pest
	1, 500 ml, G	W	ANions, pH
✓	1, 500ml, G	W	Cond.
✓	2, 4L, P	W	Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99
✓	1, 500ml, P	W	C-14
✓	1, 250 ml, G	W	Tritium
✓ B06CM9	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
✓ B06CN0	3, 40 ml, Gs	W	CLP-VOA

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 5-19-92

Analysis Required

BOL # 250986804 2 OPC # W92-0-0345-46

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/15/92

Ice Chest No. Silver Bullet

Field Logbook No. EFL 0057

Bill of Lading/Airbill No. 2509868042

Offsite Property No. W92-0-0345-47

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

~~B062~~ KT 5/21/92

B06CX1
3, 1L, P, WATER, CLP-CYANIDE (NaOH)
2, 4L, P , WATER, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (HNO3)
1, 500ml, P, WATER, C-14
1, 250ml, G, WATER, TRITIUM

B06CX2
3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: GG Hamilton GG HAMILTON	Received by: Relinquished to Refrigerator	Date/Time: 5/15/92 1325
Relinquished by:	Received by: K. Trapp / K. Trapp	Date/Time: 5/18/92 0658
Relinquished by: K. Trapp / K. Trapp	Received by: Kermit Blum	Date/Time: 5-19-92 1230
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST Task #92-165

PART I: FIELD SECTION

Collector KD Lee / LD Walker Date Sampled 5/15/92 Time 0834 hours

Company Contact PH Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CX1	3, 1L, P	W	CLP-Cyanide (NaOH)
	2, 4L, P	W	Gross Gamma Spec, Alpha Spec (U-234/
			235/238, Pu-238/239/240, Am-241),
			Sr-90 (HNO_3)
	1, 500ml, P	W	C-14
	1, 250ml, G	W	Tritium
B06CX2	3, 40ml, Gs	W	CLP-VOA

Field Information** BOL #: 2509968042
OPC #: W92-0-0345-47

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 5-19-92

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.
**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9613442.0792

000006
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CF8

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-11A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B15

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10 ~~8~~	~~BJ~~ U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

10/27/92 MM

000007
EPA SAMPLE NO.

B06CF8

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-11A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B15

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

10/27/92

9613442.0794

000008
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CG0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-12A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20516B13

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/16/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	48	B
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	2	J
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	1	BJ
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

10/27/92

9613442.0795

000009
EPA SAMPLE NO.

B06CG0

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-12A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20516B13

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/16/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Subst. alkane	3.67	9	J

10/27/92

9613442.0796

000010
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CN7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B03

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	~~10~~	~~BJ~~ U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	17	
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

10/27/92

PBD 5/12/93

EPA SAMPLE NO.

B06CN7

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B03

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Subst. alkane	3.63	8	J

10/27/92

9613442.0798

000012
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CN9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B04

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	7	BJ
67-64-1	Acetone	53	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

10/27/92 MM

BD 5/12/95

9613442.0799

000013
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B06CN9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B04

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown alkane	4.82	5	J

10/27/92
MM

9613442.0800

000014
EPA SAMPLE NO.

B06CP0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B07

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10 ~~B~~	~~B~~ U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	41	
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

10/27/92

9613442.0801

000015
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B06CP0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B07

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

10/27/92
MM

9613442.0802

000016
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CP2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B08

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	8	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

10/27/9
MM

BJ 5/12/93

9613442.0803

000017

EPA SAMPLE NO.

B06CP2

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B08

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

10/27/92
MM

9613442.0804

000018
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CQ2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B11

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10 ~~5~~	~~BI~~ U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	11	
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

10/27/92 MM

PBD 5/12/93

EPA SAMPLE NO.

B06CQ2

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B11

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

10/27/92
WM

EPA SAMPLE NO.

B06CQ4

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B12

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	11	B
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

10/27/92 MM

9613442.0807

000021
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B06CQ4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B12

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

10/27/92
MM

9613442.0808

000022
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CR4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B09

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	37	
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

10/27/92
MM

9613442.0809

000023
EPA SAMPLE NO.

B06CR4

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B09

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

10/27/92
MM

000024
EPA SAMPLE NO.

B06CR6

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B10

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	B
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

10/27/92

9613442.0811

000025
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B06CR6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B10

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Subst. alkane	3.65	8	J

10/27/92
MM

9615942.0812

000026
EPA SAMPLE NO.

B06CR7

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-09A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B13

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10 ~~6~~	~~BJ~~ U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	2	J
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

10/27/92

9613442.0813

000027
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B06CR7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-09A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B13

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

10/27/92
MM

9613442.0814

000028
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CR9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-10A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B14

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	B ~~U~~ 10/27/92
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

9613442.0815

000029
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B06CR9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-10A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20515B14

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/15/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

10/27/92
MM

9613442.0816

000030
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CT6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-13A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20516B14

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/16/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	59	B
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	2	J
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	1	BJ
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

10/27/92 WM

RJ 5/18/92

9613442.0817

000031
EPA SAMPLE NO.

B06CT6

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-13A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20516B14

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/16/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Subst. alkane	3.70	10	J
2.	Unknown hydrocarbon	4.88	6	J

10/27/92
MY

9613442.0818

000032
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CT8

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-14A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20516B15

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/16/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	51	B
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	1	BJ
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

10/27/92

9613442.0819

000033
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B06CT8

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-14A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20516B15

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: not dec. ____ Date Analyzed: 05/16/92

GC Column: WIDE ID: 0.539 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Subst. alkane	3.68	11	J

10/27/92
MY

9613442.0820

000345

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CF8

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-11B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N16

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/10/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

PH 5/12/

9613442.0821

000346

EPA SAMPLE NO.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B06CF8

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-11B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N16

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/10/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10 ~~0.9~~	BJU
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10 ~~0.7~~	BJU
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10 ~~0.7~~	BJU
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

BA 5/14/

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B06CF8

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-11B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N16

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/10/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 19

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN CYCLIC HYDROCARBON	4.22	130	J
2.	UNKNOWN ALKENE	4.58	16	J
3.	UNKNOWN HYDROCARBON	7.52	8	~~BJ~~ U
4.	UNKNOWN CYCLIC KETONE	9.05	4	J
5.	UNKNOWN ALKANE	22.33	3	J
6.	UNKNOWN HYDROCARBON	22.60	2	J
7.	UNKNOWN HYDROCARBON	22.90	5	J
8.	UNKNOWN ALKANE	23.22	9	J
9.	UNKNOWN HYDROCARBON	23.33	3	J
10.	UNKNOWN HYDROCARBON	23.72	4	J
11.	UNKNOWN HYDROCARBON	23.87	3	J
12.	UNKNOWN HYDROCARBON	24.00	9	J
13.	UNKNOWN HYDROCARBON	24.12	10	J
14.	UNKNOWN HYDROCARBON	24.70	8	J
15.	UNKNOWN HYDROCARBON	24.87	3	J
16.	UNKNOWN HYDROCARBON	25.07	3	J
17.	UNKNOWN HYDROCARBON	25.48	4	J
18.	UNKNOWN POLYATOMIC HYDROCARB	25.67	6	J
19.	UNKNOWN HYDROCARBON	25.87	4	J

TAD 7/19/92

9613442.0823

000396

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CN7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N09

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613442.0824

000391

EPA SAMPLE NO.

B06CN7

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N09

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10 ~~0.6~~	BJ U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10 ~~0.8~~	BJ U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10 ~~2~~	BJ U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613442.0825

000392

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B06CN7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N09

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN CYCLIC HYDROCARBON	4.22	94	J
2.	UNKNOWN HYDROCARBON	7.52	7	~~BJ~~ U
3.	UNKNOWN CYCLIC ALCOHOL	8.13	2	~~BJ~~ U
4.	UNKNOWN CYCLIC KETONE	9.05	4	~~BJ~~ U
5.	UNKNOWN ALKENE	11.30	2	J

PAD
5/19/93

9613442.0826

000416
EPA SAMPLE NO.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B06CP0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N10

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613442.0827

000419
EPA SAMPLE NO.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B06CP0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N10

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10 ~~0.5~~	~~BJ~~ U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10 ~~0.7~~	~~BJ~~ U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10 ~~0.6~~	~~BJ~~ U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10 ~~0.5~~	~~BJ~~ U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613442.0828

000420
EPA SAMPLE NO.

B06CP0

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N10

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN CYCLIC HYDROCARBON	4.22	120	J
2.	UNKNOWN HYDROCARBON	4.87	7	J
3.	UNKNOWN HYDROCARBON	7.53	8	BJ U
4.	UNKNOWN CYCLIC ALCOHOL	8.13	2	BJ U
5.	UNKNOWN CYCLIC KETONE	9.05	4	BJ U
6.	UNKNOWN ALKENE	11.30	2	J

9613442.0829

000450

EPA SAMPLE NO.

B06CQ2

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N14

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

9613442.0830

000451

EPA SAMPLE NO.

B06CQ2

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N14

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10 ~~0.7~~	~~BJ~~ U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10 ~~0.5~~	~~BJ~~ U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	~~0.7~~	~~BJ~~ U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: B06CQ2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N14

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 9

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN CYCLIC HYDROCARBON	4.22	130	J
2.	SUBSTITUTED PROPANOIC ACID	6.13	2	BJ U
3.	UNKNOWN HYDROCARBON	7.53	10	BJ U
4.	UNKNOWN CYCLIC ALCOHOL	8.13	3	BJ U
5.	UNKNOWN CYCLIC KETONE	9.05	4	BJ U
6.	UNKNOWN ALKENE	11.32	3	BJ U
7.	UNKNOWN HYDROCARBON	14.48	2	J
8.	UNKNOWN CARBOXYLIC ACID	16.45	3	J
9.	UNKNOWN HYDROCARBON	20.95	3	J

PDN 5/14/93

9613442.0832

000482

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CR4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N13

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CR4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N13

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	4	BJ
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10 ~~0.7~~	~~BJ~~ U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10 ~~0.6~~	~~BJ~~ U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

AJS 5/14/9

9613442.0834

1F

EPA SAMPLE NO. 000484

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B06CR4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N13

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN CYCLIC HYDROCARBON	4.22	140	J
2.	UNKNOWN HYDROCARBON	7.53	7	~~BJ~~ U
3.	UNKNOWN CYCLIC ALCOHOL	8.13	2	~~BJ~~ U
4.	UNKNOWN CYCLIC KETONE	9.05	4	~~BJ~~ U
5.	UNKNOWN ALKENE	11.30	2	J
6.	UNKNOWN CARBOXYLIC ACID ESTE	16.43	3	J

RJD 5/19/93

9613442.0835

000510
EPA SAMPLE NO.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B06CR7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-09B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N15

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

PBD 5/19/93

9613442.0856

000511

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CR7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-09B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N15

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10 ~~0.7~~	~~BJ~~ U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

9613442.0837

000512

EPA SAMPLE NO.

B06CR7

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-09B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20609N15

Level: (low/med) LOW Date Received: 05/12/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/14/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/09/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 14

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN CYCLIC HYDROCARBON	4.22	82	J
2.	UNKNOWN HYDROCARBON	7.53	6	BJ U
3.	UNKNOWN CYCLIC ALCOHOL	8.13	2	BJ U
4.	UNKNOWN CYCLIC KETONE	9.05	4	BJ U
5.	UNKNOWN CARBOXYLIC ACID	16.42	3	J
6.	UNKNOWN CARBOXYLIC ACID ESTE	22.88	2	J
7.	UNKNOWN HYDROCARBON	23.18	6	J
8.	UNKNOWN COMPOUND	23.58	3	J
9.	UNKNOWN CARBOXYLIC ACID ESTE	24.50	2	J
10.	UNKNOWN HYDROCARBON	25.30	2	J
11.	UNKNOWN HYDROCARBON	25.38	5	J
12.	UNKNOWN CYCLOALKANE	25.53	3	J
13.	UNKNOWN HYDROCARBON	25.63	3	J
14.	UNKNOWN CYCLOALKANE	29.83	3	J

PBD
5/17/93

9613442.0838

000052

EPA SAMPLE NO.

B06CF8

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-11B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 05/12/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 05/14/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/21/92

Injection Volume: 2.50 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

10/28/92

9613442.0839

000053
EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B06CN7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 05/12/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 05/14/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/21/92

Injection Volume: 2.50 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U J
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U J
58-89-9	gamma-BHC (Lindane)	0.050	U J
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U J
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

10/28/92

9613442.0840

000054
EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B06CP0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 05/12/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 05/14/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/21/92

Injection Volume: 2.50 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	UJ
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	UJ
58-89-9	gamma-BHC (Lindane)	0.050	UJ
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	UJ
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

10/28/92

9613442.0841

000055
EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B06CQ2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 05/12/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 05/14/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/21/92

Injection Volume: 2.50 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	U J
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U J
58-89-9	gamma-BHC (Lindane)	0.050	U J
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U J
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

10/28/92

9613442.0842

000056
EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B06CR4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 05/12/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 05/14/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/21/92

Injection Volume: 2.50 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

10/28/92

9613442.0843

000057

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CR7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05040 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205040-09B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 05/12/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 05/14/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/21/92

Injection Volume: 2.50 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	UJ
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	UJ
58-89-9	gamma-BHC (Lindane)	0.050	UJ
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	UJ
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

10/28/92

9613442.0844

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CF9

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF9

Matrix (soil/water): WATER Lab Sample ID: 05132-05S

Level (low/med): LOW Date Received: 05/13/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.00	U		P
7440-36-0	Antimony	16.00	U		P
7440-38-2	Arsenic	3.40	B	J	F
7440-39-3	Barium	50.70	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U		P
7440-70-2	Calcium	43900.00			P
7440-47-3	Chromium	145.00			P
7440-48-4	Cobalt	3.00	U		P
7440-50-8	Copper	2.00	U		P
7439-89-6	Iron	23.00	U		P
7439-92-1	Lead	2.00	U		F
7439-95-4	Magnesium	12200.00			P
7439-96-5	Manganese	2.60	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	3.00	U		P
7440-09-7	Potassium	4900.00	B		P
7782-49-2	Selenium	20.00	U	J	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	20400.00			P
7440-28-0	Thallium	4.00	U	WN J	F
7440-62-2	Vanadium	7.10	B		P
7440-66-6	Zinc	11.00	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN Rev.6/89

002

9613442.0845

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CN8

ab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

ab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF9

atrix (soil/water): WATER Lab Sample ID: 05132-01S

evel (low/med): LOW Date Received: 05/13/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.00	U		P
7440-36-0	Antimony	16.00	U		P
7440-38-2	Arsenic	6.40	B		F
7440-39-3	Barium	34.50	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U		P
7440-70-2	Calcium	47800.00			P
7440-47-3	Chromium	38.00			P
7440-48-4	Cobalt	3.00	U		P
7440-50-8	Copper	2.00	U		P
7439-89-6	Iron	23.00	U		P
7439-92-1	Lead	2.00	U		F
7439-95-4	Magnesium	9900.00			P
7439-96-5	Manganese	17.60			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	8.10	B		P
7440-09-7	Potassium	5020.00			P
7782-49-2	Selenium	4.00	U	~~W~~ J	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	17700.00			P
7440-28-0	Thallium	4.00	U	~~W~~ J	F
7440-62-2	Vanadium	4.80	B		P
7440-66-6	Zinc	11.00	U		P
	Cyanide				NR

olor Before: COLORLESS Clarity Before: CLEAR Texture:

olor After: COLORLESS Clarity After: CLEAR Artifacts:

omments:

FORM I - IN Rev.6/89

003

9613442.0846

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CP1

ab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

ab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF9

atrix (soil/water): WATER Lab Sample ID: 05132-02S

evel (low/med): LOW Date Received: 05/13/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.00	U		P
7440-36-0	Antimony	16.00	U		P
7440-38-2	Arsenic	4.20	B		F
7440-39-3	Barium	18.40	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U		P
7440-70-2	Calcium	32300.00			P
7440-47-3	Chromium	4.00	B		P
7440-48-4	Cobalt	3.00	U		P
7440-50-8	Copper	2.00	U		P
7439-89-6	Iron	23.00	U		P
7439-92-1	Lead	2.00	U		F
7439-95-4	Magnesium	5300.00			P
7439-96-5	Manganese	4.00	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	3.00	U		P
7440-09-7	Potassium	2440.00	B		P
7782-49-2	Selenium	20.00	U		F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	6420.00			P
7440-28-0	Thallium	4.00	U	WN	F
7440-62-2	Vanadium	3.90	B		P
7440-66-6	Zinc	11.00	U		P
	Cyanide				NR

olor Before: COLORLESS Clarity Before: CLEAR Texture:

olor After: COLORLESS Clarity After: CLEAR Artifacts:

omments:

FORM I - IN Rev.6/89

9613942.0847

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CQ3

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF9

Matrix (soil/water): WATER Lab Sample ID: 05132-03S

Level (low/med): LOW Date Received: 05/13/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.00	U		P
7440-36-0	Antimony	16.00	U		P
7440-38-2	Arsenic	3.40	B	WJ	F
7440-39-3	Barium	46.50	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U		P
7440-70-2	Calcium	61700.00			P
7440-47-3	Chromium	29.10			P
7440-48-4	Cobalt	3.00	U		P
7440-50-8	Copper	2.00	U		P
7439-89-6	Iron	23.00	U		P
7439-92-1	Lead	2.00	U		F
7439-95-4	Magnesium	8330.00			P
7439-96-5	Manganese	66.50			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	3.00	U		P
7440-09-7	Potassium	5100.00			P
7782-49-2	Selenium	4.50	B	WJ	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	15400.00			P
7440-28-0	Thallium	4.00	U	WNJ	F
7440-62-2	Vanadium	3.20	B		P
7440-66-6	Zinc	11.00	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN Rev.6/89

9613442.0848

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CR5

ab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

ab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF9

atrix (soil/water): WATER Lab Sample ID: 05132-04S

evel (low/med): LOW Date Received: 05/13/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.00	U		P
7440-36-0	Antimony	16.00	U		P
7440-38-2	Arsenic	3.10	B	~~W~~ J	F
7440-39-3	Barium	17.70	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U		P
7440-70-2	Calcium	32400.00			P
7440-47-3	Chromium	3.50	B		P
7440-48-4	Cobalt	3.00	U		P
7440-50-8	Copper	2.00	U		P
7439-89-6	Iron	23.00	U		P
7439-92-1	Lead	2.00	U		F
7439-95-4	Magnesium	5300.00			P
7439-96-5	Manganese	3.80	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	3.00	U		P
7440-09-7	Potassium	2460.00	B		P
7782-49-2	Selenium	4.00	U	~~W~~ J	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	6370.00			P
7440-28-0	Thallium	4.00	U	~~W~~N J	F
7440-62-2	Vanadium	4.30	B		P
7440-66-6	Zinc	11.00	U		P
	Cyanide				NR

olor Before: COLORLESS Clarity Before: CLEAR Texture:

olor After: COLORLESS Clarity After: CLEAR Artifacts:

omments:

FORM I - IN Rev.6/89

9613442.0849

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CF8

ab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

ab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF8

atrix (soil/water): WATER Lab Sample ID: 05129-05S

evel (low/med): LOW Date Received: 05/13/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	446.00			P
7440-36-0	Antimony	11.00	U		P
7440-38-2	Arsenic	5.20	B		F
7440-39-3	Barium	53.80	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	1.00	U		P
7440-70-2	Calcium	41900.00			P
7440-47-3	Chromium	170.00			P
7440-48-4	Cobalt	2.40	B		P
7440-50-8	Copper	5.40	B		P
7439-89-6	Iron	678.00		E	P
7439-92-1	Lead	2.90	B		F
7439-95-4	Magnesium	11900.00			P
7439-96-5	Manganese	16.90			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	12.20	B		P
7440-09-7	Potassium	4740.00	B		P
7782-49-2	Selenium	4.00	U	JWN	F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	19400.00			P
7440-28-0	Thallium	2.00	U	JWN	F
7440-62-2	Vanadium	8.80	B		P
7440-66-6	Zinc	22.10			P
	Cyanide	10.00	U		CA

olor Before: COLORLESS Clarity Before: CLOUDY Texture:

olor After: COLORLESS Clarity After: CLOUDY Artifacts:

omments:

002

FORM I - IN Rev.6/89

9613442.0850

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B06CN7

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF8

Matrix (soil/water): WATER Lab Sample ID: 05129-01S

Level (low/med): LOW Date Received: 05/13/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	473.00			P
7440-36-0	Antimony	11.00	U		P
7440-38-2	Arsenic	6.20	B		F
7440-39-3	Barium	48.30	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	3.00	B		P
7440-70-2	Calcium	48500.00			P
7440-47-3	Chromium	85.90			P
7440-48-4	Cobalt	5.30	B		P
7440-50-8	Copper	8.20	B		P
7439-89-6	Iron	1180.00		J E	P
7439-92-1	Lead	2.70	B		F
7439-95-4	Magnesium	10200.00			P
7439-96-5	Manganese	35.30			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	40.90			P
7440-09-7	Potassium	4970.00	B		P
7782-49-2	Selenium	4.00	U	J WN	F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	17400.00			P
7440-28-0	Thallium	2.00	U	J WN	F
7440-62-2	Vanadium	10.60	B		P
7440-66-6	Zinc	58.40			P
	Cyanide	10.00	U		CA

Color Before: COLORLESS Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLOUDY Artifacts:

Comments:

003

FORM I - IN Rev.6/89

9615442.0851

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CP0

ab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

ab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF8

atrix (soil/water): WATER Lab Sample ID: 05129-02S

evel (low/med): LOW Date Received: 05/13/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	38.80	B		P
7440-36-0	Antimony	11.00	U		P
7440-38-2	Arsenic	4.00	B		F
7440-39-3	Barium	22.00	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	1.00	U		P
7440-70-2	Calcium	33500.00			P
7440-47-3	Chromium	11.30			P
7440-48-4	Cobalt	2.00	U		P
7440-50-8	Copper	4.00	U		P
7439-89-6	Iron	51.20	B	J E	P
7439-92-1	Lead	2.10	B	J W	F
7439-95-4	Magnesium	5540.00			P
7439-96-5	Manganese	6.00	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	5.00	U		P
7440-09-7	Potassium	2460.00	B		P
7782-49-2	Selenium	4.00	U	J WN	F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	6600.00			P
7440-28-0	Thallium	2.00	U	J WN	F
7440-62-2	Vanadium	5.60	B		P
7440-66-6	Zinc	18.50	B		P
	Cyanide	10.00	U		CA

olor Before: COLORLESS Clarity Before: CLEAR Texture:

olor After: COLORLESS Clarity After: CLEAR Artifacts:

omments:

004

FORM I - IN Rev.6/89

9615442.0852

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B06CQ2

ab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

ab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF8

atrix (soil/water): WATER Lab Sample ID: 05129-03S

evel (low/med): LOW Date Received: 05/13/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	155.00	B		P
7440-36-0	Antimony	11.00	U		P
7440-38-2	Arsenic	4.90	B		F
7440-39-3	Barium	48.30	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	1.00	U		P
7440-70-2	Calcium	60700.00			P
7440-47-3	Chromium	41.80			P
7440-48-4	Cobalt	2.00	U		P
7440-50-8	Copper	4.70	B		P
7439-89-6	Iron	329.00		J E	P
7439-92-1	Lead	2.30	B	J W	F
7439-95-4	Magnesium	8380.00			P
7439-96-5	Manganese	65.00			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	5.80	B		P
7440-09-7	Potassium	5040.00			P
7782-49-2	Selenium	4.00	U	J WN	F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	14800.00			P
7440-28-0	Thallium	2.00	U	J WN	F
7440-62-2	Vanadium	5.80	B		P
7440-66-6	Zinc	15.80	B		P
	Cyanide	10.00	U		CA

olor Before: COLORLESS Clarity Before: CLOUDY Texture:

olor After: COLORLESS Clarity After: CLOUDY Artifacts:

omments:

005

FORM I - IN Rev.6/89

9613442.0853

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CR4

ab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

ab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF8

atrix (soil/water): WATER Lab Sample ID: 05129-04S

evel (low/med): LOW Date Received: 05/13/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	28.50	B		P
7440-36-0	Antimony	11.00	U		P
7440-38-2	Arsenic	4.30	B		F
7440-39-3	Barium	18.70	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	1.00	U		P
7440-70-2	Calcium	30700.00			P
7440-47-3	Chromium	10.20			P
7440-48-4	Cobalt	2.00	U		P
7440-50-8	Copper	4.00	U		P
7439-89-6	Iron	35.00	B	J E.	P
7439-92-1	Lead	1.60	B		F
7439-95-4	Magnesium	5080.00			P
7439-96-5	Manganese	4.80	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	5.00	U		P
7440-09-7	Potassium	2240.00	B		P
7782-49-2	Selenium	4.00	U	J WN .	F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	6010.00			P
7440-28-0	Thallium	2.00	U	J WN .	F
7440-62-2	Vanadium	7.20	B		P
7440-66-6	Zinc	16.10	B		P
	Cyanide	10.00	U		CA

Color Before: COLORLESS Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLOUDY Artifacts:

Comments:

006

FORM I - IN Rev.6/89

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CR7

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF8

Matrix (soil/water): WATER Lab Sample ID: 05129-06S

Level (low/med): LOW Date Received: 05/13/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	331.00			P
7440-36-0	Antimony	11.00	U		P
7440-38-2	Arsenic	4.60	B		F
7440-39-3	Barium	54.90	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	1.00	B		P
7440-70-2	Calcium	42800.00			P
7440-47-3	Chromium	165.00			P
7440-48-4	Cobalt	2.00	U		P
7440-50-8	Copper	6.70	B		P
7439-89-6	Iron	544.00		J E	P
7439-92-1	Lead	2.20	B		F
7439-95-4	Magnesium	12100.00			P
7439-96-5	Manganese	13.70	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	9.70	B		P
7440-09-7	Potassium	4920.00	B		P
7782-49-2	Selenium	4.00	U	J WN	F
7440-22-4	Silver	3.00	U		P
7440-23-5	Sodium	20000.00			P
7440-28-0	Thallium	2.00	U	J WN	F
7440-62-2	Vanadium	9.30	B		P
7440-66-6	Zinc	23.20			P
	Cyanide	10.00	U		CA

Color Before: COLORLESS Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLOUDY Artifacts:

Comments:

007

FORM I - IN Rev.6/89

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CT5

ab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

ab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF8

atrix (soil/water): WATER Lab Sample ID: 05129-07S

evel (low/med): LOW Date Received: 05/13/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	10.00	U		CA

olor Before: COLORLESS Clarity Before: CLEAR Texture:

olor After: COLORLESS Clarity After: CLEAR Artifacts:

omments:

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B06CT7

ab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

ab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF8

atrix (soil/water): WATER Lab Sample ID: 05129-08S

evel (low/med): LOW Date Received: 05/13/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	10.00	U		CA

olor Before: COLORLESS Clarity Before: CLEAR Texture:

olor After: COLORLESS Clarity After: CLEAR Artifacts:

omments:

9613442.0857

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B06CR8

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-068SAS No.: SDG No.: B06CF9

Matrix (soil/water): WATER Lab Sample ID: 05132-06S

Level (low/med): LOW Date Received: 05/13/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	25.40	B		P
7440-36-0	Antimony	16.00	U		P
7440-38-2	Arsenic	3.30	B		F
7440-39-3	Barium	50.90	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U		P
7440-70-2	Calcium	43100.00			P
7440-47-3	Chromium	139.00			P
7440-48-4	Cobalt	3.00	U		P
7440-50-8	Copper	2.00	U		P
7439-89-6	Iron	23.00	U		P
7439-92-1	Lead	2.00	U		F
7439-95-4	Magnesium	12000.00			P
7439-96-5	Manganese	5.60	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	3.00	U		P
7440-09-7	Potassium	4850.00	B		P
7782-49-2	Selenium	4.00	U	~~W~~ J	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	20100.00			P
7440-28-0	Thallium	4.00	U	~~W~~ J	F
7440-62-2	Vanadium	4.80	B		P
7440-66-6	Zinc	11.00	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN Rev.6/89

TMA Inc. REPORT Worrk Order # A2-05-040

Received: 05/12/92 Results by Sample

SAMPLE ID B06CF8 FRACTION 11C TEST CODE WCCLPL NAME Anions & Wet Chem. - WW043

Date & Time Collected 05/10/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Fluoride	300	0.3	mg/L	0.1
Chloride	300	8.4	mg/L	0.2
Nitrite	300	<0.1 U	mg/L	0.1
Nitrate	300	3.8	mg/L	0.2
Sulfate	300	43	mg/L	1.0
Phosphate	300	<0.4 U	mg/L	0.4
Elect. Conductivity	120.1	368	umho/cm	6
pH	150.1	8.0	pH	0.1

FORM I

TMA Inc. REPORT Work Order # A2-05-040

Received: 05/12/92 Results by Sample

SAMPLE ID B06CN7 FRACTION 01C TEST CODE WCCLPL NAME Anions & Wet Chem. - WM043

Date & Time Collected 05/08/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Fluoride	300	0.3	mg/L	0.1
Chloride	300	8.2	mg/L	0.2
Nitrite	300	<0.1 U	mg/L	0.1
Nitrate	300	5.1	mg/L	0.2
Sulfate	300	43	mg/L	1.0
Phosphate	300	<0.4 U	mg/L	0.4
Elect. Conductivity	120.1	380	umho/cm	6
pH	150.1	8.0	pH	0.1

FORM 1

TMA Inc. REPORT Work Order # A2-05-040

Received: 05/12/92 Results by Sample

SAMPLE ID B06CP0 FRACTION 03E TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 05/08/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Fluoride	300	0.3	mg/L	0.1
Chloride	300	5.3	mg/L	0.2
Nitrite	300	<0.1 U	mg/L	0.1
Nitrate	300	1.3	mg/L	0.2
Sulfate	300	22	mg/L	1.0
Phosphate	300	<0.4 U	mg/L	0.4
Elect. Conductivity	120.1	217	umho/cm	6
pH	150.1	8.1	pH	0.1

FORM I

TMA Inc. REPORT Work Order # A2-05-040

Received: 05/12/92

Results by Sample

SAMPLE ID B06CR4 FRACTION 05C TEST CODE WCCLPL NAME Anions & Wet Chem. - WW043

Date & Time Collected 05/08/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Fluoride	300	0.3	mg/L	0.1
Chloride	300	5.4	mg/L	0.2
Nitrite	300	<0.1 U	mg/L	0.1
Nitrate	300	1.3	mg/L	0.2
Sulfate	300	22	mg/L	1.0
Phosphate	300	<0.4 U	mg/L	0.4
Elect. Conductivity	120.1	215	umho/cm	6
pH	150.1	8.2	pH	0.1

FORM I

TMA Inc. REPORT Work Order # A2-05-040

Received: 05/12/92

Results by Sample

SAMPLE ID B06CQ2 FRACTION 07C TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 05/08/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Fluoride	300	0.3	mg/L	0.1
Chloride	300	8.3	mg/L	0.2
Nitrite	300	<0.1 U	mg/L	0.1
Nitrate	300	7.2	mg/L	0.2
Sulfate	300	53	mg/L	1.0
Phosphate	300	<0.4 U	mg/L	0.4
Elect. Conductivity	120.1	409	umho/cm	6
pH	150.1	8.0	pH	0.1

FORM I

TMA Inc. REPORT Work Order # A2-05-040

Received: 05/12/92

Results by Sample

SAMPLE ID B06CR7 FRACTION 09C TEST CODE WCCLPL NAME Anions & Wet Chem. - WN063

Date & Time Collected 05/10/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Fluoride	300	0.3	mg/L	0.1
Chloride	300	8.4	mg/L	0.2
Nitrite	300	<0.1 U	mg/L	0.1
Nitrate	300	3.8	mg/L	0.2
Sulfate	300	43	mg/L	1.0.
Phosphate	300	<0.4 U	mg/L	0.4
Elect. Conductivity	120.1	373	umho/cm	6
pH	150.1	8.0	pH	0.1

FORM I

9613442.0864

SS

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/8/92

Ice Chest No. SML-87

Field Logbook No. EFL-1018 p.1

Bill of Lading/Airbill No. 2509867954

Offsite Property No. W92-0-0345-27

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CN7

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED

3, 1L, P, WATER, CLP-CYANIDE (NaOH)

~~3, 40ml, Gs, WATER, CLP VOA~~

6, 1l ~~3, 2L, G, WATER, CLP SEMI VOA/PCB/PEST~~ *

~~1, 500ml, G, WATER, ANIONS, pH~~

KDL 5/8/92 ~~1, 500ml, G, WATER, CONDUCTIVITY~~

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CN8

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

* B06CN9

~~3, 40ml, Gs, WATER, CLP VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Kirby D. Lee K.D. Lee	Received by: relinq. to refrigerator	Date/Time: 5/8/92 1500
Relinquished by:	Received by: PHButcher PHButcher	Date/Time: 11 May 92 0700
Relinquished by: PHButcher PHButcher	Received by: Elby H. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 Elby H. Yamamoto	Received by: [illegible]	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

* SAMPLE ID # B06CN7 → ONE OF THE SIX "BOTTLES LID" was broken.

** SAMPLE ID # B06CN9 → BUBBLES WERE FOUND IN 3 vials

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0865

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

Task # 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/8/92 Time 1200 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CN7	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	~~3, 40M, Gs~~	W	~~CLP - VOA~~
	~~3, 2L, G~~	W	~~CLP - Semi-VOA/PCB/Pest~~
	~~1, 500 ml, G~~	W	~~ANions, pH~~
	~~1, 500ml, G~~	W	~~Cond.~~
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pu-238/239/240 Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
B06CN8	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B06CN9	~~3, 40 ml, Gs~~	W	~~CLP-VOA~~ ([illegible] 3 [illegible])

Field Information** BOL # 2509B07954

OPC # W92-0-0345-27

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Ecky M. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # — OPC #

170

9613442.0866

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-8-92

Ice Chest No. N.J. Bound

Field Logbook No. EFL-0057 p.1

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-25

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CP0

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED

3, 1L, P, WATER, CLP-CYANIDE (NaOH)

~~3, 40ml, Gs, WATER, CLP-VOA~~

6, 1l ~~3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST~~

KDL 5/8/92 ~~1, 500ml, G, WATER, ANIONS, pH~~

~~1, 500ml, G, WATER, CONDUCTIVITY~~

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C 14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CP1

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CP2

~~3, 40ml, Gs, WATER, CLP-VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker LD Walker	Received by: Refrigerator	Date/Time: 5-8-92 / 1500
Relinquished by:	Received by: B.W. WHITTON	Date/Time: 5-11-92 0700
Relinquished by: B.W. WHITTON	Received by: Elby H. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 Elby H. Yamamoto	Received by:	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

171

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0867

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST TASK # 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5-8-92 Time 1144 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CP0	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	~~3, 40M, Gs~~	W	~~CLP - VOA~~
	~~6 8, 1L, G~~ BW 5-11-92	W	~~CLP - Semi-VOA/PCB/Pest~~
	~~1, 500 ml, G~~	W	~~ANions, pH~~
	~~1, 500ml, G~~	W	~~Cond.~~
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
B06CP1	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B06CP2	~~3, 40 ml, Gs~~	W	~~CLP-VOA~~

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Ebby S. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # 250986795-4 OPC # W97-0-0345-25

172

9615442.0868

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-8-92 LW 5-8-92

Ice Chest No. SML-24

Field Logbook No. EFL - ~~1006~~ 1018

Bill of Lading/Airbill No. 2509867954

Offsite Property No. W92-0-0395-27

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CQ2

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
3, 1L, P, WATER, CLP-CYANIDE (NaOH)
~~3, 40ml, Gs, WATER, CLP-VOA~~
~~3, 2L, G, WATER, CLP SEMI-VOA/PCB/PEST~~
~~1, 500ml, G, WATER, ANIONS, pH~~
~~1, 500ml, G, WATER, CONDUCTIVITY~~
~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~
~~1, 500ml, P, WATER, C-14~~
~~1, 250ml, G, WATER, TRITIUM~~

B06CQ3

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CQ4

~~3, 40ml, Gs, WATER, CLP VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: LD Walker L.D. Walker	Received by: Refrigerator	Date/Time: 5-8/92 1415
Relinquished by:	Received by: PH Butcher PH Butcher	Date/Time: 11 May 92 0700
Relinquished by: PH Butcher	Received by: Elby J. Yamamoto	Date/Time: 5/12/92 10:30 pm
Relinquished by: 5/12/92 Elby J. Yamamoto	Received by: [illegible]	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0869

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/8/92 Time 0925 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CQ2	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	~~3, 40M, Gs~~	W	~~CLP - VOA~~
	~~3, 2L, G~~	W	~~CLP - Semi-VOA/PCB/Pest~~
	~~1, 500 ml, G~~	W	~~ANions, pH~~
	~~1, 500ml, G~~	W	~~Cond.~~
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
B06CQ3	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B06CQ4	~~3, 40 ml, Gs~~	W	~~CLP-VOA~~

Field Information**

Special Handling and/or Storage BOL # 2509867954

OPC # W97-0-0345-02

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elby H. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # OPC #

174

*Indicate whether sample is soil, sludge, water, etc.

9613442.0870

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-8-92

Ice Chest No. SML-26

Field Logbook No. EFL-1018

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-25

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CR4

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED

3, 1L, P, WATER, CLP-CYANIDE (NaOH)

~~3, 40ml, Gs, WATER, CLP VOA~~

6, 1L ~~3, 2L, G, WATER, CLP SEMI VOA/PCB/PEST~~

KOL 5/8/92 ~~1, 500ml, G, WATER, ANIONS, pH~~

~~1, 500ml, G, WATER, CONDUCTIVITY~~

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CR5

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CR6

~~3, 40ml, Gs, WATER, CLP VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Kathy D. Lee	Received by: relinq. to refrigerator	Date/Time: 5/8/92 1500
Relinquished by:	Received by: PHButcher PHButcher	Date/Time: 11 May 92 0700
Relinquished by: PHButcher PHButcher	Received by: Eeby H. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 Eeby H. Yamamoto	Received by: [illegible]	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9615942.0871

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

Task # 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/8/92 Time 1140 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
606CR4	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	~~3, 40M, Gs~~	W	~~CLP - VOA~~
	~~6, 1L, G~~ -BW	W	~~CLP - Semi-VOA/PCB/Pest~~
	~~1, 500 ml, G~~	W	~~ANions, pH~~
	~~1, 500ml, G~~	W	~~Cond.~~
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U 234/235/238, Pa 238/239/240 Am 241), Sr 90, Tc 99~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
606CR5	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
606CR6	~~3, 40 ml, Gs~~	W	~~CLP VOA~~

Field Information** BOL # 250986795-4
OPC # W97-0-0345-25

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elly H. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # OPC #

9613442.0872

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/10/92

Ice Chest No. SML-19

Field Logbook No. EFL-1018 p. 3

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-24

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CF8

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED

3, 1L, P, WATER, CLP-CYANIDE (NaOH)

~~3, 40ml, Gs, WATER, CLP VOA~~

~~3, 2L, G, WATER, CLP SEMI VOA/PCB/PEST~~

~~1, 500ml, G, WATER, ANIONS, pH~~

~~1, 500ml, G, WATER, CONDUCTIVITY~~

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CF9

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CG0

~~3, 40ml, Gs, WATER, CLP VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Kathy D. Lee K.D. Lee	Received by: relinq. to refrigerator	Date/Time: 5/10/92 1540
Relinquished by:	Received by: Bill Whitten B. WHITTEN	Date/Time: 5-11-92 0700
Relinquished by: Bill Whitten B. WHITTEN	Received by: Elby H. Yamamoto	Date/Time: 5/12/92 10:30
Relinquished by: 5/12/92 Elby H. Yamamoto	Received by: [illegible]	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0873

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST TASK NO 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5-10-92 Time 0940 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CF8	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	~~3, 40M, Gs~~	W	~~CLP - VOA~~
	~~3, 2L, G~~	W	~~CLP - Semi-VOA/PCB/Pest~~
	~~1, 500 ml, G~~	W	~~ANions, pH~~
	~~1, 500ml, G~~	W	~~Cond.~~
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
B06CF9	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B06CG0	~~3, 40 ml, Gs~~	W	~~CLP VOA~~

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Ellen H. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # 250986795-4 OPC # W92-0-0345-24

178

*Indicate whether sample is soil, sludge, water, etc.

9613442.0874

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/10/92

Ice Chest No. NOT

Field Logbook No. EFL-1018 p. 3

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-26

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

* B06CR7 *

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
3, 1L, P, WATER, CLP-CYANIDE (NaOH)
~~3, 40ml, Gs, WATER, CLP VOA~~
~~3, 2L, G, WATER, CLP SEMI VOA/PCB/PEST~~
~~1, 500ml, G, WATER, ANIONS, pH~~
~~1, 500ml, G, WATER, CONDUCTIVITY~~
~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~
~~1, 500ml, P, WATER, C-14~~
~~1, 250ml, G, WATER, TRITIUM~~

B06CR8

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

B06CR9

~~3, 40ml, Gs, WATER, CLP VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Kathy D. Lee K.D. Lee	Received by: relinq. to refrigerator	Date/Time: 5/10/92 1538
Relinquished by:	Received by: PH Butcher PH Butcher	Date/Time: 11 May 92 0700
Relinquished by: PH Butcher PH Butcher	Received by: Elby J. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 Elby J. Yamamoto	Received by:	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments: Sample ID *B06CR7*=7 Bubbles were found in 2 vials on Voa-bottles

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0875

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST Task # 92-165

PART I: FIELD SECTION

Collector L. D. Walker/K. D. Lee Date Sampled 5/10/92 Time 0940 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CR7	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P	W	CLP - CN (NaOH)
	~~3, 40M, Gs~~	W	~~CLP - VOA~~
	~~3, 2L, G~~	W	~~CLP - Semi-VOA/PCB/Pest~~
	~~1, 500 ml, G~~	W	~~ANions, pH~~
	~~1, 500ml, G~~	W	~~Cond.~~
	~~2, 4L, P~~	W	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250 ml, G~~	W	~~Tritium~~
B06CR8	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
B06CR9	~~3, 40 ml, Gs~~	W	~~CLP VOA~~

Field Information** BOL# 250986795-4

OPC# W92-0-0345-26

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elby J. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

BOL # OPC #

9613442.0876

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-10-92

Ice Chest No. SML-93

Field Logbook No. EFC - 0057

Bill of Lading/Airbill No. 250986795-4

Offsite Property No. W92-0-0345-24

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CT5

3, 1L, P, WATER, CLP-CYANIDE (NaOH)

~~2, 4L, P, WATER, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (HNO3)~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CT6

~~3, 40ml, Gs, WATER, CLP-VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: Gary C. Hamilton	Received by: placing into refrigerator	Date/Time: 5/10/92 1540
Relinquished by:	Received by: Bill Whitten B. WHITTEN	Date/Time: 5-11-92 0700
Relinquished by: Bill Whitten B. WHITTEN	Received by: Elby G. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 Elby G. Yamamoto	Received by:	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0877

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST Task #92-165

PART I: FIELD SECTION

Collector KDLee / LD Walker Date Sampled 5-10-92 Time 0855 hours

Company Contact PH Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CT5	3, 1L, P	W	CLP Cyanide (NaOH)
	~~2, 4L, P~~	W	~~Gross Gamma Spec, Alpha Spec (U-234/235/238, Pu-238/239/240, Am-241),~~
			~~Sr 90 (HNO_3)~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250ml, G~~	W	~~Tritium~~
B06CT6	~~3, 40ml, GS~~	W	~~CLP VOA~~

Field Information** BOL #: 250986795-4

OPC #: W92-0-0345-24

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elby J. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

182

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9613442.0878

Westinghouse Hanford Company	CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/10/92

Ice Chest No. CORY-1

Field Logbook No. EFL-0057

Bill of Lading/Airbill No. 2509867954

Offsite Property No. W92-0-0345-26

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CT7

3, 1L, P, WATER, CLP-CYANIDE (NaOH)

~~2, 4L, P, WATER, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (HNO3)~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CT8

~~3, 40ml, Gs, WATER, CLP-VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: HHamilton/GG Hamilton	Received by: relinq to refrigerator	Date/Time: 5/10/92 1540
Relinquished by:	Received by: PHButcher PHButcher	Date/Time: 11 May 92 0200
Relinquished by: PHButcher PHButcher	Received by: Elby J. Yamamoto	Date/Time: 5/12/92 10:30 AM
Relinquished by: 5/12/92 Elby J. Yamamoto	Received by: [illegible]	Date/Time: 5.13.92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0879

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST Task # 92-165

PART I: FIELD SECTION

Collector KD Lee / LD Walker Date Sampled 5/10/92 Time 0720 hours

Company Contact PH Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
606CT7	3, 1L, P	W	CLP Cyanide (NaOH)
	~~2, 4L, P~~	W	~~Gross Gamma Spec, Alpha Spec (U-234/235/238, Pu-238/239/240, Am-241),~~
			~~Sr-90 (HNO_3)~~
	~~1, 500ml, P~~	W	~~C-14~~
	~~1, 250ml, G~~	W	~~Tritium~~
606CT8	~~3, 40ml, GS~~	W	~~CLP-VOA~~

Field Information** BOL #: 2509867954

OPC #: W92-0-0345-26

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elby K. Yamamoto Title Sample Control Technician Date 5/12/92

Analysis Required

184

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-05

B06CF8

SDG	7040	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N205092-05	Client sample id	B06CF8
Dept sample id	7040-005	Matrix	WATER
Received	05/12/92	Collected	05/10/92
		Chain of custody id	EFL-1018

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	3.9	2.7	3.0	3.0	R	80A
Gross Beta	Beta	6.1	1.5	1.9	4.0		80B
Uranium 233/234		1.6	0.24	0.030	0.20	R	U
Uranium 235	15117-96-1	0.047	0.047	0.037	0.20	U	U
Uranium 238	7440-61-1	1.3	0.21	0.030	0.20		U
Plutonium 238	13981-16-3	0.011	0.022	0.031	0.050	U	PU
Plutonium 239/240		0.011	0.022	0.036	0.050	U	PU
Americium 241	14596-10-2	-0.017	0.017	0.040	0.050	U	AM
Strontium 90	10098-97-2	0	1.7	0.52	1.0	U	Y
Technetium 99	14133-76-7	-0.35	2.0	6.0	5.0	U	TC
Tritium	10028-17-8	11000	430	220	400		H
Carbon 14	14762-75-5	16	30	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			270		U	GAM
Chromium 51	14392-02-0			320		U	GAM
Cobalt 60	10198-40-0			15		U	GAM
Zinc 65	17982-39-3			24		U	GAM
Cesium 134	17967-70-9			13		U	GAM
Cesium 137	10045-97-3			11		U	GAM
Radium 226	13982-67-7			22		U	GAM
Thorium 228	14274-82-9			18		U	GAM
Thorium 232	7440-29-1			48		U	GAM

eff<20%

cal. date

10/13/92
RB

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.14
Report date	08/05/92

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-15

B06CJ8

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-15
Dept sample id 7040-015
Received 05/12/92

Client sample id B06CJ8
Matrix WATER
Collected 05/16/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	0.20	2.2	3.4	3.0	~~U~~ R	80A
Gross Beta	Beta	6.1	1.5	2.0	4.0		80B
Uranium 233/234		1.5	0.17	0.050	0.20	R	U
Uranium 235	15117-96-1	0.11	0.046	0.030	0.20	J	U
Uranium 238	7440-61-1	0.99	0.13	0.031	0.20		U
Plutonium 238	13981-16-3	0.010	0.010	0.011	0.050	U	PU
Plutonium 239/240		0.005	0.005	0.011	0.050	U	PU
Americium 241	14596-10-2	0.020	0.040	0.060	0.050	U	AM
Strontium 90	10098-97-2	0.017	0.22	0.76	1.0	U	Y
Technetium 99	14133-76-7	-0.48	3.1	4.1	5.0	U	TC
Tritium	10028-17-8	300	150	220	400	J	H
Carbon 14	14762-75-5	27	29	39	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			160		U	GAM
Chromium 51	14392-02-0			300		U	GAM
Cobalt 60	10198-40-0			19		U	GAM
Zinc 65	17982-39-3			22		U	GAM
Cesium 134	17967-70-9			13		U	GAM
Cesium 137	10045-97-3			12		U	GAM
Radium 226	13982-67-7			23		U	GAM
Thorium 228	14274-82-9			39		U	GAM
Thorium 232	7440-29-1			52		U	GAM

19/13/92 RD

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

9613442.0882

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-12

B06CK4

SDG	7040	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N205092-12	Client sample id	B06CK4
Dept sample id	7040-012	Matrix	WATER
Received	05/12/92	Collected	05/16/92
		Chain of custody id	EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	1.5	2.3	3.3	3.0	U R	80A
Gross Beta	Beta	6.8	1.7	2.2	4.0		80B
Uranium 233/234		0.89	0.13	0.026	0.20	R	U
Uranium 235	15117-96-1	0.061	0.038	0.022	0.20	R	U
Uranium 238	7440-61-1	0.65	0.11	0.018	0.20	R	U
Plutonium 238	13981-16-3	0	0.012	0.027	0.050	U R	PU
Plutonium 239/240		0.006	0.023	0.027	0.050	U R	PU
Americium 241	14596-10-2	-0.004	0.022	0.038	0.050	U R	AM
Strontium 90	10098-97-2	-0.25	2.4	0.89	1.0	U	Y
Technetium 99	14133-76-7	2.5	2.3	6.1	5.0	U	TC
Tritium	10028-17-8	3300	270	230	400		H
Carbon 14	14762-75-5	23	30	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			120		U	GAM
Chromium 51	14392-02-0			230		U	GAM
Cobalt 60	10198-40-0			14		U	GAM
Zinc 65	17982-39-3			26		U	GAM
Cesium 134	17967-70-9			8.5		U	GAM
Cesium 137	10045-97-3			9.9		U	GAM
Radium 226	13982-67-7			19		U	GAM
Thorium 228	14274-82-9			17		U	GAM
Thorium 232	7440-29-1			42		U	GAM

DIK

10/13/92 RB

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.14
Report date	08/05/92

BJ 5/18/92

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-17

B06CL0

SDG 7040
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-17
Dept sample id 7040-017
Received 05/12/92
Client sample id B06CL0
Matrix WATER
Collected 05/16/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	-2.0	3.5	6.2	3.0	U R	80A
Gross Beta	Beta	7.6	1.6	2.0	4.0		80B
Uranium 233/234		1.5	0.17	0.036	0.20	R	U
Uranium 235	15117-96-1	0.063	0.034	0.020	0.20		U
Uranium 238	7440-61-1	1.4	0.16	0.028	0.20		U
Plutonium 238	13981-16-3	0.005	0.011	0.013	0.050	U	PU
Plutonium 239/240		0.008	0.011	0.013	0.050	U	PU
Americium 241	14596-10-2	0.004	0.044	0.068	0.050	U	AM
Strontium 90	10098-97-2	0.44	0.73	0.84	1.0	U	Y
Technetium 99	14133-76-7	0.80	4.7	2.8	5.0	U	TC
Tritium	10028-17-8	72000	1400	220	400		H
Carbon 14	14762-75-5	7.0	29	39	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			160		U	GAM
Chromium 51	14392-02-0			320		U	GAM
Cobalt 60	10198-40-0			12		U	GAM
Zinc 65	17982-39-3			28		U	GAM
Cesium 134	17967-70-9			13		U	GAM
Cesium 137	10045-97-3			11		U	GAM
Radium 226	13982-67-7			27		U	GAM
Thorium 228	14274-82-9			23		U	GAM
Thorium 232	7440-29-1			50		U	GAM

RB 10/13/92

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-16

B06CL6

SDG	7040	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N205092-16	Client sample id	B06CL6
Dept sample id	7040-016	Matrix	WATER
Received	05/12/92	Collected	05/16/92
		Chain of custody id	EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	1.1	2.4	3.5	3.0	~~U~~ R	80A
Gross Beta	Beta	2.9	2.4	3.7	4.0	U	80B
Uranium 233/234		0.73	0.12	0.037	0.20	~~U~~ R	U
Uranium 235	15117-96-1	0.039	0.029	0.023	0.20	~~U~~	U
Uranium 238	7440-61-1	0.69	0.11	0.019	0.20		U
Plutonium 238	13981-16-3	0.015	0.015	0.017	0.050	~~U~~	PU
Plutonium 239/240		0.007	0.007	0.017	0.050	~~U~~	PU
Americium 241	14596-10-2	0.019	0.023	0.038	0.050	~~U~~	AM
Strontium 90	10098-97-2	-2.7	7.4	2.7	1.0	U	Y
Technetium 99	14133-76-7	14	5.7	4.7	5.0		TC
Tritium	10028-17-8	250	150	220	400	J	H
Carbon 14	14762-75-5	25	29	38	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			290		U	GAM
Chromium 51	14392-02-0			340		U	GAM
Cobalt 60	10198-40-0			18		U	GAM
Zinc 65	17982-39-3			34		U	GAM
Cesium 134	17967-70-9			15		U	GAM
Cesium 137	10045-97-3			15		U	GAM
Radium 226	13982-67-7			26		U	GAM
Thorium 228	14274-82-9			23		U	GAM
Thorium 232	7440-29-1			59		U	GAM

R/B

10/13/91

BB 5/18/93

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.14
Report date	08/05/92

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-18

B06CM5

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-18
Dept sample id 7040-018
Received 05/12/92

Client sample id B06CM5
Matrix WATER
Collected 05/17/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	-2.3	3.4	6.0	3.0	~~U~~ R	80A
Gross Beta	Beta	18	2.1	2.2	4.0		80B
Uranium 233/234		1.2	0.21	0.034	0.20	R	U
Uranium 235	15117-96-1	0.027	0.036	0.041	0.20	~~U~~	U
Uranium 238	7440-61-1	0.90	0.18	0.034	0.20		U
Plutonium 238	13981-16-3	0.007	0.010	0.012	0.050	~~U~~	PU
Plutonium 239/240		0.005	0.010	0.012	0.050	~~U~~	PU
Americium 241	14596-10-2	-0.016	0.032	0.054	0.050	~~U~~	AM
Strontium 90	10098-97-2	6.9	1.4	0.84	1.0		Y
Technetium 99	14133-76-7	5.9	8.3	6.2	5.0	~~U~~ R	TC — yield
Tritium	10028-17-8	13000	480	230	400		H
Carbon 14	14762-75-5	42	30	39	50	J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			250		U	GAM
Chromium 51	14392-02-0			340		U	GAM
Cobalt 60	10198-40-0			15		U	GAM
Zinc 65	17982-39-3			30		U	GAM
Cesium 134	17967-70-9			14		U	GAM
Cesium 137	10045-97-3			16		U	GAM
Radium 226	13982-67-7			25		U	GAM
Thorium 228	14274-82-9			21		U	GAM
Thorium 232	7440-29-1			59		U	GAM

RB 10/13/6

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

9613442.0886

N205092-19

TMA NORCAL
REPORTING GROUP 7040
DATA SHEET

B06CM8

SDG 7040
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-19
Dept sample id 7040-019
Received 05/12/92
Client sample id B06CM8
Matrix WATER
Collected 05/17/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	3.7	3.0	3.6	3.0	R	80A
Gross Beta	Beta	6.7	1.8	2.4	4.0		80B
Uranium 233/234		1.9	0.21	0.027	0.20	R	U
Uranium 235	15117-96-1	0.095	0.041	0.023	0.20		U
Uranium 238	7440-61-1	1.0	0.15	0.027	0.20		U
Plutonium 238	13981-16-3	0.007	0.009	0.010	0.050	U	PU
Plutonium 239/240		0.007	0.009	0.010	0.050	U	PU
Americium 241	14596-10-2	-0.004	0.026	0.040	0.050	U	AM
Strontium 90	10098-97-2	-0.36	2.2	0.86	1.0	U	Y
Technetium 99	14133-76-7	2.7	4.6	5.3	5.0	R	TC — low yield
Tritium	10028-17-8	16	140	220	400	U	H
Carbon 14	14762-75-5	8.5	29	39	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			170		U	GAM
Chromium 51	14392-02-0			330		U	GAM
Cobalt 60	10198-40-0			14		U	GAM
Zinc 65	17982-39-3			30		U	GAM
Cesium 134	17967-70-9			13		U	GAM
Cesium 137	10045-97-3			12		U	GAM
Radium 226	13982-67-7			27		U	GAM
Thorium 228	14274-82-9			22		U	GAM
Thorium 232	7440-29-1			54		U	GAM

RB 10/13/91

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

5/12/92

9613442.0887

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-13

B06CN1

SDG 7040
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-13
Dept sample id 7040-013
Received 05/12/92
Client sample id B06CN1
Matrix WATER
Collected 05/17/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	-0.11	1.2	2.0	3.0	~~U~~ R	80A
Gross Beta	Beta	2.3	1.5	2.3	4.0	J	80B
Uranium 233/234		0.46	0.10	0.056	0.20	/ R	U
Uranium 235	15117-96-1	0.005	0.022	0.026	0.20	~~U~~	U
Uranium 238	7440-61-1	0.38	0.085	0.021	0.20	~~U~~	U
Plutonium 238	13981-16-3	0.005	0.010	0.023	0.050	~~U~~	PU
Plutonium 239/240		0	0.010	0.023	0.050	~~U~~	PU
Americium 241	14596-10-2	0	0.049	0.076	0.050	~~U~~	AM
Strontium 90	10098-97-2	0.18	0.25	0.77	1.0	U	Y
Technetium 99	14133-76-7	7.0	3.1	3.0	5.0		TC
Tritium	10028-17-8	260	150	220	400	J	H
Carbon 14	14762-75-5	31	30	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			190		U	GAM
Chromium 51	14392-02-0			280		U	GAM
Cobalt 60	10198-40-0			13		U	GAM
Zinc 65	17982-39-3			24		U	GAM
Cesium 134	17967-70-9			12		U	GAM
Cesium 137	10045-97-3			11		U	GAM
Radium 226	13982-67-7			20		U	GAM
Thorium 228	14274-82-9			17		U	GAM
Thorium 232	7440-29-1			49		U	GAM

10/13/91 RB

PBJ 5/16/92

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

TMA NORCAL
REPORTING GROUP 7040
DATA SHEET

N205092-01

B06CN7

SDG 7040
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-01
Dept sample id 7040-001
Received 05/12/92
Client sample id B06CN7
Matrix WATER
Collected 05/08/92
Chain of custody id EFL-1018

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	4.2	3.6	4.4	3.0	~~U~~ R	80A
Gross Beta	Beta	7.0	1.8	2.4	4.0		80B
Uranium 233/234		2.2	0.28	0.066	0.20	R	U
Uranium 235	15117-96-1	0.077	0.042	0.033	0.20	~~U~~	U
Uranium 238	7440-61-1	1.9	0.25	0.038	0.20		U
Plutonium 238	13981-16-3	0.002	0.024	0.037	0.050	~~U~~	PU
Plutonium 239/240		0.005	0.019	0.031	0.050	~~U~~	PU
Americium 241	14596-10-2	-0.010	0.013	0.031	0.050	~~U~~	AM
Strontium 90	10098-97-2	1.8	0.30	0.44	1.0		Y
Technetium 99	14133-76-7	4.7	2.8	2.6	5.0	J	TC
Tritium	10028-17-8	7500	370	230	400		H
Carbon 14	14762-75-5	45	33	43	50	J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			110		U	GAM
Chromium 51	14392-02-0			350		U	GAM
Cobalt 60	10198-40-0			21		U	GAM
Zinc 65	17982-39-3			33		U	GAM
Cesium 134	17967-70-9			13		U	GAM
Cesium 137	10045-97-3			13		U	GAM
Radium 226	13982-67-7			23		U	GAM
Thorium 228	14274-82-9			19		U	GAM
Thorium 232	7440-29-1			47		U	GAM

N.B 10/13/91

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

9613442.0889

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-02

B06CP0

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-02
Dept sample id 7040-002
Received 05/12/92

Client sample id B06CP0
Matrix WATER
Collected 05/08/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	-0.18	1.4	2.3	3.0	~~U~~ R	80A
Gross Beta	Beta	2.6	1.3	1.8	4.0	J	80B
Uranium 233/234		0.40	0.15	0.055	0.20	~~U~~ R	U
Uranium 235	15117-96-1	0.014	0.029	0.067	0.20	~~U~~	U
Uranium 238	7440-61-1	0.33	0.12	0.055	0.20		U
Plutonium 238	13981-16-3	0.043	0.043	0.043	0.050	~~U~~	PU
Plutonium 239/240		0	0.021	0.043	0.050	~~U~~	PU
Americium 241	14596-10-2	0.002	0.014	0.019	0.050	~~U~~	AM
Strontium 90	10098-97-2	0.30	0.27	0.66	1.0	U	Y
Technetium 99	14133-76-7	0.63	4.8	3.4	5.0	U	TC
Tritium	10028-17-8	700	170	220	400		H
Carbon 14	14762-75-5	15	31	41	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			250		U	GAM
Chromium 51	14392-02-0			420		U	GAM
Cobalt 60	10198-40-0			17		U	GAM
Zinc 65	17982-39-3			32		U	GAM
Cesium 134	17967-70-9			17		U	GAM
Cesium 137	10045-97-3			16		U	GAM
Radium 226	13982-67-7			27		U	GAM
Thorium 228	14274-82-9			21		U	GAM
Thorium 232	7440-29-1			58		U	GAM

RB 10/13/91

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

BJ 5/15/92

9613442.0890

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-03

B06CQ2

SDG 7040
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-03
Dept sample id 7040-003
Received 05/12/92
Client sample id B06CQ2
Matrix WATER
Collected 05/08/92
Chain of custody id EFL-1018

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	2.0	2.2	2.9	3.0	~~U~~ R	80A
Gross Beta	Beta	8.3	1.8	2.3	4.0		80B
Uranium 233/234		2.7	0.20	0.046	0.20	~~U~~ R	U
Uranium 235	15117-96-1	0.11	0.040	0.023	0.20	~~U~~	U
Uranium 238	7440-61-1	2.1	0.17	0.027	0.20	~~U~~	U
Plutonium 238	13981-16-3	0	0.016	0.037	0.050	~~U~~	PU
Plutonium 239/240		0	0.016	0.037	0.050	~~U~~	PU
Americium 241	14596-10-2	-0.025	0.020	0.051	0.050	~~U~~	AM
Strontium 90	10098-97-2	1.5	0.34	0.55	1.0		Y
Technetium 99	14133-76-7	-0.22	2.1	6.6	5.0	U	TC
Tritium	10028-17-8	7100	360	220	400		H
Carbon 14	14762-75-5	12	30	41	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			160		U	GAM
Chromium 51	14392-02-0			380		U	GAM
Cobalt 60	10198-40-0			13		U	GAM
Zinc 65	17982-39-3			25		U	GAM
Cesium 134	17967-70-9			13		U	GAM
Cesium 137	10045-97-3			14		U	GAM
Radium 226	13982-67-7			35		U	GAM
Thorium 228	14274-82-9			22		U	GAM
Thorium 232	7440-29-1	53	38				GAM

RB 10/5/92

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

9613442.0891

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-04

B06CR4

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-04
Dept sample id 7040-004
Received 05/12/92

Client sample id B06CR4
Matrix WATER
Collected 05/08/92
Chain of custody id EFL-1018

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	1.4	1.3	1.7	3.0	U R	80A
Gross Beta	Beta	1.5	1.2	1.8	4.0	U	80B
Uranium 233/234		0.44	0.091	0.059	0.20	R	U
Uranium 235	15117-96-1	0.022	0.026	0.029	0.20	U	U
Uranium 238	7440-61-1	0.33	0.075	0.017	0.20		U
Plutonium 238	13981-16-3	-0.020	0.028	0.050	0.050	U	PU
Plutonium 239/240		0.014	0.028	0.037	0.050	U	PU
Americium 241	14596-10-2	0.002	0.017	0.030	0.050	U	AM
Strontium 90	10098-97-2	0.10	0.21	0.54	1.0	U	Y
Technetium 99	14133-76-7	2.3	3.5	3.1	5.0	U	TC
Tritium	10028-17-8	620	170	230	400		H
Carbon 14	14762-75-5	11	31	41	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			110		U	GAM
Chromium 51	14392-02-0			290		U	GAM
Cobalt 60	10198-40-0			15		U	GAM
Zinc 65	17982-39-3			23		U	GAM
Cesium 134	17967-70-9			10		U	GAM
Cesium 137	10045-97-3			9.1		U	GAM
Radium 226	13982-67-7			17		U	GAM
Thorium 228	14274-82-9			24		U	GAM
Thorium 232	7440-29-1			39		U	GAM

RB 10/13/91

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

9613442.0892

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-06

B06CR7

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-06
Dept sample id 7040-006
Received 05/12/92

Client sample id B06CR7
Matrix WATER
Collected 05/10/92
Chain of custody id EFL-1018

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	2.2	2.3	3.0	3.0	~~U~~ R	80A
Gross Beta	Beta	6.7	1.8	2.4	4.0		80B
Uranium 233/234		1.7	0.18	0.039	0.20	~~U~~ R	U
Uranium 235	15117-96-1	0.10	0.038	0.018	0.20	~~U~~	U
Uranium 238	7440-61-1	1.3	0.15	0.029	0.20	~~U~~	U
Plutonium 238	13981-16-3	-0.019	0.045	0.078	0.050	~~U~~	PU
Plutonium 239/240		0	0.030	0.046	0.050	~~U~~	PU
Americium 241	14596-10-2	0.015	0.019	0.025	0.050	~~U~~	AM
Strontium 90	10098-97-2	-0.68	1.8	0.51	1.0	U	Y
Technetium 99	14133-76-7	1.7	2.1	5.6	5.0	U	TC
Tritium	10028-17-8	11000	430	220	400		H
Carbon 14	14762-75-5	30	32	42	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			99		U	GAM
Chromium 51	14392-02-0			300		U	GAM
Cobalt 60	10198-40-0			8.6		U	GAM
Zinc 65	17982-39-3			19		U	GAM
Cesium 134	17967-70-9			12		U	GAM
Cesium 137	10045-97-3			10		U	GAM
Radium 226	13982-67-7			20		U	GAM
Thorium 228	14274-82-9			19		U	GAM
Thorium 232	7440-29-1			40		U	GAM

RB
10/13/92

BBD
5/18/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

9613442.0893

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-14

B06CS0

SDG	7040	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N205092-14	Client sample id	B06CS0
Dept sample id	7040-014	Matrix	WATER
Received	05/12/92	Collected	05/17/92
		Chain of custody id	EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Gross Alpha	Alpha	3.3	2.4	2.7	3.0	/ R	80A
Gross Beta	Beta	7.3	1.6	2.0	4.0		80B
Uranium 233/234		1.7	0.23	0.065	0.20	/ R	U
Uranium 235	15117-96-1	0.064	0.051	0.030	0.20	/	U
Uranium 238	7440-61-1	1.1	0.17	0.035	0.20	/	U
Plutonium 238	13981-16-3	0	0.012	0.027	0.050	U	PU
Plutonium 239/240		0.012	0.012	0.027	0.050	U	PU
Americium 241	14596-10-2	0.003	0.006	0.022	0.050	U	AM
Strontium 90	10098-97-2	0.17	0.27	0.75	1.0	U	Y
Technetium 99	14133-76-7	2.1	3.2	3.9	5.0	U	TC
Tritium	10028-17-8	-130	130	220	400	U	H
Carbon 14	14762-75-5	39	30	39	50	J	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			120		U	GAM
Chromium 51	14392-02-0			260		U	GAM
Cobalt 60	10198-40-0			10		U	GAM
Zinc 65	17982-39-3			24		U	GAM
Cesium 134	17967-70-9			10		U	GAM
Cesium 137	10045-97-3			9.9		U	GAM
Radium 226	13982-67-7			21		U	GAM
Thorium 228	14274-82-9			18		U	GAM
Thorium 232	7440-29-1			38		U	GAM

RB 10/13/94

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.14
Report date	08/05/92

9613442.0894

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-07

B06CT5

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-07
Dept sample id 7040-007
Received 05/12/92

Client sample id B06CT5
Matrix WATER
Collected 05/10/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Uranium 233/234		1.0	0.15	0.048	0.20	R	U
Uranium 235	15117-96-1	0.031	0.031	0.034	0.20	U	U
Uranium 238	7440-61-1	0.86	0.13	0.020	0.20	B	U
Plutonium 238	13981-16-3	0.006	0.012	0.027	0.050	U	PU
Plutonium 239/240		0	0.012	0.027	0.050	U	PU
Americium 241	14596-10-2	-0.010	0.021	0.039	0.050	U	AM
Strontium 90	10098-97-2	-0.059	1.6	0.48	1.0	U	Y
Tritium	10028-17-8	2200	230	220	400		H
Carbon 14	14762-75-5	6.6	32	43	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			140		U	GAM
Chromium 51	14392-02-0			320		U	GAM
Cobalt 60	10198-40-0			16		U	GAM
Zinc 65	17982-39-3			52		U	GAM
Cesium 134	17967-70-9			11		U	GAM
Cesium 137	10045-97-3			11		U	GAM
Radium 226	13982-67-7	22	22				GAM
Thorium 228	14274-82-9			21		U	GAM
Thorium 232	7440-29-1			55		U	GAM

RB
10/13/91

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-08

B06CT7

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-08
Dept sample id 7040-008
Received 05/12/92

Client sample id B06CT7
Matrix WATER
Collected 05/10/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Uranium 233/234		1.1	0.14	0.050	0.20		U
Uranium 235	15117-96-1	0.043	0.035	0.029	0.20	J	U
Uranium 238	7440-61-1	0.89	0.13	0.017	0.20	B	U
Plutonium 238	13981-16-3	0	0.011	0.026	0.050	U	PU
Plutonium 239/240		0	0.011	0.026	0.050	U	PU
Americium 241	14596-10-2	-0.022	0.056	0.097	0.050	U	AM
Strontium 90	10098-97-2	0	1.7	0.51	1.0	U	Y
Tritium	10028-17-8	2600	240	220	400		H
Carbon 14	14762-75-5	17	31	41	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			250		U	GAM
Chromium 51	14392-02-0			410		U	GAM
Cobalt 60	10198-40-0			17		U	GAM
Zinc 65	17982-39-3			31		U	GAM
Cesium 134	17967-70-9			14		U	GAM
Cesium 137	10045-97-3			13		U	GAM
Radium 226	13982-67-7			28		U	GAM
Thorium 228	14274-82-9			23		U	GAM
Thorium 232	7440-29-1			57		U	GAM

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

9613442.0896

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-09

B06CT9

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-09
Dept sample id 7040-009
Received 05/12/92

Client sample id B06CT9
Matrix WATER
Collected 05/14/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Uranium 233/234		8.4	0.67	0.12	0.20	R	U
Uranium 235	15117-96-1	1.0	0.17	0.026	0.20		U
Uranium 238	7440-61-1	6.3	0.53	0.098	0.20		U
Plutonium 238	13981-16-3	0.014	0.014	0.034	0.050	U	PU
Plutonium 239/240		0.007	0.014	0.034	0.050	U	PU
Americium 241	14596-10-2	-0.057	0.066	0.13	0.050	U	AM
Strontium 90	10098-97-2	0.065	0.45	0.58	1.0	U	Y
Tritium	10028-17-8	300	150	220	400	J	H
Carbon 14	14762-75-5	18	31	42	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			240		U	GAM
Chromium 51	14392-02-0			340		U	GAM
Cobalt 60	10198-40-0			12		U	GAM
Zinc 65	17982-39-3			28		U	GAM
Cesium 134	17967-70-9			14		U	GAM
Cesium 137	10045-97-3			11		U	GAM
Radium 226	13982-67-7			24		U	GAM
Thorium 228	14274-82-9			33		U	GAM
Thorium 232	7440-29-1			53		U	GAM

RB 10/13/92

RB 5/18/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

N205092-10

B06CV5

SDG	7040	Client	Westinghouse Hanford
Contact	Dinkar Kharkar	Contract	MBH-SVV-069262
Lab sample id	N205092-10	Client sample id	B06CV5
Dept sample id	7040-010	Matrix	WATER
Received	05/12/92	Collected	05/14/92
		Chain of custody id	EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Uranium 233/234		0.62	0.13	0.073	0.20	R	U
Uranium 235	15117-96-1	0.007	0.027	0.044	0.20	U	U
Uranium 238	7440-61-1	0.45	0.10	0.026	0.20	B	U
Plutonium 238	13981-16-3	0.005	0.011	0.025	0.050	U	PU
Plutonium 239/240		0.005	0.011	0.025	0.050	U	PU
Americium 241	14596-10-2	0.003	0.027	0.047	0.050	U	AM
Strontium 90	10098-97-2	0	1.8	0.55	1.0	U	Y
Tritium	10028-17-8	-84	130	230	400	U	H
Carbon 14	14762-75-5	20	31	41	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			260		U	GAM
Chromium 51	14392-02-0			340		U	GAM
Cobalt 60	10198-40-0			15		U	GAM
Zinc 65	17982-39-3			37		U	GAM
Cesium 134	17967-70-9			16		U	GAM
Cesium 137	10045-97-3			15		U	GAM
Radium 226	13982-67-7			24		U	GAM
Thorium 228	14274-82-9			22		U	GAM
Thorium 232	7440-29-1			63		U	GAM

RB 10/13/93

PBD 5/12/93

Lab id	TMAN
Protocol	WHC-HEIS
Version	Ver 1.0
Form	DVD-DS
Version	2.14
Report date	08/05/92

N205092-11

TMA NORCAL
REPORTING GROUP 7040
DATA SHEET

B06CW3

SDG 7040
Contact Dinkar Kharkar
Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-11
Dept sample id 7040-011
Received 05/12/92
Client sample id B06CW3
Matrix WATER
Collected 05/14/92
Chain of custody id EFL-0057

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Uranium 233/234		1.5	0.19	0.043	0.20	R	U
Uranium 235	15117-96-1	0.044	0.033	0.026	0.20	U	U
Uranium 238	7440-61-1	1.5	0.19	0.021	0.20	B	U
Plutonium 238	13981-16-3	0.005	0.020	0.024	0.050	U	PU
Plutonium 239/240		0	0.010	0.024	0.050	U	PU
Americium 241	14596-10-2	-0.014	0.028	0.051	0.050	U	AM
Strontium 90	10098-97-2	-0.54	2.0	0.75	1.0	U	Y
Tritium	10028-17-8	4100	290	220	400		H
Carbon 14	14762-75-5	-9.9	30	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			140		U	GAM
Chromium 51	14392-02-0			310		U	GAM
Cobalt 60	10198-40-0			13		U	GAM
Zinc 65	17982-39-3			27		U	GAM
Cesium 134	17967-70-9			13		U	GAM
Cesium 137	10045-97-3			12		U	GAM
Radium 226	13982-67-7			24		U	GAM
Thorium 228	14274-82-9			21		U	GAM
Thorium 232	7440-29-1			45		U	GAM

PSD 5/18/93

10/13/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

N205092-20

TMA NORCAL

REPORTING GROUP 7040

DATA SHEET

B06CX1

SDG 7040
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N205092-20
Dept sample id 7040-020
Received 05/12/92

Client sample id B06CX1
Matrix WATER
Collected 05/15/92
Chain of custody id

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI-FIERS	TEST
Uranium 233/234		2.2	0.23	0.052	0.20	R	U
Uranium 235	15117-96-1	0.16	0.058	0.022	0.20	J	U
Uranium 238	7440-61-1	1.9	0.21	0.037	0.20		U
Plutonium 238	13981-16-3	0	0.013	0.031	0.050	U	PU
Plutonium 239/240		0.013	0.013	0.031	0.050	U	PU
Americium 241	14596-10-2	-0.010	0.020	0.038	0.050	U	AM
Strontium 90	10098-97-2	0.095	0.28	0.81	1.0	U	Y
Tritium	10028-17-8	1800	220	230	400		H
Carbon 14	14762-75-5	52	31	40	50		C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2			220		U	GAM
Chromium 51	14392-02-0			360		U	GAM
Cobalt 60	10198-40-0			14		U	GAM
Zinc 65	17982-39-3			30		U	GAM
Cesium 134	17967-70-9			15		U	GAM
Cesium 137	10045-97-3			14		U	GAM
Radium 226	13982-67-7			26		U	GAM
Thorium 228	14274-82-9			19		U	GAM
Thorium 232	7440-29-1			63		U	GAM

RB 10/13/91

PBD 5/12/93

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.14
Report date 08/05/92

9613442.0900

~~B06CP9-TMA-198~~
B06CV0-TMA-168

000002

CASE NARRATIVE

LABORATORY : TMA/ARLI

CASE : 05-069

CONTRACT ID : WESTINGHOUSE HANFORD COMPANY

SDG RECEIPT DATE : May 20, 1992

1.0 DESCRIPTION OF CASE :

Eight water samples were analyzed for TCL Organics-Volatiles, Semivolatiles, and Pesticide/PCBs according to the USEPA Contract Laboratory Program (CLP) Statement of Work for Organic Analysis, Revision OLM01.8.

2.0 SAMPLE LIST :

WESTINGHOUSE ID	LAB ID	ANALYSIS REQUESTED	MATRIX	pH
B06CP9	A2-05-069-01A	V	WATER	7
B06CP9	A2-05-069-01B	SV & P	WATER	
B06CP9 MS	A2-05-069-01C	SV & P	WATER	
B06CP9 MSD	A2-05-069-01D	SV & P	WATER	
B06CQ1	A2-05-069-02A	V	WATER	5
B06CQ1 MS	A2-05-069-02B	V	WATER	5
B06CQ1 MSD	A2-05-069-02C	V	WATER	5
B06CV4	A2-05-069-03A	V	WATER	5
B06CW2	A2-05-069-04A	V	WATER	5
B06CW6	A2-05-069-05A	V	WATER	5
B06CY4	A2-05-069-06A	V	WATER	5
B06CY8	A2-05-069-07A	V	WATER	5
B06CZ0	A2-05-069-08A	V	WATER	5

3.0 COMMENTS :

3.1 SHIPPING AND DOCUMENTATION :

All samples were received unbroken and properly documented. The chain of custody for sample B06CP9 reported that three 2-liter bottles were submitted for Semivolatile and Pesticide/PCB analyses. However, TMA/ARLI received two 4-liter bottles instead.

3.2 ANALYSIS

3.2.1 VOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

All of the samples were analyzed within the CLP SOW holding times. All of the QC results were within the limits specified by the EPA CLP SOW.

TUNES :

All of the BFB tunes are injected directly into the GC/MS instrument.

3.2.2 SEMIVOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

The samples were extracted and analyzed within the CLP SOW holding times. The matrix spike recoveries for 4-Nitrophenol in B06CP9MS and B06CP9MSD were above the QC limit.

All of the other QC results were within the limits specified by the CLP SOW.

3.2.3 PESTICIDE/PCB ANALYSIS COMMENTS :

SEQUENCE NOTES :

The sequence was started on 6/22/92 and was analyzed in accordance with the EPA CLP SOW. The instrument blanks, PEMs and calibration verification standards all met the requirements established by the EPA CLP SOW.

SAMPLE NOTES :

LOW LEVEL WATER :

The samples were extracted and analyzed within the CLP SOW holding times. All of the QC results were within the limits specified by the EPA CLP SOW.

We certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data in this hardcopy data package and in the computer-readable data submitted on diskette is authorized by the Laboratory Manager or his designee, as verified by the following signatures.

Nicole Roth
CLP Program Manager

Wida Ang
Organics Supervisor

9613442.0903

000005

EPA SAMPLE NO.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CP9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05069 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205069-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20526R05

Level: (low/med) LOW Date Received: 05/20/92

% Moisture: not dec. ____ Date Analyzed: 05/26/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

EPA SAMPLE NO.

B06CP9

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05069 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205069-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20526R05

Level: (low/med) LOW Date Received: 05/20/92

% Moisture: not dec. ____ Date Analyzed: 05/26/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.0905

000007

EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CQ1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05069 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205069-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20526R06

Level: (low/med) LOW Date Received: 05/20/92

% Moisture: not dec. ____ Date Analyzed: 05/26/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B06CQ1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05069 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205069-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20526R06

Level: (low/med) LOW Date Received: 05/20/92

% Moisture: not dec. ____ Date Analyzed: 05/26/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CV4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05069 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205069-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20526R09

Level: (low/med) LOW Date Received: 05/20/92

% Moisture: not dec. ____ Date Analyzed: 05/26/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

9613442.0908

000010
EPA SAMPLE NO.

B06CV4

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05069 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205069-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20526R09

Level: (low/med) LOW Date Received: 05/20/92

% Moisture: not dec. ____ Date Analyzed: 05/26/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.0909

000011

EPA SAMPLE NO.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

B06CW2

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05069 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205069-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20527R03

Level: (low/med) LOW Date Received: 05/20/92

% Moisture: not dec. ____ Date Analyzed: 05/27/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	25	B
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

EPA SAMPLE NO.

B06CW2

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05069 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205069-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20527R03

Level: (low/med) LOW Date Received: 05/20/92

% Moisture: not dec. ____ Date Analyzed: 05/27/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CW6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05069 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205069-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20526R11

Level: (low/med) LOW Date Received: 05/20/92

% Moisture: not dec. ____ Date Analyzed: 05/26/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

EPA SAMPLE NO.

B06CW6

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05069 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205069-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20526R11

Level: (low/med) LOW Date Received: 05/20/92

% Moisture: not dec. ____ Date Analyzed: 05/26/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CY4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05069 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205069-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20526R12

Level: (low/med) LOW Date Received: 05/20/92

% Moisture: not dec. ____ Date Analyzed: 05/26/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B06CY4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05069 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205069-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20526R12

Level: (low/med) LOW Date Received: 05/20/92

% Moisture: not dec. ____ Date Analyzed: 05/26/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CY8

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05069 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205069-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20526R13

Level: (low/med) LOW Date Received: 05/20/92

% Moisture: not dec. ____ Date Analyzed: 05/26/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B06CY8

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05069 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205069-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20526R13

Level: (low/med) LOW Date Received: 05/20/92

% Moisture: not dec. ____ Date Analyzed: 05/26/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CZ0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05069 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205069-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20526R14

Level: (low/med) LOW Date Received: 05/20/92

% Moisture: not dec. ____ Date Analyzed: 05/26/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B06CZ0

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05069 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205069-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 20526R14

Level: (low/med) LOW Date Received: 05/20/92

% Moisture: not dec. ____ Date Analyzed: 05/26/92

GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613442.0919

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000021
EPA SAMPLE NO.

B06CP9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05069 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205069-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20612N14

Level: (low/med) LOW Date Received: 05/20/92

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 05/23/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/13/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CP9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05069 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205069-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20612N14

Level: (low/med) LOW Date Received: 05/20/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/23/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/13/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)Anthracene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3	BJ
218-01-9	Chrysene	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B06CP9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05069 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205069-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 20612N14

Level: (low/med) LOW Date Received: 05/20/92

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 05/23/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 06/13/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 13

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown hydrocarbon	4.22	130	BJ
2. 108-88-3	Benzene, methyl-	5.63	28	BJ
3.	Unknown hydrocarbon	8.15	3	BJ
4.	Unknown hydrocarbon	9.70	35	BJ
5.	Unknown ketone	10.12	39	BJ
6.	Unknown alcohol	11.58	8	J
7.	Unknown hydrocarbon	12.83	4	J
8.	Unknown carboxylic acid este	15.88	4	J
9.	Unknown hydrocarbon	18.68	2	J
10.	Unknown hydrocarbon	18.78	2	J
11.	Unknown hydrocarbon	22.23	3	J
12.	Unknown carboxylic acid	22.37	5	J
13.	Unknown hydrocarbon	30.00	29	J

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B06CP9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 05069 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A205069-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 05/20/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 05/23/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 06/24/92

Injection Volume: 2.50 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-36-3	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

9613442.0923

000002

Westinghouse Hanford Company	CHAIN OF CUSTODY	ARL 1

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-18-92

Ice Chest No. SML-3

Field Logbook No. EFL-0057

Bill of Lading/Airbill No. 2509868075

Offsite Property No. W92-0-0399-S

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

* B06CP9

~~3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED~~

~~3, 1L, P, WATER, CLP-CYANIDE (NaOH)~~

3, 40ml, Gs, WATER, CLP-VOA

3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST

1, 500ml, G, WATER, ANIONS, pH

1, 500ml, G, WATER, CONDUCTIVITY

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

~~B06CQ0~~

~~3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED~~

B06CQ1

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: C. Celebrette C. CELEBRETTE	Received by: Refrig	Date/Time: 5/18/92 1600
Relinquished by:	Received by: B. WHITTEN	Date/Time: 5/19/92 0800
Relinquished by: B. WHITTEN	Received by: Kermit Blum	Date/Time: 5-20-92 1100
Relinquished by: 5-20-92 Kermit Blum	Received by: Tody Bernard	Date/Time: 5/21/92 1000

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

* RECEIVED 2 x 4 LITERS NOT 3 x 2 LITERS. by Semi-voa/PCB/Pest

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0924

000003

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

TASK NO 92-165

Collector L. D. Walker/K. D. Lee Date Sampled 5-18-92 Time 0920 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CP9	3, 1L, P ✓	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	~~3, 1L, P ✓~~	~~W~~	~~CLP - CN (NaOH)~~
	3, 40M, Gs ✓	W	CLP - VOA
*	3, 2L, G *	W	CLP - Semi-VOA/PCB/Pest ✓
	1, 500 ml, G ✓	W	ANions, pH
	1, 500ml, G ✓	W	Cond.
	~~2, 4L, P ✓~~	~~W~~	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99~~ ✓
	~~1, 500ml, P ✓~~	~~W~~	~~C-14~~
	~~1, 250 ml, G ✓~~	~~W~~	~~Tritium~~
~~B06CQ0~~	~~3, 1L, P ✓~~	~~W~~	~~CLP-ICP/AA Metals & Hg (HNO_3) filtered~~
B06CQ1	3, 40 ml, Gs ✓	W	CLP-VOA

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 5-20-92

Analysis Required

COC #250986007-5 OPC #W92-0-0399-2

9613442.0925

000004

Westinghouse Hanford Company	CHAIN OF CUSTODY	A-2L1

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5/18/92

Ice Chest No. KT-3

Field Logbook No. EFL-0057

Bill of Lading/Airbill No. 250986807-5

Offsite Property No. W92-0-0399-3

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

~~B06CV3~~

~~3, 1L, P, WATER, CLP-CYANIDE (NaOH)~~

~~2, 4L, P, WATER, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (HNO3)~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CV4

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: C. Culbert C. CULBERT	Received by: Refridg	Date/Time: 5/18/92 1600
Relinquished by:	Received by: Lee Whitten B WHITTEN	Date/Time: 5-19-92 1080
Relinquished by: Lee Whitten B. WHITTEN	Received by: Kermit Blum	Date/Time: 5-20-92 1100
Relinquished by: 5-20-92 Kermit Blum	Received by: T Bernard	Date/Time: 5/21/92 1000

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0926

000005

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST Task #92-165

PART I: FIELD SECTION

Collector KD Lee / LD Walker Date Sampled 5-18-92 Time 1032 hours

Company Contact PH Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
~~B0GCV3~~	~~3, 1L, P ✓~~	~~W~~	~~CLP Cyanide (NaOH)~~
	~~2, 4L, P ✓~~	~~W~~	~~Gross Gamma Spec, Alpha Spec (U-238, 235/238, Pu 238/239/240, Am-241), Sr 90 (HNO_3)~~
	~~1, 500ml, P ✓~~	~~W~~	~~C-14~~
	~~1, 250ml, G ✓~~	~~W~~	~~Tritium~~
B0GCV4	3, 40ml, Gs ✓	W	CLP-VOA 3 Rubbers

Field Information** DOC #: 2509868607-5
OPC #: W92-0-0399-3

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 5-20-92

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.
**Use back of page for additional information relative to sample location.

9613442.0927

000006

SC

Westinghouse Hanford Company	CHAIN OF CUSTODY	ARL 1

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-18-92

Ice Chest No. SML-118

Field Logbook No. EFL-0037

Bill of Lading/Airbill No. 0250986807-5

Offsite Property No. W92-0-0399-4

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

~~B06CW1~~

~~3, 1L, P, WATER, CLP-CYANIDE (NaOH)~~
~~2, 4L, P , WATER, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (HNO3)~~
~~1, 500ml, P, WATER, C-14~~
~~1, 250ml, G, WATER, TRITIUM~~

B06CW2

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker LD Walker	Received by: Refrigerator	Date/Time: 5-18-92/1600
Relinquished by:	Received by: B WHITTEN	Date/Time: 5-19-92 0800
Relinquished by: B. WHITTEN	Received by: Kermit Blum	Date/Time: 5-20-92 1100
Relinquished by: 5-20-92 Kermit Blum	Received by: Tody Bernard	Date/Time: 5/21/92 1000

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0928

000007

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST Task #92-165

PART I: FIELD SECTION

Collector KDLee / LD Walker Date Sampled 5-18-92 Time 0915 hours

Company Contact PH Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
~~B06CW1~~	~~3, 1L, P ✓~~	~~W~~	~~CLP Cyanide (NaOH)~~
	~~2, 4L, P ✓~~	~~W~~	~~Gross Gamma Spec, Alpha Spec (U-234/235/238, Pu-238/239/240, Am-241),~~
			~~Sr-90 (HNO_3)~~
	~~1, 500ml, P ✓~~	~~W~~	~~C-14~~
	~~1, 250ml, G ✓~~	~~W~~	~~Tritium~~
B06CW2	3, 40ml, Gs ✓	W	CLP-VOA

Field Information** DOC #: 2509866607-5

OPC #: W92-0-0399-[redacted]4

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 5-20-92

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-405 (05/90)

2 c

9613442.0929

000008

Westinghouse Hanford Company	CHAIN OF CUSTODY	A2L1

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-18-92

Ice Chest No. SML-149

Field Logbook No. EFL-0057

Bill of Lading/Airbill No. 250986807-5

Offsite Property No. W92-O-0399-3

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

~~B0GCW5~~

~~2, 1L, P, WATER, CLP CYANIDE (NaOH)~~

~~2, 4L, P, WATER, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr 90 (HNO3)~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B0GCW6

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker	Received by: Refrigerator	Date/Time: 5-18-92/1600
Relinquished by:	Received by: B. WHITEN	Date/Time: 5-19-92 0800
Relinquished by: B WHITEN	Received by: Kermit Blum	Date/Time: 5-20-92 1100
Relinquished by: 5-20-92 Kermit Blum	Received by: Tody Bennett	Date/Time: 5/21/92 1000

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0930

000009

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST Task #92-165

PART I: FIELD SECTION

Collector KDLee / LD Walker Date Sampled 5-18-92 Time 1030 hours

Company Contact PH Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CW5	~~3, 1L, P ✓~~	~~W~~	~~CLP Cyanide (NaOH)~~
	~~2, 4L, P ✓~~	~~W~~	~~Gross Gamma Spec, Alpha Spec (U-238/235/238, Pu-238/239/240, Am-241), Sr 90 (HNO3)~~
	~~1, 500ml, P ✓~~	~~W~~	~~C-14~~
	~~1, 250ml, G ✓~~	~~W~~	~~Tritium~~
B06CW6	3, 40ml, Gs ✓	W	CLP-VOA 1 = bubble

Field Information** BOC #: 2509868075

OPC #: W92-0-0399-3

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 5-20-92

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9613442.0951

R c

000010

Westinghouse Hanford Company	CHAIN OF CUSTODY	ARL 1

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Project Designation/Sampling Locations 100-HR-3

Ice Chest No. Blk Boy

Bill of Lading/Airbill No. 250986807-5

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045

Collection Date 5/18/92

Field Logbook No. EFL-0057

Offsite Property No. W92-0-0399-5

Sample Identification

~~B06CY3~~

~~3, 1L, P, WATER, CLP-CYANIDE (NaOH)~~

~~2, 4L, P, WATER, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (HNO3)~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CY4

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: C. Gilbert C. GILBERT	Received by: Refridg	Date/Time: 5/18/92 1600
Relinquished by:	Received by: B. WHITTEN	Date/Time: 5/19/92 0800
Relinquished by: B. WHITTEN	Received by: Kermit Blum	Date/Time: 5-20-92 1100
Relinquished by: Kermit Blum	Received by: Tody Bernard	Date/Time: 5/21/92 1000

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0952

000011

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST Task #92-165

PART I: FIELD SECTION

Collector KDLee / LD Walker Date Sampled 5-18-92 Time 1400 hours

Company Contact PH Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
~~BOGCY3~~	~~3, 1L, P ✓~~	~~W~~	~~CLP Cyanide (NaOH)~~
	~~2, 4L, P ✓~~	~~W~~	~~Gross Gamma Spec, Alpha Spec (U-234/235/238, Pu 238/239/240, Am-241),~~
			~~Sr 90 (HNO_3)~~
	~~1, 500ml, P~~	~~W~~	~~C-14~~
	~~1, 250ml, G~~	~~W~~	~~Tritium~~
BOGCY4	3, 40ml, Gs ✓	W	CLP-VOA

Field Information** DOC #: 250986607 5

OPC #: W92-0-0399-2

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 5-20-92

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9613442.0933

000012

Westinghouse Hanford Company	CHAIN OF CUSTODY	AKL 1

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-18-92

Ice Chest No. SML-142

Field Logbook No. EFL-0057

Bill of Lading/Airbill No. 2509868075

Offsite Property No. W92-0-0399-4

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

~~B0GC47~~

~~3, 1L, P, WATER, CLP-CYANIDE (NaOH)~~

~~2, 4L, P , WATER, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am 241), Sr-90 (HNO3)~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B0GC49

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker LD Walker	Received by: Refrigerator	Date/Time: 5-18-92 / 1600
Relinquished by:	Received by: B. WHITTER	Date/Time: 5-19-92 0800
Relinquished by: B. WHITTER	Received by: Kermit Blum	Date/Time: 5-20-92 1100
Relinquished by: 5-20-92 Kermit Blum	Received by: Toby Bennett	Date/Time: 5/21/92 1000

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0934

000013

Westinghouse Hanford Company

2°C @ NORCAL

SAMPLE ANALYSIS REQUEST

Task #92-165

PART I: FIELD SECTION

Collector KD Lee / LD Walker

Date Sampled 5-18-92 Time 12:15 hours

Company Contact PH Butcher

Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
~~B06CY7~~	~~✓3, 1L, P~~	~~W~~	~~CLP Cyanide (NaOH)~~
	~~✓2, 4L, P~~	~~W~~	~~Gross Gamma Spec, Alpha Spec (U-234/235/238, Pu-238/239/240, Am-241),~~
			~~Sr-90 (HNO_3)~~
	~~✓1, 500ml, P~~	~~W~~	~~C-14~~
	~~✓1, 250ml, G~~	~~W~~	~~Tritium~~
B06CY8	✓3, 40ml, Gs	W	CLP-VOA

Field Information** BOL #: 2509866607-5

OPC #: W920-0399-4

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 5-20-92

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

A-6000-406 (05/90)

9613442.0935

000014

Westinghouse Hanford Company	CHAIN OF CUSTODY ARL 1

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-18-92

Ice Chest No. SML-72

Field Logbook No. EFL-0057

Bill of Lading/Airbill No. 250986807 5

Offsite Property No. W92-0-0399-5

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

~~B0C4K9~~

~~3, 1L, P, WATER, CLP-CYANIDE (NaOH)~~

~~2, 4L, P, WATER, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90 (HNO3)~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B0C6Z0

3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: LD Walker L.D. Walker	Received by: Refrigerator	Date/Time: 5-18-92 / 1600
Relinquished by:	Received by: B. WHITTEN	Date/Time: 5-19-92 0800
Relinquished by: B. WHITTEN	Received by: Hermit Blum	Date/Time: 5-20-92 1100
Relinquished by: 5-20-92 Hermit Blum	Received by: Tody Bernard	Date/Time: 5/21/92 1000

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0936 °C @ Norcal

000015

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST Task #92-165

PART I: FIELD SECTION

Collector KD Lee / LD Walker Date Sampled 5-18-92 Time 1334 hours

Company Contact PH Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CY9	✓ 3, 1L, P	W	~~CLP Cyanide (NaOH)~~
	✓ 2, 4L, P	W	~~Gross Gamma Spec, Alpha Spec (U-234/235/238, Pu-238/239/240, Am-241),~~
			~~Sr 90 (HNO_3)~~
	✓ 1, 500ml, P	W	~~C-14~~
	✓ 1, 250ml, G	W	~~Tritium~~
B06CZ0	✓ 3, 40ml, Gs	W	CLP-VOA

Field Information** BOC #: 250986807-5
OPC #: W92-0-0359-5

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 5-20-92

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.
**Use back of page for additional information relative to sample location.

A-6000-405 (05/90)

SAMPLE LOG-IN SHEET

LAB NAME : TMA/ARLI

PAGE : 1 OF 1

RECEIVED BY (PRINT NAME): Tody Bernard

LOG-IN-DATE : 5/21/97

RECEIVED BY (SIGNATURE): Tody Bernard

CASE NUMBER:

SAMPLE DELIVERY GROUP NO.:

SAS NUMBER:

REMARKS:

1. Custody Seal(s) Present/Absent* Intact/Broken
2. Custody Seal Nos:
3. Chain of Custody Records Present/Absent*
4. Traffic Reports or Packing List Present/Absent*
5. Airbill Airbill/Sticker Present/Absent*
6. Airbill No.:
7. Sample Tags Present/Absent*
8. Sample Tags Numbers Listed/Not Listed on Chain of Custody
9. Sample Condition: Intact/Broken*/Leaking
10. Does information on custody records, traffic reports, and sample tags agree Yes/No*
11. Date Recieved at Lab: 5/21/97
12. Temp of ice chest 4.1 °C
13. Time Recieved: 10:00 AM

SAMPLE TRANSFER

Fraction:

Area #:

By:

On:

EPA SAMPLE #	CORRESPONDING SAMPLE TAG #	CORRESPONDING ASSIGNED LAB #	REMARKS: CONDITION OF SAMPLE SHIPMENT, ETC.
	B0LCP9	A2-05-069-01	
	B0LCQ1	A2-05-069-02	
	B0LCV4	A2-05-069-03	
	B0LCW7	A2-05-069-04	
	B0LCW0	A2-05-069-05	
	B0LCY4	A2-05-069-06	
	B0LCY8	A2-05-069-07	
	B0LCZ0	A2-05-069-08	

* Contact SMO and attach record of resolution

Reviewed By:

Date:

Logbook No.:

Logbook Page No.:

FORM DC-1

DOC2/LOGIN.TBL

GENERAL CHEMISTRY RESULTS

CASE NO. 05-069

Water Sample #:

B06CP9

CASE NARRATIVE

No problems were encountered during sample analysis.
All QC results were acceptable.

Ernesto Vazquez

9613442.0959

000019

TMA Inc. REPORT Work Order # A2-05-069

Received: 05/20/92 07/29/92 14:01:51

REPORT TO: Westinghouse Hanford Company
2355 Stevens Dr.
Richland,WA,99352
MO-346/200 West/T6-08
ATTEN: Jeanette Duncan

PREPARED BY: Thermo Analytical, Inc.
160 Taylor Street
Monrovia, CA 91016
ATTEN: Ms. Carole Harris
PHONE: 818-357-3247

CERTIFIED BY: Ernesto Higuera
CONTACT: EVV CIH

CLIENT: WHC SAMPLES: 8
COMPANY: Westinghouse Hanford Company
FACILITY:

This report is for the sole and exclusive use of the client to whom it is addressed and represents only those samples herein described. Samples not destroyed in testing are retained a maximum of 30 days unless otherwise requested.

WORK ID: 100-HR-3
TAKEN: By Westinghouse Staff
TRANS: Federal Express
TYPE: Liquid
P.O. #: N2-05-125-SU-AR
INV. #: 615856

SAMPLE IDENTIFICATION

01	B06CP9
01	B06CP9 MS
01	B06CP9 MSD
01	B06CP9
01	B06CP9 MS
01	B06CP9 Duplicate
01	B06CP9
01	B06CP9 Duplicate
02	B06CQ1
02	B06CQ1 MS
02	B06CQ1 MSD
03	B06CV4
04	B06CW2
05	B06CW6
06	B06CY4
07	B06CY8
08	B06CZ0

TEST CODES and NAMES used on this workorder

BNCLPW	CLP Semivol. Water WH020
CL	Chloride
F W	Fluoride in Water
NO2	Nitrite (Liquids)
NO3 W	Nitrate (Water)
PECLPL	CLP Pesticides Liq.-WH019
PO4 L	Phosphate in Liquids
SO4 W	Sulfate (in Waters)
VOCLPL	CLP Volatile Org.Liq.WH018
WCCLPL	Anions & Wet Chem. - WH043
WCL L	Chloride - WH120
WCQCD	Quality Control Summary
WCQCS	Quality Control Summary
WF L	Fluoride in Water
WNO2 L	Nitrite (Liquids)
WNO3 L	Nitrate (Water)
WPH L	pH of Liquid - WH121
WPO4 L	Phosphate in Liquids
WSO4 L	Sulfate (in Waters)
W COND	Conductivity-Water WH135

9613442.0940

000020

TMA Inc. REPORT Work Order # A2-05-069

Received: 05/20/92

Results by Sample

SAMPLE ID B06CP9 FRACTION 01E TEST CODE WCCLPL NAME Anions & Wet Chem. - VH043

Date & Time Collected 05/18/92 Category

ANIONS AND WET CHEMISTRY - LIQUIDS

ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Fluoride	300	0.5	mg/L	0.1
Chloride	300	17.2	mg/L	0.2
Nitrite	300	<0.1	mg/L	0.1
Nitrate	300	8.4	mg/L	0.2
Sulfate	300	88	mg/L	1.0
Phosphate	300	<0.4	mg/L	0.4
Elect. Conductivity	120.1	452	umho/cm	6
pH	150.1	8.2	pH	0.1

FORM I

9613442.0941

TMA
Thermo Analytical Inc.

300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200
FAX (617) 890-3883

AUG 1992
RECEIVED
OSM DMO

June 25, 1992

TMA/NORCAL
2030 Wright Avenue
Richmond, CA 94804
Attention: Dan Stuermer

Quality Control Narrative

Scope
Four (4) water samples were submitted to TMA/Skinner & Sherman Laboratories, Inc. on May 21-22, 1992 from Westinghouse/Hanford Company. The samples were analyzed for the USEPA CLP Target Analyte List metals. The analysis was performed under Skinner and Sherman work order S205237.

Methodology
The samples were prepared, analyzed and reported in accordance with the USEPA Contract Laboratory Program Statement of Work 7/88 (CLP SOW788).

Discussion
All quality control requirements were met for the samples with the following exceptions:

The selenium and thallium digestion spike recovery exceeded the control limit requirements.

Please feel free to call if there are any questions concerning the data package.

Respectfully submitted,

TMA/SKINNER & SHERMAN LABORATORIES, INC.

David N. Peterson
Assistant Laboratory Manager

1/17/96 M.H.

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B06CG2

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-125SAS No.: SDG No.: B06CG2

Matrix (soil/water): WATER Lab Sample ID: 05237-02S

Level (low/med): LOW Date Received: 05/21/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.00	U		P
7440-36-0	Antimony	16.00	U		P
7440-38-2	Arsenic	8.40	B	W	F
7440-39-3	Barium	40.40	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U		P
7440-70-2	Calcium	27700.00			P
7440-47-3	Chromium	12.50			P
7440-48-4	Cobalt	3.00	U		P
7440-50-8	Copper	2.00	U		P
7439-89-6	Iron	31.20	B		P
7439-92-1	Lead	1.70	B		F
7439-95-4	Magnesium	10700.00			P
7439-96-5	Manganese	127.00			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	6.00	B		P
7440-09-7	Potassium	4880.00	B		P
7782-49-2	Selenium	20.00	U	WN	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	21200.00			P
7440-28-0	Thallium	1.00	U	WN	F
7440-62-2	Vanadium	14.40	B		P
7440-66-6	Zinc	11.00	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B06CH7

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-125$AS No.: SDG No.: B06CG2

Matrix (soil/water): WATER Lab Sample ID: 05237-03S

Level (low/med): LOW Date Received: 05/21/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.00	U		P
7440-36-0	Antimony	16.00	U		P
7440-38-2	Arsenic	2.20	B		F
7440-39-3	Barium	43.30	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U		P
7440-70-2	Calcium	41100.00			P
7440-47-3	Chromium	21.00			P
7440-48-4	Cobalt	3.00	U		P
7440-50-8	Copper	2.00	U		P
7439-89-6	Iron	165.00			P
7439-92-1	Lead	2.50	B		F
7439-95-4	Magnesium	10400.00			P
7439-96-5	Manganese	21.40			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	11.90	B		P
7440-09-7	Potassium	3480.00	B		P
7782-49-2	Selenium	4.00	U	WN	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	13000.00			P
7440-28-0	Thallium	1.00	U	WN	F
7440-62-2	Vanadium	2.00	B		P
7440-66-6	Zinc	11.00	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B06CJ3

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-125SAS No.: SDG No.: B06CG2

Matrix (soil/water): WATER Lab Sample ID: 05237-04S

Level (low/med): LOW Date Received: 05/21/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.00	U		P
7440-36-0	Antimony	16.00	U		P
7440-38-2	Arsenic	3.10	B		F
7440-39-3	Barium	60.80	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U		P
7440-70-2	Calcium	76100.00			P
7440-47-3	Chromium	122.00			P
7440-48-4	Cobalt	3.00	U		P
7440-50-8	Copper	2.00	U		P
7439-89-6	Iron	23.00	U		P
7439-92-1	Lead	1.20	B		F
7439-95-4	Magnesium	16800.00			P
7439-96-5	Manganese	86.40			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	4.50	B		P
7440-09-7	Potassium	4790.00	B		P
7782-49-2	Selenium	4.00	U	WN	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	11700.00			P
7440-28-0	Thallium	1.00	U	WN	F
7440-62-2	Vanadium	5.90	B		P
7440-66-6	Zinc	11.00	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN Rev.6/89

9613442.0945

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B06CQ0

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-125SAS No.: SDG No.: B06CG2

Matrix (soil/water): WATER Lab Sample ID: 05237-01S

Level (low/med): LOW Date Received: 05/21/92

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.00	U		P
7440-36-0	Antimony	16.00	U		P
7440-38-2	Arsenic	5.00	B		F
7440-39-3	Barium	77.50	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	2.00	U		P
7440-70-2	Calcium	60200.00			P
7440-47-3	Chromium	44.80			P
7440-48-4	Cobalt	3.00	U		P
7440-50-8	Copper	2.00	U		P
7439-89-6	Iron	35.70	B		P
7439-92-1	Lead	1.00	U		F
7439-95-4	Magnesium	15800.00			P
7439-96-5	Manganese	175.00			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	9.30	B		P
7440-09-7	Potassium	6550.00			P
7782-49-2	Selenium	4.00	U	WN	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	27600.00			P
7440-28-0	Thallium	1.00	U	WN	F
7440-62-2	Vanadium	2.00	U		P
7440-66-6	Zinc	123.00			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

005

TMA/Skinner & Sherman Labs SAMPLE LOG-IN
WORKORDER 92-09-237 CLIENT HANFORD-NOR No. SAMPLES:
PROTCL CLP TURNARND 33 days (Soil) 4 (Water) (Specify Other)
COOLER TEMP: 4 oC, or NA
CUSTODIAN Benney A. SDG/BATCH
CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT CLIENT CASE N2-05-125,138
SHIPER & # Fedex # 2521033093 PO/CONTRACT# ✓
TAGS: PRESENT/ABSENT/NA/SEE COC CONTACT Dolores Sanchez
CHAIN OF CUSTODY: PRESENT/ABSENT/NA, # N/A COMMENTS: NONE

SAMPLE CONTAINERS INTACT/BROKEN COMMENTS

CLIENT COMMENT? YES/NO
SAMPLE LABELS AGREE WITH CHAIN OF CUSTODY INFO? YES/NO (COMMENT)
CLIENT PAPERWORK AGREES WITH SAMPLES & COC? YES/NO (COMMENT)

SHIPMENT DATES 5.21.92 5.22.92
LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM:

Field Filtered

	CLIENT ID	MATRIX	RECEIVED	QC	TEST(S)	HOLD TIME UP
1	BØ6CQO	WATER	5.21.92	D,S	TM	5.18
2	G2	↓	5.22.92		↓	5.19
3	H7	↓	↓		↓	↓
4	J3	↓	↓		↓	
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						

complete

Samples are from site known to have Rad-Contamination: YES X NO
Samples have detectable amounts of Radioactive Material: YES NO X
SUBCONTRACT: YES/NO TO: DATE:
REVIEWED Rev. 1.4 PAGE 108

9613442.0947

3S_1

Westinghouse Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-19-92

Ice Chest No. Alpha 6

Field Logbook No. EFL-1018

Bill of Lading/Airbill No. 2509868108

Offsite Property No. W92-0-0399-6

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CG1

1 ~~3~~, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED

1 ~~3~~, 1L, P, WATER, CLP-CYANIDE (NaOH)

~~3, 40ml, Gs, WATER, CLP-VOA~~

~~3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST~~

~~1, 500ml, G, WATER, ANIONS, pH~~

~~1, 500ml, G, WATER, CONDUCTIVITY~~

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CG2

1 ~~3~~, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

~~B06CG3~~

~~3, 40ml, Gs, WATER, CLP-VOA~~

~~B06CT4~~

~~3, 40ml, Gs, Water, CLP-VOA~~ LW 5-19-92

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker LD Walker	Received by: Refrigerator	Date/Time: 5-19-92
Relinquished by:	Received by: Bill Whitten B. WHITTEN	Date/Time: 5-20-92 0800
Relinquished by: Bill Whitten B. WHITTEN	Received by: Elby K. Yamamoto	Date/Time: 5/21/92 10:30 AM
Relinquished by: 5/21/92 Elby K. Yamamoto	Received by: [illegible]	Date/Time: 5/22/92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613942.0948

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

TASK NO 92-165

Collector L. D. Walker/K. D. Lee Date Sampled 5-19-92 Time 0916 hours

Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CG1	1~~3~~, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	1~~3~~, 1L, P	W	CLP - CN (NaOH)
	~~3, 40M, Gs~~	~~W~~	~~CLP - VOA~~
	~~3, 2L, G~~	~~W~~	~~CLP - Semi VOA/PCB/Pest~~
	~~1, 500 ml, G~~	~~W~~	~~ANions, pH~~
	~~1, 500ml, G~~	~~W~~	~~Cond.~~
	2, 4L, P	W	Gross Alpha/Beta, Gamma Spec, Alpha ~~Spec (U-234/235/238, Pa-238/239/240 Am 241); Sr-90, Tc-99~~
	~~1, 500ml, P~~	~~W~~	~~C-14~~
	~~1, 250 ml, G~~	~~W~~	~~Tritium~~
B06CG2	1~~3~~, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
~~B06CG3~~	~~3, 40 ml, Gs~~	~~W~~	~~CLP-VOA~~

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elby J. Yamamoto Title Sample Control Tech. Date 5/21/92

Analysis Required

BOL # 250986810 6 OPC # W92-0-0399-8

9613442.0949

Westinghouse Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-19-92

Ice Chest No. SML-122

Field Logbook No. EFL-1018

Bill of Lading/Airbill No. 2509868108

Offsite Property No. W92-0-0399-G

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B06CH6

13, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED

13, 1L, P, WATER, CLP-CYANIDE (NaOH)

~~3, 40ml, Gs, WATER, CLP-VOA~~

~~3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST~~

~~1, 500ml, G, WATER, ANIONS, pH~~

~~1, 500ml, G, WATER, CONDUCTIVITY~~

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CH7

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

~~B06CH8~~

~~3, 40ml, Gs, WATER, CLP-VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker LD Walker	Received by: Refrigerator	Date/Time: 5-19-92 / 1246
Relinquished by:	Received by: Bill Whitten B.WHITTEN	Date/Time: 5-20-92 0800
Relinquished by: Bill Whitten B.WHITTEN	Received by: Elby G. Yamamoto	Date/Time: 5/21/92 10:30 AM.
Relinquished by: 5/21/92 Elby G. Yamamoto	Received by: [illegible]	Date/Time: 5/22/92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9615442.0950

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION TASK NO 92-165

Collector L. D. Walker/K. D. Lee Date Sampled 5-19-92 Time 1050 hours

Company Contact P H Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CH6	3, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered — 2
	3, 1L, P	W	CLP - CN (NaOH) — 2
	~~3, 40M, Gs~~	~~W~~	~~CLP - VOA~~
	~~3, 2L, G~~	~~W~~	~~CLP - Semi-VOA/PCB/Pest~~
	~~1, 500 ml, G~~	~~W~~	~~ANions, pH~~
	~~1, 500ml, G~~	~~W~~	~~Cond.~~
	~~2, 4L, P~~	~~W~~	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P~~	~~W~~	~~C 14~~
	~~1, 250 ml, G~~	~~W~~	~~Tritium~~
B06CH7	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered — 2
~~B06CH8~~	~~3, 40 ml, Gs~~	~~W~~	~~CLP VOA~~

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elby G. Yamamoto Title Sample Control Technician Date 5/21/92

Analysis Required

BOL # 250986810 8 OPC # W920-0399-6

112

9613442.0951

Westinghouse Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Project Designation/Sampling Locations 100-HR-3

Ice Chest No. SML-111

Bill of Lading/Airbill No. 2509868108

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045

Collection Date 5/19/92

Field Logbook No. EFL 6057 p14

Offsite Property No. W92-0-0399-7

Sample Identification

B06CJ2

1 ~~3~~, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED

1 ~~3~~, 1L, P, WATER, CLP-CYANIDE (NaOH)

~~3, 40ml, Gs, WATER, CLP VOA~~

~~3, 2L, G, WATER, CLP SEMI VOA/PCB/PEST~~

~~1, 500ml, G, WATER, ANIONS, pH~~

~~1, 500ml, G, WATER, CONDUCTIVITY~~

~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~

~~1, 500ml, P, WATER, C-14~~

~~1, 250ml, G, WATER, TRITIUM~~

B06CJ3

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

~~B06CJ4~~

~~3, 40ml, Gs, WATER, CLP-VOA~~

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: C. Celiberti C. CELIBERTI	Received by: RefRib	Date/Time: 5/19/92 1240
Relinquished by: Elby H. Yamamoto	Received by: Bill Whitten B. WHITTEN	Date/Time: 5-20-92 0800
Relinquished by: Bill Whitten B WHITTEN	Received by: Elby H. Yamamoto	Date/Time: 5/21/92 10:30 AM
Relinquished by:	Received by: [illegible]	Date/Time: 5/22/92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9613442.0952

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION TASK-92-165

Collector L. D. Walker/K. D. Lee Date Sampled 5-19-92 Time 0736 hours

Company Contact P H Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B06CJ2	~~3~~, 1L, P	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	~~3~~, 1L, P	W	CLP - CN (NaOH)
	~~3, 40M, Gs~~	~~W~~	~~CLP - VOA~~
	~~3, 2L, G~~	~~W~~	~~CLP Semi-VOA/PCB/Pest~~
	~~1, 500 ml, G~~	~~W~~	~~ANions, pH~~
	~~1, 500ml, G~~	~~W~~	~~Cond.~~
	~~2, 4L, P~~	~~W~~	~~Gross Alpha/Beta, Gamma Spec, Alpha Spec (U-234/235/238, Pa-238/239/240 Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P~~	~~W~~	~~C-14~~
	~~1, 250 ml, G~~	~~W~~	~~Tritium~~
B06CJ3	3, 1L, P	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
~~B06CJ4~~	~~3, 40 ml, Gs~~	~~W~~	~~CLP-VOA~~

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Elby J. Yamamoto Title Sample Control Tech. Date 5/21/92

Analysis Required

BOL # 2509866108 OPC #W92-0-0399-7

114

9613442.0953

Westinghouse Hanford Company	CHAIN OF CUSTODY	S & S

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-HR-3

Collection Date 5-18-92

Ice Chest No. SML-3

Field Logbook No. EFL-0057

Bill of Lading/Airbill No. 2509868075

Offsite Property No. W92-0-0399-5

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

* B06CP9

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) UNFILTERED
3, 1L, P, WATER, CLP-CYANIDE (NaOH)
~~3, 40ml, Gs, WATER, CLP-VOA~~
~~3, 2L, G, WATER, CLP-SEMI-VOA/PCB/PEST~~
~~1, 500ml, G, WATER, ANIONS, pH~~
~~1, 500ml, G, WATER, CONDUCTIVITY~~
~~2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-234/235/238, Pu-238/239/240, Am-241), Sr-90, Tc-99~~
~~1, 500ml, P, WATER, C-14~~
~~1, 250ml, G, WATER, TRITIUM~~

B06CQ0

3, 1L, P, WATER, CLP-ICP/AA METALS & MERCURY (HNO3) FILTERED

~~B06CQ1~~

~~3, 40ml, Gs, WATER, CLP-VOA~~

[] Field Transfer of Custody — Chain of Possession — (Sign and Print Names)

Relinquished by:	Received by:	Date/Time:
C. Celiberti C. CELIBERTI	Refrid	5/18/92 1600
Relinquished by:	Received by: B. WHITTEN	Date/Time: 5/19/92 0800
Relinquished by: B. WHITTEN	Received by: Kermit Blum	Date/Time: 5-20-92 1100
Relinquished by: Kermit Blum 5-20-92	Received by:	Date/Time: 5/21/92 9:30

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:

Comments:

* RECEIVED 2 x 4 LITERS NOT 3 x 2 LITERS. by Semi-voa/PCB/Pest

A-6000-407 (12/90) (EF) WEF061
Chain of Custody

9615442.0954

Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

TASK NO 92-165

Collector L. D. Walker/K. D. Lee Date Sampled 5-18-92 Time 0920 hours

Company Contact P H Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
306CP9	3, 1L, P ✓	W	CLP - ICP/AA Metals & Hg (HNO_3), unfiltered
	3, 1L, P ✓	W	CLP - CN (NaOH)
	~~3, 40M, Gs ✓~~	~~W~~	~~CLP - VOA~~
*	~~3, 2L, G *~~	~~W~~	~~CLP - Semi-VOA/PCB/Pest~~ ✓
	~~1, 500 ml, G ✓~~	~~W~~	~~Anions, pH~~
	~~1, 500ml, G ✓~~	~~W~~	~~Cond.~~
	~~2, 4L, P ✓~~	~~W~~	~~Gross Alpha/Beta, Gamma Spec, Alpha~~ ✓
			~~Spec (U-234/235/238, Pa-238/239/240~~
			~~Am-241), Sr-90, Tc-99~~
	~~1, 500ml, P ✓~~	~~W~~	~~C-14~~
	~~1, 250 ml, G ✓~~	~~W~~	~~Tritium~~
306CQ0	3, 1L, P ✓	W	CLP-ICP/AA Metals & Hg (HNO_3) filtered
~~306CQ1~~	~~3, 40 ml, Gs ✓~~	~~W~~	~~CLP-VOA~~

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 5-20-92

Analysis Required

116

BOL # 2509866907-5 OPC # W92-0-0399-2

9613442.0955

TMA
Thermo Analytical Inc.

300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200
FAX (617) 890-3883

AUG 1992
RECEIVED
OSM DMO

June 25, 1992

TMA/NORCAL
2030 Wright Avenue
Richmond, CA 94804
Attention: Dan Stuermer

Quality Control Narrative

Scope
Seven (7) water samples were submitted to TMA/Skinner & Sherman Laboratories, Inc. on May 21,1992 from Westinghouse Hanford Company. The samples were analyzed for the USEPA CLP metals and cyanide as indicated on the chain of custody. The analysis was performed under Skinner and Sherman work order S205235.

Methodology
The samples were prepared, analyzed and reported in accordance with the USEPA Contract Laboratory Program Statement of Work 7/88 (CLP SOW788).

Discussion
All quality control requirements were met for the samples with the following exceptions:

The aluminum, and thallium digestion spike recovery exceeded the control limit requirements.

The zinc ICP serial dilution exceeded the control limit requirements.

Please feel free to call if there are any questions concerning the data package.

Respectfully submitted,

TMA/SKINNER & SHERMAN LABORATORIES, INC.

David N. Peterson
Assistant Laboratory Manager

1/17/96 M.H.

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B06CP9

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-125SAS No.: SDG No.: B06CP9

Matrix (soil/water): WATER Lab Sample ID: 05235-01S

Level (low/med): LOW Date Received: 05/21/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1140.00		N	P
7440-36-0	Antimony	16.00	U		P
7440-38-2	Arsenic	4.30	B		F
7440-39-3	Barium	87.80	B		P
7440-41-7	Beryllium	1.00	U		P
7440-43-9	Cadmium	3.40	B		P
7440-70-2	Calcium	59800.00			P
7440-47-3	Chromium	127.00			P
7440-48-4	Cobalt	4.30	B		P
7440-50-8	Copper	10.60	B		P
7439-89-6	Iron	2070.00			P
7439-92-1	Lead	5.10			F
7439-95-4	Magnesium	15900.00			P
7439-96-5	Manganese	206.00			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	56.10			P
7440-09-7	Potassium	6510.00			P
7782-49-2	Selenium	4.00	U	W	F
7440-22-4	Silver	2.00	U		P
7440-23-5	Sodium	27000.00			P
7440-28-0	Thallium	4.00	U	WN	F
7440-62-2	Vanadium	6.80	B		P
7440-66-6	Zinc	684.00		E	P
	Cyanide	10.00	U		CA

Color Before: COLORLESS Clarity Before: CLOUDY Texture:

Color After: COLORLESS Clarity After: CLOUDY Artifacts:

Comments:

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B06CV3

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-125SAS No.: SDG No.: B06CP9

Matrix (soil/water): WATER Lab Sample ID: 05235-02S

Level (low/med): LOW Date Received: 05/21/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	10.00	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B06CW1

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-125SAS No.: SDG No.: B06CP9

Matrix (soil/water): WATER Lab Sample ID: 05235-03S

Level (low/med): LOW Date Received: 05/21/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	10.00	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B06CW5

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-125SAS No.: SDG No.: B06CP9

Matrix (soil/water): WATER Lab Sample ID: 05235-04S

Level (low/med): LOW Date Received: 05/21/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	10.00	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B06CY3

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-125SAS No.: SDG No.: B06CP9

Matrix (soil/water): WATER Lab Sample ID: 05235-05S

Level (low/med): LOW Date Received: 05/21/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	10.00	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B06CY7

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-125SAS No.: SDG No.: B06CP9

Matrix (soil/water): WATER Lab Sample ID: 05235-06S

Level (low/med): LOW Date Received: 05/21/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	10.00	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER: B06CY9

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108

Lab Code: SKINER Case No.: N2-05-125SAS No.: SDG No.: B06CP9

Matrix (soil/water): WATER Lab Sample ID: 05235-07S

Level (low/med): LOW Date Received: 05/21/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	10.00	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

008